OECD Public Governance Reviews

Public Procurement in Germany

STRATEGIC DIMENSIONS FOR WELL-BEING AND GROWTH

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Preface

According to estimates by the OECD, every year the German federal government, *Länder* and municipalities procure services amounting to at least EUR 500 billion or 15 % of GDP. This means that the public sector is one of the most important market participants. The government needs to spend the funds that are available to it both resourcefully and efficiently. At the same time, the government must ensure that it fulfils its responsibilities, such as the provision of public services. It also has a special role to play with regard to acting as a model consumer and investor.

The instruments involved in public procurement are set out in procurement law, which not only serves economic interests, but must also ensure that procurement processes are based on competition and are transparent as well as fair.

In view of the complex challenges that public procurement has to master, I very much welcome the fact that this OECD review has taken a very close look at the structures underlying procurement and government contracting in Germany – especially the economic side, that it analyses the challenges involved, and that it also provides valuable advice on how procurement can be developed going forward.

The last comprehensive reform of procurement law, which took place in 2016, has served to equip Germany with a modern and flexible procurement system. The advice developed by the OECD now needs to be applied in practice, and effective use should be made of the flexibility that procurement law provides. One particular challenge that the public sector needs to address more closely than it has done to date is the digitalisation of procurement. This includes making a large proportion of procurement procedures completely electronic – from demand planning and tendering, through to contract monitoring. When it comes to digitalisation, it is important to me that Germany is not left behind.

The use of modern procurement instruments often requires precise knowledge of the market and technical expertise. In many cases, it would therefore make good sense for skills to be bundled and procurement activities to be centralised. The OECD correctly points to the potential for centralising procurement in Germany even more.

We also need to ensure that local procurement officers are better and more broadly trained. This is the only way that we can make actual use of the large flexibility that procurement law offers and make procurement efficient. Lastly, the public sector needs to act upon the special responsibility that it has and procure even more sustainably than before, i.e. doing so in accordance with ecological, social and innovative criteria.

This OECD review shows once again that the public sector needs to focus more heavily on the economic side in the awarding of its contracts. The national statistics on procurement will provide Germany with a valid data foundation for public procurement for the very first time. This information enables procurement practice and the legal framework for procurement to both be optimised further. These statistics will therefore lead to the emergence of a more strongly evidence-based economic policy.

Peter Altmaier

Federal Minister for Economic Affairs and Energy

Foreword

In recent years, countries around the globe have increasingly used public procurement more strategically, by leveraging its economic impact and its unique role as the interface between public service delivery, citizens and business. Governments aim to achieve broader policy objectives by using procurement's vast economic potential. While they have to ensure that every cent of public money is efficiently spent, governments also seek to maximise impact on the economy, achieve broader policy objectives and address societal challenges.

Germany was one of the first countries to recognise the diverse effects of public procurement, acknowledging both its strategic and economic dimensions. Subsequently, Germany asked the OECD to review its federal procurement system, and the aspects that have a critical impact on the effectiveness of policies for inclusive growth and citizen well-being.

Indeed, public procurement strategies can play a critical role in addressing critical issues, ranging from ageing societies and climate change, to maintaining economic competitiveness through innovation and promoting inclusion to reduce inequalities. Like many other countries, Germany still has some way to go to achieve commitments under the Paris agreement, which will require substantial public investment. Moreover, estimates show that healthcare spending in Germany will increase from about 7.6% today, to 8.3% of GDP by 2060 due to demographic change.

This review demonstrates how a strong focus on capacity and competence can increase sustainability and innovation in public procurement processes. Germany is currently implementing an improved e-procurement system – a particularly daunting task given the German context, as information from different governmental levels has to be integrated and shared.

Similarly, while Germany is beginning to realise the benefits of consolidating procurement, more can be done to further analyse and communicate such benefits. Policy-makers and citizens are increasingly seeking to quantify the impact of strategic public procurement. The OECD has been at the forefront of operationalising strategic procurement, by setting global standards, providing evidence and offering practical support to countries.

This analysis presents a framework to discern and monitor the effects of public procurement. It builds on the OECD Framework for Measuring Well-Being and Progress and applies it to this area of public policy. The framework lays the foundations to systematically analyse public procurement systems in order to identify how they affect citizens' well-being. Specifically, how public procurement influences natural, social, human and economic capital.

This review forms part of a comprehensive and commendable overhaul of Germany's public procurement system. Germany and its reform programme are an interesting case study, providing insights into how governance and spending challenges can be tackled for the benefit of citizens' well-being, so that public procurement can fully contribute to better policies for better lives.

Angel Gurría

OECD Secretary-General

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Abbreviations and acronyms

ABSt	Saxony's Procurement Advisory Centre *(Auftragsberatungsstelle Sachsen e.V.)*, Germany
AfNB	Alliance for Sustainable Procurement *(Allianz für eine Nachhaltige Beschaffung)*, Germany
ANAC	Italian National Anti-Corruption Authority *(Autorità Nazionale Anticorruzione)*, Italy
AoG	All of Government, New Zealand
APS	American Purchasing Society, United States
APS	Australian Public Service
AVV-EnEff	General Administrative Regulation on the Procurement of Energy Efficient Products and Services *(Allgemeine Verwaltungsvorschrift zur Beschaffung energieeffizienter Produkte und Dienstleistungen)*, Germany
BA	Federal Employment Agency *(Bundesagentur für Arbeit)*, Germany
BAAINBw	Federal Office for Equipment, Information Technology and the Use of the Federal Armed Forces *(Bundesamt für Ausrüstung, Informationstechnik und Nutzung der Bundeswehr)*, Germany
BAköV	Federal Academy for Public Administration *(Bundesakademie für Öffentliche Verwaltung)*, Germany
BAM	Federal Institute for Materials Research and Testing *(Bundesanstalt für Materialforschung und -prüfung)*, Germany
BBG	Austrian Federal Procurement Agency *(Bundesbeschaffung GmbH)*
BDI	Federal Association of German Industries *(Bundesverband der Deutschen Industrie)*, Germany
BeschA	Federal Procurement Office of the Federal Ministry of the Interior *(Beschaffungsamt des Bundesministeriums des Innern)*, Germany
BLE	Federal Office for Agriculture and Food *(Bundesanstalt für Landwirtschaft und Ernährung)*, Germany
BME	Association of Materials Management, Purchasing and Logistics *(Bundesverband Materialwirtschaft, Einkauf und Logistik e.V.)*, Germany
BMF	Federal Ministry of Finance *(Bundesministerium der Finanzen)*, Germany
BMI	Federal Ministry of the Interior, Building and Community *(Bundesministerium des Innern, für Bau und Heimat)*, Germany
BMVg	Federal Ministry of Defence *(Bundesministerium der Verteidigung)*, Germany
BMWi	Federal Ministry for Economic Affairs and Energy *(Bundesministerium für Wirtschaft und Energie)*, Germany

CA	Contracting authorities
CEQ	Council on Environmental Quality, United States
CMA	Competition and Markets Authority, United Kingdom
CO_2	Carbon dioxide
CPBs	Central purchasing bodies
CPI	Corruption Perception Index
CPO	Chief procurement officer
DGB	German Trade Union Confederation *(Deutscher Gewerkschaftsbund)*
DLR	German Aerospace Centre *(Deutsches Zentrum für Luft- und Raumfahrt)*
DPS	Dynamic purchasing systems
ESPD	European Single Procurement Document
EU	European Union
EVZ	Procurement Centre *(Einkaufs- und Vergabezentrum)*, Germany
FA	Framework agreement
FIDO	Federal Institute for Sustainable Development, Belgium
FoRMöB	Research Centre for Law and Management of Public Procurement *(Forschungszentrum für Recht und Management öffentlicher Beschaffung)*, Germany
FPDS	Federal Procurement Data System, United States
GDP	Gross Domestic Product
GMSH	Building Management Schleswig-Holstein *(Gebäudemanagement Schleswig-Holstein)*, Germany
GPIS	Green Product Information System, Korea
GWB	Law against Restraints on Competition *(Gesetz gegen Wettbewerbsbeschränkungen)*, Germany
GZD	General Customs Directorate *(Generalzolldirektion)*, Germany
HS Bund	Federal University of Applied Administrative Sciences *(Hochschule des Bundes für öffentliche Verwaltung)*, Germany
IB	Real Estate Bremen *(Immobilien Bremen)*, Germany
ICT	Information and communication technologies
IHK	Chamber of industry and commerce *(Industrie- und Handelskammer)*, Germany
IISD	International Institute for Sustainable Development
ILO	International Labour Organisation
InCiSE	International Civil Service Effectiveness Index
IT	Information technology
ITVSH	IT Group Schleswig-Holstein *(IT-Verbund Schleswig-Holstein)*, Germany
KdB	“Department Store” of the Federation *(Kaufhaus des Bundes)*, Germany

KdL	"Department Store" of the State *(Kaufhaus des Landes)*, Germany
KGSt	Association of Local Government Management *(Kommunale Gemeinschaftsstelle für Verwaltungsmanagement)*, Germany
KNB	Competence Centre for Sustainable Procurement *(Kompetenzstelle für nachhaltige Beschaffung)*, Germany
KOINNO	Competence Centre for Innovation Procurement *(Kompetenzzentrum innovative Beschaffung)*, Germany
KONEPS	Korean e-Procurement System
KonzVgV	Ordinance on the Award of Concession Contracts *(Konzessionsvergabeverordnung)*, Germany
KPI	Key performance indicator
LBB	State Services Property and Construction Management *(Landesbetrieb Liegenschafts- und Baubetreuung)*, Rhineland-Palatinate, Germany
LBM	State Services Mobility *(Landesbetrieb Mobilität)*, Rhineland-Palatinate, Germany
LCC	Life-cycle costing
LDI	State Services Data and Information *(Landesbetrieb Daten und Information)*, Rhineland-Palatinate, Germany
LSKN	State Services for Statistics and Telecommunications of Lower-Saxony *(Landesbetrieb für Statistik und Kommunikationstechnologie Niedersachsen)*, Germany
LZN	Logistic Centre of Lower-Saxony *(Logistikzentrum Niedersachsen)*, Germany
MAPS	Methodology for Assessing Procurement Systems
MEAT	Most economically advantageous tender
NAP SPP	National Action Plan on Sustainable Public Procurement for 2013-2016, Poland
NARA	National Archives and Records Administration, United States
NCCE	Non-Corporate Commonwealth Entities, Australia
NKR	German Regulatory Control Council *(Normenkontrollrat)*
NRW	North Rhine-Westphalia *(Nordrhein-Westfalen)*, Germany
NZBN	New Zealand Business Number
NZGP	New Zealand Government Procurement
OGP	Office of Government Procurement, Ireland
OMB	Office of Management and Budget, United States
PCI	Procurement Capability Index, New Zealand
PIANOo	Dutch Professional and Innovative Tendering Network for Government Contracting Authorities
PODDO	Public Service for Sustainable Development Planning, Belgium
PPS	Public Procurement Service, Korea
PWGSC	Public Works and Government Services, Canada

QoG	Quality of Government project, Sweden
R&D	Research and development
RFI	Request for Information
RIA	Regulatory impact assessments
RWS	Ministry of Infrastructure and Water Management *(Rijkswaterstaat)*, Netherlands
SAM	System of Award Management, United States
SDGs	Sustainable Development Goals
SektVO	Sector regulations *(Sektorenverordnung)*, Germany
SMEs	Small and medium-sized enterprises
SMWA	Saxon State Ministry for Economy, Labour and Transport *(Sächsisches Staatsministerium für Wirtschaft, Arbeit und Verkehr)*, Germany
SPC	Sweatfree Purchasing Consortium, United States
TAN	Transaction authentication number
TED	Tenders Electronic Daily
UGAP	Union of Public Purchasing Groups *(Union des Groupements d'Achats Publics)*, France
UN	United Nations
UVgO	Code of Procedure for Procuring Supplies and Services Below EU-Thresholds *(Unterschwellenvergabeverordnung)*, Germany
VergStatVO	Ordinance on Public Procurement Statistics *(Vergabestatistikverordnung)*, Germany
VgV	Ordinance on the Award of Public Contracts *(Vergabeverordnung)*, Germany
VMP	Public Procurement Market Place *(Vergabemarktplatz)*, Germany
VOB	Regulations on Contract Awards for Public Works *(Vergabe- und Vertragsordnung für Bauleistungen)*, Germany
VOB/A	Regulations on Contract Awards for Public Works, Part A *(Vergabe- und Vertragsordnung für Bauleistungen, Teil A)*, Germany
VOF	Regulations on Contract Awards for Services of Freelancers *(Vergabeordnung für freiberufliche Leistungen)*, Germany
VOL/A	Regulations on Contract Awards for Public Supplies and Services *(Vergabe- und Vertragsordnung für Leistungen)*, Germany
VSVgV	Ordinance on Contract Awards in the Field of Defence and Security *(Vergabeverordnung Verteidigung und Sicherheit)*, Germany
VwVBU	Administrative Regulation of Procurement and the Environment *(Verwaltungsvorschrift Beschaffung und Umwelt)*, Germany
WTO	World Trade Organisation
ZIB	Central Office for IT Procurement within the Federal Procurement Office of the Federal Ministry of the Interior *(Zentralstelle für IT-Beschaffung)*, Germany
ZV-BMEL	Central Procurement Unit of the Federal Office of Food and Agriculture *(Zentrale Vergabestelle für das Bundesministerium für Ernährung und Landwirtschaft)*, Germany

Executive summary

As the biggest economy in Europe, Germany boasts one of the largest public procurement markets in the region. Public procurement represents an estimated 15% of German GDP, an immense sum of EUR 500 billion per year. Public procurement has a considerable impact on all areas of well-being. Public procurement is crucial for delivering public services, whether in health, education, infrastructure or public safety. More indirectly, the goods, works and services Germany purchases via public procurement affect the environment, jobs and many other areas.

This review focuses on six aspects of procurement that are particularly salient to the German context: 1) the large economic impact public procurement has on the German economy; 2) the legal and governance framework of public procurement and how it constitutes the basis of procurement performance; 3) centralisation and the extent to which public procurement is reaping economies of scale and other benefits of consolidation; 4) e-procurement as an enabler of performance and accountability; 5) strategic procurement and how public procurement affects a variety of policy areas that need to be balanced strategically; 6) human capital and how procurers act upon strategic, legal and institutional frameworks.

In Germany, the sub-central level of government conducts approximately 78% of public procurement. This proportion is above average for OECD countries, where just over 63% of procurement takes place at the sub-central level on average. Therefore, an analysis of the German federal states (*Länder*) is necessary to fully grasp the impact of public procurement in Germany. This review surveys practices at all levels of the public procurement system in Germany. Each chapter also examines the *Länder*, and features good practice case studies.

Key findings

Public procurement accounts for 35% of general government spending in Germany. The impact of this spending is complex, and goes beyond economic effects. Public procurement influences environmental, social and human factors, as well as other issues highlighted in the OECD Framework for Measuring Well-Being and Progress.

Germany's 2016 public procurement reform significantly streamlined the legal framework for procurement, and aligned Germany's system with the new EU directives on procurement. Given that the system is highly decentralised and segmented, further improvements could focus on increasing co-ordination and further aligning systems at different levels.

Germany has several centralised procurement initiatives, but this instrument is not used as extensively as it could be. A spending review conducted in 2017 and led by the Ministry of Finance and the Ministry of Interior supports this finding. Stakeholders could be better informed about the benefits of bundled procurement; strategic communication is paramount. Policies could also be more closely aligned with users' needs.

Digitalisation helps increase the productivity of procurers and businesses alike. Germany could expand its use of e-procurement. A market-driven approach has led to the proliferation of privately owned e-procurement systems, creating an increasingly complex environment for businesses. Ensuring that data is systematically collected and analysed through state-of-the art systems is crucial to tracking procurement performance across the system.

Germany has created initiatives for strategic procurement, such as specialised competence centres to support contracting authorities and suppliers. Initial evidence demonstrates the relevance of these initiatives. More methodological data gathering and evidence-based monitoring could support more effective policy implementation.

Germany's procurement workforce is part of the country's civil service. Education and training, combined with specialised competence centres, provide a solid basis for general public service delivery. A comprehensive capacity-building strategy for public procurers could respond to the increasing need for strategic, centralised and specialised public procurement.

Key recommendations

- Public procurement has a major impact on citizen well-being. To understand this impact and adapt policies, Germany could increase data gathering and measurement. A first step could focus on key aspects, such as centralised procurement. The nuanced benefits of individual procurement exercises could be tracked by gathering data at a more granular level. Effective and efficient implementation requires a centrally developed measurement framework that allows for comparisons. A consistent methodology for voluntary use at the sub-national level could support better measurement.
- Germany's legal and governance frameworks lay the foundation for a public procurement system that serves citizens. Germany could build on the successes of its latest procurement reform and further streamline the legal framework. Furthermore, it could support implementation through more structured co-ordination mechanisms across levels of government. Greater opportunities for exchange among institutions at all levels could further harmonise and facilitate policy implementation in the area of public procurement.
- Consolidation has been proven to increase the effectiveness and efficiency of public procurement. Germany could maximise the benefits of bundled procurement through several measures. First, better connecting users, central purchasing bodies and the electronic ordering platform could allow all participants to better understand the impact of centralisation initiatives. Second, bundled and consistently measured procurement processes could generate concrete evidence on how different procurement instruments perform.
- E-procurement enhances the impact of public procurement. In a fragmented e-procurement landscape, structured collaboration, change management, increased communication and incentives are vital to increasing the use of e-procurement across levels of government and across the phases of the procurement cycle. Germany could focus on improving data collection systems, for example by expanding them to cover the full tender process and ensuring integration with other information systems.
- Procurement must be managed strategically if it is to meet and balance its objectives. Germany could enhance data collection by allowing for structured monitoring of policy results. A consistent framework could be established to guide institutions at all levels when gathering evidence on implementation. National strategies on sustainability could incorporate strategic procurement. Capacity-building efforts could equip procurers with the skills required to conduct increasingly complex strategic procurement processes.
- Effective implementation without good human resources is impossible. Germany could develop a capacity-building strategy for public procurement, focusing on specialisation. This strategy could establish procurement advocates in the German administration to promote good practices. Germany could support interested contracting authorities at all levels of government through the provision of competency frameworks, guidance and help desks.

1 The impact of public procurement in Germany: Economic effects and beyond

This chapter describes the significant role public procurement plays in the economic system and in citizen well-being, linking it to the policy challenges Germany is facing. Public procurement can be crucial in affecting all dimensions of well-being, including the economic, environmental, social and human aspects. Some countries have been able to attain first results in measuring possible impact of public procurement on these different dimensions of well-being by tracking how procurement can support overarching policy goals. Germany could maximise the impact of public procurement and help secure citizen well-being by designing and relying on a rigorous impact measurement framework.

Public policies influence a country's' economy and development. Understanding how and to what extent these policies work is key to creating positive economic and social outcomes for citizens. The OECD Recommendation of the Council on Regulatory Policy and Governance emphasises the importance of monitoring policies. It recommends that evaluations should be quantitative wherever possible and consider all types of results that stem from implemented policies (OECD, 2012[1]).

In OECD countries, an average of 29% of total government expenditures is spent through public procurement, representing 12% of GDP. Public procurement is a critical policy area that can ensure the sound management of public finances while maximising impact for citizens. A 1% saving in procurement expenditures might represent EUR 43 billion per year in OECD countries (OECD, 2017[2]).

However, the economic impact of public procurement is not limited to savings generated from efficient and effective procedures. Rather, the opportunities that can be created through the proper use of public procurement should also be considered when designing its strategic approaches or measuring impact. Where it is used strategically, public procurement can lead to improvements in health care, education, innovation, firm-level growth, job opportunities, social inclusion and the quality and integrity of public institutions. Measuring the effectiveness of procurement policies can only boost the benefits that can be achieved.

The 2015 *OECD Recommendation of the Council on Public Procurement* includes a principle on evaluation: adherents to the recommendation should assess the effectiveness of reforms by evaluating both individual procurements and the overall system, including at different levels of government (see Box 1.1).

Box 1.1. *OECD Recommendation of the Council on Public Procurement* principle on evaluation

The Council:

X. RECOMMENDS that Adherents drive performance improvements through evaluation of the effectiveness of the public procurement system from individual procurements to the system as a whole, at all levels of government where feasible and appropriate.

To this end, Adherents should:

i) Assess periodically and consistently the results of the procurement process. Public procurement systems should collect consistent, up-to-date and reliable information and use data on prior procurements, particularly regarding price and overall costs, in structuring new needs assessments, as they provide a valuable source of insight and could guide future procurement decisions.

ii) Develop indicators to measure performance, effectiveness and savings of the public procurement system for benchmarking and to support strategic policy making on public procurement.

Source: (OECD, 2015[3]), *OECD Recommendation of the Council on Public Procurement*.

In the context of regulatory impact assessments (RIA), the OECD recommends conducting analyses based on forecasts ("*ex ante*", i.e. before issuing a new regulation), and analyses based on results ("*ex post*", i.e. analyses that monitor a regulation's performance) (Coglianese, 2012[4]). Regulatory impact assessments provide more meaningful insights if they are supplemented by a set of specific indicators that monitor the results of all aspects of an individual policy. The following criteria are commonly used when analysing different regulatory options (Coglianese, 2012[4]):

- Impact and effectiveness: to what extent would the proposals address the problem?
- Cost-effectiveness: what is the unit cost of the analysed options?

- Net benefits and efficiency: which option will lead to the highest net benefits?
- Distributional fairness: which option will provide the fairest distribution of benefits?

Reduced to its most basic elements, an impact assessment of public procurement should be performed in two steps. First, the linkages between public procurement and socio-economic development should be clearly identified and described using qualitative analysis. Second, the impact of public procurement on each of the above mentioned criteria should be measured and translated into concrete benefits at an aggregate level, if possible, using quantitative analysis. The benefits measured may be socio-economic, environmental or others.

In practice, however, attempts by countries and academics have often demonstrated that comprehensive and stringent analyses of the overall economic impact of public procurement is a difficult endeavour. This is because isolating public procurement's impact from the impact of all public services remains an immense challenge, due to a lack of reliable data and the difficulty of developing a standardised framework or approach.

In order to provide a workable analysis, this chapter provides a lens for analysing and understanding public procurement's impact. To do so, the chapter uses the OECD Framework for Measuring Well-Being and Progress as a reference to consider the areas of citizen well-being that are impacted by public procurement. The chapter then uses country case studies to demonstrate how well-being can be measured according to each of the framework's areas: economic capital, natural capital, social capital and human capital (explained further below in this chapter).

The several types of procurement analysis discussed in this chapter can be brought together in a measurement framework. These different types of analysis include criteria-driven analysis based on forecasts and results, qualitative and quantitative analysis and analysis rooted in citizen well-being. A measurement framework combining these distinct analyses should measure activity at the central level in the short-term, while also demonstrating a longer-term commitment to understanding the impact of procurement activity at a more granular level.

1.1. Measuring multi-dimensional policy impacting

1.1.1. Measuring Germany's success in public procurement must go beyond traditional economic indicators to incorporate broader considerations such as well-being

Monitoring the performance of public policies is important. This is especially important in policy areas that relate to the state of a country's economy, which is closely linked to the well-being of its citizens. Therefore, measuring the impact of economic policies and regulations is a critical activity. In recent years, Germany has developed a number of initiatives to analyse the impact of regulations. One of the most important institutions in this context is the German Regulatory Control Council (Normenkontrollrat, NKR). The work of the NKR is in line with international best practice for conducting regulatory impact assessments. Germany conducts both analyses based on forecasts (*ex ante*) and analyses based on results (*ex post*) of laws and regulations in different domains (OECD, 2015[5]). At the same time, Germany appears to focus more on *ex ante* analysis of possible costs and benefits of laws *(Gesetzesfolgenabschätzung)*. For example, Germany's Federal Environmental Agency (Umweltbundesamt) published a detailed guidance document in 2014 to enable lawmakers to conduct an analysis of the environmental effects of a new law or regulation (Porsch et al., 2014[6]).

A 2013 study commissioned by the NKR found that Germany could place more focus on the analysis of benefits rather than the (financial) costs of regulations when studying public policies (Tiessen et al., 2013[7]). In order to achieve this, Germany could build on existing experience in assessing the impact of policies. These general experiences could be transferred to the area of public procurement specifically,

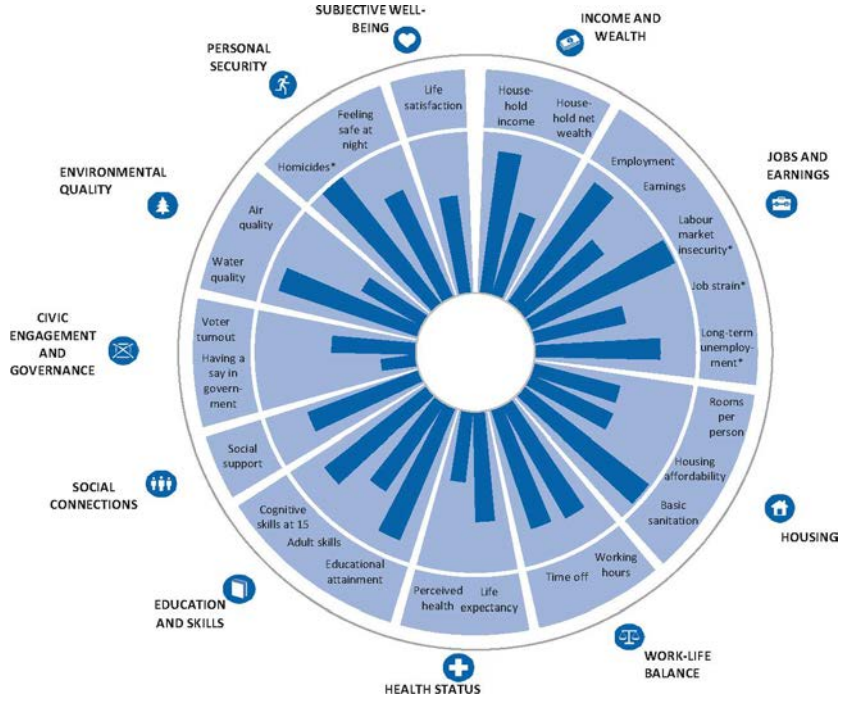
and could be matched with additional tools and strategies to allow for an analysis that is as comprehensive as possible. Several international organisations, such as the World Bank and the European Union, but also many countries including Germany, have systematised the use of different tools to understand the impact of a given policy or intervention.

Governments utilise various methods to monitor economic performance. One of the most popular indicators to describe the overall state of an economy is Gross Domestic Product (GDP). . The rate at which a country's GDP grows is often taken as an indicator for the speed of a country's economic progress. Real income per household provides an additional perspective for gauging the economic situation of citizens more precisely. This concept provides a more granular view of the prosperity of citizens – which reaches beyond the insights taken from tracking an entire country's GDP (Ribarsky, 2017[8]). While these measures are useful, governments are beginning to realise that traditional economic indicators do not tell the whole story.

The well-being of citizens depends partly on their wealth, but it is also influenced by other factors such as health status, education levels, the physical environment they live in and their ability to participate in society. The OECD Framework for Measuring Well-Being and Progress offers a framework for monitoring progress and prosperity in a broader sense. This means considering a wide range of factors. As OECD describes it, "well-being is multidimensional, covering aspects of life ranging from civic engagement to housing, from household income to work-life balance, and from skills to health status" (OECD, 2015[9]).

Compared with other OECD countries, Germany performs well on OECD well-being measures such as household disposable income, employment rate, labour market security and personal security (see Figure 1.1). Nevertheless, Germany is located in the bottom third of performers in several aspects of natural capital (environmental factors) and human capital (those associated with health) (Annex 1.A).

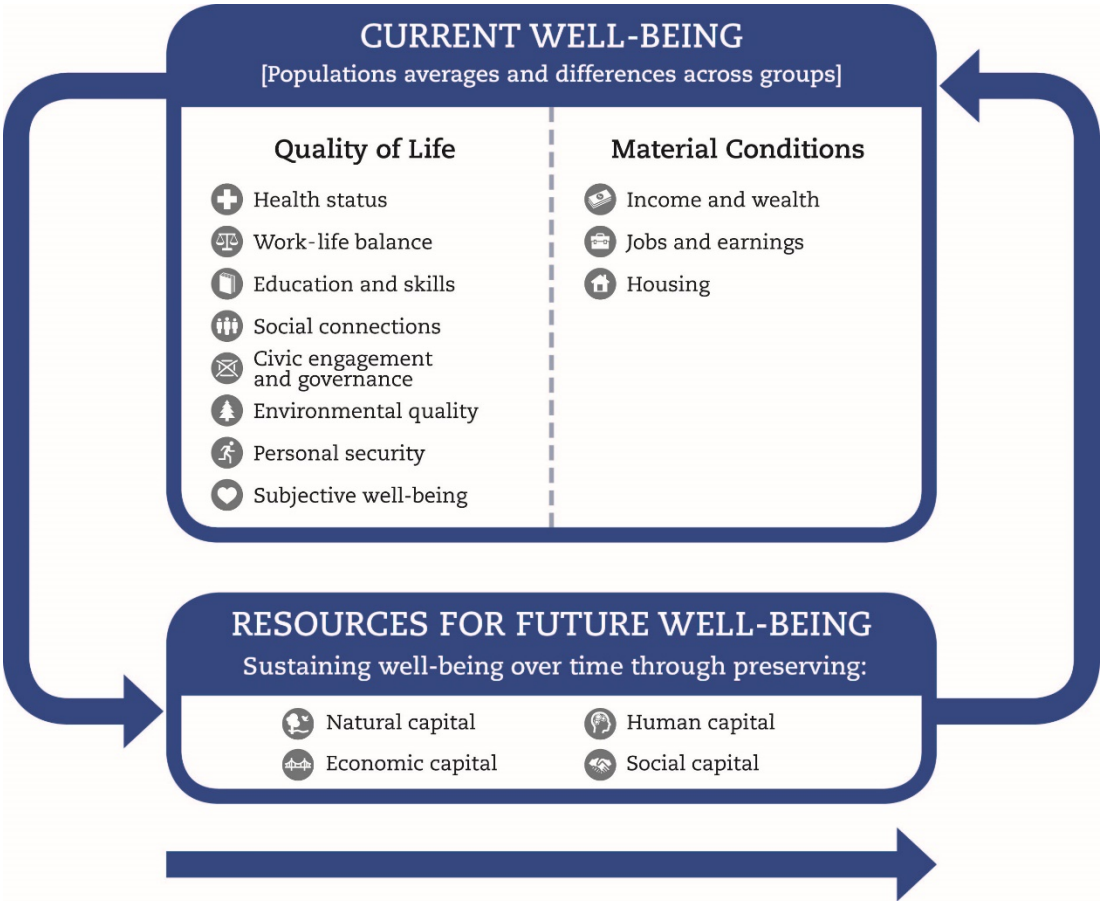
Figure 1.1. Germany's current level of average well-being: Comparative strengths and weaknesses



Note: This chart shows Germany's relative strengths and weaknesses in well-being when compared with other OECD countries. For both positive and negative indicators longer bars always indicate better outcomes (i.e. higher well-being), whereas shorter bars always indicate worse outcomes (lower well-being).
Source: (OECD, 2017[10]), *How's Life? 2017: Measuring Well-Being.*

The framework considers both people's current well-being (as assessed through 11 dimensions displayed in Figure 1.1), and resources and risks for future well-being. Future well-being is measured via the four dimensions of natural, human, social and economic capital (OECD, 2015[9]). The delayed impact of public procurement procedures in delivering public services means that procurement can help improve the future well-being of citizens in a sustainable manner. Procurement affects public service delivery in many different ways because public procurement is a cross-cutting topic that touches many sectors at once. Since the goods, services and works governments ultimately procure differ in terms of inputs and final products for citizens, public services stemming from procurement can also vary widely. Therefore, the assessment of the impact of public procurement must be measured against the four areas that provide the necessary resources for future well-being: natural, human, social and economic capital (see Figure 1.2). A focus on these four types of capital is also consistent with the approach that is being adopted by other countries, like New Zealand (The Treasury New Zealand, n.d.[11]).

Figure 1.2. Evolution of the well-being framework



Source: (OECD, 2017[10]), *How's Life? 2017: Measuring Well-Being.*

1.1.2. Procurement impacts the way governments contribute to the well-being of citizens

A government's role in driving well-being is not simply to remove barriers to opportunities, but to build a platform that provides more inclusive forms of growth. In so doing, the government can help ensure that individuals have the social, educational, and health capacity to actively participate in the country's development. At the same time, social, educational and health capacity influence citizens' productivity in

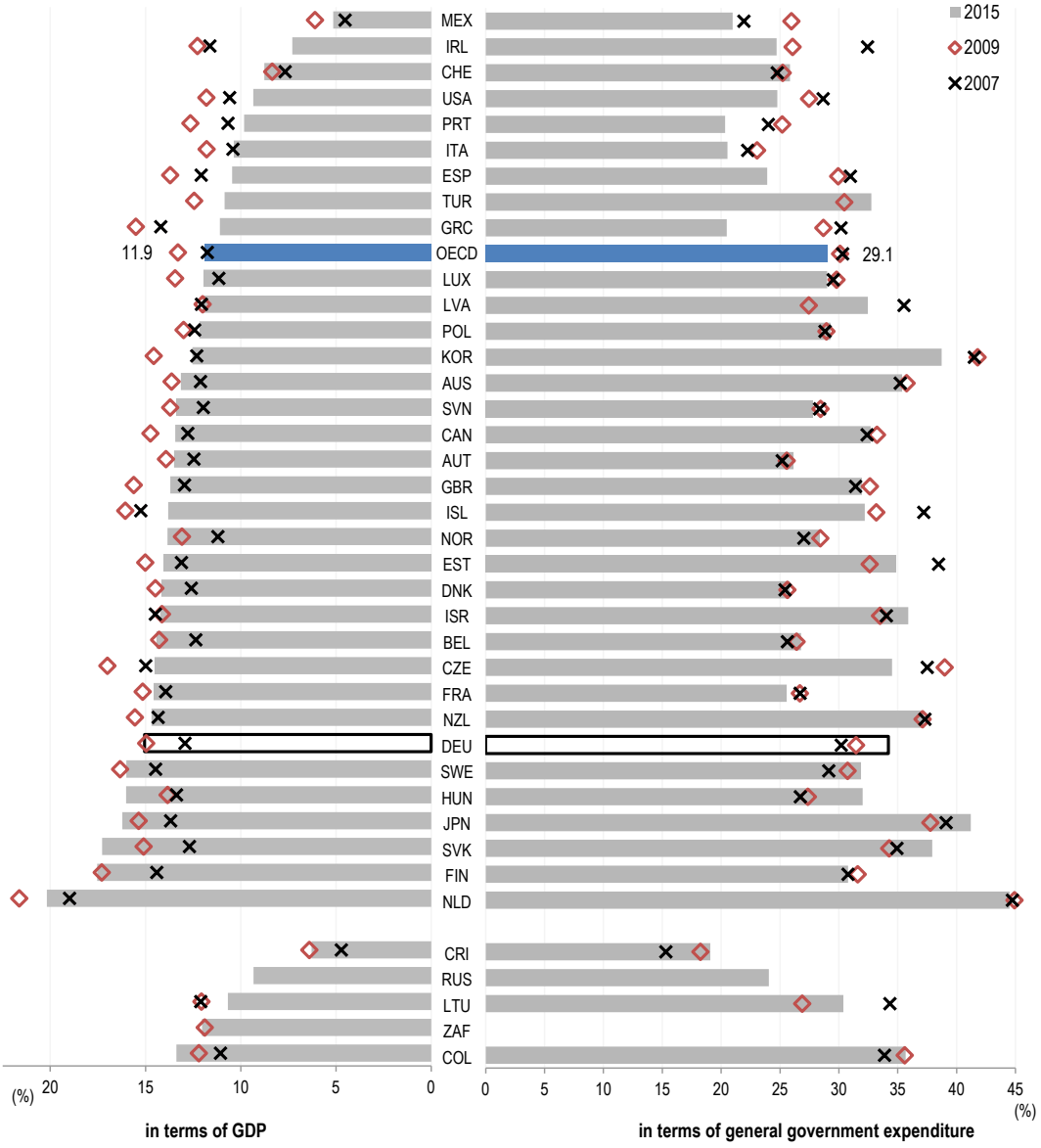
economic terms: a healthy person with a higher education will produce more value in the same time than somebody in bad health with a lower skill set.

While most existing work on productivity has focused on the productivity of companies or factor inputs (the resources used to generate outcomes) in the private sector, there is great value in better understanding the productivity of the government. Given government's important role in the provision of goods and services, as well as its substantial contribution to overall socio-economic development and citizen well-being, government productivity is an important topic of study.

Public sector productivity has a significant impact on the performance of national economies and societal well-being. First and foremost, the public sector is a major direct provider of goods and services. On average, government production costs represent 21.9% of GDP among OECD countries. In 2015, OECD governments' output represented a gross value added of 12.3% of GDP. Governments are the main and sometimes only providers of key goods and services to citizens. These goods and services include education, health, social services, transportation and infrastructure. In fact, in several sectors, governments purchase most of the sector's services; the governments of OECD countries are responsible for on average 70% of final consumption expenditure on health goods and services, as well as for 84% of final consumption expenditure on education as recorded in national accounts (OECD, 2017[2]).

Given that the use of public procurement procedures is mandated for a large proportion of government spending, these procedures can be a key lever for increasing the efficiency and effectiveness of government spending. In Germany, public procurement accounts for an even larger share of spending, representing close to 35% of government expenditure and 15% of GDP (see Figure 1.3). Given these figures, public procurement should be considered one of the key activities in the economies of OECD countries and in Germany in particular (OECD, 2017[12]).

Figure 1.3. General government procurement spending as a percentage of GDP and total government expenditures in 2007, 2009 and 2015



Note: Data for Australia are based on a combination of government finance statistics and National Accounts data provided by the Australian Bureau of Statistics. Data for Chile are not available. Data for Turkey are not included in the OECD average because of missing time series. Data for Costa Rica, Russia and South Africa are for 2014 rather than 2015. A large share of general government procurement in the Netherlands is spent on social transfers in kind via market producers – this relatively high level could be due, in part, to the country's system of scholastic grants as well as the country's mandatory health insurance system whereby the government subsidises individuals' purchase of coverage from private providers.

Source: (OECD, 2017[12]), *Government at a Glance 2017* based on OECD National Accounts Statistics (database).

The scale of government spending among OECD countries means that public procurement is a tool for economic development. However, one of procurement's fundamental objectives is to achieve value for money – that is, to either purchase more and better goods, works and services for the same amount of spending or to reduce government spending, making a more effective allocation of resources. According to classical economic models, lower government spending may slow down economic growth. As research demonstrates however, the actual extent to which government spending leads to growth is heavily dependent on whether spending can be said to be productive. Productive spending affects economic growth positively (e.g. investment in infrastructure and education can raise human and physical capital stock and, in turn, increase long-term growth) (Barro, 1990[13]; Kneller, Bleaney and Gemmell, 1999[14]). Therefore, a reduction in public spending will not necessarily affect economic growth negatively.

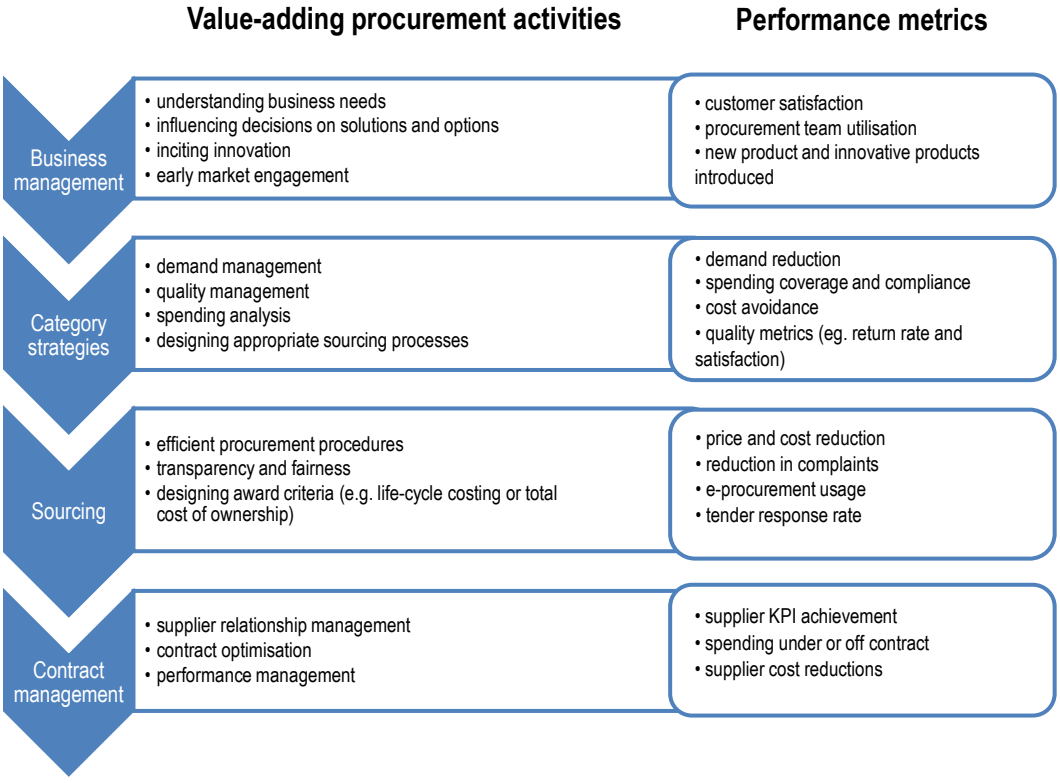
Many studies have attempted to identify, track and measure the impact of public procurement. Traditionally, assessing public procurement's impact has been associated with evaluating its financial impact. In the context of implementing austerity measures, trying to quantify the savings achieved through smart public procurement has been popular with governments. This is especially true among OECD countries. As stated prior, a 1% saving in procurement expenditure might represent EUR 43 billion per year savings in OECD countries (OECD, 2017[2]). Most recently, a study by the consulting firm McKinsey & Company found that governments could save USD 3.3 trillion by 2021 if public spending was better managed and if governments followed the practices of the best-performing countries. This would essentially cover financing needs for public services that cannot be covered by tax revenue today. In the area of health care, studies have found that by increasing the efficiency of spending among the 42 countries that generate 80% of global GDP (i.e. improving to the level of the best-performing country), healthy life expectancy of their population would be increased by 1.4 years. This result can be translated into an additional 12 billion healthy life years for the citizens of these countries – with no increase in per capita spending on health care (McKinsey Center for Government, 2017[15]).

At the same time, the link between public procurement and the economy of a country has to be considered in light of various factors. For example, as mentioned above, the value achieved from public procurement in many countries can directly impact the health of citizens, which in turn affects a plethora of issues, including their ability to contribute to economic development. The professionalism and integrity with which public procurers manage tender processes and contracts influence the overall reputation of the civil service, which in turn affects citizens' trust in their government. This may also influence the overall investment climate in a country. With regards to the environment, strategic public procurement can reduce carbon dioxide CO_2 (emissions, thereby contributing to the safeguarding of natural resources on which future health and well-being depend.

Public procurement processes tend to follow a specific cycle based on legislative requirements, administrative processes and budget timelines. Legislation generally requires that public procurement be conducted through a fair and transparent process that uses competition to decrease the cost and increase the quality of the goods and services that the government needs. For the most part, a procurement process is initiated once a government has already established the priorities and budgets that will dictate the goods and services it will buy. Therefore, procurement's influence typically only begins at the point where a procurement strategy is developed to meet the government's needs. This classical approach is not allowing for a complete understanding of procurement's possible outreach and impact, even if procurement stakeholders have now for long realised its potential.

In its simplest form, procurement delivers value for money by generating competition amongst suppliers in order to drive down unit prices. The concept of value has evolved, however, from strictly financial and cost-driven considerations to a broader spectrum of value. Figure 1.4 illustrates many of the approaches used in public procurement when managing categories of goods and services (referred to as "category management"). Category management can help contribute to optimal value realisation in the different procurement phases, and can also determine how that value is measured.

Figure 1.4. Procurement value contribution and performance measurement throughout the procurement cycle



Source: Authors' illustration.

1.1.3. Measuring the broad and diverse impact of public procurement policies is complex; Germany, like most other OECD countries, must overcome barriers to effective measurement

Measuring the effectiveness and efficiency of public spending is a challenge, partly because the characteristics of an effective or efficient public sector are not easy to define. Procurement is an operational activity that seeks to facilitate the delivery of public services, and it can be measured according to its success and efficiency in delivering the required goods or services. At the same time, public procurement policy seeks to bring about more strategic, long-term benefits, which are harder to measure.

Beyond direct effects, a comprehensive assessment of efficiency and effectiveness should include indirect effects stemming from public spending. However, it is challenging to determine the effects that can be legitimately attributed to a given policy. It is also difficult to determine which indirect effects might be too far removed. As discussed above, monitoring of public policies in Germany is limited. As such, Germany does not measure procurement activity at a comprehensive national or system-wide level.

With a manageable amount of effort, countries can use a carefully chosen combination of monitoring tools to provide an adequate amount of insight into the impact of public procurement. It is important, however, that countries identify the tools that work in their contexts. Countries should then select an approach for bringing these tools together into a holistic framework.

To monitor public procurement effectively, Germany – like many other countries – must overcome a number of barriers. Attributing the effects of an individual policy to a broader system like the overall economy can prove challenging – particularly when conducting quantitative impact analysis. An economic

system is highly complex and affected by many factors that prevent policy makers from observing or predicting causality. There are several reasons for this:

- One effect might offset another.
- The result that is attributed to one policy might in fact be the result of another policy – or the result of chance.
- The work mechanisms behind certain policies may differ across countries according to their level of economic development.
- The definition of the desired outcome might vary across societal groups.
- Regulations bringing negative economic outcomes may simultaneously induce significant benefits for society.

The major challenges with measuring public procurement's impact are summarised below.

Attribution and causality of impact

The effects of public procurement are particularly difficult to disentangle. Usually, the results are an outcome of a number of policies and not just a result of public procurement strategies – both at an individual project level and aggregated level. In addition, some effects occur after the procurement process is carried out. Finally, some effects are intangible by nature.

Often, public procurers strive to achieve the best value for money. In a traditional sense, this means paying the lowest price for the best (technical) value of a good, work or service. Where this is the case, savings delivered by the effective use of procurement can be channelled towards other government outcomes. Academic studies have attempted to link cost savings in public spending generated by procurement to concrete economic improvements such as GDP growth, gains in employment and increased consumption. One example for such a model is the QUEST III model, which has been used by the European Commission to indicate effects of changes in spending on the economy in the euro area. The model suggests that savings generated through procurement might enable governments to decrease income tax rates, and, in turn, boost GDP, employment and consumption (Vogel, 2009[16]). However, this analysis does not assess the impact of public procurement itself. Rather, it develops scenarios in which savings in public procurement could be reallocated to other policy areas.

Public procurement is a delivery mechanism for some of the inputs (i.e. goods and services bought by governments) required to generate governments' outputs (including but not limited to public services like education and health). There is an ongoing debate as to where exactly the impact of public services for citizens originates and, as a consequence, how impact should be measured: Is it the government activity (i.e. the process of conducting public procurement) that have the most impact and that should be measured? Or is it the purchased items that provide the results upon which impact should be measured? While the debate is important, it can be argued that such a distinction does not influence policy makers' understanding of the impact of public procurement as a whole.

For example, how should governments measure the impact of improved telecommunications? One option is to study telecommunications' ability to increase productivity. It could be argued that the resulting increase in productivity has only been possible because of the specific public procurement strategies that identified certain goods or services as the best value options for delivering the outcome of improved telecommunications. In this scenario, public procurement should be seen as an enabler, without which the benefits of the purchased inputs would not have materialised. On the other hand, public procurement deals both with purchasing activities per se and with the goods, services and works it acquires for public outcomes. The quality of the services public procurement delivers should therefore be measured by the effects procurement has on the experience of the immediate consumer of the procured goods or services, but also the end consumer, the citizen, whose "well-being", as discussed prior, is vital. A holistic view of impact that takes into account the entire public supply chain (i.e. the chain that extends from the initial

supplier via procurement to the consumer and then to the citizen), would be better suited to evaluating impact throughout the entire system. At present, however, this approach is quite new and still being developed (Eßig and Batran, 2006[17]).

Availability of data

Often, governments do not hold the data required to make a valid assessment of the efficiency and effectiveness of public spending. Where it does exist, the quality might not be sufficient to draw robust conclusions. This may be because data collection is not always founded on a clear and consistent methodology.

Availability of high-quality data is an issue for governments, particularly in the area of public procurement. This frequently prevents reliable impact assessments from being undertaken. In addition, there is often no standardised approach for collecting and using the data that is used across the entire procurement system. Furthermore, often no common methodology exists across several systems to allow for international comparisons. Here, diverging definitions of data and public procurement are at the heart of the prevalent challenge to compare and contrast results that come from differing methodologies. Finally, time lags in implementation are common during the procurement process. Because of this, a thorough assessment methodology should be applied throughout the different stages of the procurement cycle.

As further discussed in Chapter 4, due to limitations with e-procurement systems in Germany, there is currently no mechanism to automatically collect and transmit procurement data. Contracting authorities are currently required to submit data manually, until the necessary infrastructure is in place. A template in Excel format is sent to contracting authorities on an annual basis to facilitate data collection. According to OECD interviews with stakeholders, response rates (particularly at the *Länder*-level, i.e. the level of the states) to the data requests have been low. As a result, the dataset on procurement activity across Germany is incomplete and potentially inaccurate (as discussed further in Chapter 4).

Policies can enable or hinder the collection of public procurement data. This is particularly clear in the European Union (EU), where an EU-wide legal framework requires stringent data collection. The consistent legal framework in place in the EU should theoretically allow for cross-country comparisons. However, different interpretations regarding implementation of these rules can hinder this goal.

Without a rigorous legal framework and a consistent approach to data gathering, countries forego an important opportunity to increase the performance of their procurement systems. Concrete opportunities for improvement might not be visible because a lack of quality data does not allow for meaningful monitoring. For overall policymaking and strategic decision-making, this lack of data analysis means that decisions have to be based on qualitative evidence. While insights based on qualitative evidence can provide a reasonable basis for decision-making, quantitative evidence – when collated rigorously – would provide a more comprehensive analysis. Systemic data collection would enhance the ability of countries to assess the indirect impacts or trade-offs resulting from policies.

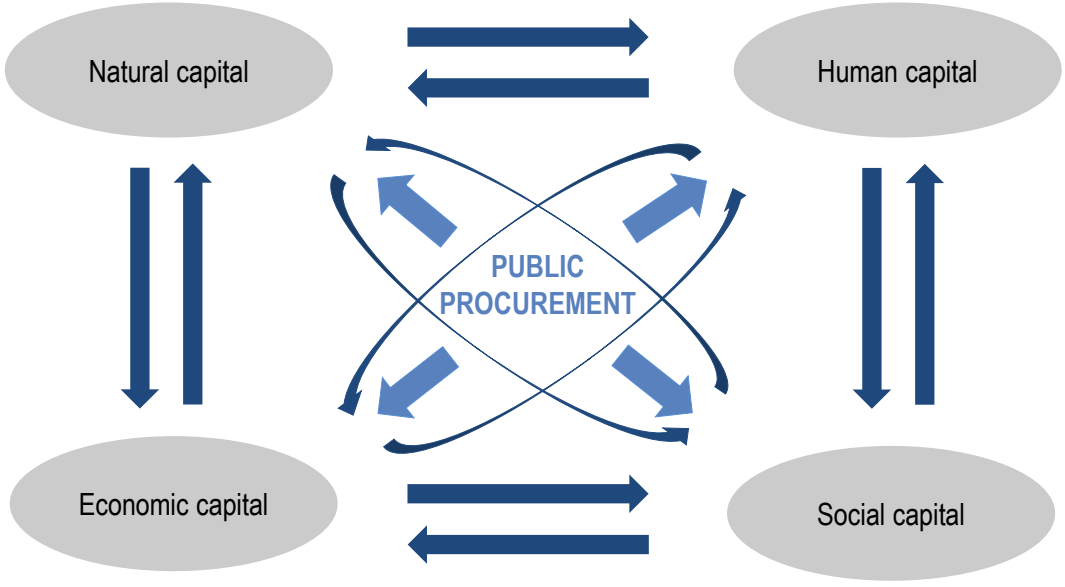
1.2. Understanding procurement's impact on well-being and generating socio-economic benefits in Germany

The current challenges facing Germany are reflected in its comparative performance on the OECD well-being dimensions that are susceptible to the influence of strategic public procurement. For example, challenges include an aging society with increasingly costly healthcare needs, air quality in cities and rising rent prices. Procurement has a role to play in all of these areas, providing means to improving overall citizen health status, air quality and housing affordability. However, an empirical assessment of public procurement's impact on well-being requires reliable sources of data and an appropriate methodology.

A measurement of public procurement's impact in general can be structured through the forward-looking aspects of the OECD Framework for Measuring Well-Being and Progress. First, this chapter conceptualises how the framework can serve as an analytical lens. Second, each of the forward-looking aspects of the well-being framework are considered with regards to public procurement and Germany's performance. This chapter examines both, and also provides examples from other countries that have successfully measured aspects of public procurement's impact.

The OECD Framework for Measuring Well-Being and Progress covers the factors beyond economic growth on which public procurement can have the most impact. This approach allows for the comprehensive identification of the channels through which public procurement may be used to influence the economy, the environment and society. The Well-Being Framework (see Figure 1.5) can therefore be used to approximate the impact that public procurement has on the four types of capital that contribute to sustainable well-being over time (economic, natural, human and social capital). The size and use of public procurement should be measured first at a disaggregate level, and then at an aggregate level as part of a comprehensive framework. Measurement must consider the well-being benefits that are generated from procurement activity.

Figure 1.5. Public procurement and sustainable well-being over time



Source: Authors' illustration.

Regional strategic goals, as defined in existing documents like the Europe 2020 Strategy (Box 1.2) reflect these elements of well-being. Public procurement can therefore be one of the channels through which these goals are achieved.

Box 1.2. Europe 2020 strategy

The Europe 2020 strategy is the EU's agenda for growth and jobs, emphasising smart, sustainable and inclusive growth. It aims to overcome the structural weaknesses in European economies, improve the region's competitiveness and productivity, and build up a sustainable social market economy by achieving the following set of targets:

Employment

- 75% of people aged 20–64 to be in work

Research and development (R&D)

- 3% of the EU's GDP to be invested in R&D

Climate change and energy

- greenhouse gas emissions 20% lower than 1990 levels
- 20% of energy coming from renewables
- 20% increase in energy efficiency

Education

- rates of early school leavers below 10%
- at least 40% of people aged 30–34 having completed higher education

Poverty and social exclusion

- at least 20 million fewer people in – or at risk of – poverty and social exclusion.

Employment is related to both human and economic capital, but it can also have social implications, as an increase in employment contributes to social inclusion. Research and development is an investment in economic capital. Climate change and energy are two facets of how natural capital is managed. Income poverty can either deplete or limit the accumulation of economic capital at the individual and household level, while social exclusion can be a risk factor for social capital. All of these areas can be improved through the effective use of public procurement.

Source: European Commission (2010), *Europe 2020: A strategy for smart, sustainable and inclusive growth.*

The following qualitative description of the possible linkages between public procurement and the four areas of capital underpinning well-being provides an indication of how public procurement can be used as a strategic tool for improving citizens' lives.

Economic capital refers to the produced capital (tangible and non-tangible) and financial assets that provide individuals with material living conditions. Economic capital can be shaped by the quality of public spending and development (e.g. non-price competitiveness, firm-level productivity, SME development, public investment and innovations). All of these factors contribute to economic development in different ways (such as stocks, flows or risk factors).

Public procurement can stimulate companies to be more competitive, productive and innovative, and, in turn, companies can provide employment and income for citizens. Often, countries focus on developing small and medium-sized enterprises or fostering innovation through procurement. **Public procurement can enable the effective use of economic resources by supporting wealth creation throughout the economy.**

Natural capital refers to individual assets like energy, water and land resources, as well as broader ecosystems (i.e. the joint functioning of or interactions among different environmental assets, as seen in forests, soil, aquatic environments and the atmosphere). Natural capital can be used directly as an input to economic production. It also offers several benefits to the economy, when the environment is effectively managed (e.g. clean air, safe water or green areas). In turn, these benefits also contribute to well-being. For example, improvements in the quality of life and health status of individuals can support higher labour market participation, resulting in further well-being and economic gains.

Through green public procurement, governments can reduce their own environmental impact while at the same time creating a demand for environmentally friendly solutions. This, in turn, can help disseminate green solutions or make them economically viable. Beyond this interaction with economic capital, green public procurement can have a positive effect on human capital, for example by decreasing the negative effects of low air quality. **Public procurement can contribute to the appropriate use and management of natural resources through green procurement.**

Human capital refers to the skills, competencies and health statuses of citizens. Governments' role in fostering this capital is to provide individuals with access to high-quality education, training and lifelong learning opportunities, and health care systems. Education, skills, and health are aspects of people's well-being in their own right. In addition, increased life expectancy, improvements in public health and increasing the skill-levels of the workforce all contribute to both well-being and economic growth through higher (and higher quality) labour market participation. Moreover, easy access to (high-quality) education can influence work ethic in a society, as well as citizen attitudes towards public policies (like public service or tax compliance).

Public investment provides individuals with better access to educational and medical facilities, and increases the quality of public services in these areas. Efficient and effective public procurement in the health sector contributes to higher quality healthcare and better medical equipment, which in turn leads to higher life expectancy (and higher levels of citizens living longer in good health). These gains could be translated into lower healthcare expenses and higher labour force participation, which lead directly to economic gains. Similarly, the effective procurement of educational infrastructure and resources can support a country's education system. **Public procurement can contribute to the development of human resources throughout society.**

Social capital includes trust (both in public institutions specifically, and trust among citizens, more generally), as well as social networks, cooperative norms and aspects of governance. In addition, acts of civic engagement (e.g. volunteering and voting) can be considered as investments (inflows) into the stock of social capital. Social resources maintain the environment in which other capitals can flourish. For example, investment in social resources can provide a predictable business climate, enable collective action to promote the efficient allocation of resources, stimulate the production of public goods (such as personal security) and induce the preservation of shared assets (such as ecosystems). Increasing social capital is especially relevant with respect to integrity and transparency of public procurement institutions. For example, through e-procurement, governments can increase the transparency of public spending and ensure broad access to prospective suppliers. **Public procurement can contribute to social resources through good governance, and by supporting trust in public institutions.**

The aforementioned dimensions of sustainable well-being are not independent of each other. Promoting interaction between them can cause synergy effects. For example, targeted public investment may improve the environment or increase social inclusion, as well as the quality of education. Therefore, one activity involving the use of public procurement may contribute to inclusive growth and future well-being in multiple domains.

Many countries have attempted to assess public procurement's impact on each of the areas of capital in isolation. Within each area, numerous public procurement indicators exist, which can help countries evaluate procurement's contribution to well-being. The following sections of Chapter 1 analyse economic,

natural, human and social capital in the German context, exploring available and relevant data. Examples from other countries complement this analysis to demonstrate how the impact of public procurement in each of the four areas can be measured.

1.2.1. Economic capital

Public procurement in Germany represents an estimated 15% of GDP. This is equivalent to goods, works and services worth approximately EUR 500 billion (OECD, 2015[18]), procured through 2.4 million procedures per year. Public procurement spending represents 34% of total government expenditure in Germany. The German public procurement system is also highly decentralised, as almost 78% of public procurement takes place at the sub-central level.

The German public procurement market is large and represents a relatively large share of government spending. Because of this, the country has potential to significantly increase well-being by increasing the efficiency of its procurement system. However, the high degree of decentralisation in Germany poses challenges that have to be accounted for (see Chapter 3), including challenges related to the collection of procurement-related data.

Countries around the world have increasingly realised that the value of a product is not just expressed by the purchase price. Procurement officials are now taking a more holistic approach, trying to increase value as opposed to just driving down cost. In this context, as mentioned above, concepts such as category management, where procurements are managed in product groups, and life cycle costing, where costs across the entire life cycle of the product are considered, have added necessary complexity to the way in which the cost or value of a product or service is calculated. Box 1.3 illustrates a system to calculate savings as developed by New Zealand.

Box 1.3. Calculating savings from All-of-Government contracts in New Zealand

All of Government (AoG) contracts exploit the collective purchasing power of the New Zealand government by establishing single supply agreements for the supply of selected common goods and services. Before initiating a tender, the feasibility and benefits that can be derived from any AoG contract are investigated by New Zealand's central purchasing body, New Zealand Government Procurement (NZGP).

Savings from AoG contracts are reported to the cabinet, along with a rolling forecast of expected savings from existing and emerging AoG contracts. The basis for the savings methodology is the calculation of the price difference between what an individual contracting authority could realistically expect to pay to a supplier (the baseline market price) and the benefits of an aggregated AoG contract price for the same item. Suppliers provide data with a total savings amount calculated according to the value of spending in the contract.

When establishing a new AoG category or reviewing an existing AoG category, the baseline market price is determined for each product group as part of the market analysis process. They are ascertained from a number of sources that may include a Request For Information (RFI) process, a review of existing contracted rates, general experience and knowledge in the market, and discussions with suppliers.

To better reflect the price discounts being achieved in the market, NZGP placed contracting authorities into tiers using different parameters according to the product or service. For example, the IT Hardware category may determine agency size according to number of employees, and the Motor Vehicles category may determine agency size based on the size of their fleet.

The savings methodology gives indicative savings only. Some types of saving or other forms of value are not reported, such as:

- avoidance of the cost of tendering
- pricing certainty
- standard terms and conditions
- reduction in legal service fees
- consolidated invoicing
- enhanced reporting
- ease of process and transitioning
- ability to escalate performance and supply issues for resolution.

Source: (New Zealand Government Procurement, 2015[19]), *Standard reporting methodologies: All-of-Government contracts.*

Academic studies have shown that innovative companies grow faster and are more productive, which leads to higher employment and output growth. The public sector can use public procurement as a demand-side instrument to support innovation. Using government spending as a source of demand has many benefits. It allows suppliers to bear higher entry costs and create a critical mass for the production of innovative products that ensure such ventures are profitable. Because of this, government spending as a source of demand can link innovation to larger scale production (Geroski, 1990[20]).

In an international comparison, Germany fares well on innovation indicators. The Global Competitiveness Index 2017-18, produced by the World Economic Forum, ranked Germany fifth out of 137 countries on the indicators of innovation and creating a fertile business ecosystem (World Economic Forum, 2017[21]). Germany also has the fourth highest research and development (R&D) expenditure of OECD countries, amounting to USD 104.4 billion in 2016 (OECD, 2018[22]). A brief list of international socio-economic performance indicators is presented in Annex 1.B.

A measurement system driven by statistical needs can assist with the preparation and interpretation of basic government expenditure figures. It can also help address questions of how much support governments should provide for R&D and innovation activities. The data can be made publicly available through data repositories to ensure competition, transparency and openness of procurement processes. Making data publicly available also helps countries comply with the prevailing requirements set by policies, and by national and international legislation (Appelt and Galindo-Rueda, 2016[23]). The case of the US government, in Box 1.4, demonstrates that analysis of relevant datasets can support decision-making on policies and investments, enabling governments to take more meaningful policy decisions that lead to greater impact.

Box 1.4. Measuring the impact of procurement on innovation in the United States

The US government conducted an assessment of defence-related public procurement data from the National Archives and Records Administration (NARA) in order to assess the impact of spending on innovation procurement. To conduct the analysis, the US used data from procurement activity over an extended time period (1996-2003).

The analysis involved a comparison between suppliers, including those that: 1) had previously been involved in the public procurement system, but had not been successful; and 2) those that had been successful. The data included the amount of spending that all companies had dedicated to R&D activity, as well as the impact government contracts had on these companies' overall revenues. Finally, analysts studied connections between these firms', requests for new patents and past obligations with regards to patents.

The resulting analysis showed that companies previously involved in the public procurement system were twice as likely to report R&D expenditure as firms that did not receive a contract from the US Federal Government. Furthermore, the R&D expenses of businesses that had supplied to the government increased by 0.2% if the value of government contracts in the previous year had increased by 10%. However, the largest increase of company-sponsored R&D activity was brought about by contracts that were not specifically for R&D activity, namely those that were tendered through normal defence-related procurement.

Source: (Appelt and Galindo-Rueda, 2016[23]), Measuring the Link between Public Procurement and Innovation, http://dx.doi.org/10.1787/5jlvc7sl1w7h-en.

Countries can stimulate innovation by increasing the participation of SMEs in public procurement activity. Increased participation of SMEs in public procurement is another area of procurement policy with substantial economic impact (Wright, Westhead and Ucbasaran, 2010[24]). Its impact in Germany is particularly prominent, as the German economy is dominated by SMEs, which generate more than half of GDP and provide over half of all jobs in the country (BMWi, n.d.[25]). The development of SMEs therefore contributes to human and social capital by generating job opportunities. This, in turn, helps develop people's knowledge and skills, and can lead to improvements in social inclusion.

SMEs make up a high proportion of businesses across a number of economic dimensions in Germany. For example, 99.6% of companies in Germany are SMEs; 82% of trainees gain their experience with SMEs; and nearly 59% of the workforce is employed by SMEs (BMWi, 2017[26]). SMEs also account for a much larger proportion (48%) of the value of contracts awarded through public procurement in Germany than the European average (29%). The high proportion of contracts awarded to SMEs demonstrates the significance of their role in the national economy and in delivering goods and services to government (European Commission, 2016[27]).

Firms that win more government contracts through procurement auctions experience significant increases in growth that persist well beyond the length of the contract. Winning at least one contract in a given quarter increases firm growth by a sizable 2.2 percentage points over the quarter (Ferraz, Finan and Szerman, 2015[28]). New and growing small businesses spur economic growth by stimulating innovation, prompting existing businesses to increase their productivity and contributing to job creation (Wright, Westhead and Ucbasaran, 2010[24]). Therefore, increasing the participation of SMEs in the procurement system can stimulate economic growth.

Germany generally has a business-friendly environment and a favourable anti-trust framework, as measured by the Product Market Regulation indicators (an internationally-comparable set of indicators that

measure the degree to which policies promote or inhibit competition in areas of the product market where competition is viable) (OECD, n.d.[29]). As discussed in the OECD's study, *SMEs in Public Procurement: Practices and Strategies for Shared Benefits*, recognising SMEs' contributions to employment, productivity and innovation, among others, countries exert efforts to provide an environment conducive for their growth. In so doing, countries can fully exploit the potential of SMEs to promote economic prosperity and citizen well-being. These efforts include hard and soft elements of the business environment, including the institutional and regulatory framework, access to markets, access to resources and entrepreneurial culture (OECD, 2018[30]).

This study found that countries focus on different areas when assessing the effectiveness of the policies and strategies supporting SMEs in public procurement, while the share of contracts awarded to SMEs represents the most common indicator. For example, the Irish government established a strategy to increase the participation of SMEs in government tenders. In order to monitor the success of the strategy and track relevant data points, they increased their data collection and analytical capabilities, as described in Box 1.5.

Box 1.5. Building a platform to conduct SME analysis in Ireland

The High-Level Group on SME Access to Public Procurement was established by the Irish Office of Government Procurement (OGP) to focus on policies and strategies that support SMEs to do business with public sector procurers. In order to monitor the progress of the strategy to increase SME participation in public procurement, it is important to have a reliable benchmark against which to measure, as well as a robust system for collating data on an ongoing basis.

In late 2014, the OGP commenced a programme to collect and analyse detailed non-salary expenditure from the public service. There were many publicly funded bodies, including schools, hospitals, uniformed services and large central government departments to collect data from. The project involved gathering data from 64 public service bodies and the analysis of thousands of account codes relating to almost four million payment transactions. These 64 public service bodies were prioritised according to the level of procurement expenditure in their sectors. The project team had to enrich (i.e. cleanse), categorise and analyse data so as to provide a reliable dataset and robust evidence base for the many stakeholders who had an interest in identifying where taxpayer funds were being spent in relation to government procurement. OGP classified and included over 35 000 suppliers in the analysed spending data.

While data collection was not complete, it served as a launch pad for future reporting rounds. By using a robust methodology data were still representative of spending across the whole public service.

In March 2015, the OGP published the "Public Service Spend and Tendering Analysis" for 2013. The OGP intends to produce an annual report of analysed expenditure and tendering activity each year. The initial analysis indicated that:

- 93% (EUR 2.559 billion) of analysed spending was won within Ireland (of which EUR 1.67 billion was with Irish SMEs).
- 7% (EUR 183 million) of the value of the analysed public service spending was with suppliers located outside the Republic of Ireland.

Source: (Office of Government Procurement, 2015[31]), *High Level Group on SME Access to Public Procurement: Progress Report.*

The approach taken by the Irish government can only be successful where there is access to sufficient data on public procurement activity. Where this is not possible, countries must identify other ways to assess impacts. Due to a lack of a centralised picture of procurement spending across the government, the New

Zealand government developed a comprehensive business survey to gauge the success of procurement policies (see Box 1.6).

Box 1.6. Surveying the business community for insights in New Zealand

The New Zealand government holds limited information related to the procurement activity of contracting authorities. As a result, in 2014 New Zealand Government Procurement (NZGP) developed an annual business survey to understand businesses' experiences of government procurement.

The survey was provided to all businesses registered on the national e-procurement platform. It was also openly available to businesses on the NZGP website. Over 2 000 business participated in 2017.

The survey asked businesses about their experiences with government procurement across the entire life cycle – from initial market engagement and innovation through to contract and relationship management. As a result of the survey, NZGP now undertakes improvement initiatives each year. Findings from the 2017 survey showed changes since previous surveys, such as:

- Contract management continued to improve, with businesses rating their contract managers' performances more positively in every competency when compared to 2016.
- There has been improvement in the majority of measures that can be directly compared with the 2016 survey.
- Since 2014, the percentage of businesses saying they would not recommend the government as a customer has decreased.
- Smaller businesses were still generally more negative about government procurement than their larger counterparts.

Source: (New Zealand Government Procurement, 2017[32]), *New Zealand Government Procurement Business Survey 2017.*

1.2.2. Environmental capital

Public procurement contributes to natural capital through the diligent use and management of natural resources. For example, green public procurement refers to the purchasing of environmentally friendly goods, services and works (European Commission, n.d.[33]). If the purchasing power of public authorities is used to procure green products, it can contribute to sustainable consumption and production.

This is an important policy area for Germany, particularly as the country aims to become greenhouse gas neutral by 2050 due to its commitments to the Paris Agreement (Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, 2017[34]). This will be a significant transition for an industrialised nation that has the highest total CO_2 emissions in Europe. In Germany, environmental policies have been regarded as a burden on economic activity for a long time. Now, it is increasingly argued that well-designed environmental policies can encourage innovation and bring about gains in profitability and productivity. Furthermore, some observers think that these gains can outweigh the costs of implementing the policies (Kozluk and Zipperer, 2014[35]).

Measuring the impact of green public procurement is challenging due to the intangible and complex nature of the effects and consequences. Environmental considerations encompass a broad range of policy areas, such as the use of clean energy, water quality (including seas and rivers), reduction of pollution (resulting in health improvements) and minimising CO_2 emissions.

To implement green procurement, countries are increasingly using life-cycle costing (LCC) in an effort to change the way in which the value of a product or service is quantified so that these values incorporate

environmental considerations. While up-front costs for green products may be higher, guidance from the European Commission encourages an assessment of a product or service to consider the purchase price as just one of the cost elements in the whole process of purchasing, owning and disposing of a good or service. That means considering all the costs that will be incurred during the lifetime of the product, work or service, including:

- purchase price and all associated costs (delivery, installation, insurance and more)
- operating costs, including energy, fuel and water use, spares, and maintenance
- end-of-life costs (such as decommissioning or disposal) or residual value (i.e. revenue from sale of product)
- the costs for society of specific environmental impacts, such as those linked to climate change or acidification of soil or water through the application of a specific methodology. (European Commission, 2016[36]).

Initially, life-cycle costing was used as an economic tool, with the aim of analysing past, present and future costs in order to choose the most cost-effective option. Life-cycle costing can now be used to incorporate environmental externalities (or indirect costs) as a direct cost into the value chain.

There are a number of barriers to life-cycle costing being used universally and consistently, as identified by a study by the International Institute for Sustainable Development (IISD). Procurers around the world are adopting a wide variety of approaches, formats and cost breakdown structures in their life-cycle costing analyses, due to different contexts and legislation. One of the main issues arising is that most procurers report that they did not follow a rigorous methodology when using life-cycle costing (Perera and Morton, 2009[37]).

However, there are examples of life-cycle costing being used in a standardised way to develop quantitative measurement. The study by the IISD also found that life-cycle costing is only feasible in the case of selected goods and services. This explains why the quantitative measurement of improvements from green procurement has only been achieved in specific categories. Conducting a meaningful quantitative assessment requires a comparison between the financial and environmental aspects of green versus non-green products. The city of Vienna, for example, established a programme that identified a number of areas in which improvements could be monitored quantitatively, with an ultimate focus on improving the lives of the city's inhabitants (see Box 1.7).

Box 1.7. Quantitative measurement of lifestyle improvements in Vienna

The ÖkoKauf Wien (EcoBuy Vienna) is a programme established by the Vienna City Administration. The programme aims to purchase goods and services according to ecological considerations in order to positively influence the quality of life of the city's inhabitants.

The City of Vienna required suppliers to produce high-quality products and meet standards of environmental friendliness, usability, efficiency, quality and occupational safety. Data on the application of green criteria allowed the City of Vienna to carry out both a qualitative and quantitative assessment of the programme's effectiveness. The impact assessment indicated a significant improvement in terms of ecological, social and economic sustainability measured by a set of indicators. The city then grouped those results within three procurement categories:

- eco-friendly working in Vienna (procurement of environmentally friendly products like electrical and office equipment, paper, cleaning agents and vehicles)
- eco-friendly buildings in Vienna (procurement of modern, resource-efficient building technologies)
- eco-friendly living in Vienna (procurement of regional and organic food for kindergartens, schools, hospitals and retirements homes).

Benefits generated by the ÖkoKauf Wien programme are of both a qualitative and quantitative nature (see chart below).

Qualitative impact	Quantitative impact
Pioneering role in terms of harmonising the standards for ecological building	Reduction of CO_2 emissions by 15 000 tonnes per year
Pioneering role in the procurement of sustainable cleaning agents	Cost savings of EUR 1.5 million per year thanks to modern building technologies
Improving awareness of green building impacts	Increasing efficiency of cleaning agents by reducing their number by 40% and achieving the same result
Raising social awareness through media campaigns	Reduction of harmful solvents by over 4 000 kg per year
Implementation of established socio-ecological criteria by suppliers.	Overall economic benefit of EUR 300 000 per year.

Source: (Hatvan et al., 2014[38]), *Öko Kauf Wien: Protecting our climate and our environment.*

Through the *ÖkoKauf Wien* programme, the City of Vienna was able to provide a holistic assessment of how procurement delivered tangible environmental and financial impacts. Specifically, the programme achieved this by attempting to perform quantitative impact measurement within those categories that were easily measurable, while supplementing these measurements with qualitative measurement of other, harder-to-measure areas. This was based on a detailed understanding of the goods and services being bought by the city's administration, as well as a comparison against products and services bought in the past.

Where standards are more concrete and data is available, governments can gain greater insight into the attributes of the products and services being used. This can be done at a national level where authorities have visibility of goods or services that are procured centrally. This approach has been taken in Canada as described in Box 1.8, where improvements in the environmental specifications of centrally purchased goods and services are monitored over time according to improvements in green standards.

Box 1.8. Monitoring the Canadian Policy on Green Procurement

The Canadian Policy on Green Procurement was developed in 2006 to provide central direction on green procurement, and to develop a basis for assessing progress on green procurement. The implementation strategy for the policy on green procurement is based on the following principles:

- integration of environmental performance considerations in existing procurement processes, policies, procedures, tools and instruments using life-cycle analysis
- monitoring and reporting to support continuous improvement in the integration of environmental performance in procurement
- a co-ordinated government-wide approach to optimising information sharing, consistency and performance measurement.

One key part of the implementation of the policy was the inclusion of environmental specifications and evaluation criteria in centrally managed procurement that was administered by Public Works and Government Services Canada (PWGSC). The framework agreements managed by PWGSC now include green procurement plans. The plans outline key environmental impacts for a given commodity and indicate how the framework agreement will purchase the goods or services in a way that will mitigate those impacts. Over time, the goal is to bring the purchased items closer to an aspirational green standard.

Canada conducts performance monitoring of the policy using a scorecard that outlines the criteria currently being used, the criteria included in the current renewal and the criteria anticipated for the next renewal. This information is communicated to suppliers, allowing them time to prepare for the next renewal and thus maintaining supplier competition. By tracking the volume of procurement done through this category, the scorecard can monitor the tangible benefits secured from purchasing the new, greener product or service.

Source: (OECD, 2015[39]), *Going Green: Best Practices for Sustainable Procurement.*

The above approaches rely on a deep understanding of the different procured products and services, as well as comprehensive data on how these products and services were bought in certain categories over time. Where data are not comprehensive, alternative approaches must be used in order to assess the impact of green procurement. A 2008 study drew on a sample of data regarding the use of green procurement criteria by seven EU countries and – relying on a number of assumptions and extrapolations – made quantitative connections to financial performance and CO_2 reduction (see Box 1.9).

Box 1.9. Building an assumption-based impact model

In September 2008, the European Council called upon the European Commission to develop a practical evaluation methodology to measure progress made on green procurement by 2010 and thereafter. A study performed in 2008 by the consulting firms PricewaterhouseCoopers, Significant and Ecofys, contributed to this effort.

The study selected ten product groups frequently procured by public institutions in seven EU countries, based on the sophistication of countries' data collection. Respondents were asked to indicate whether their most recently concluded purchasing contracts complied with certain green criteria, which were defined by the study. The study linked these criteria to key environmental impacts during the production and consumption phases of products. Furthermore, the criteria were divided into "core green" (which addressed the most significant environmental impacts) and "comprehensive green" (criteria for the overall best environmental products). The study then looked at the extent to which the criteria were used for purchasing, was then used to make assumptions about the environmental impacts of the products. Finally, the study identified the non-green and green products that met the criteria for each product group.

The study then calculated the financial impact of applying green criteria by comparing the costs of a green product with those of a non-green product. The analysis was based, as much as possible on the concept of life-cycle costing, meaning that the costs of purchase, operating and disposal were all taken into account. At each stage, the study determined a "cost ratio" for each product – meaning the ratio of costs of a green product as compared to the costs of a non-green product. This was done both for core and comprehensive green criteria.

The methodology used in this study makes generalisations; therefore, there are limitations to the findings. For example, the study does not include a full life-cycle costing analysis of each of the product groups, which would have allowed a broader range of environmental aspects to be assessed. Instead, the data limitations meant that the study focussed specifically on CO_2 emissions. The results produced by the study relied on these assumptions to deliver an evaluation of the use and performance of green public procurement. A brief summary is provided below.

	% of overall value of procurement using green criteria			CO_2 impact of green approach per functional unit (negative numbers imply reductions in CO_2 emissions)		Financial impact of green approach per functional unit (negative numbers imply reductions in cost)	
Categories	Core green	Comprehensive green	Non-green	Core green	Comprehensive green	Core green	Comprehensive green
Cleaning	15%	33%	52%	0%	-100%	1%	-9%
Construction	19%	18%	63%	-69%	-70%	-10%	-10%
Electricity	63%	17%	20%	-26%	-100%	1%	3%
Catering	43%	0%	57%	0%	n/a	2%	n/a
Gardening	12%	14%	74%	-100%	-100%	2%	2%
Office IT	57%	3%	41%	-24%	-24%	1%	1%
Paper	5%	72%	23%	-97%	-89%	15%	19%
Textiles	40%	7%	53%	-76%	-76%	8%	8%
Transport	19%	0%	81%	-12%	n/a	-3%	n/a
Furniture	82%	0%	18%	n/a	n/a	n/a	n/a

Source: (PWC, 2009[40]). *Collection of Statistical Information on Green Public Procurement in the EU.*

The above study was based on a macro-level view of the degree of spending across certain categories, and to what extent green criteria were applied to those categories. This study did not require a comprehensive suite of highly detailed, transaction-level data. Such an approach may be useful when limited data is available.

1.2.3. Social capital

Public procurement contributes to social resources by supporting trust, security and the fabric of society. Social resources, both formal and informal, provide the environment in which other kinds of capital can flourish, for example by providing a predictable business climate. In the area of public procurement, social capital relates to the integrity and transparency of public procurement institutions (including e-procurement systems). Social capital is strongly linked to human capital as highly skilled and aware procurers can promote high levels of integrity.

During the course of a procurement exercise, social results and considerations can be taken into account. This area of activity is not to be confused with the procurement of social *services* (which is often referred to as "social procurement"). Many governments conduct social procurement separately from more commercial procurement activities. Procurement can enhance and support social capital in several ways:

- Social outcomes, such as job creation in low-income areas, or the engagement of specific types of businesses, like indigenous or women-owned businesses, can be delivered as an added value to a procurement project.
- By taking additional steps to ensure that the supply chain of businesses contracted to government or tender participants have a compliant or responsible "value chain" – meaning that sub-contractors follow responsible business practices or conduct, such as fair wages and good working conditions.
- Contracting authorities make deliberate decisions to contract with businesses that have certain characteristics, such as immigrant-owned businesses, or businesses employing people with disabilities or other groups that are not well represented in the workforce.

Countries that monitor the implementation of social procurement seem to measure the proportion of contracts awarded where procurers have taken the above considerations into account. Chile, for example, monitors implementation by tracking the market share (in value and quantity) of contracts awarded to women (individuals as opposed to organisations) (OECD, 2017[41]). As described in Box 1.10, the Polish government monitors the implementation of their National Action Plan on Sustainable Public Procurement by testing a sample of procurement contracts to see what proportion include social criteria.

Box 1.10. Monitoring inclusion of social clauses in Poland

Poland's National Action Plan on Sustainable Public Procurement for 2013-2016 (NAP SPP) addresses green public procurement and socially responsible public procurement. Implementation of much of the plan by contracting authorities is voluntary, with some elements being mandatory, including obligations to:

- consider application of social clauses (such as the reserved contract clause, employment clause and labour clause) in procurement procedures, particularly when purchasing education and training services and others
- exclude economic operators from tender processes if they are in arrears with payment of taxes, charges, social insurance or health insurance premiums, or have been validly sentenced
- clarify abnormally low contract prices in relation to labour costs and subcontracting
- include social aspects regarding needs of all persons and disabled persons in the description of the subject matter of the contract.

The action plan included the goal to ensure that 10% of contracts were socially responsible by the end of 2016. Poland then measured levels of green public procurement and socially responsible public procurement on an annual basis.

Poland based the methodology for the NAP SPP on the analysis of contract notices placed in the national Public Procurement Bulletin (for procurements below EU thresholds) and the European TED database (for procurements above EU thresholds). From each source, a random sample of 4% of contract notices for works, supplies and services was selected, based on the date of their publication. To ensure that the selection was a random cross-section, Microsoft Excel's random number generator was used.

The following elements were subject to analysis:

- the subject matter of the contract (including a title and short description)
- selection criteria used
- contract award criteria
- contract performance requirements.

For 2015, 4.08% of contract award procedures by the Polish contracting authorities included social aspects.

Source: OECD (2016), Survey on Public Procurement, OECD.

The aforementioned monitoring efforts focus on the outputs of procurement activities. Monitoring the social impacts of these outputs is much more challenging. Policy makers are able to measure the outputs of public procurement (which are the number or value of contracts that meet certain social criteria), but not necessarily the resulting outcomes or impacts. Governments can gain an indication of the benefits that targeted groups of suppliers can obtain from increased economic activity, however. For example, the Commonwealth Government of Australia recently committed to placing 3% of its procurement contracts with indigenous suppliers. In turn, this commitment is expected to generate an estimated 1 500 contracts or AUD 135 million each year (Jagatheeswaran, Stephens and O'Conner, 2018[42]). In other countries, by either setting targets in advance or retrospectively reviewing the total value of contracts given to companies that increase social capital, countries can get an indication of the additional revenue that these businesses will benefit from. Contracting authorities and other responsible public authorities often have to verify that

contractors (and, where relevant, subcontractors) comply with social criteria. Some governments have developed sophisticated practices with regards to monitoring contractors' compliance with contract provisions. As described in Box 1.11, countries such as the US and Denmark have implemented monitoring programmes to ensure that suppliers adhere to their obligations.

Box 1.11. Monitoring compliance with social criteria in contracts in the United States, Denmark and Sweden

United States

The Sweatfree Purchasing Consortium (SPC) comprises 14 US cities and three US states, and seeks to ensure that apparel products bought by the US government are made without sweatshop labour. The SPC provides procurement authorities with model procurement policies and codes of conduct, purchasing guides, labour compliance questionnaires and online worker compliance forms.

Participation in the programme also requires suppliers to be independently monitored for compliance with codes of conduct, showing that they are making credible efforts to address abuses. Several cities, including Los Angeles and San Francisco, require apparel contractors to disclose factory locations and retain the services of the Worker Rights Consortium to produce monitoring reports on compliance with each city's code of conduct.

Denmark

Following a report by Danwatch that exposed forced labour and hazardous working conditions in the information technology (IT) supply chains of the Danish state and municipalities, public authorities in Denmark, Sweden and other jurisdictions were forced to re-evaluate public procurement contracts and conduct-significant due diligence of their contractors and suppliers. This included initiating third-party audits, on-site factory visits, and ongoing reporting on suppliers' efforts to address abuses.

Sweden

In the case of Sweden's municipal-level health authorities, the procurement agency sends out questionnaires to suppliers of medical equipment to determine if proper supply chain due diligence practices are in place. Authorities then follow up on these questionnaires by asking for audit results, and by asking whether a risk mitigation strategy was being used. In some cases, the public procurement agency can hire third party auditors to conduct on-site evaluations of suppliers.

Source: (OECD, 2017[43]), *Responsible business conduct in government procurement practices.*

Such monitoring campaigns help contracting authorities verify that the obligations they include in their procurement activities, such as fair working conditions or the use of minority-owned subcontractors, are being complied with.

However, it should be noted that these measures do not provide information on what effect the increased revenues, salaries or socially responsible business practices have had on the lives of citizens. There are examples from the private sector demonstrating how the impacts of an improved reputation might be measured. Beyond the positive social impacts, social procurement has the potential to generate real business value (Jagatheeswaran, Stephens and O'Conner, 2018[42]).

These findings correspond to a key element of how social capital is enhanced, according to the OECD Framework for Measuring Well-Being and Progress. The OECD framework shows that levels of trust in society can be improved by increasing public trust in institutions. This has not been seen as a significant issue in Germany, given that the country ranks 12th out of 137 countries in terms of the trustworthiness of its institutions, according to Transparency International's Corruption Perception Index (CPI) (Transparency

International, 2018[44]). The World Economic Forum's *Global Competitiveness Report* ranks Germany 21st out of 190 countries in terms of the quality of its institutions (World Economic Forum, 2017[21]). Germany scores high in the context of the quality of government at the sub-central level as well. At the regional level, the best-performing states are rated as Schleswig-Holstein (36th rank out of 236 regions), Lower Saxony (37th), Bavaria (40th), Rhineland-Palatinate (42nd) and Saarland (43rd).

Germany has achieved this high performance on transparency and integrity indicators despite the fact that the country lags behind in the use of information and communication technologies (ICT) in public procurement (OECD, 2018[45]) (explored further in Chapter 4). Transparency International has identified the provision of public procurement data to the public and stakeholders in Germany as an area in need of improvement (Transparency International, 2017[46]). This prompted Germany to become a signatory to the Open Government Partnership, which recognises the importance of open standards for promoting civil society access to public data, as well as facilitating the interoperability of government information systems (Open Government Partnership, 2011[47]).

Public trust in government institutions is not just related to the efficiency of public servants and the effectiveness of public spending. Political events and media narratives can also influence trust in institutions. Because of this, measurement of public trust does not necessarily have a direct correlation with efforts to improve the transparency of public spending. The Edelman Trust Barometer has gauged public trust each year for the last 28 years. The 2018 survey covered 28 countries and surveyed over 33 000 citizens. It showed that trust in institutions is generally low at present, though in Germany trust in government experienced a slight increase in 2018 from the previous year (Edelman, 2018[48]).

While these indicators have limitations that stem from their construction, gaining an increase in the CPI score, for example, would reflect an improvement in civil society's perception of public institutions. This is something South Korea achieved by improving their e-procurement platform (as described in Box 1.12).

Box 1.12. Gaining an improvement in the perception of integrity in Korea

Korea made notable improvements to the transparency of its public procurement administration in the early 2000s through the implementation of a national e-procurement system. In 2002, the Public Procurement Service (PPS), the central procurement agency of Korea, introduced a fully integrated end-to-end e-procurement system called KONEPS. KONEPS links with about 140 external systems to share and retrieve information on tenders and suppliers. Furthermore, KONEPS provides a one-stop service on a real-time basis. All public organisations are mandated to publish tenders through KONEPS. In 2012, over 62.7% of Korea's total public procurement (USD 106 billion) was conducted through KONEPS.

The system has increased participation in public tenders and has considerably improved transparency, eliminating instances of corruption by preventing illegal practices and collusive acts. According to the integrity assessment conducted by the Korea Anti-Corruption and the Civil Rights Commission, the Integrity Perception Index of the PPS has improved from 6.8 to 8.52 out of 10 since the launch of KONEPS.

A key concern of the Korean government has been the use of illegal practices to obtain borrowed e-certificates. In order to mitigate this risk, the Public Procurement Service introduced "Fingerprint Recognition e-Bidding" in 2010. By July 2010, the government had applied this tool to all tenders carried out via the KONEPS. The tenders affected were from local governments and other public organisations procuring goods, services and construction projects. This corrective action is likely to improve the perception of the integrity of public procurement in Korea.

Source: (OECD, 2016[49]), *The Korean Public Procurement Service: Innovating for Effectiveness.*

1.2.4. Human capital

Public procurement contributes to human resources throughout society. Efficient and effective public procurement in the health sector contributes to higher quality healthcare and better medical equipment, which in turn lead to higher life expectancy (and higher levels of people living longer in good health). These gains can be translated into lower expenses for healthcare and a higher labour force participation rate, which lead directly to economic gains. Improvement in employees' access to skills development contributes to economic growth through higher labour market participation (in terms of quantity, quality and duration). Skills access can also facilitate the transmission of knowledge, which eases the implementation of new technologies.

Education has a strong influence on societal well-being. Better-educated individuals earn higher wages and have a higher probability of employment. They live longer lives, report better health statuses and have lower occurrences of chronic diseases and disabilities. Better-educated individuals also participate more actively in politics and in their communities. They commit fewer crimes and rely less on social assistance. At a societal level, better education leads to higher GDP growth, higher tax revenues and lower social expenditure.

A challenge that Germany faces with respect to human capital relates to demographic changes (i.e. Germany's ageing population). The old-age dependency ratio, which measures the number of elderly people as a share of those of working age, is expected to increase strongly over the coming decades. While the dependency ratio was 26.2 in 2000, it is expected to increase to 43.7 in 2025 and 65.1 in 2050 (OECD, 2015[50]). This trend will lead to increasing pressure on Germany's pension and health care system. The increase in public expenditure on health care caused by demographic changes will increase by 0.7 percentage points over the period 2013-2060 and amount to 8.3% of GDP in Germany (European Commission, 2015[51]). Compared to other EU countries, the projected increase is relatively low, yet Germany already has the fifth highest relative health care spending in the EU (European Commission, 2015[51]).

Education is another area in which Germany has the potential to make more efficient use of public spending in order to achieve economic development. Germany invests less of its national wealth and its overall public budget in education than other OECD countries (OECD, 2016[52]). Spending on educational institutions in Germany represents 4.2% of GDP, which is below the OECD average of 4.8% (OECD, 2016[52]). In spite of below-average expenditure on education, the German education system performs comparatively well. The Global Competitiveness Report ranks Germany 13th (out of 137 countries) on quality of health services and primary education, and 15th on quality of higher education and training (World Economic Forum, 2017[53]). In order to maintain high-quality education, however, sustainable funding is required.

Where government initiatives have more indirect impacts on citizen health, quantifying impact can be challenging. For example, the city of Ferrara, an Italian municipality, undertook a project aimed at promoting students' health and well-being through a commitment to organic food in school canteens. Even if the positive impacts of organic farming on the environment and on people's health are commonly recognised, quantifying them in a precise way is still difficult today. Tender documents banned the use of fertilisers, pesticides, insecticides, fungicides and genetically modified organisms in farming. While this was likely to result in health improvements, it was not possible to assess the impact on citizens' health (United Nations Environment Programme, 2012[54]).

Similarly, to attribute educational outcomes to a specific procurement exercise is challenging. While the procurement of facilities, technology and other resources might support the educational environment, these factors cannot necessarily be connected to educational outcomes. Measurement has been possible where the following conditions have been met:

- A baseline was established that characterised conditions before the intervention occurred, and used a mix of qualitative and quantitative methods to describe the conditions that the programme could reasonably expect to affect (United Nations Environment Programme, 2016[55]).
- a "results-driven" contracting approach was taken, with suppliers being incentivised to deliver certain outcomes, which were monitored through detailed key performance indicators (KPIs) (Harvard Kennedy School, 2016[56]).

There are concrete examples of how public procurement can be used to improve educational or health outcomes. The way in which procurers design tenders or contracts can exploit the power and knowledge of the market to deliver better outcomes for citizens. In order for those outcomes to be effectively measured, it is important for governments to establish detailed key performance indicators (KPIs), as described in Box 1.13.

Box 1.13. Developing a baseline for educational improvements through procurement in Scotland

Around one-quarter of the Scottish population (26.7%) faces challenges related to literacy. Geographic clustering of these problems can also contribute to the economic difficulties faced by individuals in some areas in comparison with others. Scotland's economy relies heavily on SMEs, which account for 99% of the total number of Scottish businesses and for over half of all private sector employment. They also greatly contribute to supporting less able individuals, and help to improve their literacy and numeracy. Often, these less able individuals would not find work in large firms; in addition, employment opportunities provide opportunities and incentives to working on literacy and numeracy. Historically, however, many of these firms have not competed successfully for public sector business opportunities.

The Scottish government set out to procure framework agreements for consultants and temporary staff under the category of "flexible resources". With a budget of up to USD 144 million per year, these flexible resource framework agreements had considerable potential to facilitate economic growth and increase the education levels of those working in SMEs in Scotland. The continuum of roles under the category of flexible resources was broken down into 13 separate framework agreements to allow SMEs to compete. Furthermore, the government included a requirement to facilitate literacy, numeracy and career progression improvements in the flexible workforce, within the specifications.

To ensure that the project was able to successfully monitor improvements in the workforce, one of the aims of the frameworks was to establish a detailed baseline for levels of literacy and numeracy training. The only baseline from which to start was that the companies had not previously been directed to support initiatives directed at boosting literacy and numeracy. The government then included explicit targets and key performance indicators relating to literacy and numeracy in the next re-tender of the framework agreements.

The project team learned that measuring the impact of training initiatives was a difficult exercise. The project team asserted that, in future iterations, very detailed key performance indicators should be included in contracts for procurement solutions that aimed to target training, literacy and numeracy improvement. The first iteration of the programme did allow for the development of a baseline from which future improvements could be established.

Source: (United Nations Environment Programme, 2012[54]), *The Impacts of Sustainable Public Procurement.*

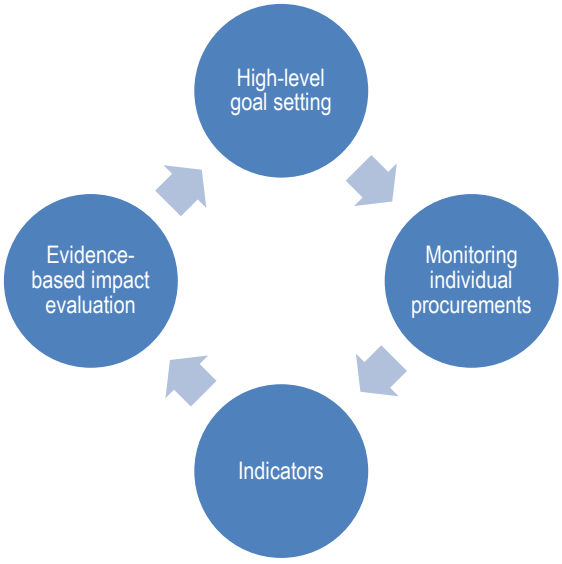
1.3. Setting up public procurement for better measurement of impact

This section explores how Germany could use insights from other countries and from research to systematically track the impact of public procurement. By tracking the impact of individual public procurement processes and feeding the data into a more overarching repository, Germany could analyse all aspects of public procurement's impact (as described in Section 1.2). At the same time, measuring the work of central purchasing bodies (CPBs) and the impact of framework agreements can be a first step towards understanding procurement's impacts. This approach combines the knowledge of factors that can influence inclusive growth and national well-being (as delineated by the OECD well-being framework) with a process for assessing and monitoring impact (in the form of the Benefits Management Approach and the framework of indicators for measuring procurement impact).

The country examples mentioned prior demonstrate a number of successful avenues for understanding the impact of public procurement on the economy and society as a whole. While they are instructive, the examples are also context-specific, singular and concentrated in their focuses. This illustrates a main challenge: gaining a comprehensive understanding of the overall impact of public procurement. In addition, governments face a common challenge in gathering data from individual procurement processes that will provide a robust base for meaningful analysis of impact at an aggregated level.

Since data quality and availability is limited in most countries at this stage, impact analyses cannot be supported by robust data. However, increased data collection can create an opportunity to measure impact. These two aspects, quality and availability of data and its analysis, are linked together in a virtuous circle: monitoring of the impact of individual procurements will allow impact to be tracked at a more overarching level. At a later stage, this case-by-case data can be aggregated to allow for more general analysis of the impact of public procurement. This, in turn will allow strategies to be fine-tuned and based on a more informed view of procurement practice. Figure 1.6 illustrates the cycle of data use to inform strategy development.

Figure 1.6. Impact monitoring can contribute to a virtuous circle for strategic procurement



Source: Authors' illustration.

As mentioned above, a structured analysis of the impact of public procurement should take into account possible impacts in all areas identified by the OECD's well-being framework. This should be complemented by a structured approach to analysing day-to-day processes, as highlighted by the benefits management approach, which provides a structured process for assessing and monitoring the eventual benefits (and

disadvantages) of public procurement. Without underlying information, a substantive analysis of the impact of procurement cannot be conducted.

1.3.1. Tracking impact of public procurement from project to portfolio level

As the country examples in the previous section illustrate, analysis of the impact of public procurement can be approached from different perspectives. First, countries can approach analysis through a focus on the measurement of procurement's impact on the overall economy at an aggregated level. Second, countries can examine the impact of individual procurement processes.

Furthermore, countries can measure the outcomes of individual procurement exercises in order to form an overall picture of procurement activity. This approach presents its own challenges; most notably it requires that the measurement is built into the daily work by procurement officials. The approach does, however, present an opportunity for policy makers to develop a framework that measures the far-reaching impacts of public procurement.

Considering a tender as a project can help policy makers understand and assess the varied and often conflicting impacts of a specific procurement. A procurement project spans from the establishment of a need to the delivery and then ongoing management of a supplier delivering a good or service. Viewing procurement as a project highlights the fact that every procurement involves a process rooted in the desire to achieve goals and deliver benefits. Additionally, a strategy such as delivering sustainable procurement can be viewed as a programme, or a collection of projects. By viewing procurement in this way, policy makers can have a better handle on the many variables that affect impact.

Some countries have developed frameworks to support the assessment and measurement of project successes. Projects in the private sector are often assessed according to a number of criteria, many of them relating to financial impact or the degree to which the project was completed on time and on budget. Research identified a number of criteria used by private sector respondents to assess a project's success, as shown in Table 1.1.

Table 1.1. Common measures of project success

Success Criterion	Description	Frequency of mention
Technical performance	To what extent were the technical requirements, specified at the commencement of the execution phase, achieved	93%
Efficiency of project execution	The degree to which targets of time and cost were met	93%
Managerial and organisational implications	A measure of user satisfaction incorporating the degree to which the project was carried out without disturbing corporate culture or values	43%
Manufacturability and business performance	The ease with which the product resulting from the project can be manufactured and its commercial performance	43%
Personal growth	The satisfaction of the project team, particularly in terms of interest, challenge and professional development	29%
Project termination	The completeness of the final product, the absence of post-project problems and the quality of post-audit analysis	14%
Technical innovativeness	The success in identifying technical problems during the project and solving them.	14%

Note: A percentage of mentions from 14 papers reviewed.
Source: (Freeman and Beale, 1992[57]), *Measuring Project Success.*

Many of the measures listed above are inadequate for governments, as they cannot measure the broad spectrum of outcomes that a government may seek to achieve from procurement. These outcomes can range from constructing sports facilities to incarcerating prisoners to other outcomes. When a government embarks on a procurement project it often has a broad range of outcomes that it seeks to achieve, and each must be aligned with relevant government strategies. In response to this challenge, the United

Kingdom (UK) developed an approach to support the delivery of major projects through structured measurement (see Box 1.14).

Box 1.14. A benefits management approach to tracking outcomes from government spending in the United Kingdom

The UK has long focussed on recording benefits of procurement processes. However, the actual realisation of those benefits and their relationship with the initially requested investment were not often tracked, monitored or reported on. As a response, the UK developed an approach to actively manage benefits of a procurement project. "Benefits Management", as this approach is called today, involves detailing the expected benefits from a project in a measurable way, and continuing to monitor whether they have been realised (and whether the costs required to deliver them have increased) over time. This approach is based on the project management methodology "Prince2".

According to the UK government's *Guide for Effective Benefits Management*, a benefit is defined as: "the measurable improvement resulting from an outcome perceived as an advantage by one or more stakeholders, which contributes towards one or more organisational objectives" (Infrastructure and Projects Authority, 2017[58]). Fundamentally this means that benefits:

- Should be measurable. If they cannot be measured they cannot be claimed as realised.
- Are the improvement resulting from the outcome (the end result) of the change – not the change itself.
- Are in the eye of the beholder. In other words, different stakeholders value the same benefits differently. Additionally, in some cases, a benefit to one stakeholder may be a dis-benefit (an outcome perceived as negative) to another.
- Create the link between tangible outputs and strategic goals.
- Ensure there is alignment of effort, resources and investment toward achieving organisational objectives.

According to the Benefits Management approach, preparation of the public procurement procedure should start with an identification of the targets and benefits that can be achieved. A key product during this stage of the benefits management approach is the development of a Benefits Logic Map, which links drivers, enablers and business change that will result from the project to the expected benefits and dis-benefits, and links the benefits to objectives and goals. An example of a Benefits Logic Map for environmentally friendly procurement is provided in Annex 1.C to this chapter. The desired objectives of a project should comply with the S.M.A.R.T. principles (i.e. they should be **s**pecific, **m**easurable, **a**chievable, **r**ealistic and **t**ime-bound). This also means that consideration should be given to how data on benefits and dis-benefits are tracked and aggregated so that a bottom-up view of the impacts of the whole public procurement system can be monitored.

The last phase of every procurement project should be focused on evaluation, providing information on the effectiveness of the procedure itself as well as an analysis of whether the outcome has helped to achieve the expected benefits. Creating public procurement strategies according to these rules can boost the efficiency and effectiveness of the public procurement system. They can also lead to the achievement of desired benefits, thanks to proper design, monitoring and evaluation of the process.

Source: (Infrastructure and Projects Authority, 2017[58]), *Guide for Effective Benefits Management in Major Projects: Key benefits management principles and activities for major projects*; Department of Finance (n.d.), *Identifying and structuring programme and project benefits.*

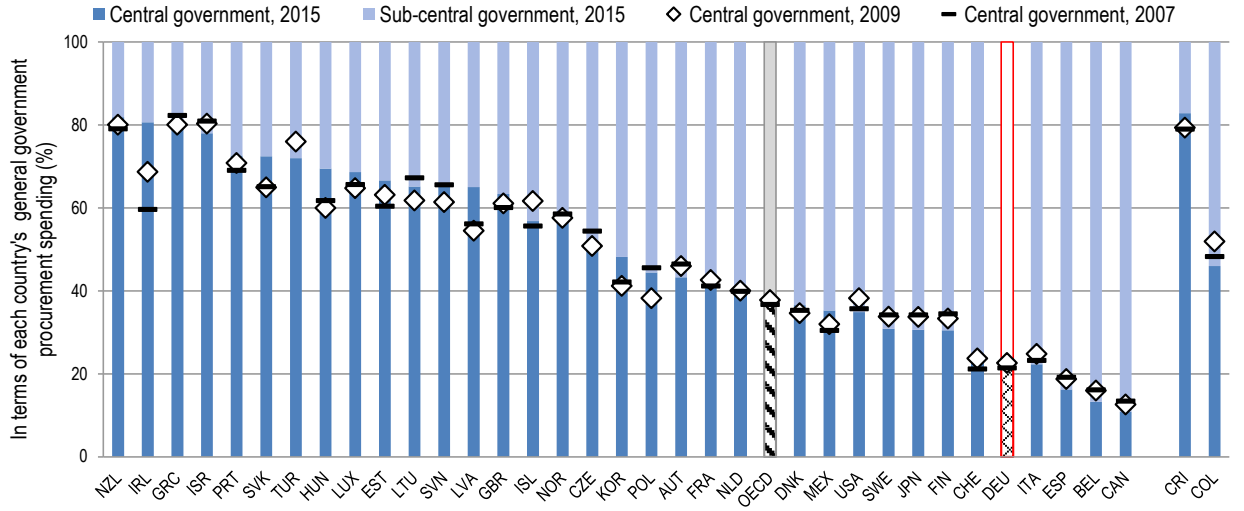
If a government develops a measurement approach for monitoring individual projects, impacts must be aggregated in order to form a more holistic picture. Adding up impact is easiest if there is a predetermined

set of outcomes and indicators, so that all activities can use the same criteria to measure impact. Very simple indicators can be used to measure impacts that are harder to define. For example, social programmes that have a range of activities and objectives, can report on "lives affected" in order to aggregate many different types of changes in people's lives and impact in a simply way.

1.3.2. Establishing a framework for monitoring public service performance in a decentralised environment

Institutions in charge of public procurement at the central level have decreasing levels of visibility and control. The reason for this is that most procurement activity begins via centrally administered agreements and then moves towards decentralised procurement and the broader economy. This is particularly true in Germany, where the majority of spending is carried out at a sub-central level (see Figure 1.7).

Figure 1.7. General government procurement by level of government, 2015



Note: Data for Australia and Chile are not available. Data for Turkey and are not included in the OECD average because of missing time series. Local government is included in state government for the United States. Social security funds are included in central government in Ireland, New Zealand, Norway, the United Kingdom and the United States. Data for Costa Rica are for 2014 rather than 2015.
Source: (OECD, 2017[12]), *Government at a Glance 2017*, based on OECD National Accounts Statistics (database).

To understand the impact of public spending, Germany's federal government must be able to first view how and where government spending is carried out. Traditionally, e-procurement systems have been a useful tool for gathering data on public spending. However, as discussed in Chapter 4, Germany does not currently have an integrated system that acts as a repository for procurement data. The data collection process that the federal government is currently undertaking will not provide a complete picture of public procurement activity in Germany.

Beyond procurement, the question of how to evaluate sub-central governance activities is an issue in all areas of governance for countries around the world. Sub-national governments are responsible for the delivery of key government services, including education, health, law and order, and social services. Yet, most central governments still see it as their role to ensure public services are delivered efficiently and equitably. Because of this, the OECD in 2017 undertook a study on improving performance of sub-central governments through benchmarking and performance reporting, as described in Box 1.15. The conclusions can provide insights for the area of public procurement.

Box 1.15. Benchmarking sub-national performance in OECD countries

OECD countries have applied several approaches to evaluating and benchmarking administrative performance in their regions and sub-central institutions. A proven technique has been to establish systems that benchmark the performance of different sub-central services and create incentives for good performance.

Such performance-based systems can improve efficiency and effectiveness of sub-central services in three ways:

1. by reducing information asymmetries between different levels of government;
2. by identifying providers that are over-performing or underperforming; and
3. by stimulating competition between sub-central governments.

While some countries apply quite competitive benchmarking, a more collegiate or collaborative form of benchmarking that is less likely to rate or rank participants is better suited to sub-central governments with greater revenue power and administrative responsibilities, like Germany. Collegiate (or collaborative) benchmarking is based on learning from best practices, as opposed to using "naming and shaming" techniques for performance. It generally involves consultation and collaboration between different levels of government. It is easier to implement collegiate benchmarking if all levels of government perceive that it will lead to new or better information channels, as well as improved policy effectiveness. It is also easier to implement collegiate benchmarking if all levels of government feel that they can share the additional resources and political leverage it brings.

In Australia for instance, central and sub-central governments undertake a collaborative exercise to produce an annual report on the performance of sub-central service delivery. Performance indicators include output indicators that are grouped under the designations of equity, effectiveness and efficiency, and outcome indicators. Each service area has a performance indicator framework and a set of objectives against which the service area has to report. The central government has not mandated formal benchmarks, and the Australian States and Territories have resisted the publication of any summary information that ranks or rates them. These factors may have facilitated the participation by all states. Comparisons based on efficiency and effectiveness criteria are used as a substitute for market competition, and performance indicators substitute for market price signals.

In general, qualitative mechanisms in the form of external inspections and user surveys help provide insights into consumer experience and well-being. Countries should implement performance systems that measure both the efficiency and effectiveness of public services.

Source: (Phillips, 2018[59]), *Improving the Performance of Sub-national Governments through Benchmarking and Performance Reporting.*

In the area of public procurement specifically, policy makers are dependent on the reporting received from contracting authorities. To successfully aggregate information, reporting requirements must have clear guidelines and must be comparable across different government agencies. The federal government of the United States has developed a rigorous reporting regime to ensure that contracting authorities follow federal green procurement guidelines, as described in Box 1.16.

Box 1.16. Monitoring the use of green procurement across the federal government in the United States

Green purchasing and sustainable acquisition made by the US federal government dates to 1976, with passage of the first law establishing a preference programme for recycled products – those made with recovered materials. The federal government has been emphasising sustainable acquisition or green procurement monitoring and reporting since the early 1990s. Furthermore, it reports to Congress every two years on the results. The Federal Procurement Data System (FPDS) continues to be refined and improved as a tool to help agencies accurately report compliance with sustainable acquisition mandates.

Three agencies take the lead in designating products and providing purchasing recommendations to the other agencies in the federal government: the US Environmental Protection Agency, the US Department of Energy and the US Department of Agriculture. These three agencies have designated environmental criteria for more than 300 product categories.

US federal agency compliance is monitored through a variety of mechanisms. In addition to the FPDS data system where all procurement information is tracked, agencies are expected to submit an annual strategic sustainability performance plan, which identifies specific actions and goals the agency plans to achieve in the coming year.

In addition, the government tracks and assesses key milestones and activities through semi-annual scorecards. The Office of Management and Budget (OMB) and the Council on Environmental Quality (CEQ) use scorecards to: 1) monitor whether individual agencies are on track to achieve overarching government-wide goals; and 2) how much progress agencies are making to achieve key activities and milestones. In providing input on sustainable acquisition for the scorecard assessments, agencies are asked to conduct quarterly reviews of at least 5% of the acquisitions awarded in that period. As such, the agencies are asked to report on compliance with sustainable acquisition goals. If agencies fall below the 95% compliance rate, they are supposed to identify corrective actions they will take during the following six-month period to address the barriers or underlying conditions for non-compliance.

Source: (OECD, 2015[39]), *Going Green: Best Practices for Sustainable Procurement.*

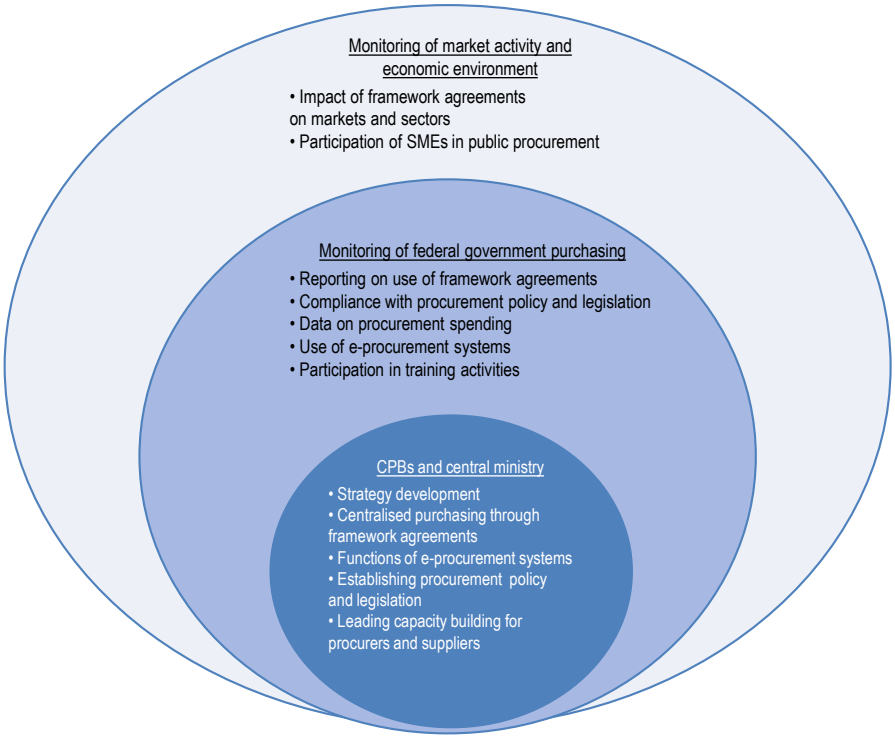
Work is already underway to assess performance at the *Länder* level and municipality level in Germany. The Association of Local Government Management (Kommunale Gemeinschaftsstelle für Verwaltungsmanagement, KGSt), for instance, encourages voluntary participation from districts and municipalities in the organisation's evaluation activities. The KGSt has established voluntary benchmarking networks and a common assessment framework to assess performance across governments (Kuhlmann and Jäkel, 2013[60]). Provided that economic indicators for public procurement could be agreed upon, this approach could be leveraged to gain an understanding of public procurement performance and its economic and social impact across Germany. Metrics on SME participation and spending on procurement for innovation are straightforward to study, and could serve as a starting point for additional indicators.

1.3.3. Quantitative indicators must be based on measurement priorities and data availability

Efforts to quantify the impact of public procurement systems in OECD countries has typically involved the use of indicators that span a number of different procurement operations areas, depending on the type of data that is available. For example, the effectiveness of tenders can be assessed based on the average number of tender responses submitted (Hoxha and Duli, 2014[61]).

In developing measurement frameworks, countries must consider the limitations of data availability, and should prioritise those areas where effective measurement is achievable. As a result of the increased buying power involved, centralised procurement activity has a greater economic impact than stand-alone procurement conducted by contracting authorities. Therefore, measuring the work of CPBs can go a long way in measuring public procurement in a country as a whole. The ease of measuring public procurement activity decreases as it extends beyond centralisation. In Figure 1.8 below, the expanding circles illustrate that a large part of public procurement takes place outside of CPBs, making it harder for policy makers to collect data and measure impacts.

Figure 1.8. Illustration of different levels of procurement activity



Source: Authors' illustration.

Countries have advanced to different degrees of maturity in their ability to measure the broad range impacts stemming from procurement activity. The changing nature of the role of CPBs in OECD countries is just one of the many nuances that make it challenging to use performance data to conduct benchmarking or identify a number of simple and comparable metrics across countries. Each country has its own institutional settings, policy objectives and legislative framework, meaning that any metrics that are developed to compare performance across countries would require significant caveats.

There are a number of public procurement activities that can be measured and monitored by policy makers within a country. The applicability of each measure within a certain country is dependent on its relevance to the work of the government and CPB, and the availability of data. Table 1.2 below provides a number of metrics that can be used to measure public procurement activity. The measures are grouped according to different levels of measurement (i.e. measuring CPB versus broader measurement of the whole public procurement system). They are also grouped according to the types of capital described by the OECD well-being framework, (natural, human, economic and social capital) in order to demonstrate how public procurement's impact on these areas can be measured and put into practice. The table also explains the data requirements for each metric.

Table 1.2. Metrics for measuring procurement objectives at different levels of government

	Objective	Metric description	Implication for government	Data requirements
Measuring CPB Performance				
Economic impacts	***Inputs – general***			
	Overall inputs required of CPB	Measurement of number of staff and cost in relation to spending levels and activities carried out	Setting optimal staffing levels for completing centralised activity	Staffing levels; cost of running CPB; breakdown of time spent on different activities
	Inputs – framework agreements (FAs)			
	Cost of establishing framework agreements	Number of staff and time to develop framework agreement centrally	Can be used as a benchmark of cost for central or decentralised purchasing	Cost and staff time (inside and outside of CPB) spent on establishing and managing framework agreements
	Increased competition in FAs	Trends in supplier participation in FA tender processes	Indication of increased interest in working with government, as well as assumption that increased competition reduces prices	Numbers of bids submitted for different stages of each framework agreement (including call-off stage)
	SME participation in FA tenders	Proportion and number of bids received from SMEs in FA tenders	Measure of success of policies to reduce barriers to SME participation in order to increase economic activity of SMEs	Number of bids submitted for different stages of each framework agreement by businesses categorised as SMEs
Human impacts	***Inputs – capability building and consulting services***			
	Spending/time on advisory services and resources	Level of CPB spending and personnel time consumed by resources to support the procurement activity of contracting authorities (CA)	Use of central pool of expertise to improve outcomes and manage risk across the broader government spending portfolio	Staffing levels related to advisory services; additional costs for providing such resources and tools
	Training spending	Spending/time on providing training and certification services to procurement personnel	Increasing efficiency and effectiveness of public procurement by lifting staff capability	Cost of providing training courses; amount of employee time consumed in delivering training
Economic impacts	***Outputs – framework agreements***			
	FA hard savings	Reduction in price from framework agreements compared to market price, related to amount of contracting authority spending through the FA	Increased value from government spending	Cost of goods and services agreed upon in framework agreement (or cost paid by CAs in second stage) versus market rate for CA or centrally agreed-upon rate, depending on methodology
	FA time savings	Measurement of time savings from contracting authorities' use of FAs	Increased efficiency for civil service	Average time spent by CA personnel to establish a contract for the relevant good or service

	FA customer satisfaction	Level of satisfaction of CAs based on whether FAs meet price, service and quality expectations	Indication that FAs are effectively supporting the delivery of public services	Survey results from users of FAs from within CAs
	Efficiency in second-stage FA processes, through dynamic purchasing system (DPS), other instruments – businesses	Time taken to complete second stage down-select process	Value for money (i.e. revenue received compared to cost of competing) for private sector in participating in FA tenders	Assessment of time taken for businesses (averaged across several business profiles) to compete in initial and call-off stages of tender with and without efficiency tools such as DPS
	Efficiency in second-stage FA processes, DPS and other instruments – CAs	Time taken to respond to second stage process in relation to degree of success	Increased efficiency for civil service	Assessment of time taken for contracting authorities (averaged across several CA profiles) to compete in initial and call-off stages of tender with and without efficiency tools such as DPS
	SME success	Proportion of SME bids that go onto both be selected and generate revenue from FAs	Contribution to economic strength of SMEs, potentially resulting in job growth	Ratio of SMEs that are successful in FA tender. For multi-stage FA, assessment of success at 1) initial tender stage; and 2) call-off stage (and number and value of contracts awarded to SMEs)
	Impact of innovative procurement	Introduction of innovative products and services to FAs through specific innovation policies and tools	Innovative goods and services can improve public services and give businesses a competitive advantage, potentially in overseas markets	Ratio of goods and services purchased that meet innovation criteria (e.g. purchased through pre-commercial procurement (PCP), first introduction into domestic market, etc.).
Human impacts	***Outputs – capability building and consulting services***			
	Spending under advisory services	Level of CA spending on projects that are subject to advisory services provided by CPB	Use of central pool of expertise to improve outcomes and manage risks across the broader government spending portfolio	Information on contracting authority projects (e.g. type of procurement, spending level) that have received support from CPB
	Satisfaction with advisory services	Feedback from CAs on the effectiveness of advice and support provided through CPB consulting and advisory services	Indication of effectiveness of support and advice provided by CPB staff	Survey response from relevant CAs
	Qualified and certified personnel	Ratio of procurement personnel	Increasing efficiency and effectiveness of public procurement by increasing staff capability	Levels of professional certification in the procurement workforce versus level of professional certifications in the overall workforce
Environmental impacts	Reduction in energy consumption	Application of a consistent life-cycle costing methodology to measure energy consumption from certain FA product categories	Support in achieving governmental and Sustainable Development Goals (SDG) environmental targets	Comparison between energy consumption of historical goods and services from FAs and new goods and services selected using MEAT (Most Economically Advantageous Tender) or other criteria
	Reduction of CO_2 emissions	Measurement of changes over time in CO_2 emissions from goods and services in FAs	Support in achieving governmental and SDG environmental targets	Comparison between CO_2 emissions from historical goods and services from FAs and new goods and services selected using emissions as criteria

	Improvement in air/water quality	Comparison of the impacts that FA goods/services and works have on water and/or air quality	Will help to achieve governmental and SDG environmental targets	Comparison between impacts on air/water quality of historical goods and services from FAs and new goods and services selected using environmental considerations as criteria
Social impacts	Transparency in use of FAs	Level of public access to tender documents related to FAs	Demonstration of transparency in public procurement, thereby increasing accountability and public trust	Proportion of FA tender documents that are shared openly in a format allowing review and analysis
	Open and inclusive procurement	Ability of all suppliers to compete for opportunities to participate in FAs	Improved perception of accessibility of public procurement procedures	Proportion of centralised tenders (and second-stage processes) that use open procedures as opposed to restricted or closed tenders
	Stakeholder perception and involvement	Feedback from business and/or civil society on centralised public procurement activity	Improve perception of public procurement through increasing engagement with stakeholder groups	Survey responses from different segments of society (e.g. businesses, civil society, NGOs) related to FA performance
	Use of social criteria in FAs	Extent of centralised tenders pursuing social objectives in addition to primary objective	Use of public funds to compel private sector to deliver additional benefits to citizens	Ratio of FAs pursuing social objectives (and where possible, aggregation of social outcomes secured through FAs)
	Skills/jobs creation	Quantification of use of social clauses in centralised contracts to create jobs or deliver training courses	Use of public funds to compel private sector to deliver additional benefits to citizens	Number of jobs/training courses/qualifications generated through FAs (note: specifically generated through contract clauses)
Measuring National Procurement System Performance				
Economic impacts	***Inputs***			
	Cost and time of procurement processes	Measurement of time taken to complete tender activity by personnel involved	Increased efficiency of civil service and ability to reduce headcount or spend time on more valuable activities	Time taken (and any associated overt costs, not including employee salaries) by government personnel, including non-procurement roles, to undertake procurement activity
	SME participation	Proportion and number of bids received from SMEs	Measure of success of policies to reduce barriers to SME participation in order to increase economic activity of SMEs	Number of bids submitted for government tenders by businesses categorised as SMEs
	Business perceptions on cost and time of participating in government tenders	Assessment of public procurement by businesses that have participated	Feedback on government performance and accessibility from key stakeholder group	Survey responses, including quantitative results, on time taken (and resources engaged) in responding to government tenders
	Overall inputs of national procurement system	Measurement of number of staff carrying out procurement activity in relation to spend levels or number of procedures	Allows benchmarking of distribution of procurement work between CAs, regions and countries	Data/estimates on number of personnel in each contracting authority engaged in procurement activity, and value of procurement spend at each contracting authority
	Business participation and competition	Trends in supplier participation in government tender processes	Indication of increased interest in working with government, as well as assumption that increased competition reduces prices.	Average number of bidders per tender; ratio of tenders that are open procedures versus limited tenders and direct awards

	E-procurement inputs	Cost and resources consumed to establish, upgrade and/or maintain e-procurement system	Indication of inputs for establishing a national e-procurement system(s)	Direct costs for purchasing, upgrading or maintaining e-procurement system; personnel costs associated with system management and maintenance
	Outputs			
	Government customer satisfaction	Assessment of results of public procurement by stakeholders within CAs that benefit from procurement services	Allows analysis of whether procurement is effective at delivering public services	Survey results from teams within CAs that use procurement services on service/efficiency/effectiveness provided by public procurers
	SME success	Proportion of SME bids that go onto both be selected and generate revenue from government tenders	Contribution to economic strength of SMEs, potentially resulting in job growth	Ratio of SMEs that are successful in government tenders, and number and value of contracts awarded to SMEs
	E-procurement time savings	Measurement of savings generated through e-procurement through measurement of average reductions versus proportion of system use	Demonstration of how introducing electronic tools has increased efficiency	Assessment of time taken for contracting authorities and businesses to conduct tender procedures before and after introduction of different digital procurement functionalities
	Use of whole of life costing	Contracts awarded on the basis of MEAT criteria as opposed to lowest price	Can lead to reduction in total costs paid by government while also reducing environmental impacts	Ratio, value and number of contracts awarded following a procedure containing life-cycle costing award criteria
	Cost and time reduction resulting from process simplification	Measurement of time savings achieved through introduction of tools	Demonstration of how policy changes to simplify processes have increased efficiency	Measurement of time taken by government and business personnel to complete tender procedures both before and after efforts to improve or simplify processes (e.g. use of model contracts)
Environmental impacts	Reduction in energy consumption	Application of a consistent lifecycle costing methodology to measure energy consumption from certain product categories	Will help to achieve governmental and SDG environmental targets	Comparison between energy consumption of historical goods and services bought by government and new goods and services selected using MEAT or other criteria
	Reduction of CO_2 emissions	Measurement of changes over time in CO_2 emissions from goods and services bought by government	Will help to achieve governmental and SDG environmental targets	Comparison between CO_2 emissions from historical goods and services bought by government, and new goods and services selected using emissions as criteria
	Improvement in air and water quality	Comparison of the impacts that goods, services and works bought by government have on water and air quality	Will help to achieve governmental and SDG environmental targets	Comparison between impacts on air and water quality of historical goods and services bought by government and new goods and services selected using environmental considerations as criteria

Social impacts	Transparency in government contracting	Level of public access to government tender documents	Demonstration of transparency in public procurement, thereby increasing accountability and public trust	Proportion of government tender documents that are shared openly in a format allowing review and analysis
	Open and inclusive procurement	Ability of all suppliers to compete for opportunities to participate in FAs	Improved perception of accessibility of public procurement procedures	Proportion of government tenders that use open procedures as opposed to restricted or closed tenders
	Stakeholder perception and involvement	Feedback from businesses and civil society on government procurement activity	Improve perception of public procurement through increasing engagement with stakeholder groups	Survey responses from different segments of society (e.g. businesses, civil society, NGOs) related to public procurement
	Use of social criteria in government contracts	Extent of government tenders pursuing social objectives in addition to primary objectives	Use of public funds to compel the private sector to deliver additional benefits to citizens	Ratio of public contracts pursuing social objectives (and where possible, aggregation of social outcomes secured through public contracts)
	Skills and jobs creation	Quantification of use of social clauses in government contracts to create jobs or deliver training courses	Use of public funds to compel private sector to deliver additional benefits to citizens	Number of jobs, training courses and qualifications generated through public procurement (those specifically generated through contract clauses)

Source: (OECD, 2018[62]), *Methodology for Assessing Procurement Systems (MAPS).*

As part of a study on the productivity of public procurement in Finland, the metrics in the above table were applied to the Finnish system in order to identify the measures that were relevant and applicable, as described in below.

Box 1.17. Using indicators to measure procurement with regards to natural, human, economic and social capital

A forthcoming OECD study seeks to develop a framework for measuring the public procurement productivity of central purchasing bodies (CPBs). The framework relies on the suite of indicators listed in Table 1.2 above. Analysts then assessed the Finnish public procurement system and the government's ability to monitor activity. Finland's ability to use the metrics above was assessed based on the availability of data, as demonstrated below.

Table 1.3. Extract of indicator assessment based on data availability in Finland

	Objective	Data requirements	Applicability in Finland	
Economic Impact	Framework agreement (FA) time savings	Average time spent by CA personnel to establish a contract for the relevant good or service	✓	Time spent by CAs conducting tenders established by academic work in 2009; baseline could be updated to account for technology changes
	Efficiency in second-stage FA processes, as well as through dynamic purchasing system (DPS) and other instruments – businesses	Assessment of time taken for businesses (averaged across several business profiles) to compete in initial and call-off stages of tender with and without efficiency tools such as DPS	✗	Data is not currently held on the time taken by businesses to respond to FA tenders or in using DPS or other efficiency tools
Environmental impact	Reduction of CO_2 emissions	Comparison between $C0_2$ emissions from historical goods and services from FAs and new goods and services selected using emissions as criteria	✗	Requires understanding of $C0_2$ emissions of previous goods and services throughout the life cycle, as well as emissions of current goods and services (e.g. emissions from previous vehicle fleet compared to current fleet). Current measurement purely involves calculation of spending through 'green' contracts.
Social Impact	Use of social criteria in FAs	Ratio of FAs pursuing social objectives (and where possible, aggregation of social outcomes secured through FAs)	✓	Information available on which current FAs include clauses or criteria related to delivering social outcomes

Source: (OECD, 2019[63]), *Productivity in Public Procurement*.

This chapter has considered the ways public procurement can directly and indirectly influence public service delivery, economic growth and societal well-being as measured using the OECD well-being framework; it has also discussed various ways to measure the impact of public procurement. The chapter explored country case studies to illustrate how measurement has been undertaken in each of the areas of economic, natural, social and human capital. The various approaches to calculating impact t can be brought together through a measurement framework. Such a framework would encompass the measurement of centralised activity in the short-term and a longer-term commitment to understanding the impact of procurement activity at a more granular level. Germany already has the adequate legal support to create this sort of impact measurement framework. Article 91d of the German Constitution gives federal and state governments the possibility of performing benchmarking and comparative studies. Public procurement would be an excellent field of application.

Proposals for action

Tracking the impact of public procurement is a challenge due to the lack of standardised approaches to gathering data and measuring impact. Furthermore, calculating the impact of public procurement is often difficult due to a lack of reliable information. If successfully done, measuring impact of public procurement would allow the benefits of an efficient procurement system to be disentangled from broader public service reporting, and individualised for better recognition, on one hand, and further improvement, on another. This chapter proposes an approach to better describe the broad impacts of public procurement, its linkages and interactions, by identifying channels through which public procurement may be used to influence the economy, the environment and society.

The report's analysis of the German procurement system from the perspective of sustainable well-being highlights areas where public procurement could bring broad-ranging benefits to people's lives. The analysis also demonstrates the linkages between different areas of impact. Based on the analysis, the following areas for action have emerged. Germany could consider:

- focusing on the broad perspective of strategic procurement, which reaches beyond strictly economic impacts to target the well-being of Germany's citizens
- starting to measure the benefits from public procurement using indicators that have been tried and tested internationally in order to monitor and maximise potential gains
- expanding the range of indicators tracking Germany's National Sustainable development Strategy with procurement data
- developing a consistent methodology that can be voluntarily used at the sub-national level to identify the impact of procurement and ensure comparability across states.

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Annex 1.A. Germany's resources and risks for future well-being

Annex Figure 1.A.1. Illustrative indicators

Natural capital			
Indicator	**Tier**	**Change**	
Greenhouse gas emissions from domestic production	❷	⇗	2005-2015
CO_2 emissions from domestic consumption	❷	⇗	2001-2011
Exposure to $PM_{2.5}$ air pollution	❷	⇔	2005-2013
Forest area	❸	⇔	2005-2014
Renewable freshwater resources	❸	..	Long-term annual average
Freshwater abstractions	❷	..	2013
Threatened birds	❸	..	Latest available
Threatened mammals	❸	..	Latest available
Threatened plants	❸	..	Latest available

Human capital			
Indicator	**Tier**	**Change**	
Young adult educational attainment	❷	⇔	2014-2016
Educational expectancy	❶	..	2015
Cognitive skills at age 15	❶	..	2015
Adult skills	❷	..	2011/2012
Long-term unemployment	❷	⇗	2011-2016
Life expectancy at birth	❸	..	2005-2015
Smoking prevalence	❷	⇗	2005-2013
Obesity prevalence	❸	..	2012

Economic capital			
Indicator	**Tier**	**Change**	
Produced fixed assets	❶	⇗	2005-2015
Gross fixed capital formation	❷	⇗	2005-2016
Financial net worth of total economy	❶	⇗	2005-2016
Intellectual property assets	❶	⇗	2005-2015
Investment in R&D	❶	⇗	2005-2014
Household debt	❶	⇗	2005-2015
Household net wealth	❷	⇗	2010-2014
Financial net worth of government	❷	⇗	2005-2015
Banking sector leverage	❸	⇘	2005-2015

Social capital			
Indicator	**Tier**	**Change**	
Trust in others	❸	..	2013
Trust in the police	❷	..	2013
Trust in the national government	❶	⇗	2005-2016
Voter turnout	❷	⇘	2005-2013
Government stakeholder engagement	❷	..	2014
Volunteering through organisations	❶	..	2011/2012

❶	Top-performing OECD tier, latest available year
❷	Middle-performing OECD tier, latest available year
❸	Bottom-performing OECD tier, latest available year

⇗	Improving over time
⇘	Worsening over time
⇔	No change
..	No data available

Source: (OECD, 2017[10]), *How's Life? 2017: Measuring Well-being*.

Annex 1.B. Socio-economic performance: International indicators

Corruption Perception Index: An indicator published by *Transparency International* which measures how corrupt the public sectors in 176 countries are seen to be in a given year. The index aggregates information from numerous sources providing perceptions of business people and country experts on the corruption level in a country. The indicator values can range from 0 to 100 (the lower the value, the less corrupt the public sector). Higher-ranked countries tend to have better standards of public sector integrity, more access to information about public expenditure and an independent judicial system. The Corruption Perception Index can be used to measure the social capital of a country as defined by the OECD well-being framework for sustainable well-being over time.

Worldwide governance indicators: A set of indicators provided by the World Bank which aim to measure the quality of governance in over 200 countries and territories, divided into six categories:

- voice and accountability
- political stability and absence of violence
- government effectiveness
- regulatory quality
- rule of law
- control of corruption.

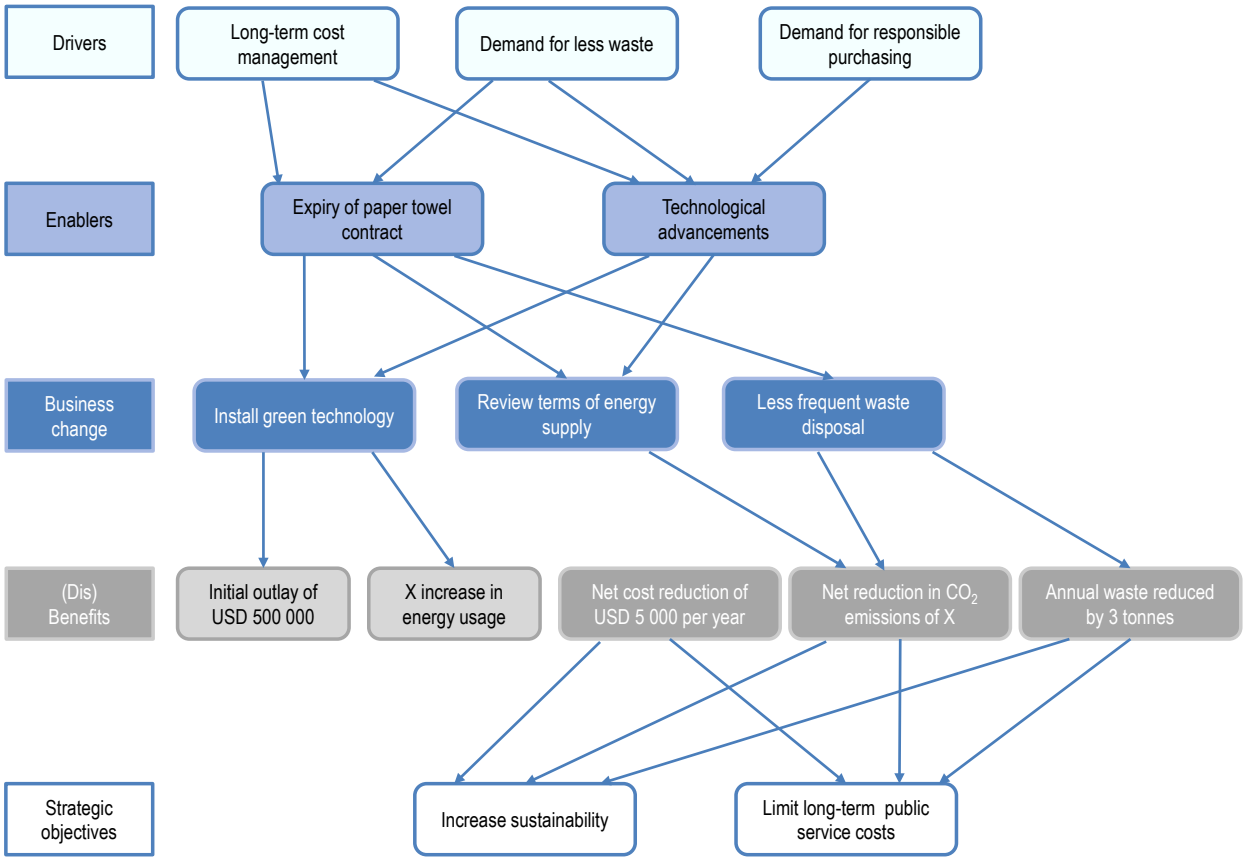
These indicators are aggregated based on responses to surveys from enterprises, citizens and experts, as well as data sources published by think tanks and international and governmental organisations. Worldwide governance indicators can be used to measure social capital.

European Quality of Government Index: This measurement is based on survey data on corruption and governance quality at the regional (NUTS1 or NUTS2) level in the EU. It covers citizens' perceptions and experiences with corruption, as well as the quality of public services and goods. The indicator can be used to measure the social capital.

Global Competitiveness Index: An indicator published by the World Economic Forum integrating the macroeconomic and microeconomic aspects of competitiveness for 144 countries. It covers 12 areas representing institutions, policies and other factors contributing to sustainable growth. This indicator can measure social capital (institutions), economic capital (stable macroeconomic frameworks) or human capital (higher education and training).

Indicators of Product Market Regulation (PMR): The OECD has developed indicators to measure whether: 1) product market regulations in a country support competition and 2) antitrust frameworks in countries safeguard an equal playing field between firms. The indicators are calculated for a country's entire economy, as well as on the sector level. Because market rules foster competition, which leads, in turn, to reassuring investors, safeguarding people's health and protecting environment, PMR indicators can be used to measure economic capital, but also human capital and natural capital.

Annex 1.C. Example of a benefits logic map for the purchasing of more environmentally friendly products



2 Enhancing the legal framework and governance structure for public procurement in Germany

Germany's 2016 public procurement reform provided profound changes to the procurement system and affected all levels of government. This chapter analyses the legal framework and governance structure of the German public procurement system. It does so while also drawing attention to procurement at the state and municipal levels, which account together for almost 80% of procurement activity in Germany. The chapter identifies areas in which the reform has harmonised regulations, and identifies potential avenues for further streamlining Germany's layered procurement system.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

2.1. Transformational reforms of the legislative framework for public procurement in Germany

2.1.1. Germany's public procurement system balances subsidiarity and complexity

The principal goal of procurement law in Germany is to ensure the cost-effective and efficient use of budgetary resources to meet the needs of the public sector (BMWi, n.d.[1]). International good practices provide guidance on how to structure public procurement law to achieve this goal. At the same time, public procurement has the power to attain achievements beyond purchasing. To facilitate the inclusion of sustainable, ecological, social and innovative criteria in procurement, an adequate legal framework for public procurement must be established.

The challenge for the German procurement system is to reconcile the principle of subsidiarity with the inherent complexity of the German procurement system. According to the EU definition, the general aim of subsidiarity is to "guarantee a degree of independence for a lower authority in relation to a higher body or for a local authority in relation to central government" (European Parliament, n.d.[2]). This principle is inscribed in the German constitution (in Article 70). In the German system, the federal state sets out the overarching legal framework. However, due to the strong subsidiarity prevalent in Germany, municipalities and *Länder* (German states) have the authority to shape public procurement law by transposing federal-level laws. In addition, both municipalities and *Länder* can create their own laws. Municipalities also have a degree of autonomy ascribed to them in the constitution. The constitution states that municipalities are primarily responsible for matters in their communities (German constitution, Art. 28 § 2).

In Germany, the autonomy of different levels of government creates a complex legal and regulatory framework in all areas – including public procurement. The laws and regulations at different levels of government have evolved independently. Due to historic reasons, the legal framework of public procurement at the federal level in Germany is embedded both in economic and budgetary law (Deutscher Bundestag, 2016[3]). A complex legal and regulatory system for public procurement creates costs for contracting authorities and suppliers, and necessitates a highly skilled public procurement workforce. The *OECD Recommendation of the Council on Public Procurement* advocates for a legal, institutional and regulatory framework that is as clear and simple as possible. A clear framework can increase supplier participation and assure a sustainable and efficient public procurement system (OECD, 2015[4]). There is tension, however, between the goals of subsidiarity (and the associated autonomy of each governmental level) and a clear and accessible legal and regulatory framework. Therefore, the existing system must be evaluated to determine how simplification can be balanced with the benefits of subsidiarity (OECD, 2015[4]).

The first section of this chapter examines Germany's legal and regulatory framework for public procurement, looking at how the 2016 reform helped to modernise and streamline regulations. The second section analyses governance structures, and the third section provides insights from the *Länder* level and municipal levels of government.

2.1.2. EU directives have sparked a major revision of Germany's legal framework

The EU regulations on public procurement must be reconciled with the national legal and regulatory framework of EU member countries. This adds another layer of complexity. In 2014, the EU passed three new directives on public procurement. These directives then became a catalyst for the modernisation of German public procurement laws in 2016. The EU reform had the following main goals: 1) to reduce red tape by making procedures simpler and more flexible; 2) to encourage innovation; and 3) to serve society by facilitating the inclusion of social, environmental and other considerations in procurement decisions (European Commission, 2014[5]). Furthermore, in addition to these central goals, the reform also aimed to: 1) facilitate the inclusion of small and medium-sized enterprises (SMEs) in procurement; 2) combat favouritism and corruption; and 3) create a simplified regime for social services. Moreover, a directive on

concessions sought to increase legal certainty, transparency and provide business opportunities (European Commission, 2014[5]). The reform was also aimed at streamlining regulations across European public procurement systems. In Europe, approximately EUR 1.9 trillion is spent on public procurement each year (European Commission, 2016[6]). This underlines the potential for EU governments to lead by example in formulating policy objectives and in sending a strong signal to markets (UNEP, 2015[7]). EU member countries had to incorporate three directives into their national laws by 18 April 2016. These directives provided the basis for the recent German public procurement reform. Table 2.1 sums up the European directives currently in force.

Table 2.1. European Procurement Directives

Directive	Major provisions
Directive 2014/24/EU on public procurement	• Abolished the distinction between "Part A" and "Part B" services, so services are no longer distinguished depending on their potential for cross-border trade. • Services are fully covered by the procurement rules unless they are explicitly excluded or they fall under the so-called "light regime", which simplifies rules for some social, health and cultural services. • Public-private partnerships: rules are included that determine the conditions under which contracting authorities do not need to apply a procurement procedure.
Directive 2014/25/EU on procurement by entities operating in the water, energy, transport and postal services sectors (Utilities Directive)	• Sets out specific rules on the use of public contracts in the water, energy, transport and postal sector.
Directive 2014/23/EU on the award of concession contracts	• Defines the category of concessions and the rules that are applicable. • Concessions have to be published in the EU's Official Journal if their value is greater or equal to EUR 5 million. • Authorities do not have to follow a specific tendering procedure; member states define the procedure that applies.

Source: (Beuter, 2014[8]), The Scope of Directive 2014/24/EU on Public Procurement, (European Commission, 2014[5]), New rules on public contracts and concessions.

Critics argue that recent EU reforms of the European regulatory framework have increased regulations and fragmented the public procurement system at the European level. They point in particular to regulations on individual sectors, such as defence and public transport that have made procurement increasingly complex (Eßig, 2013[9]). The renewed emphasis on environmental and social considerations has also been criticised for the same reasons. Critics argue that if these standards are too high, they risk creating market restrictions (Eßig, 2013[9]).

In 2016, Germany incorporated the EU reform by passing a law that modernised public procurement law (the VergRModG). These efforts also resulted in major amendments to the Law against Restraints on Competition (GWB) and other laws. The reform of the German public procurement system went further than the EU directives required, as lawmakers used the EU reform as an opportunity to improve several aspects of the national procurement system. This can be seen in the provisions that set standards for procurements with a value that is lower than the threshold set by the EU (BMWi, 2015[10]).

2.1.3. Additional reforms have further simplified and streamlined the legal and regulatory framework of Germany's public procurement system

Germany's Federal Ministry for Economic Affairs and Energy (BMWi) identified the following 11 objectives for the reform of the country's public procurement framework (BMWi, 2015[11]):

1. simplify the procurement process and make it more flexible;
2. strengthen sustainable and innovative procurement;
3. simplify the rules regarding the suitability of participants;
4. respect work and social obligations (especially *Tariftreue* – the principle of conforming with collective wage agreements – and minimum wage laws);
5. uphold leeway for public authorities;
6. facilitate procurement for social services;
7. ensure SME-friendly procurement;
8. serve the needs of people with disabilities;
9. fight economic crime effectively;
10. use electronic communication in the procurement process; and
11. generate reliable data on public procurement.

A number of policy priorities derive from these goals: a modern legislative framework, an effective institutional framework, a system that works with integrity, inclusion of strategic goals, an accessible system for suppliers and a transparent and quantifiable process. This chapter discusses how Germany's legislative and institutional procurement framework reflects these objectives.

To begin with, the BMWi sought to make the procurement process more flexible, and to increase efficiency and competition by limiting legal requirements. One reason for this is that costly procurement processes have a negative impact on price-performance ratios. Simplifying the rules regarding the suitability of participants (especially the examination of their qualifications) was one part of these efforts. Additionally, a goal of the reform was to facilitate the procurement of important services in the health, social and education sectors. The BMWi also sought to give more freedom to municipalities so that they could provide certain services themselves without publishing a call for tender. To accomplish this, policy makers defined specific conditions so that municipalities would have the legal certainty they needed to complete governmental tasks in co-operation with other municipalities or through state-owned enterprises (BMWi, 2015[11]).

Lawmakers also aimed to achieve complementary policy objectives through Germany's public procurement reform. These policy objectives included observing minimum wage, SME support, social and ecological aspects, and life-cycle costing. Lawmaker efforts were facilitated by amendments to the Law against Restraints on Competition (GWB).

Due to differing regulations at the *Länder* level, contracting authorities used to find it difficult to verify companies' criminal records. To sanction economic crime in public procurement more effectively, lawmakers created a central register to standardise the publication of records and make them more accessible. The register is expected to be set up by 2020, housed within the Federal Cartel Office.

Data collection is another key topic addressed by the reform, due to a lack of reliable data on public procurement in Germany. Data need to be collected systematically in order to analyse the impact of different procurement methods and the use of social and green criteria. One step towards better data collection is the use of e-procurement (see Chapter 4 on e-procurement). EU public procurement guidelines mandate the implementation of electronic communication in the procurement process. This measure could result in significant conversion costs, especially for lower governmental levels and SMEs

in Germany. Therefore, Germany granted small municipal procurement entities and SMEs a longer time limit for implementing electronic communication.

2.2. Modernising Germany's legal and regulatory framework to comply with international standards

2.2.1. Germany's tiered legal framework provides separate rules for tenders below and above thresholds

The priorities formulated by the BMWi are expressed in the legal and regulatory framework of the public procurement system. Before discussing the reform of the legal and regulatory framework in more detail, Table 2.2 provides an exhaustive list of German procurement legislation on the national level, and indicates which parts were updated during the reform process.

Table 2.2. Public procurement laws and regulations in Germany

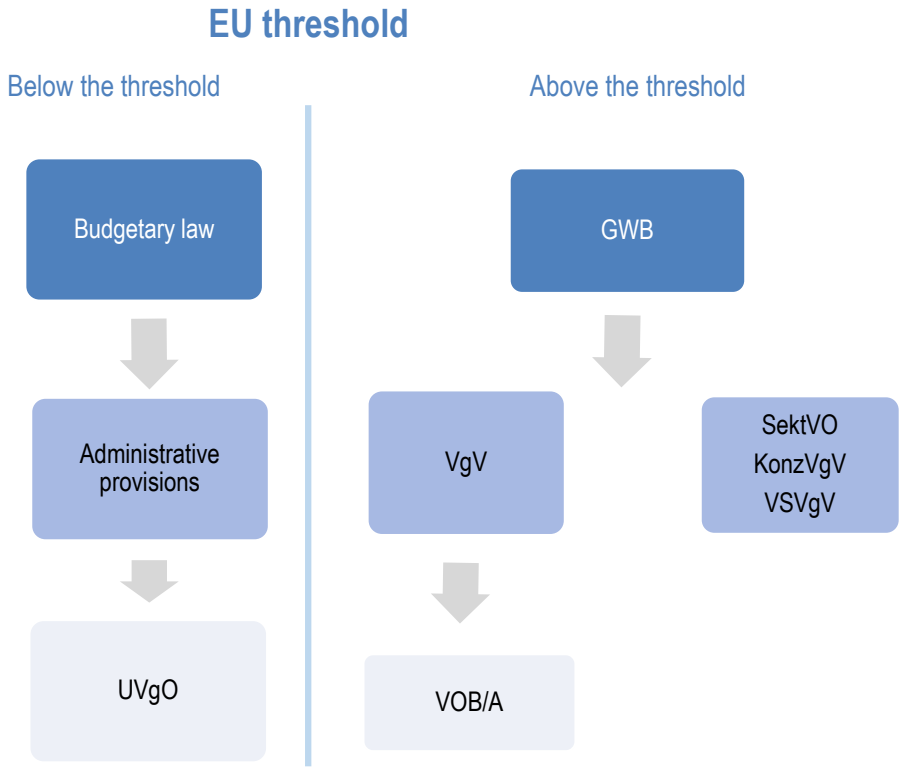
	Law	German name and text	Changes and object
Above the EU threshold	Law against Restraints on Competition	GWB Part 4 (Gesetz gegen Wettbewerbsbeschränkungen)	Reformed in 2016 and the main piece of legislation extended by a large number of provisions. Revised to match EU Directive 2014/24/EU.
	Ordinance on the Award of Public Contracts	VgV (Vergabeverordnung)	Modified and extended to include two previous regulations.
	Regulations on Contract Awards for Public Works	VOB (Vergabe- und Vertragsordnung für Bauleistungen) Part A Sektion 2 (VOB/A EU)	Applies to construction works; compiled and updated by the DVA (procurement committee); Revised in 2016 to comply with EU Directive 2014/24/EU.
	Sector regulations	SektVO (Sektorenverordnung)	Regulates works, supply and service contracts in the areas of transport, water supply and energy supply. Revised in 2016 to comply with EU Directive 2014/25/EU.
	Ordinance on the Award of Concession Contracts	KonzVgV (Konzessionsvergabeverordnung)	Reformed in 2016 to comply with EU Directive 2014/23/EU, which creates a standardised procedure for works and service concessions at the European level.
	Ordinance on Contract Awards in the Field of Defence and Security	VSVgV (Vergabeverordnung für die Bereiche Verteidigung und Sicherheit)	Created based on EU Directive 2009/81/EC, which aims at creating a European market for defence and security equipment.
Below the EU threshold	Code of Procedure for Procuring Supplies and Services below EU-Thresholds	UVgO (Unterschwellenvergabeverordnung)	Published in the *Federal Gazette* in February 2017, this code has been in force at the federal level since September 2017. The code is also in force in some of the *Länder* and should be implemented by the remaining *Länder*. Application commands have to be included in the Federal Budget Code.
	Regulations on Contract Awards for Public Supplies and Services	VOL/A Sektion 1 (Vergabe- und Vertragsordnung für Leistungen)	Will be replaced by the UVgO once the administrative provisions have been adapted in the Federal and *Länder* Budget Code.
	Regulation on Contract Awards for Public Works	VOB/A Sektion 1 (Vergabe- und Vertragsordnung für Bauleistungen)	Defines basic principles of construction work that also apply below the EU threshold.

Source: (BMWi, n.d.[1]), Übersicht und Rechtsgrundlage auf Bundesebene.

The German legal and regulatory framework for public procurement has a complex structure. This is partly due to the three divisions of government (federal, *Länder* and municipal levels), and different laws that fall above and below EU procurement thresholds. Furthermore, public procurement in Germany is not regulated by a single law. One part of procurement is included in competition law, which covers many other matters beyond procurement. The other part is integrated into budgetary law (Eßig, 2013[9]). This is an uncommon arrangement, as a stand-alone law regulates procurement in most OECD countries.

In Germany, public procurement law used to be based exclusively on budgetary law. With increasing European integration, however, Germany decided it was no longer feasible to keep procurement law as a part of budgetary law and still comply with European standards. Therefore, a transformation process took place in the 1970s, which placed the rules for procurements valued higher than the EU threshold within competition law. Regulations for procurements below the EU threshold remained in budgetary law (Eßig, 2013[9]). As Figure 2.1 shows, the legal and regulatory structure remains complex, with two strands of law and regulations below and above the EU threshold.

Figure 2.1. Procurement law above and below the threshold



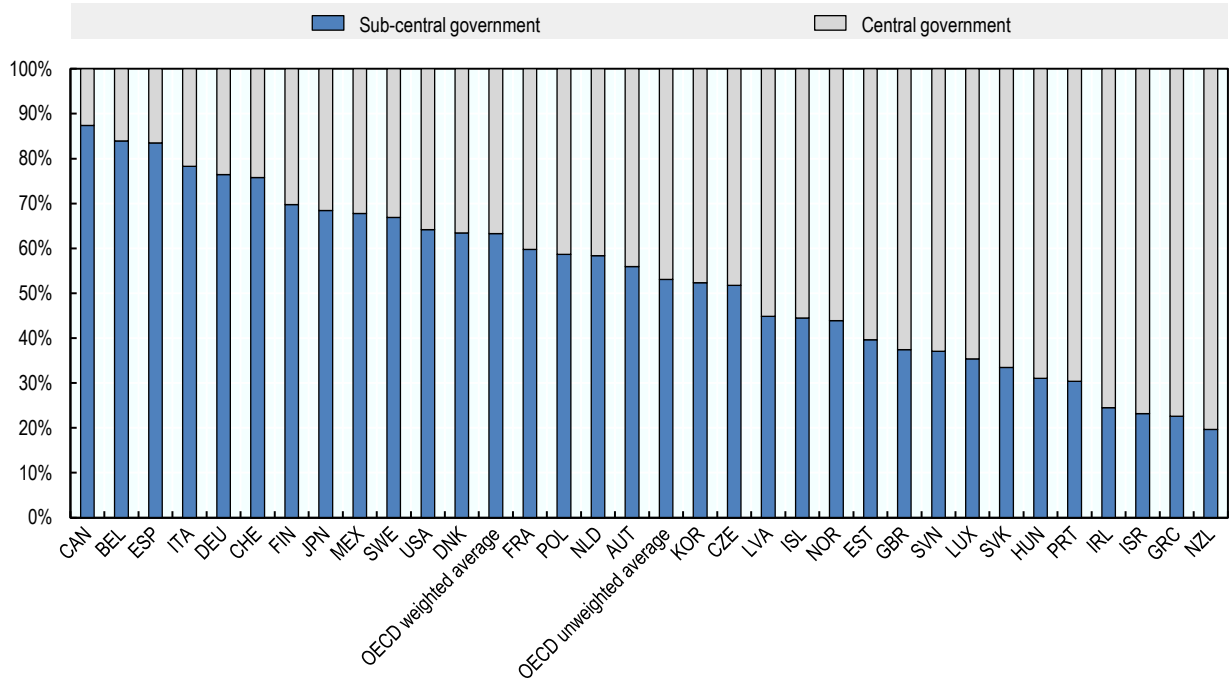
Source: Authors' illustration.

State-level procurement laws present another layer of legislation. In addition to federal-level procurement law, 15 out of 16 *Länder* have implemented additional procurement laws (Forum Vergabe, 2017[12]). These additional laws have added complexity to the German procurement system. The German constitution grants special rights to sub-central levels of government. Article 72 paragraph two of the constitution establishes that the federal level can only exercise the right to regulate if the creation of equal living conditions in the country or the maintenance of legal and economic unity make a federal law necessary (German Constitution, Art. 72). Thus, federal law can only set standards where the *Länder* level cannot regulate (Leunig, 2015[13]). This means that lower levels of government can create legislation in domains

that have not been regulated at a higher level (OECD, 2010[14]). This also means that the federal government cannot impose legislation on the states in every domain. In procurement below EU thresholds, *Länder* have the freedom to decide whether they want to transpose a federal-level law or whether they prefer to regulate through state-level procurement laws.

The same principle of subsidiarity applies at municipal level, as *Länder* are limited in what they can impose on municipalities. This is particularly important due to the crucial role that sub-central government plays in the German procurement system. As Figure 2.2 shows, almost 80% of procurement activity takes place at the sub-central level. This places Germany well above the OECD weighted average of 63% for decentralised spending on procurement. Only four countries have a higher share of sub-central public procurement, and each of them shares a similar tiered structure of government.

Figure 2.2. General government procurement by level of government, 2013



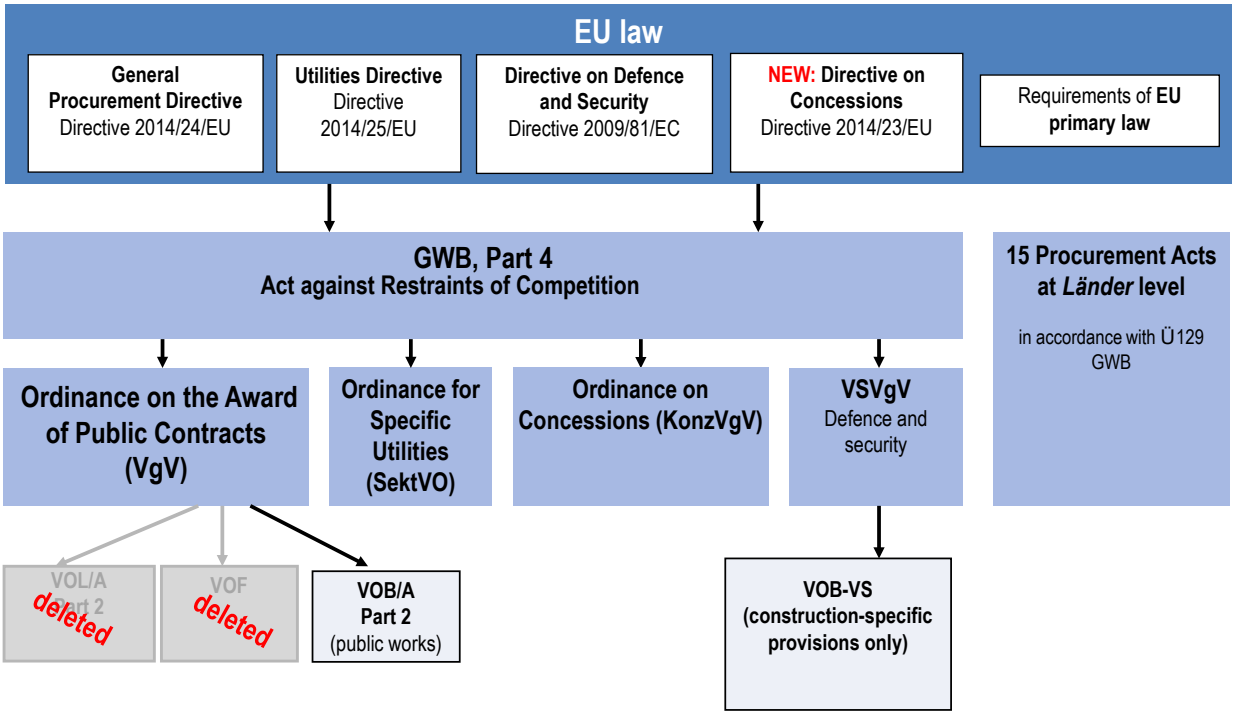
Note: Data for Australia, Chile, and Turkey are not available. Local government is included in state government for the United States. Social security funds are included in central government in Ireland, New Zealand, Norway, the United Kingdom and the United States.
Information on data for Israel: http://dx.doi.org/10.1787/888932315602.
Source: OECD (2013) National Accounts Statistics (database).

To summarise, Germany's public procurement legal framework is split between: 1) different levels of government; and 2) regulations that govern procurement above and below the EU thresholds. The following sections analyse Germany's post-reform legal and regulatory framework – including those regulations that fall above and below the EU threshold.

2.2.2. A revision of Germany's legal framework simplified the rules for tenders above the EU threshold

The legal and regulatory framework above the EU threshold consists of three layers of laws, ordinances and regulations, as displayed in Figure 2.3.

Figure 2.3. Procurement law above the EU threshold



Source: Illustration by Germany's Federal Ministry for Economic Affairs and Energy (BMWi).

The central piece of legislation in the German public procurement legal framework is the Law against Restraints of Competition (GWB). Policy makers have reworked and restructured Part 4 of this law extensively. Part 4 covers public procurement and now includes a full description of the procurement process (an aspect that was not previously included in the law) (BMWi, 2015[10]).

The ordinances that fall under the GWB further clarify its provisions. As a part of the country's 2016 procurement reform, the Ordinance on the Award of Public Contracts (VgV) gained importance. Prior to the reform, the VgV only had a co-ordinating function, referencing certain contracting regulations: Regulations on Contract Awards for Public Supplies and Services (VOL/A), Regulations on Contract Awards for Services of Freelancers (Vergabeordnung für freiberufliche Leistungen, VOF) and Regulations on Contract Awards for Public Works Contracts (VOB/A). Following the reform, VOL/A and VOF (which regulated contracting regulations for services, supplies and freelance services) were eliminated. The provisions of the VOL/A and VOF are now included in the VgV (BMWi, n.d.[1]). Additionally, a new ordinance-level law has been created: the Ordinance on the Award of Concession Contracts (KonzVgV). The KonzVgV incorporates regulations on the award of works and service concessions for the first time. Lawmakers updated the SektVO (described in Table 2.2) in order to incorporate the EU Utilities Directive. Now it contains many of the norms found in the VgV and applies them to the specific aspects of the utilities sector (BMWi, n.d.[1]).

The regulations on the *Länder*-level specify the procedural details of the procurement process. In the reform process, policy makers have eliminated two tertiary laws: the Contracting Regulations VOL/A and the VOF. The only regulation lawmakers maintained as an independent regulation was the VOB/A (BMWi, n.d.[1]).

These modifications in the legal structure have presented a number of considerations for public procurement:

Lawmakers have achieved a significant simplification of the legal framework at the level of procurement regulations*.* As detailed above, policy makers have eliminated two out of three regulations on the *Länder*-level , keeping only the VOB/A. According to legal experts, the reform has improved Germany's regulatory environment and simplified the structure of the public procurement law (Knauff, 2016[15]); (Krönke, 2016[16]). Supplies and services are no longer regulated by an independent regulation. Instead, VOL/A and VOF have been integrated into the VgV. Nevertheless, the partial deletion of the contract provisions leaves an incoherent system. According to some reports, the opposition of certain members of the responsible procurement committee prevented the deletion of these provisions (Pünder, 2015[17]).

Public procurement committees are a unique element of the German public procurement framework. These bodies serve as forums for stakeholders from the federal, *Länder* and municipal levels to contribute to the drafting of procurement legislation. Among the members of the committees are representatives from the public sector (federal ministries, *Länder* ministries and municipal associations (*Kommunale Spitzenverbände*), the private sector, chambers of industry and commerce, and unions (DVAL, 2009[18])The main purpose of this committee-based approach is to capture the concerns of different stakeholders (Deutscher Bundestag, 2016[3]). While the BMWi is the main institution responsible for devising public procurement policy and drafting primary legislation in Germany, procurement committees draft tertiary legislation. The procurement committees have been criticised for their lack of democratic legitimacy (Deutscher Bundestag, 2016[3]). Yet, they have allowed for the integration of business and other stakeholder interests into contract regulations.

There used to be two procurement committees in Germany: the DVAL (German Procurement and Contracts Committee for Suppliers and Services, Deutscher Vergabe- und Vertragsausschuss für Lieferungen und Dienstleistungen), which was involved in tertiary legislation on supplies and services, and the DVA (German Procurement and Contracts Committee for Works, Deutscher Vergabe- und Vertragsausschuss für Bauleistungen), which focused on public works. As a result of recent reforms, the procurement committee for supplies and services DVAL has lost its standing. The reason for this is that policy makers have eliminated two out of three pieces of tertiary legislation on procurement. As mentioned prior, the regulations that have been deleted are the VOL/A and VOF – which fall under the responsibility of the DVAL. Thus, on most matters, the DVAL serves an advisory function. That said, public procurement regulations on public works still rest partially under the purview of the committee for works DVA (Deutscher Bundestag, 2016[3]). The reason for this is that the only regulation that remains is the regulation on contract awards for public works. The elimination of some regulations has already streamlined the legal and regulatory framework. However, it is not apparent why the remaining regulation has not also been eliminated. Research on the subject has found that policy makers maintained the third regulation because of resistance from members of the responsible procurement committee (DVA) (Pünder, 2015[17]). A joint solution for all *Länder*-level regulations and their respective procurement committees would lead to a more cohesive outcome. Eliminating the final procurement committee would eliminate one level of the legal and regulatory framework for measures whose provisions fall above the EU threshold. In addition, such a move would help streamline regulations. Considering new ways to include procurement committees' views in the framework, such as by creating regular working groups with external stakeholders, could provide a more balanced approach.

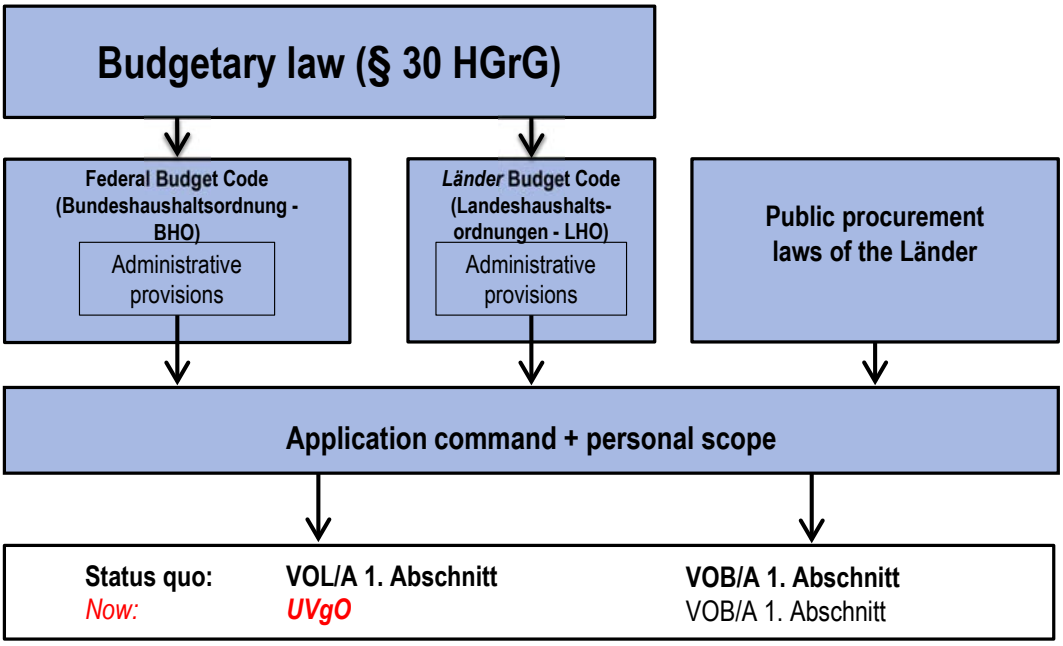
Practitioners see potential to further streamline regulations and increase user-friendliness. In interviews with the OECD, practitioners highlighted the fact that the complexity of Germany's procurement legislation has hindered its application. Especially at lower levels of government, practitioners often lack the capacity and qualifications to understand and implement policy changes. As the procurement process became increasingly complex through more complex demands and expectations, practitioners faced an increasingly large burden. Because the GWB now includes additional demands, this major part of the procurement legal framework has become longer and more complex (Knauff, 2016[15]); (Pünder, 2015[17]). In a survey carried out between November 2016 and February 2017 of around 100 respondents from the German construction industry on procurement procedures falling above and below the EU threshold, practitioners said that they struggled with the levels of complexity of procurement regulations, and that procurement law could be more practice-oriented (Ernst & Yong Real Estate GmbH, 2017[19]). Respondents also commented that further action was needed to achieve one of the main goals of the reform – to simplify the procurement system and to make it more user-friendly.

Another finding of the survey has important implications for the legal framework for procurement in Germany. Although German laws increasingly encourage the use of complementary policy objectives and other non-price considerations as award criteria (such as quality and life-cycle costs), price is still the prevailing criteria in the award of tenders in Germany (Ernst & Yong Real Estate GmbH, 2017[19]). In the interviews carried out by the OECD, procurers frequently highlighted that an implementation gap can result from a lack of capacity. Contracting authorities at lower levels of government do not always employ full-time procurement positions. If government officials are conducting procurement on a part-time basis, they are less specialised and often act under time constraints. This leaves less room for becoming familiar with new regulations and policy options. The correct application of procurement law requires that the burden on procurers at lower levels of government be reduced. Germany could disseminate more communication and guidance materials to ensure their effectiveness. Regular assessments of procurement activity would enable policy makers to evaluate the effectiveness of the legal and regulatory framework as well, indicating in which areas regulations need to be expanded or amended.

2.2.3. Germany has aligned laws and regulations applicable to tenders below the EU threshold with its broader legal framework

In an effort to streamline regulations above and below EU thresholds, Germany also reformed the legal framework applicable to tenders below the EU thresholds. The Code of Procedure for Procuring Supplies and Services below the EU Threshold (UVgO) applies many of the norms set in the GWB to below-threshold tenders (BMWi, 2017[20]). Figure 2.4 shows the structure of procurement law below the EU threshold, which is located in budgetary law. Procurement law at this level comes into force through application commands in the Federal and *Länder* Budget Code. In this process, states can decide to what degree they want to implement the UVgO, and how they want to prioritise their *Länder*-level procurement laws. Before the reform (which entered into force as of 2 September 2017 for the federal level), Part 1 of the VOL/A regulated procurement law below the EU threshold. At present, the UVgO has replaced Part 1 of the VOL/A (BMWi, 2017[21]).

Figure 2.4. Procurement law below the EU threshold



Source: Illustration by Germany's Federal Ministry for Economic Affairs and Energy (BMWi).

The UVgO has successfully aligned regulations above and below the EU threshold, but challenges remain. With the implementation of the UVgO, the regulatory framework below the EU threshold has been modernised to comply with EU standards. This modernisation has streamlined procedures by aligning regulations below the threshold with the regulations above the threshold, in particular the VgV (Frenz, 2018[22]). Critics have argued that the UVgO is less user-friendly than the regulation it replaced, given that it increased from 20 paragraphs to 52. They argue further that it would have been possible to reduce the amount of provisions in the UVgO without leaving regulatory gaps (BDI, 2016[23]); (Ley, Altus and Wankmüller, 2017[24]). Additionally, critics have stated that the inclusion of regular references to the law and the regulation covering procurement above the EU threshold have required practitioners to read both regulations above and below the EU threshold in parallel in order to correctly interpret the law (Ley, Altus and Wankmüller, 2017[24]). Other observers have evaluated the new UVgO and its rules for below-threshold procurements more positively. They have highlighted that improvements in the regulations for procurements above the threshold were successfully mirrored in regulations for procedures below the threshold. They have also lauded the new system for procurement procedures below the thresholds, which have rendered the procedures above and below the EU threshold more uniform (Frenz, 2018[22]). At the same time, some observers argue that works contracts have not been included in the new UVgO, due to the resistance of some stakeholders (Frenz, 2018[22]); (Siegel, 2018[25]). With the streamlining of procedures above and below the threshold, the reform also aimed at strengthening electronic procurement below the threshold.

Legal protection below the threshold does not meet the same standards as above the threshold. Above the EU threshold, domestic and foreign bidders can appeal to Germany's public procurement review bodies (*Vergabekammern*). Below the EU threshold, no comparable mechanism exists. The review system introduced in Germany by the EU Remedies Directive 92/13/EEC is considered to be a strength of the procurement system (European Commission, 2016[26]). The EU remedies directive mandated the creation of specialised procurement review bodies that institutionalised legal protection. These bodies also aimed to ensure legal standards with respect to the interpretation of procurement laws and legal certainty regarding the interpretation of procurement law. However, a comparable specialised review system does

not exist for procurements in Germany that fall below the EU threshold (European Commission, 2016[26]). For cases in Germany that deal with procurements valued above the EU threshold, public procurement review bodies can decide whether the applicant's rights were violated, and can take suitable measures to remedy rights violations. After this, the court of appeals (*Beschwerdegericht*) can perform a judicial review. Below the threshold, bidders need to file a suit for damages before a civil court (European Commission, 2016[26]). This split between review chambers in charge of reviews of procurements valued above the threshold and civil courts for those below the threshold has been widely criticised (Bundesanzeiger, 2017[27]). Germany's reform of procurement regulations has not contributed to bridging this divide. Addressing this divide would align legal protection below the threshold with standards above the threshold, and would also contribute to setting legal standards with respect to the interpretation of procurement law.

2.2.4. Germany has advanced its integrity framework through the newly introduced competition register

A recently introduced competition register (*Wettbewerbsregister*) has enhanced the anti-corruption framework, constituting another element of Germany's procurement reform (BMWi, 2017[28]). The law establishing the register was passed on 1 July 2017, and the BMWi estimates that it will enter into force between 2019 and 2020 (BMWi, 2017[29]). The register enables procurers to verify electronically whether potential suppliers have committed a criminal offence. It also enables public authorities to access company information, and includes information on whether suppliers have final convictions, warrants or fines that would lead to exclusion from the procurement process. Germany's Federal Cartel Office will run the competition register (Deutscher Bundestag, 2017[30]).

The competition register supplements the integrity framework of the public procurement system. Prior to the creation of the competition register, information about suppliers had to be requested from the commercial central register for every selected company (BMWi, 2017[29]). The new competition register will ameliorate this process, as it enables contracting authorities to demand information online, reducing costs. The obligation to consult the registry applies to procurement below and above the EU threshold, and to procurement with a contract volume of EUR 30 000 upwards. Below this threshold, it is also possible, but not mandatory, to demand information (BMWi, 2017[29]). After a period of three to five years, companies are deleted from the register. In addition to this, companies can submit a request for early deletion from the register if they have put in place the necessary preventive measures to inhibit future violations (BMWi, 2017[31]).

The corruption register has been welcomed as a useful complement to Germany's integrity framework (DGB, 2017[32]; Transparency International, 2017[33]). Procurers and lawmakers alike welcomed it as an important step toward preventing and fighting economic crimes (Byok, 2017[34]; Kubiciel, 2017[35]). Reactions by other countries show that Germany is perceived as exemplary for its fight against corruption with regards to public procurement. The *Phase 4 Report: Implementing the OECD Anti-Bribery Convention* of the OECD Working Group on Bribery, which looked at bribery in international business transactions, commended Germany for the creation of the competition register (OECD, 2018[36]). However, by other institutions such as the German Trade Union Confederation (Deutscher Gewerkschaftsbund, DGB), Germany has been criticised for the fact that companies only appear in the registry once they have been sentenced (Transparency International, 2017[37]; DGB, 2017[32]). In the local registry in North-Rhine Westphalia (Nordrhein-Westfalen, NRW), companies are already included in the record before legal proceedings have been completed (Transparency International, 2017[33]). In six *Länder,* corruption registers have existed for some time and have become well established. These *Länder* include Hamburg (where corruption registers have existed since 2012), Bremen (since 2011), Hessen (since 2010), Schleswig-Holstein (since 2008), Berlin (since 2006), Baden-Württemberg (since 2005), Bavaria (since 2004), NRW (since 2004) and Rhineland-Palatinate (since 2003) (Mayer, 2013[38]).

International good practices show that all communications between procurers and the business community, interest groups and NGOs should be conducted in a transparent way that keeps these groups

informed of legislative changes and makes it possible for procurers to receive feedback. In order to address the comments from the business community or NGOs, it would be most effective for Germany to base arguments for the effectiveness of the register on data. Once the competition register is in place, continuous monitoring could help to determine its effectiveness. This could also provide an indication on whether existing regulations need to be modified.

As previously explained, the legal and regulatory framework of the German public procurement system is complex and has many levels, though the recent reform achieved some simplifications. At the same time, different levels of government are strongly independent of each other. This creates a need for effective co-ordination and co-operation.

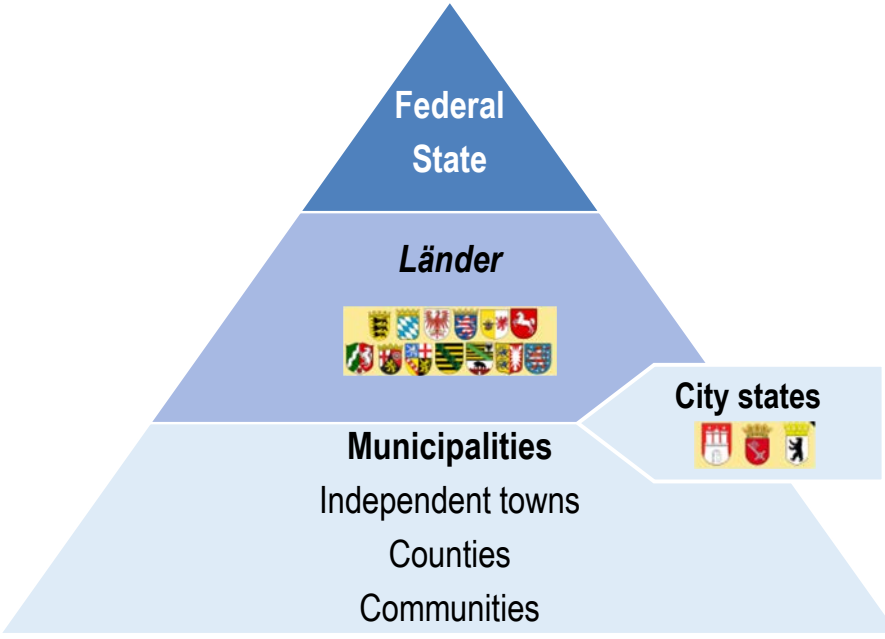
2.3. Understanding governance challenges in a multi-level system

2.3.1. Structured communication improves co-operation and co-ordination between different levels of government in Germany

The complexity of the legal and regulatory framework described in the first part of the chapter creates a need for efficient governance. The OECD found in a 2017 study that "strong core public sector institutions and systems, such as public financial management and procurement systems, are essential for fiscal health and sustainability, as well as for the effective delivery of public services" (OECD, 2017[39]). The following section looks at how procurement functions are allocated, and how co-ordination and co-operation functions horizontally and vertically, between ministries and different levels of government. Lastly, it will look at the procedural changes initiated by the reform.

A legal and institutional framework alone does not make for an effective public procurement system. The ways in which laws and regulations are applied within institutions are crucial to the effectiveness of the system. Figure 2.5 displays the multi-level governance structure of the German administration across federal, state and municipal levels.

Figure 2.5. Administrative units



Source: Authors' illustration.

At the federal and state levels in Germany, responsibilities for public procurement are divided between different ministries. At the federal level, responsibilities are broadly split between the BMWi, which takes the lead on policy development and the overarching legal and regulatory framework, and the Federal Ministry of the Interior, Building and Community (BMI), which leads on e-procurement, the centralisation of procurement, and the rules for the procurement of public works. The BMI has also formed a competence centre on sustainable procurement. The BMWi leads the competence centre on innovation (discussed further in Chapter 5).

The Federal Ministry of Finance (BMF) is responsible for financing and financial compensation of different federal governmental levels. In addition to their overarching responsibilities, each of these ministries also has several internal procurement entities that procure for the ministries. The official junction between ministries at the federal level is the Federal Chancellery, which co-ordinates the collaboration between different ministries in order to prevent overlap and manage issues that touch upon several ministries (Bundesregierung, 2017[40]). The Federal Chancellery is also responsible for guiding the exchange between federal and state-level ministries (Bundesregierung, 2017[40]).

There is no supervisory authority, however, responsible for co-ordinating vertically between ministries at federal, state and municipal levels. That said, the *Bund-Länder-Ausschuss* (federal-state committee) is a regular meeting between federal- and state-level policy makers that serves to co-ordinate topics of interest for different governmental levels, such as procurement. In this context, the BMWi invites representatives of the *Länder* to the *Bund-Länder-Ausschuss* on a regular basis to discuss and co-ordinate questions linked to the application of procurement law.

These structural arrangements lead to the following issues with respect to co-operation and co-ordination at the federal level:

Co-operation between ministries at the same level of government is limited. The division of the procurement function between different ministries creates a risk of overlap and a lack of cohesion. Because of this, effective communication and co-ordination is vital. However, Germany has no central co-ordinating body or agreed-upon protocols for co-ordinating between the ministries. The Federal Chancellery is located at the highest level of government and provides federal oversight over many government functions. That said, co-ordination through this channel regarding procurement is rare. The Federal Chancellery is charged with organising all cross-ministerial co-operation, but it only has limited capacity. It is therefore not an adequate channel for organising regular communication and identifying synergies. Instead, the Federal Chancellery provides strategic guidance. Despite limits to co-operation, some project-related communication does take place between ministries. With the introduction of e-procurement, a working group on e-procurement has been set up, including representatives from all federal-level ministries. This working group meets twice a year and is co-ordinated by the BMI (Ministry of the Interior, Building and Community).

Vertical communication can be improved. The *Bund-Länder-Ausschuss* (federal-state committee) facilitates vertical communication, allowing for exchanges between different levels of government on the application of procurement law. The committee meets at least once a year, or more often in cases of special need, such as the implementation of the new procurement law. The committee includes representatives from federal and state-level ministries of the economy that work on procurement. Representatives from the central municipal associations can also attend (Von Engelhardt, 2015[41]). In interviews with the OECD, interviewees from the *Länder* level described the committee meeting as a helpful forum for exchange, and a good opportunity to raise issues, ask questions and share practices across different *Länder*. Although there does not appear to be unanimous support for the committee, it shows that *Länder* can benefit from regular exchanges.

Overall, communication between state-level ministries in Germany can be described as ad-hoc and fragmented. A lack of institutionalised communication and a co-ordinating entity has led to low levels of co-ordination and co-operation. The *Bund-Länder Ausschuss* provides a platform for regular exchanges between different levels of government, yet are limited to Ministries of the Economy. Similar working groups

could be created on different topics, such as e-procurement or sustainable procurement, for the responsible procurement professionals at different levels of government. Increased dialogue between ministries will enable ministries to inform each other about their work, identify overlap and find synergies.

Independent procurement systems developed in each ministry add to the complexity to the system. In every ministry, several procurement entities are responsible for the procurement of different product groups. The development of independent procurement entities in each ministry can be partly explained by the strong independence given to ministries by the constitution. The *Ressortprinzip* (the department principle) gives strong authority to individual ministries (German constitution, Article 65), with every minister leading their department independently and taking responsibility for that ministry's work. This creates a situation where each ministry has its own domain of influence – domains that ministers are often eager to defend (Döhler, 2002[42]). The expression *Mitzeichnungskrieg* ("co-signature war") has become a term to describe the defence of responsibilities and organisational self-interest (Hustedt and Veit, 2014[43]) that has resulted from this system, as well as the tendency of ministries to seek influence in a large number of areas. In all, the situation has engendered long bureaucratic processes that are highly inefficient.

These insights from research about institutions in Germany can explain why procurement entities developed independently from each other, and why there is still resistance to change. OECD interviews confirmed that some still object to grouping procurement activities within ministries. One of the principal reasons mentioned was the fear of losing decision-making power. The incentive to maintain control over a product decision is bigger than the willingness to co-ordinate procurement with other entities. This situation also highlights that co-operation and co-ordination depend on personal dispositions. If there is no willingness to achieve greater co-ordination, there is no incentive for increased communication.

Routines keep the governance structure in place. Organisational culture describes how the members of an organisation interact with each other, as well as the norms and values by which they operate. Organisational culture can help to explain how established governance structures remain in place. The way members of an organisation or ministry interact with each other creates unquestioned habits, views and interpretative patterns that determine the understanding of how and when co-ordination is needed (Hustedt and Veit, 2014[43]). OECD interviews with stakeholders in Germany reflected this dynamic. In Germany, there is a strict separation between ministries (*Ressortprinzip*). A lack of regular evaluations to assess co-operation mechanisms, as well as a lack of institutions to identify functional overlaps and potential synergies has reinforced a certain organisational culture. Assessments are carried out by the Supreme Audit Institution and audit institutions at the *Länder* level on a case-by-case basis. It could be beneficial for Germany to conduct a regular assessment of current processes aimed at improving processes and identifying inefficiencies and overlaps. This pertains to governance issues in general and the governance of procurement practices specifically.

A communication strategy can help to develop more targeted results. By systematising communication and defining target groups, communication can trigger and support changes in management processes. A comprehensive and effective communication strategy should go beyond one specific objective, such as communication between ministries. Rather, a communication strategy should support reform efforts by ensuring that messaging is clear, while also minimising the risk of misinterpretation. Furthermore, communication can reduce resistance to reforms by building confidence and trust in government. In Italy, an extensive communication programme was put in place to accompany the reform process, which is further detailed in Box 2.1.

Box 2.1. Change management in Italy

In Italy, the Ministry for Public Administration led a communication strategy to raise awareness for reforms of the public administration prior to their 2014 public procurement reform. The central purchasing body (CPB) CONSIP then applied the same strategy at the practitioners' level in order to communicate the country's 2014 procurement reform. This reform significantly changed the public procurement system to reduce fragmentation. To communicate the reform, CONSIP used strategic communication elements provided by the Ministry for Public Administration. The communication strategy consisted of both providing support and information internally and externally, as displayed in Figure 2.6.

The strategy was divided into two separate elements: 1) training support to respond to technical questions from procurement officials; and 2) information transmission, including internal and external communication on the content of the law and its applicability.

Figure 2.6. Information strategy of CONSIP

Source (CONSIP, 2014[44]), Communication Strategy and Change Management; (Ministry of Finance, 2015[45]), 2014: A turning point for Italy - Structural reforms in Italy since September 2014.

2.3.2. Governance processes have been simplified by changing procedural requirements

Germany's procurement reform made a number of changes to procurement procedures that impacted governance structures. The most relevant changes are discussed below.

The European Single Procurement Document (ESPD) reduces the administrative burden associated with procurement procedures for all involved stakeholders and facilitates access to cross-border tendering opportunities. Before the ESPD, companies had to submit various documents to prove that they had fulfilled European Union exclusion and selection criteria (European Commission, n.d.[46]). The ESPD changed this, adopting a self-declaration form to simplify the qualification examination for bidders. Only the winners of tenders have to provide actual documents proving that they have fulfilled exclusion and selection criteria (European Commission, n.d.[46]). In Germany, the ESPD has been included in the Ordinance on the Award of Public Contracts (VgV), as mandated by EU guideline 2014/24/EU (BMWi,

2016[47]). Companies can voluntarily choose to use the ESPD, and contracting authorities are obliged to accept their submissions.

Digitalisation reduces the administrative burden. The current data collection process for public procurement in Germany is human resource-intensive and error-prone. Increasing digitalisation can make administrative processes more efficient. According to the BMWi's estimates, EUR 1.8 billion in administrative costs can be saved by process improvements for procurement below the EU threshold (BMWi, 2017[21]). To date, the BMWi still has to request data from each federal ministry and aggregate them. On the state level, ministries have to request information from lower levels, which creates long bureaucratic processes. As many contracting authorities lack a systematic way of processing public procurement information, data collection is costly and inaccurate. The governmental programme *Digitale Verwaltung 2020* (Digital Administration) aims at creating standards for digitalisation (Die Bundesregierung, 2014[48]). The goal of the programme is to increase digitalisation of public administration in order to improve its services (Die Bundesregierung, 2014[48]).

E-procurement can improve administrative processes (see Chapter 4). Since Germany's procurement reform, the UVgO has provided legal grounds for the use of e-procurement below the EU threshold (BMWi, 2017[21]). This could have important consequences for procurement processes, because it would align e-procurement processes above and below the threshold. If implemented successfully, it could create coherent processes throughout the system, and could help to overcome capacity deficits – especially for procurers at lower levels of government. However, implementing e-procurement at all governmental levels will require a strong initial effort supported by clear communication about the degree to which e-procurement can reduce administrative burdens. Respondents to OECD interviews stated that resistance arises because employees, particularly at lower levels of government, do not want to adopt new practices. This resistance has to be countered by training procurers on the benefits of digital technology in procurement.

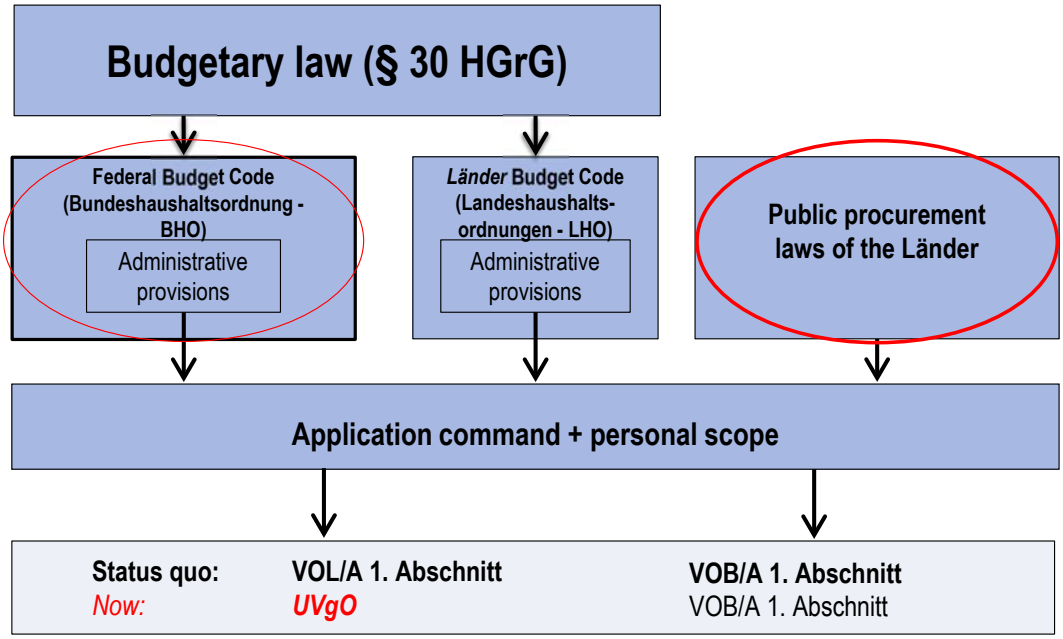
2.4. Subsidiarity has led to a diversity of legal frameworks across states

Having detailed the legal framework and governance structures on the federal level, the following part of the chapter will describe practices at the *Länder* level, adding a new perspective to the central-level view. As in the previous sections, the chapter will review the legal and regulatory framework first, followed by governance aspects.

2.4.1. The majority of procurement is conducted at the state level

Procurement law at state level consists of laws from the federal level and the public procurement laws of the *Länder*. Both are displayed in Figure 2.7. Procurement law below the threshold enters into force at the state level through the application commands integrated into the *Länder* Budget Code. *Länder* have the power to add provisions that are related to the *Länder* context to the application commands.

Figure 2.7. Procurement law at *Länder* level



Source: Illustration by Germany's Federal Ministry for Economic Affairs and Energy (BMWi).

State-level procurement laws are a unique element of Germany's legal framework. They exist alongside the regulations above and below the EU threshold, and they allow state-level governments to adopt state-specific regulations. State-level procurement laws are a relatively recent phenomenon, yet they already exist in 15 out of 16 states in Germany, with Bavaria being the only exception (Forum Vergabe, 2017[12]). North-Rhine Westphalia was the first state to adopt state-level procurement laws in 2002 (see North-Rhine Westphalia's law on compliance with the minimum wage, Tariftreuegesetz).

2.4.2. State-level procurement laws could be harmonised to reduce complexity in the German public procurement system

The ability of states to customise procurement law by adding state-level laws increases the complexity to the procurement system. At the same time, it allows states to set standards and provide an example for the federal level.

State-level procurement laws increase the complexity of the system. In the following section, the development of a procurement-specific minimum wage and the increase in the use of social criteria will be used as examples to illustrate the complexity of the legal framework at the state-level.

State-level procurement laws have their origins in the desire of state-level governments in Germany to implement a minimum wage in the early 2000s. As there was no consensus regarding implementing a minimum wage at the national level at that time, some state-level governments decided to leverage state-level procurement laws to implement a minimum wage. Over the years, more and more states followed. However, the minimum wage level differed strongly between states over time, as illustrated in Table 2.3. When a nation-wide minimum wage was implemented in 2015, some states adopted the national minimum wage of EUR 8.50 per hour, while others maintained their procurement-specific minimum wage.

Table 2.3. Development of procurement-specific minimum wage (in EUR per hour)

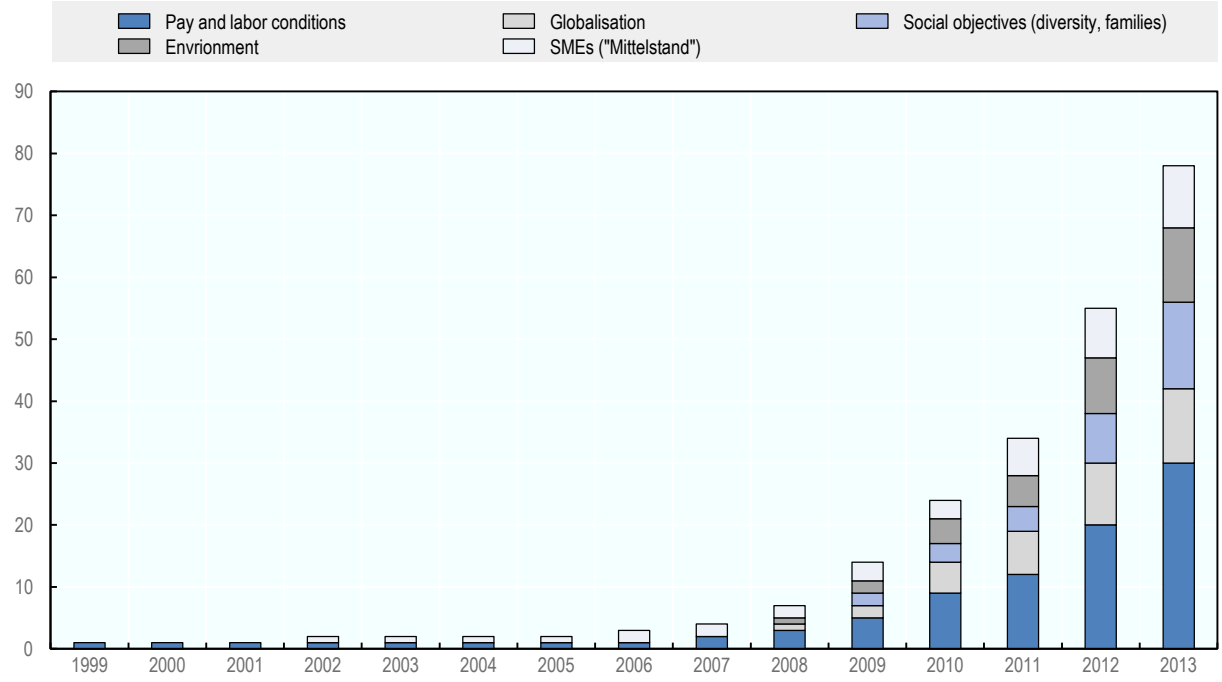
	2013	2015	2017
Baden-Württemberg	8.50	8.50	8.50
Bavaria	-	-	-
Berlin	8.50	8.50	8.50
Brandenburg	8.00	9.00	9.00
Bremen	8.50	8.80	8.80
Hamburg	8.50	8.67	8.50
Hessen	-	8.50	8.50
Lower Saxony	8.50	8.50	8.84
Mecklenburg-Vorpommern	8.50	8.50	8.50
North-Rhine Westphalia	8.62	8.85	9.00
Rhineland-Palatinate	8.70	8.70	8.90
Saarland	8.50	8.50	8.50
Saxony	-	-	-
Saxony-Anhalt	8.50	8.50	-
Schleswig-Holstein	9.18	9.18	9.99
Thuringia	8.50	8.50	-

Note: Bavaria has no state-level procurement law and Saxony has not included provisions on minimum wage
Source: (Forum Vergabe, 2017[12]), *Übersicht über den Stand der Tariftreue- und Vergabegesetze in den Ländern*; Auftragsberatungsstelle Bayern (2013), *Übersicht Mindestentgeltregelungen Bundesländer.*

These differences in regulations create costs for suppliers and contracting authorities. Suppliers are obliged to monitor regulations in different states and over time to be able to participate in tenders. If regulations are different and complex, states risk discouraging suppliers from competing in public tenders. Contracting authorities that have to monitor whether suppliers comply with provisions and adapt specifications in calls for tender also face additional costs.

The second example from state-level procurement laws illustrates how provisions have increased over time. Since the first state-level procurement laws were implemented in the 2000s, a number of additional provisions have been added, such as social and environmental standards. Figure 2.8 illustrates this by showing the increasing number of social criteria included in state-level procurement laws, ranging from one or two in some states to as many as 13 in others (Sarter, Sack and Fuchs, 2014[49]). These social criteria do not include environmental and economic criteria, however, such as carbon emissions or SME integration. The criteria that are included in most state-level laws are the International Labour Organisation (ILO) Core Labour Standards. States with extensive qualifications include North Rhine-Westphalia (regulation TVgG NRW §18), Thuringia (regulation ThürVgG §11) and Schleswig-Holstein (regulation TTG §18.1). Berlin, Bremen and Hamburg also have a number of additional specifications, but they only apply to a limited number of products. North Rhine-Westphalia, Thuringia and Schleswig-Holstein go further in creating regulations not only on specific goods, but also on the countries of origin (Sarter, Sack and Fuchs, 2014[49]).

Figure 2.8. Social criteria are increasingly included in the public procurement regulations of German states (number of references)



Source: (Sarter, Sack and Fuchs, 2014[49]), *Public Procurement as Social Policy? An introduction to social criteria in public procurement in Germany.*

Differences in social, environmental and economic criteria create costs both for suppliers and contracting authorities. This was stressed in a 2015 evaluation of the procurement law in North-Rhine Westphalia based on a sample of around 300 contracting authorities. When asked about their biggest implementation challenges, contracting authorities cited problems in verifying whether the various certificates and declarations meant that bidders complied with the regulations of the law (Kienbaum, 2015[50]).

A 2014 study by the University of Bielefeld confirms the difficulties suppliers in Germany face in finding information on the differences in state-level procurement regulations, as highlighted by respondents from the construction industry (Sarter, Fuchs and Sack, 2014[51]). The administrative burden is particularly challenging for SMEs, as they do not have the capacity to adapt their offers to different states or to constantly monitor changes in regulation. The study also found that, while the integration of social criteria is increasingly prevalent, administrative practices are not always consistent with legislation. This inconsistency creates an implementation gap where price remains the prevailing criteria (Sarter and Sack, 2016[52]).

The response of the federal level to the complex structure at state-level is the UVgO. As German states have the freedom to partly adopt the UVgO, it is not clear whether all *Länder* will adopt the UVgO to the same extent. As observers point out, this means that inconsistencies could potentially persist across state-level regulatory frameworks, depending on the approaches individual states take in adopting the UVgO or alternative regulations (Ley, Altus and Wankmüller, 2017[24]; Vergabeblog, 2017[53]; DStGB, 2017[54]). As the only state without state-level procurement law, Bavaria is an exception, as further detailed in Box 2.2.

Seven of the *Länder* had to reform their state-level procurement laws because they referenced the VOL/A, the regulation preceding the UVgO, in their state laws (Vergabeblog, 2017[53]). In spite of some criticism of

the UVgO, most states (with the exception of Hessen, which does not plan to adopt the UVgO) argue that the UVgO should be adopted in full, according to a survey of *Länder*-level competence centres that are in regular contact with procurement professionals to assist in procurement procedures (Vergabeblog, 2017[55]; ABSTSH, 2017[56]). The *Länder*-level competence centres consider the coherence of state-level regulations as the most important goal.

Box 2.2. Bavaria: The only state without a state-level procurement law

Bavaria is the only German state that has not implemented a state-level procurement law. In contrast, 15 of the 16 states in Germany adopted state-level laws since North-Rhine Westphalia adopted the first in 2001.

In interviews with the OECD, Bavarian ministerial officials explained that Bavarian lawmakers did not want to impose obligatory regulations on contracting authorities. Instead of creating obligations, Bavaria as created guidelines and statements to provide direction on ecological, social and sustainable considerations that are not regulated by federal law. The Bavarian approach aims to avoid creating additional bureaucracy, while simplifying procedures for contracting authorities. Therefore, instead of relying on legal obligations, Bavarian officials try to provide the necessary tools for contracting authorities to integrate additional criteria. However, without an evaluation of the degree to which complementary policy objectives are taken into account, it is not possible to make a definitive statement on the effectiveness of voluntary additional criteria.

At the same time, Bavaria was one of the first *Länder* to implement the UVgO, effective as of 1 January 2018. Bavaria followed Hamburg's adoption of the law in October 2017. Bremen has also implemented the UVgO, and the governments of Thuringia, Mecklenburg-Vorpommern, Rhineland-Palatinate and Schleswig-Holstein are currently working on implementation (B_I Ausschreibungsdienste, 2018[57]). As opposed to other *Länder,* Bavaria does not have the constraint of an existing state-level procurement law that might conflict with the UVgO.

Source Responses from German federal and state-level institutions to an OECD questionnaire and interviews.

State-level procurement laws can set standards for federal-level procurement law. State-level procurement laws give states a degree of autonomy, given that states can add provisions that do not exist at the federal level. One example is the minimum wage that was first implemented in state-level procurement laws in 2001. The federal level implemented minimum wage laws much later. Similarly, with respect to complementary policy considerations, *Länder* have included a broader range of standards into their state-level procurement laws than the federal government has included in federal-level laws, such as on sustainability, economic impact and social standards. State-level procurement laws provide states with leverage that allow *Länder* governments to shape the direction that legislation takes in other states and at the federal level.

2.4.3. States could strengthen co-operation and co-ordination both within their administrations and with other states

The OECD review of German legal framework for public procurement included an analysis of the co-ordination and co-operation efforts at the state level, drawing parallels with the federal level in order to make the following observations.

The federal structure of horizontal co-ordination is reproduced at Länder level. At the *Länder* level, responsibilities are strongly divided between ministries (see Table 2.4). As every state government can decide on the structure and responsibilities of ministries, the setup differs between states. Ministries of the

economy in all *Länder* are responsible for legal and regulatory politics, while e-procurement is typically managed by ministries of the interior.

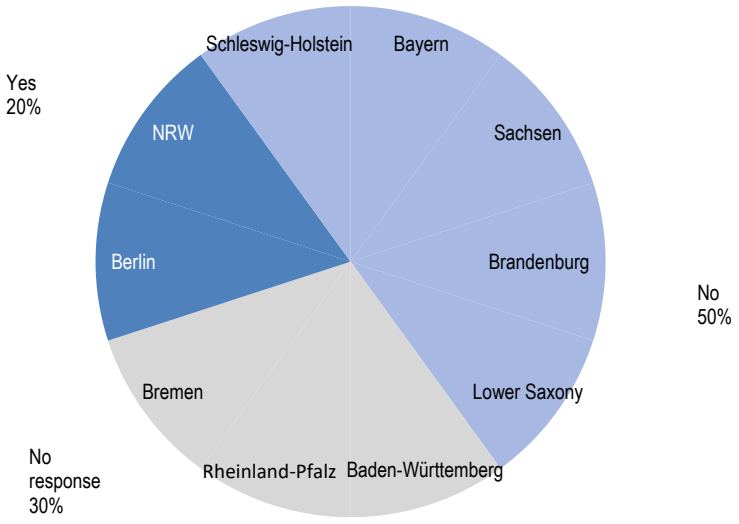
Table 2.4. Division of responsibilities between ministries

	Legal framework	Financing	E-procurement	Sustainable procurement	Construction
Federal level	Federal Ministry of the Economy	Federal Ministry of Finance	Federal Ministry of the Interior		
Baden-Württemberg	Ministry of the Economy		Ministry of the Interior	Ministry of Environment, Climate and Energy	Ministry of Transport
Bavaria	Ministry of the Economy		Ministry of Finance	Ministry of the Economy	Ministry of Construction
Berlin	Senate Authority of the Economy		Senate Authority of Construction	Senate Authority of the Environment	Senate Authority of Construction
Brandenburg	Ministry of the Economy		Ministry of the Interior		
Bremen	Senate Authority of the Economy			Senate Authority of the Economy	Senate Authority of the Economy
Lower Saxony	Ministry of the Economy		Ministry of the Interior	Ministry of the Economy	
North Rhine Westphalia	Ministry of the Economy		Ministry of Finance	Ministry of the Economy	Ministry of Community, Municipal Affairs, Construction and Equality
Rhineland-Palatinate	Ministry of the Economy			Ministry of the Economy	
Saxony	Ministry of the Economy		Ministry of the Interior		
Schleswig-Holstein	Ministry of the Economy			Ministry of Energy, Agriculture, the Environment, Nature and Digitalisation	Ministry of Interior

Note: Only *Länder* that have responded to questionnaire or interview request are included.
Source: Responses from German federal and state-level institutions to an OECD questionnaire and interviews; (Umweltbundesamt, 2014[58]), *Regelungen der Bundesländer auf dem Gebiet der umweltfreundlichen Beschaffung.*

As at the federal level, there is no superordinate body at the state level that co-ordinates communication between ministries. Figure 2.9 provides an overview of the co-ordination between state-level ministries. Figure 2.9 shows that half of respondent states do not have an institutionalised way of communicating, like working groups, committees or regular informal meetings. Instead, co-ordination takes place mainly on an ad hoc basis. When an issue arises that requires co-ordination across ministries, such as the procurement reform, ministries exchange relevant information either formally in writing, through informal meetings or through calls. Such ad-hoc communication instead of a structured approach to co-ordination may inhibit opportunities to identify synergies.

Figure 2.9. Regular, structured co-ordination between state-level ministries



Note: Only *Länder* that have responded to questionnaire or interview request are included.
Source: Responses from German federal and state-level institutions to an OECD questionnaire and interviews.

In Berlin and North-Rhine Westphalia, some regular and structured communication is already in place. In Berlin, the Department for Economy, Energy and Businesses co-ordinates regularly with the Department for the Interior and Sport. In addition, in Berlin, a working group on e-procurement comes together four times a year. In North-Rhine Westphalia, an inter-ministerial working group on procurement co-ordinated by the Ministry of Community, Municipal Affairs, Construction and Equality meets every four months. Yet such regular, institutionalised co-ordination does not occur between ministries in other states.

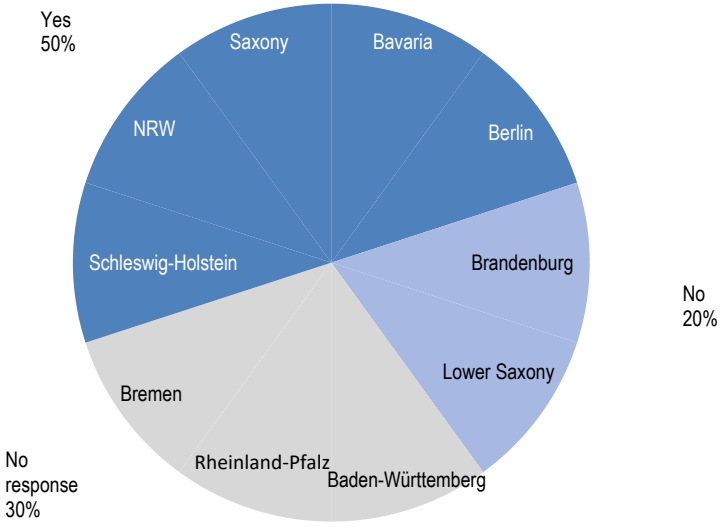
The second element of horizontal co-ordination relates to co-ordination between *Länder.* There is no institutionalised co-operation between the same ministries in different *Länder*. Some *Länder* report that they observe practices in other *Länder* to draw inspiration for their own policies, yet this does not reach the level of direct exchanges. The only occasion on which officials from different states get together is the aforementioned *Bund-Länder Ausschuss.* In general, the relationship between *Länder* would be better characterised as competitive, as opposed to co-operative. The competitive nature of these relationships can be beneficial, because, in a strongly decentralised system, competition between states can enhance the spillover of good practices (OECD, 2010[14]). The reverse side of this is that every state is focused on its own needs and has no incentive to co-operate (OECD, 2010[14]).

While co-operation between *Länder* is rare, practices in Lower Saxony demonstrate the potential of cross-border state procurement initiatives. Lower Saxony initiated cross-*Länder* co-operation during a procurement of work clothes. In fact, the Logistikzentrum Niedersachsen (LZN), a central purchasing body in Lower Saxony, started to purchase police uniforms for other states in 2001, and it now purchases work clothes for 130 000 public officials. Over the years, the number of states participating and the variety of products available has increased. To date, Bremen, Schleswig-Holstein, Mecklenburg-Vorpommern and Bavaria purchase their work clothes through the LZN. In addition, the LZN purchases work clothes for penal institutions in six *Länder,* for forest administrations in 15 *Länder* and for a number of municipal entities (*Ordnungsämter*).

Vertical communication is more developed. Communication between *Länder* and municipalities faces several challenges, though there are more structured communication channels than between state-level ministries. Figure 2.10 illustrates that in half of the interviewed *Länder,* regular and structured co-ordination takes place with municipalities in each state. Due to the large number of municipalities, direct

communication between state and municipal levels would be time consuming and costly. Therefore, communication is mostly organised through municipal associations (*Kommunale Spitzenverbände*). That said, there are different ways in which *Länder* and municipalities co-ordinate. In some *Länder*, such as NRW and Bavaria, a working group located at the Ministry of the Interior leads communication with municipal associations. In other states, the ministries of the economy lead co-ordination with the municipal associations. As a city-state, Berlin does not have as many municipalities under its authority. This allows the state of Berlin to be in touch directly with its boroughs (called *Bezirke,* which are the equivalent of a municipality in a city state).

Figure 2.10. Regular, structured co-ordination between Länder governments and municipalities



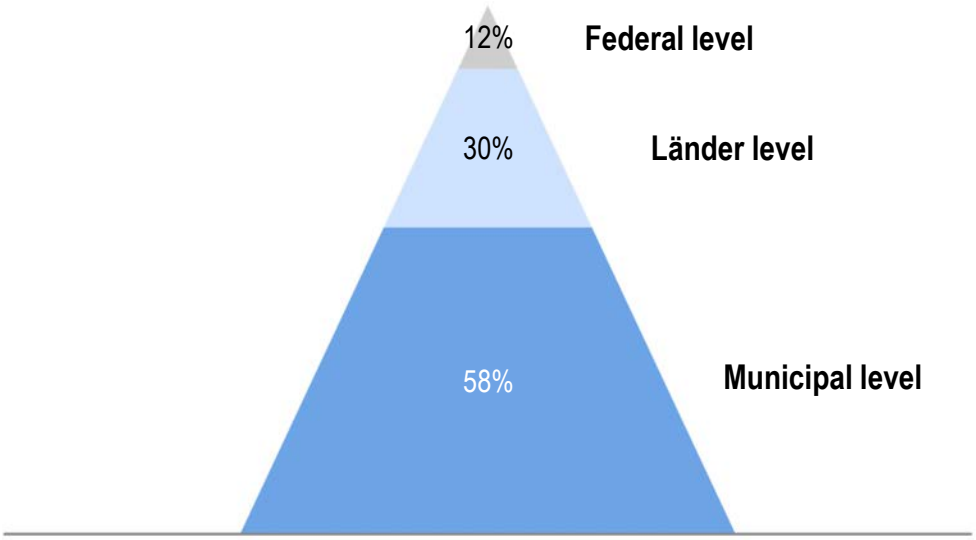
Note: Only *Länder* that have responded to questionnaires or interview requests are included.
Source: Responses from German federal and state-level institutions to an OECD questionnaire and interviews.

Significant differences exist with respect to the guidance that is available for municipalities. In some states, guidance and *Länder*-level helpdesk services can be accessed by municipalities and some states offer guidance that is specifically tailored to the needs of municipalities. Other states have made no dedicated material available for municipalities. Similarly, some municipalities in certain *Länder* have access to e-procurement platforms. In other *Länder*, e-procurement platforms are only available for a service fee, which can discourage their use. In interviews, respondents from state-level authorities argued that it is challenging to provide services to such a large number of municipalities.

2.4.4. Good practices in terms of co-ordination at the municipal level

The municipal level is vital to public procurement in Germany, considering the large amount of procurement activity that takes place at this level, as indicated in Figure 2.11. According to the BMWi, procurement at the municipal level accounts for an estimated 58% of German procurement activity.

Figure 2.11. Procurement activity at governmental levels (estimates)



Source: Authors' illustration based on data provided by BMWi.

Co-operation between municipalities is more frequent than at other government levels. In every state, multiple examples of successful co-operation initiatives exist at the municipal level, whereas successful co-operation is rarer at the state level (Kommunaler Kompass, n.d.[59]). The fact that co-operation is more frequent at the municipal level is also due to the fact that procurement entities at the municipal level are much more restricted in terms of capacity. Therefore, co-operation is a welcome possibility to pool resources.

An initiative featuring municipalities joining together to participate in centralised information technology (IT) procurement called IT Group Schleswig Holstein (IT-Verbund Schleswig-Holstein AöR, ITVSH), provides an example of the benefits that can be achieved through co-operation between municipalities (described in Box 2.3).

Box 2.3. Co-operation of municipalities participating in central purchasing

In Schleswig-Holstein, municipalities created an entity that allowed them to participate in centralised IT procurement. In 2011, 42 municipalities from Schleswig-Holstein created the IT Group Schleswig Holstein (ITVSH). By 2018, 75 members belonged to ITVSH. Together, these municipalities can participate in IT procurement through Dataport, the central purchasing body for IT in Schleswig-Holstein (since ITVSH became a shareholder of Dataport). This allows member municipalities to use Dataport for in-house procedures, simplifying them. ITVSH is responsible for carrying out procurement for its member municipalities, as well as for the delivery of products (ITVSH, 2018[60]). Member municipalities are not obliged to procure a specific amount of goods or services.

The initial contribution required from cities or municipalities wishing to join ITVSH is relative to their number of inhabitants:

- Cities and municipalities with more than 100 000 inhabitants pay EUR 2 500.
- Cities and municipalities with up to 100 000 inhabitants pay EUR 1 250.
- Cities and municipalities with up to 20 000 inhabitants pay EUR 500.

Dataport is the first IT service that is jointly held by states and municipalities. In 2016, the overall revenue of Dataport amounted to EUR 484.7 million. Out of this amount, the state of Schleswig-Holstein and municipalities residing within the state generated EUR 102.7 million. The use of Dataport increased by 18.5% between 2015 and 2016, with *Länder* such as Hamburg, Bremen, Mecklenburg-Vorpommern, Lower Saxony and Saxony-Anhalt using it for IT purchasing (Ministerpräsident Schleswig Holstein, 2016[61]). Thus, Dataport is not only an example for municipal co-operation, but also for procurement across *Länder*.

Sources: (ITVSH, 2018[60]), *Zahlen, Daten, Fakten zum ITVSH*; (ITVSH, 2011[62]), *Entwurf einer Organisationssatzung für das gemeinsame Kommunalunternehmen.*

Germany's procurement reform gave more legal certainty to municipalities on inter-municipal co-operation. Before the reform, regulations did not state clearly how municipalities should comply with different legal standards if a project exceeded a threshold due to purchasing in co-operation with other municipalities. OECD interviews with policy makers revealed that some municipalities shy away from co-operating with other municipalities out of fear that the bureaucratic burden would increase once they reached a higher purchasing volume. The new reform specifies the conditions under which entities are exempted from certain directives (European Commission, 2014[5]). This provides contracting authorities at the municipal level with more legal certainty, and gives them clear criteria to follow.

However, the limited financial means of municipalities can make it difficult for procurement bodies to cooperate. The LZN has reported that municipalities find it hard to commit to binding agreements, given that they struggle to estimate their needs. As an example, municipalities often report their needs to the LZN, but ultimately do not buy the products they have previously committed to buying, making the planning process for the LZN difficult. The LZN communicates with municipal associations (*Kommunale Spitzenverbände*) about these issues, but municipal associations do not have the authority to impose anything on their member municipalities. Finally, for the LZN, communicating with individual municipalities would be a time-consuming and costly task.

Due to the influx of refugees in recent years, municipalities have been confronted with particular challenges in procurement related to the sudden demand for accommodation and services. Box 2.4 shows how municipalities adapted to manage the increase in demand.

Box 2.4. Providing for refugees: How municipalities adapted

In 2016 and 2017, the annual expenditure of municipalities in Germany increased sharply. The increase was due to the influx of refugees in 2015-2017, which amplified the need for the procurement of goods, services and construction in municipalities. According to the German Association of Cities and Towns (*Deutscher Städtetag*), these expenditures increased by 10% in 2016 (Deutscher Städtetag, 2016[63]).

Procurement volumes at the *Länder* level show a similar trend. In several states, such as Berlin and Baden-Württemberg, procurement volume increased by around 20% in 2015. In 2016, the procurement volume dropped down to a prior level. These volumes only include procurement expenditure above the EU threshold. Respondents in interviews with the OECD confirmed that the increase was due to expenditure on refugee accommodation. Below the threshold, the impact might have been higher, but there is no data to substantiate this.

A sudden increase in procurement volumes and an urgency of need create challenges for procurement systems. In order to facilitate the provision of services and housing for refugees, Germany could use a number of special legal provisions. The BMWi is aware of the issue, and published a circular on the "application of procurement law in the context of the accommodation and care for refugees" which explained where these circumstances apply (BMWi, 2015[64]).

Temporary legal changes were implemented to facilitate procurement

In order to accelerate the investment in accommodation and service provision for refugees, some *Länder* included additional provisions into their procurement laws. For example, Rhineland-Palatinate decided to simplify refugee-related procedures. According to the new provision, which remained in place for one and a half years, direct awarding could be used for refugee-related procurement without providing a detailed explanation up to a higher threshold (Bundesanzeiger, 2015[65]).

The additional pressure on the procurement system did not only lead to short-term changes in legislation, it led to a re-evaluation of existing processes. In 2016, Lower Saxony formulated an IT strategy called Digital Administration 2025. The strategy took problems encountered during the refugee crisis into account, and acknowledged that difficulties in the interoperability of IT processes slowed down asylum procedures (Landesregierung Niedersachsen, 2016[66]). Closing the gap between different IT systems would entail common purchasing of hardware and software for state- and municipal-level governments in Germany (Kommune 21, 2016[67]).

Sources: (Deutscher Städtetag, 2016[68]), *Integration fair finanzieren – Schlaglichter aus dem Gemeindefinanzbericht 2016*; (Deutscher Städtetag, 2016[63]), *Integration fair finanzieren – Handlungsfähigkeit aller Städte sichern – Appell zum Gesetz über die Entlastung der Kommunen.*

Länder can incentivise municipalities to co-operate. While common procurement activities between states are rare, they encourage municipalities to increase their co-operation. There are different ways in which *Länder* seek to encourage co-operation at the municipal level, such as by subsidising co-operation activities. If, for example, Bavarian municipalities purchase goods or services together, they receive a state-level subsidy of 5-10%. Municipalities have made use of this subsidy, for example in the procurement of fire trucks or road salt. However, there is no data or evaluation on how frequently these subsidies are used. Evaluations and data collection could help Germany to analyse how effective the subsidy is and in which areas it is most used. While these steps have not yet been taken, in 2008, Germany established a contact point at the state level to respond to questions on inter-municipal co-operation initiatives, such as common procurement (Regierung Oberpfalz, n.d.[69]).

States have limited legal authority on what they can impose on municipalities, however. If states want to impose a law on municipalities, they also have to consider any potential cost increases that it may create. The connectivity principle (*Konnexitätsprinzip)* inscribed in the constitution holds that the entity with the political authority for a law carries the costs it creates (German constitution, Art. 104a). That said, the degree to which a service needs to be provided in a decentralised system, as well as where costs should lie, are determined on a case-by-case basis (Scherf, 2010[70]). The same principle applies at the federal and *Länder* levels. With respect to procurement law, the connectivity principle obliges *Länder* that want to impose a certain type of procurement practice on municipalities to provide compensation. The state of Schleswig-Holstein imposes their state-level procurement law on municipalities, and reimburses municipalities with between EUR 1 million and EUR 9 million.

Co-operation and co-ordination between different levels of government in Germany – and even between ministries at the same level – have potential for improvement. Successful initiatives already exist that demonstrate the potential benefits that can be achieved through more structured co-ordination mechanisms.

Proposals for action

The German public procurement reform has contributed to the streamlining and modernisation of the country's legal and regulatory framework. The reform successfully updated Germany's legal and regulatory framework for public procurement to meet the new standards set by the 2014 EU procurement directives. In spite of the complex structure of German procurement legislation, a number of improvements can still be achieved. The governance structure of the German procurement system can be described as layered. This originates on the one hand in the split competencies at the federal, *Länder* and communal levels. On the other hand, the layered nature of the procurement system stems from the strong *Ressortprinzip* (department principle) and the shared responsibility of different ministries for procurement. Regular and structured communication can improve co-ordination and co-operation at all governmental levels. Improved communication, co-ordination and co-operations can be achieved by undertaking the following actions:

- Consider further streamlining of the legal framework by eliminating the remaining regulations at the tertiary level, as well as aligning legal protections below the EU threshold with standards above the threshold.
- Assess procurement processes regularly in order to evaluate the effectiveness of the current system and identify where different regulations are needed. Increased data availability can also serve to improve procurement processes.
- Create a working group for states that have their own procurement laws to map the gaps between the new federal legal framework and their own laws. A working group of this nature can help states understand possibilities for harmonisation, and even potentially enable a future elimination or reduction of procurement laws at the state level.
- Consider implementing regular working groups on procurement-related topics that bring together procurement professionals from different entities to exchange policies, procurement practices and challenges. This would enable entities to identify overlaps and reduce duplication.
- Ensure that the reforms are well communicated through all governmental levels and the capacity to implement reforms is guaranteed at lower governmental levels to prevent implementation gaps.

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3 Strategic centralisation of procurement to maximise economic benefits in Germany

The centralisation of procurement operations through the aggregation of needs, framework agreements or centralised oversight of procurement performance among other techniques, can produce numerous benefits for countries. This chapter assesses the centralisation strategies that Germany has developed at the federal level, and compares them to international initiatives. The chapter then offers recommendations to maximise the benefits reaped through centralisation. These recommendations align with the German government's renewed interest in optimising centralised procurement processes. The recommendations also support the conclusions of a parallel spending review on the coverage of centralised procurement instruments at the federal level in Germany.

In times of fiscal austerity and scarce public resources, many countries are focusing efforts on rationalising and maximising the impact of public spending. Public procurement expenditure represents almost one-third of OECD governments' total spending on average. Because of the scale of this spending, many countries are seeking ways to increase the efficiency of their procurement systems. A popular tool is centralisation (OECD, 2015[1]). Indeed, countries are increasingly relying on aggregation of needs through central purchasing bodies (CPBs).

A central purchasing body is a contracting authority that:

1. acquires goods or services intended for one or more contracting authorities;
2. awards public contracts for works, goods or services intended for one or more contracting authorities;
3. negotiates framework agreements for works, goods or services intended for one or more contracting authorities.

CPBs help increase the efficiency of a procurement system by aggregating dispersed needs, creating central points of contact both for suppliers and public authorities, and developing knowledge hubs. These practices are integral to the principles delineated by the 2015 *OECD Recommendation of the Council on Public Procurement*, which points to the role of centralised procurement in creating additional efficiencies (Box 3.1).

Box 3.1. Options for increased efficiency in the *OECD Recommendation of the Council on Public Procurement*

The Council:

VII. RECOMMENDS that Adherents develop processes to drive **Efficiency** throughout the public procurement cycle in satisfying the needs of the government and its citizens.

To this end, Adherents should:

i. Streamline the public procurement system and its institutional frameworks. Adherents should evaluate existing processes and institutions to identify functional overlap, inefficient silos and other causes of waste. Where possible, a more service-oriented public procurement system should then be built around efficient and effective procurement processes and workflows to reduce administrative red tape and costs, for example through shared services.

ii. Implement sound technical processes to satisfy customer needs efficiently. Adherents should take steps to ensure that procurement outcomes meet the needs of customers, for instance by developing appropriate technical specifications, identifying appropriate award criteria, ensuring adequate technical expertise among proposal evaluators, and ensuring adequate resources and expertise are available for contract management following the award of a contract.

iii. Develop and use tools to improve procurement procedures, reduce duplication and achieve greater value for money, including centralised purchasing, framework agreements, e-catalogues, dynamic purchasing, e-auctions, joint procurements and contracts with options. Application of such tools across sub-national levels of government, where appropriate and feasible, could further drive efficiency.

Source: (OECD, 2015[2]), *OECD Recommendation of the Council on Public Procurement.*

Once a country decides to centralise procurement activities, the extent of centralisation can vary to a significant degree. Because of this, the scale of the centralisation is an important feature of a procurement system, with considerable influence on performance and savings (Dimitri, Piga and Spagnolo, 2006[3]).

Applied to the German context, multifaceted centralisation of public procurement has an immense potential to increase performance and savings. Indeed, while precise estimates off total procurement spending in Germany are subject to debate, reasonable assumptions based on statistics from national accounts show that procurement spending represented 15% of the country's gross domestic product (GDP) in 2015. This figure translates to around EUR 500 billion in procurement expenditures, out of which a little over 22.3% was spent at federal level (OECD, 2017[4]). If spending levels hold consistent, procurement expenditure at the federal level in Germany would clock in at around EUR half a trillion per year.

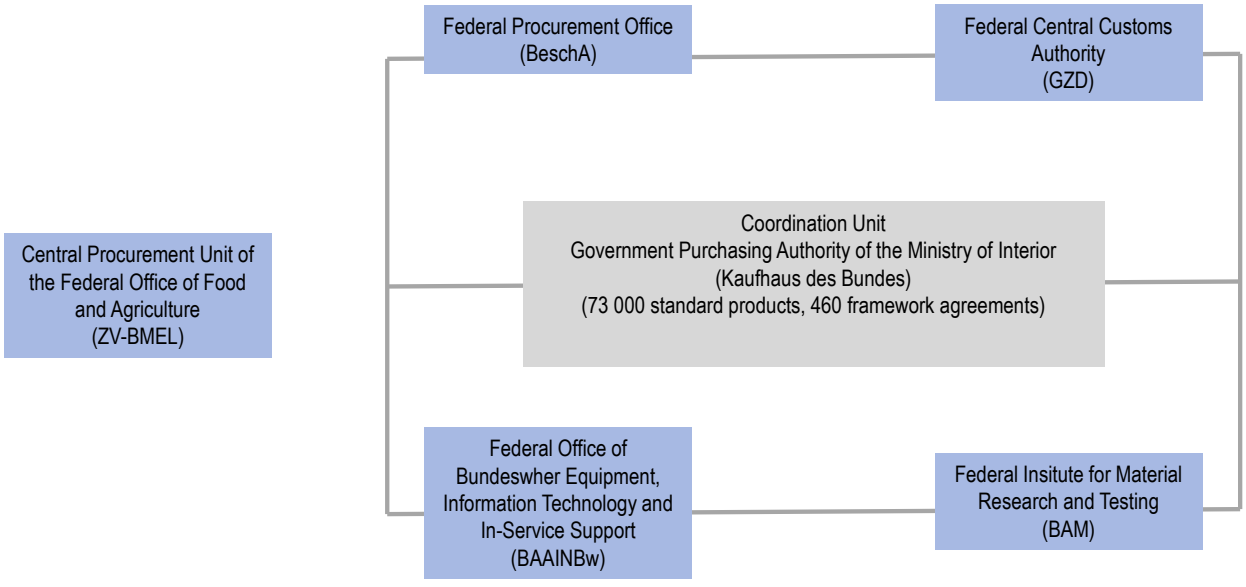
This chapter discusses centralisation strategies in Germany both at the federal level and *Länder* (state) level, as well as opportunities to further increase their effectiveness. As stressed below, avenues for increasing effectiveness exist both in terms of redefining centralised structures and redefining the nature and objectives of the procurement instruments used to support centralisation initiatives.

3.1. Creating economic benefits through centralisation strategies aligned with stakeholders' needs and expectations

3.1.1. Germany could ensure that centralisation strategies diffuse throughout the procurement cycle

Over time, Germany has developed a number of sectorial CPBs at the federal level, as shown in Figure 3.1. While serving under the umbrella of different ministries, these CPBs exercise a certain degree of independence from the executive branch in their daily operations. German CPBs function in line with the government's public policy goals, and their budgets are mostly allocated from the government. However, the German government does not directly interfere in the outcomes of individual procurement cases. Even though the heads of government agencies are often appointed, they can be removed only for cause.

Figure 3.1. Central Purchasing Bodies at the federal level



Source: Authors' illustration.

The four main CBPs at the federal level in Germany are: the Federal Central Customs Authority (Generalzolldirektion, GZD), the Federal Procurement Office of the Federal Ministry of the Interior (Beschaffungsamt des Bundesministeriums des Innern, BeschA), the Federal Office of Bundeswehr Equipment, Information, Technology and In-Service Support (Bundesamt für Ausrüstung, Informationstechnik und Nutzung der Bundeswehr, BAAINBw), and the Federal Institute for Materials Research and Testing (Bundesanstalt für Materialforschung und -prüfung, BAM). These entities and units were founded in the 1950s, but at that time were only responsible for procurements made by their respective ministries.

In 2005, Germany created the Central Procurement Unit of the Federal Office of Food and Agriculture (Zentrale Vergabestelle für das Bundesministerium für Ernährung und Landwirtschaft, ZV-BMEL). After centralising procurement within the Federal Ministry of Food and Agriculture, this unit further expanded its activities to support other administrations. In 2016, this central procurement unit covered the procurement needs of 17 public institutions. The expansion of the number of users also came with an increase in operational activities. The ZV-BMEL started to carry out around 500 procedures amounting to EUR 30 million in 2005. In 2016, it practiced more than 5 000 procedures representing some EUR 200 million (Bundesanstalt für Landwirtschaft und Ernährung, 2016[5]).

Germany recently began centralising information technology (IT) procurement at the federal level. The German CPB BeschA houses the latest centralisation initiative in this regard. This initiative began in late 2015. Germany plans to complete its IT centralisation efforts by the end of 2018. Germany's centralisation of procurement spending on IT products aims to achieve a number of different objectives:

- stable, reliable, and high-quality IT procurements
- transparency, integrity and legal certainty
- ensuring an effective, strategic and operative procurement management
- efficiency through consolidated purchasing power
- efficiency through optimised, digital processes
- using existing procurement structures.

To support these objectives, Germany created the Central Office for IT Procurement (Zentralstelle für IT-Beschaffung, ZIB) within the BeschA and under the auspices of the Federal Ministry of Interior, Building and Community (BMI). The ZIB is tasked with defining specific procurement strategies. These strategies range from the aggregation of IT-related procurement needs, to ad-hoc support, to contracting authorities for individual contracts.

The ZIB advises and supports contracting authorities during the entire procurement process, from the expression of needs to the awarding of the contract and its completion. In implementing this new CPB, German public authorities opted for a gradual approach, minimising the risk of potential disruption. ZIB first absorbed the following tasks from 2017:

- the tendering of framework contracts for hardware, software, information and communication technology, as well as IT services and IT-related services (ICT) in the direct federal administration
- the preparation of an annual framework contract roadmap.

In 2018, the ZIB expects to:

- carry out tenders for the individual planned contracts of federal entities whose estimated value exceeds EUR 135 000
- come to an agreement with each federal entity on thresholds above which it will undertake the procurement process on behalf of contracting authorities.

In 2003, the CBPs mentioned above created the first central electronic purchasing tools on the federal level in Germany. These tools included the e-Vergabe platform for the publication of invitations for tenders,

electronic communication with suppliers and electronic awarding of contracts. Another tool is the Kaufhaus des Bundes (KdB), an electronic shopping platform that helps users manage the ordering of the goods and services that are available through framework agreements.

Apart from the ZV-BMEL, German federal CPBs have a common feature – an underlying IT infrastructure managed by a unit in the BMI. Indeed, German federal CPBs use an e-procurement system to perform procurement tasks. This e-procurement system works as an electronic shopping platform for federal authorities and institutions.

Through the KdB, German federal CPBs (except ZV-BMEL) bundle the needs of the public administration on the basis of needs surveys and implement framework agreements with suppliers. In general, the public administration seeks to purchase standard products (i.e. products that many authorities need equally), such as office supplies. Today, the KdB operates 29 product categories in which a total of 460 framework agreements and 123 000 standardised products are available. Transactions in 2016 totalled EUR 486 million, including in the following categories (Kaufhaus des Bundes, 2017[6]):

- Textiles
- Clothing, badges, personal equipment
- Climate and economic equipment
- Cleaning equipment, detergents, glue materials
- Furniture
- Office equipment
- Print products, office supplies, training devices, training materials
- ICT
- Audio, video and photo technology, projectors
- Power supply technology, electronic and electrical components, lighting, lighting devices
- Optical and optronic devices
- Detection technology
- Direction, navigation, positioning devices
- Explosives, ammunitions
- Other police equipment
- Technology for the fire brigades, rescue equipment, water treatment
- Tools, machine tools, workshop equipment, measurement devices
- Vehicles, bicycles, goods trailers, automotive components, helicopters
- Medical technology
- Laboratory equipment
- Services (except IT)
- Energy.

In practice, individual CPBs often define many centralisation strategies. Following the tendering phase, the CPBs then leave the operational implementation of these strategies to the unit managing the IT platform.

This structural division of tasks represents one particular feature of the German procurement system. In most OECD countries, CPBs operate technical platforms themselves. Besides providing an overview off the entire procurement cycle for centralised purchases, this method allows CPBs to ensure that centralisation strategies are aligned with operational constraints.

Digitisation efforts in OECD countries clearly point to the transformational nature of technology, and show how digitalisation impacts business processes and government objectives. Digitalisation requires the

integration of digital technologies into public sector modernisation efforts (OECD, 2016[7]). This holds true in public procurement systems, particularly at times when countries are facing numerous challenges in measuring the performance and impact of procurement strategies.

The KdB is a transactional platform that supports the management of collaborative procurement instruments designed and implemented by the four main CPBs. Because of this, the KdB can store the kind of critical information that informs future procurement strategies and orientations. Digital platforms allow procurers to centralise various types of information like comprehensive needs assessments based on past spending and insights on contract execution. Thus, digital platforms supporting centralisation initiatives should not be seen as purely technical instruments, but rather as integral to the effective implementation of procurement strategies (OECD, 2017[8]).

E-procurement systems have the potential to decisively influence the efficiency and economic impact of defined procurement strategies. Because of this, policy makers should align CPB objectives with the functionalities of e-procurement systems in mind. (Infrastructure and Projects Authority, 2016[9]).

Chile, for example, has implemented specific centralisation strategies to optimise the total cost of ownership of specific procurement instruments take. These strategies into account their impact on management costs relating to Chile's transactional platform (OECD, 2017[8]). Interviews carried out with officials at federal CPBs in Germany suggest that detailed information about the use of the platforms with regards to ordering stage, contract execution and management costs s are limited to complaints in case of non-delivery. This prevents CPBs from obtaining insights into the results of defined procurement strategies.

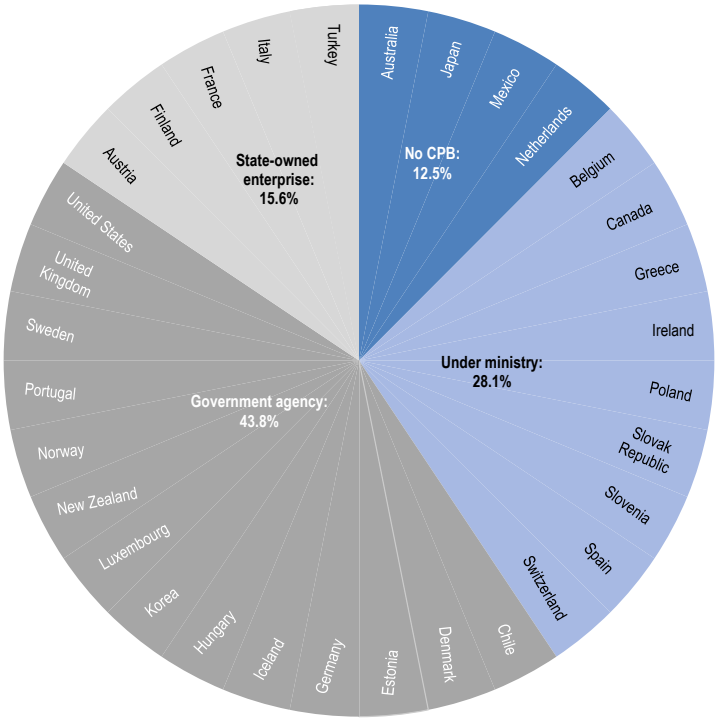
The CPBs at the federal level in Germany could increase the effectiveness of the country's aggregation strategies by further institutionalising relationships with the unit managing the KdB. This increased alignment of objectives would likely be more beneficial for commodity products managed by the BeschA because of its largest product base, clients' portfolio and higher volume of ordering.

3.1.2. Adapting institutions to centralisation could provide greater alignment with stakeholders' needs and expectations

The vast majority of OECD countries have implemented one or more CPBs. Even in countries where a formal CPB does not exist, ministries sometimes take over some of the functions usually carried out by centralised institutions. For example, some states and territories in Australia have CPBs, but Australia does not have a federal CPB. At the same time, the Australian Department of Finance has established a number of "*whole of government arrangements"*. In Mexico, the Ministry of Public Administration has the capacity to carry out certain functions as a CPB (OECD, 2017[4]).

Common general objectives of centralisation (e.g. reduced direct and indirect spending through the aggregation of needs, increased harmonisation and professionalisation, more effective public service delivery) can be achieved through different institutional strategies. CPBs have different legal statuses in different OECD countries (see Figure 3.2). Beyond giving CPBs different degrees of independence from the political sphere, different legal statuses also provide opportunities for CPBs to implement different procurement strategies.

Figure 3.2. Legal status of central purchasing bodies, 2014



Note: The figure refers to CPBs at the central level where multiple CPBs exist. Data are unavailable for the Czech Republic and Israel. Some countries have several CPBs at the central level, like Germany.
Source: (OECD, 2017[4]), *Government at a Glance 2017*, http://dx.doi.org/10.1787/gov_glance-2017-en.

The question of centralisation has sparked debate and reforms in many countries of late. These conversations and reforms highlight different approaches to the issue, and span the entire spectrum of centralisation. For example, Japan and the Netherlands take a decentralised approach that supports joint procurement where two or more contracting authorities group their needs together. In contrast, Lithuania and Chile strongly promote centralised procurement by mandating the use of framework agreements by all central contracting authorities. In grappling with the issue of centralised public procurement, countries are faced with organisational options that provide both benefits and disadvantages.

Decentralised models often align closely with users' expectations, making them better suited to users' needs. Decentralised models also provide reduced time to completion for individual procurement processes. At the same time, from a system-wide perspective, decentralised models run the risk of duplication and fragmentation, resulting in isolated and sometimes contradictory procurement policies.

The main arguments in favour of centralisation are savings. Centralisation creates economies of scale through aggregation. Centralisation also reduces duplications and decreases the number of transactions between suppliers and buyers. Beyond direct financial savings, centralisation provides economic benefits that are linked to gains in process costs and increased productivity because of more concentrated procurement expertise.

Studies (Albano and Sparro, 2010[10]) describe the following disadvantages of centralised models for public procurement: higher co-ordination costs and set-up costs; serious barriers to satisfying unique requirements and meeting different realities; loss of relationships with local suppliers; possible barrier to entry for SMEs; potential lock-in phenomena (i.e. contracting authorities collectively locked with one supplier which benefit from a competitive advantage over time); inefficient engagement of the unit charged with centrally managing operational planning processes; and complex co-ordination processes.

The choice left to countries is not limited to deciding between a decentralised approach and a centralised system, however. Some countries, such as New Zealand, have developed a hybrid approach and implemented a centre-led procurement model. Under this model, the strategic orientations for public procurement are separated from the transactional activities – which remain with contracting authorities.

All of these options illustrate the variety of institutional settings countries can choose when embarking on a centralisation strategy Countries must consider the opportunities but also the risks linked with institutional alternatives. They must carefully weigh decisions relating to centralisation, and look specifically at costs and benefits before deciding on a specific model. Some countries must also grapple with an additional layer of complexity, – a variety of options that may not only be applied to the entire national system, but also to regions within the system.

For example, Australia's experience shows that some centralisation strategies, such as the aggregation of needs for certain commodities, imply a mandatory use of procurement instruments from departments of states and other listed entities (Non Corporate Commonwealth Entities, NCCE). This does not prevent the Australian government from following different centralisation strategies for ICT procurement, however, as shown in Box 3.2.

Box 3.2. ICT Procurement Taskforce in Australia

In 2015-16, Australian government agencies reported that it had spent AUD 6.2 billion on ICT goods and services. That same year, Australian agencies estimated that they would procure AUD 9 billion of ICT goods and services in future years via 17 000 contracts.

Australia concluded that its investment in ICT was not delivering the government's digital transformation agenda quickly enough, however. Therefore, the country established the ICT Procurement Taskforce as a part of its Policy for Better and More Accessible Digital Services 2016. The taskforce has been charged with identifying opportunities for considerable reforms of current procurement arrangements.

Through its consultation and research, the taskforce has concluded that there are three significant impediments to improving ICT procurement across the government:

- a lack of centralised policies, co-ordination, reporting, oversight and accountability arising from more than 20 years of devolved agency decision-making.
- limited capability and the risk adverse nature of the Australian Public Service (APS) with its focus on compliance, a fear of failure, poor collaboration and low industry engagement.
- practices that do not reflect contemporary procurement best practices or support innovative technology choices, with existing systems firmly rooted in the bespoke and the linear sequencing design models of the past and not the agile, consumer technology models of the present.

The ICT Procurement Taskforce found that achieving real reform requires:

- targeted re-centralisation – particularly in mandated policy settings, data collection, reporting and oversight – at least for the medium term
- greater co-ordination of procurement activities using contemporary practices that support innovation
- strengthening the capability of the APS to design and deliver complex ICT procurement.

The ICT Procurement Taskforce has found that it was not possible or desirable for all ICT procurement to be centralised within the government. ICT is not an end in itself, but a tool that can support

departments in achieving their mandates. That said, all government agencies should actively pursue shared strategies if real ICT procurement reform is to be achieved.

The ICT Procurement Taskforce defined five overarching strategies for ICT procurement, finding that it should be:

- measurable, transparent and based on data
- directed and delivered by a highly capable APS
- co-ordinated across government
- apt at encouraging innovation and SME participation
- apt at generating policies and outcomes that are reviewed regularly.

Source: Adapted from Digital Transformation Agency (2017), *Report of the ICT Procurement Taskforce*, http://creativecommons.org/licenses/by/4.0/deed.en.

While individual entities retain ownership and responsibility for their IT procurement in Australia, the Digital Transformation Agency is responsible for defining the whole-of-government ICT procurement framework. The Digital Transformation Agency defines targets in terms of total spending, maximum contract amounts and contract lengths. This approach ensures that inherently different needs are still subject to centralised and harmonised principles where aggregation would not provide tangible benefits.

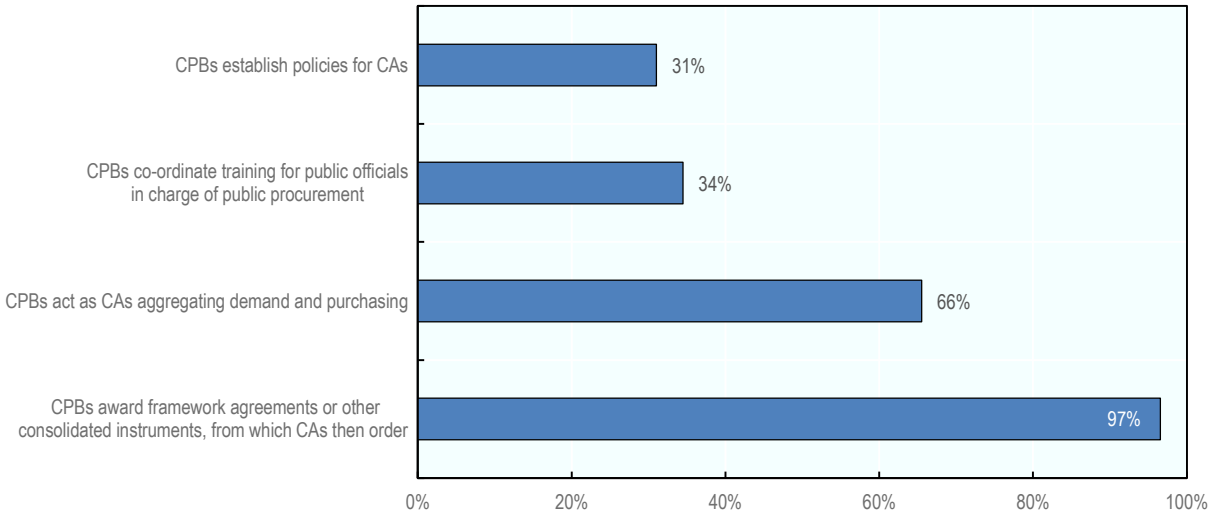
It is important that countries consider the financing structure of their central purchasing bodies, as it also impacts centralisation strategies. Previous surveys (OECD, 2017[8]; OECD, 2011[11]) suggest that CPBs in OECD countries are either financed through government budgets, through fees paid by either contracting authorities or suppliers.

Advocates of the fees model argue that CPBs do not typically make large profits. In this case, CBPs set user charges with the aim of breaking even. Fees are set so that revenues cover costs, including necessary investments in skills and technologies. On the other hand, proponents of the public budget model argue that this model eliminates the profit risk and provides better incentives for cost-efficiency. Those against this model claim that it removes the incentive to find the most attractive product areas. Moreover, it runs the risk of under-investment in new technologies due to the possibility of insufficient public funds.

In Germany, only the ZV-BMEL is partially financed through fees paid by contracting authorities using its services. The other CPBs are financed through the federal budget. The ZV-BMEL receives incentives to adapt its operating costs to the fluctuation of demand. This close linkage between operating costs and demand exists to a lesser extent in the other CPBs because of their financing structures. German

The financing structure used by the majority of Germany's federal CPBs might constrain the CBPs' ability to adapt their activities to the strategic interests of their users. Indeed, centralisation goes beyond the mere aggregation of needs. In many OECD countries, CPBs are taking over other roles in procurement systems. By embracing a functional leadership role, CPBs are often at the forefront of strategic public procurement (see Figure 3.3).

Figure 3.3. Roles of central purchasing bodies in OECD countries, 2016



Source: Adapted from (OECD, 2017[4]), *Government at a Glance 2017*, http://dx.doi.org/10.1787/gov_glance-2017-en.

Decisions on the institutional setting and financing structure of a CPB could also be determined according to the type of activities falling under its mandate and affecting its stakeholders. The cost-benefit ratio of implementing a specific model could depend on the ability to aggregate decentralised procurement needs. It could also, however, depend on the body's capacity to diffuse best practices across contracting authorities or to increase procurement capacity.

With a number of specialised sectorial CPBs, the possibility of increasing procurement capacity should not be overlooked in Germany's federal public procurement system. Increased subject matter expertise is one of the objectives linked to centralisation, and is vital to CPBs with sector-specific functions. It is estimated that the cost for a CPB to run a tender is about one-fifth of that of an individual contracting authority due to reduced input in terms of staff (Crown Agents, 2015[12]).

Because of this, further development of -tailored support from sectorial CPBs to individual contracting authorities could increase the productivity and efficiency of Germany's federal public procurement system at large. Further support from sectorial CPBs to contracting authorities could also provide these CPBs with opportunities to increase their value propositions. This, in turn, could translate into larger budgets that are funded by fees paid by contracting authorities requiring ad-hoc support.

The different elements described above demonstrate some of the main variables that impact the efficiency and cost-effectiveness of CPBs from an institutional perspective. Weighing the costs and benefits of the different options and the range of alternative models is vital for several reasons. Doing so provides avenues to implementing structures that respond best to the needs and expectations of different stakeholders. In addition, weighing different options and models also allows governments to account for the unique specificities of procurement spending in their countries.

3.2. Maximising the impact of centralised procurement instruments

3.2.1. A better understanding of the costs and benefits of centralisation is essential to implementing comprehensive impact assessments

Prior to defining strategies that could maximise the benefits reaped from centralisation, public authorities need to understand the economic potentials of these strategies. Agencies tend to focus on direct financial savings when reporting on the impact of centralisation. This is problematic, because direct financial savings only capture a part of the multidimensional benefits that could be attained from centralisation. CPBs first aim to maximise public sector efficiency with an increased potential for savings in terms of net financial costs and administrative expenditures. In addition, CPBs also work to accumulate expertise in more complex procurement operations.

Despite these facts, parliaments, supreme audit institutions and public authorities have long challenged evidence on the benefits of centralisation to financial savings (Goodman, 2007[13]). In addition to being unclear because of differing calculation methodologies, financial savings only partially capture CPBs' performance.

The impact of centralisation should not only be measured in terms of the financial savings attached to the use of collaborative procurement instruments (i.e. the difference between the price paid inside and outside centralised tools). Policy makers should also consider centralisation's ability to aggregate isolated needs and decrease administrative expenses linked to the processing of individual procurement processes (Sanchez-Graells and Herrera Anchustegui, 2016[14]).

Examining financial savings and a decrease in administrative expenses would only provide information on the performance of CPBs at a point in time. Neither measure can capture the potential for further centralisation or calculate the total cost of ownership of a CPB.

The degree and effectiveness of centralisation not only stems from the institutional settings adopted by countries, but also from the procurement strategies and tools implemented by CPBs. Beyond the organisational structure, the use of specific collaborative procurement instruments facilitates further centralisation. At the forefront of aggregation tools are framework agreements.

In OECD countries, centralisation through dedicated procurement bodies often leads to the use of collaborative procurement instruments like framework agreements. Almost all OECD countries (97%) have one or multiple CPBs at the central or sub-central levels. These same countries also report implementing framework agreements for the use of contracting authorities (OECD, 2017[4]).

Yet, only 22% of those countries, such as Ireland, Sweden or France report framework agreements implemented by CPBs and used on a voluntary basis only. This discretionary power offered to contracting authorities reinforces the need for attractive value propositions under framework agreements.

In fact, the voluntary use of framework agreements triggers stronger consequences for the overall economic sustainability of the procurement model. Initial investments required for setting up a CPB will only be sustainable if a sufficient number of contracting authorities use the centralised procurement tools implemented by the CPB. Yet, because contracting authorities have the freedom to choose whether they want to use these instruments or not, CPBs need to demonstrate tangible financial and non-financial benefits for using them. These benefits usually increase with the number of users, or more accurately with the volume of centralised procurement expenditure. That means that communicating the benefits of centralisation is key. If there is too little communication, contracting authorities might not understand the benefits of centralisation, and in turn will not use centralisation offers. As a result, the benefits of centralised purchasing will not materialise due to a lack of economies of scale.

This sheds light on another important element to take into account, which is the ratio between centralised and decentralised procurement in a system. The higher the ratio, the greater the absorption of operational

costs associated with the implementation of CPBs. Indeed, an insufficient use of centralised public procurement can lead to a failure in reaching the expected benefits (Karjalainen, 2009[15]).

A number of proxy values can provide general insights into the rate of centralised procurement in certain countries. Statistics based on the European e-procurement portal Tender Electronic Daily (TED) show the share of tenders that are issued to implement framework agreements in Europe. According to analyses carried out on TED, the number of notices above the EU thresholds relating to framework agreements in Germany amounts to 13% (European Commission, 2016[16]). This figure is close to the EU average, which is 13.78%. However, other countries with similar features in terms of voluntary use of collaborative procurement instruments, like Sweden, reported almost 40% of notices related to framework agreements in 2017 (National Agency for Public Procurement, 2017[17]).

Measuring the volume of centralised procurement spending based on transactional information against total procurement spending could help authorities better understand the potential for centralisation. Based on estimates of federal procurement expenditures (OECD, 2017[4]) in Germany, volume transacted under framework agreements available in the KdB represent less than 0.5% of the amount spent with suppliers by federal entities. This reinforces the need to implement measures and strategies aimed at increasing the use and impact of centralised procurement instruments.

3.2.2. Germany could consider strengthening communication with regards to the benefits of using centralised procurement instruments

A first and sometimes overlooked tool that could be used to reinforce the effectiveness of centralisation strategies is communication. Efficient and effective communication is often considered to be a potential success factor for inter-organisational co-operation (Schotanus, Telgen and De Boer, 2010[18]). This holds true for procurement, as communication is a cornerstone of effective centralisation.

Indeed, inadequate communication significantly impacts costs relating to the implementation of collaborative purchasing. From risks relating to the misunderstanding of decentralised needs to inadequate assessment of a contract's execution, a number of centralisation strategies rely on regular and effective communication. In addition, reinforcing communication between users and contracting authorities can attract more users to centralised procurement instruments. Attracting more users is an imperative for CPBs, because they are used on a voluntary basis by contracting authorities (see Box 3.3).

Box 3.3. Communication benefits in Ireland

The Office of Government Procurement (OGP) in Ireland commenced its operations in 2013. Together with the country's CPBs in four key sectors (health, defence, education and local government), the OGP is responsible for sourcing commonly used goods and services.

Overall procurement spending in Ireland is estimated at EUR 12 billion, out of which the total value of all framework agreements is estimated at EUR 3.5 billion per year. Therefore, spending on framework agreements represents approximately 30% of total procurement spending in Ireland, and almost 50% of the contract values for goods and services.

One of the most demanding elements associated with the use of framework agreements are the requirements to assess the needs of a large number of organisations and to reach a common solution. Therefore communication is central to ensuring the appropriate development and use of framework agreements. The OGP has defined the roles of different stakeholders in developing a framework agreement as follows:

The OGP and CPBs' role is to establish framework agreements and use extensive knowledge of public procurement to provide professional procurement services to clients under framework agreements. Thus, the OGP and CPBs provide: :

- advice on specifications to ensure goods and services are market ready
- advice on tailoring selection and award criteria
- commercial acumen to achieve value for money
- advice on risk identification and management strategies
- preparation of all documentation for client approval
- acting as independent chairpeople for qualitative evaluation panels to support compliance
- administration of the procurement process from initiation to completion.

The contracting authority's role consists of:

- budgeting and planning
- development of a corporate procurement plan
- control of decisions including specification, selection and award criteria and evaluation
- selection of suppliers
- contract signature and management
- purchase to pay activity.

Since the implementation of the OGP, the use of framework agreements has increased. In total, the OGP awarded and managed 150 framework agreements in eight of 16 categories in 2017. Contracting authorities at the central level are not obliged by law to use framework agreements, yet guidance documents to support implementation like the Circular 16/2013 clearly endorse their use. Contracting authorities deciding to award their own framework agreements therefore need to provide a value-for-money justification for this decision that includes the cost of carrying out the procurement process independently.

In addition to communication directed at contracting authorities, the OGP also developed strategies to further reach companies of all sizes to attract them to public procurement markets, notably SMEs. In order to ensure an optimal approach to SME participation, Ireland has created a SME advisory group composed of different stakeholders. The advisory group meets on a quarterly basis to address industry concerns. Based on this feedback, Ireland organised workshops dedicated to SMEs in 2018. In addition, a SME communications strategy subgroup has been established to help increase awareness of potential opportunities and supports available for SMEs.

Source: Information provided by Office of Government Procurement (OGP).

As shown in the example above, communication can take many forms, but needs to be strategically designed so as to convey the right messages to different audiences. Indeed communication with contracting entities would largely focus on the outcomes achieved by CPBs in terms of savings or in terms of the variety of product offerings. Conversely communication with suppliers would focus on the benefits they can reap from being a vetted supplier, as well as statistics relating to access to public markets.

Aside from incentivising public institutions to further rely on CPBs, countries could also develop focused communication for suppliers. For example, the annual statistical reports elaborated by the National Agency for Public Procurement and the Swedish Competition Authority (Swedish National Agency for Public Procurement and Swedish Competition Authority, n.d.[19]) provide detailed information about the typology of suppliers, their statistical potential to be granted public contracts and the funds received for the provision

of goods, services and public works to the public sector. Communicating on those aspects could provide suppliers with a better understanding of their ability to win public contracts and the benefits derived from them.

In addition, communicating on the benefits of centralisation would allow users and providers to better understand the advantages of centralised procurement instruments. Examples of this type of communication include publishing annual activity reports, and organising dedicated events for both contracting authorities and suppliers. This type of communication could result in a greater uptake of centralised purchasing options and increased competition. As the unit responsible for the overall co-ordination of the four main CPBs at federal level in Germany, the KdB could invest additional efforts into promoting the use of centralised procurement through targeted communication initiatives.

In addition to the active promotion of CPBs' value to users and the touting of their achievements, maximised impacts of centralisation could be attained with the deployment of centralised tools adapted to the needs of users. Furthermore, these centralised tools could utilise the capacity of the private sector to optimise responses to them.

3.2.3. Efficiencies of centralised procurement instruments increase with tailored procurement strategies

Many governments have been increasing their use of framework agreements to achieve costs savings and generate productivity gains over the past years (OECD, 2013[20]). Indeed, framework agreements constitute the lion's share of centralised procurement instruments, and are widely used among OECD countries. Framework agreements follow the same underlying principles. They aggregate multiple needs across the greatest possible number of contracting authorities, and standardise the offering so as to maximise the public sector's purchasing power and reduce red tape costs.

At the same time, procurement strategies adapted to framework agreements should respond to different and sometimes contradictory objectives. Framework agreements can generate operational and administrative efficiencies by reducing red tape costs and delivering economies of scale. At the same time, they also need to address the likely heterogeneity of needs among contracting authorities.

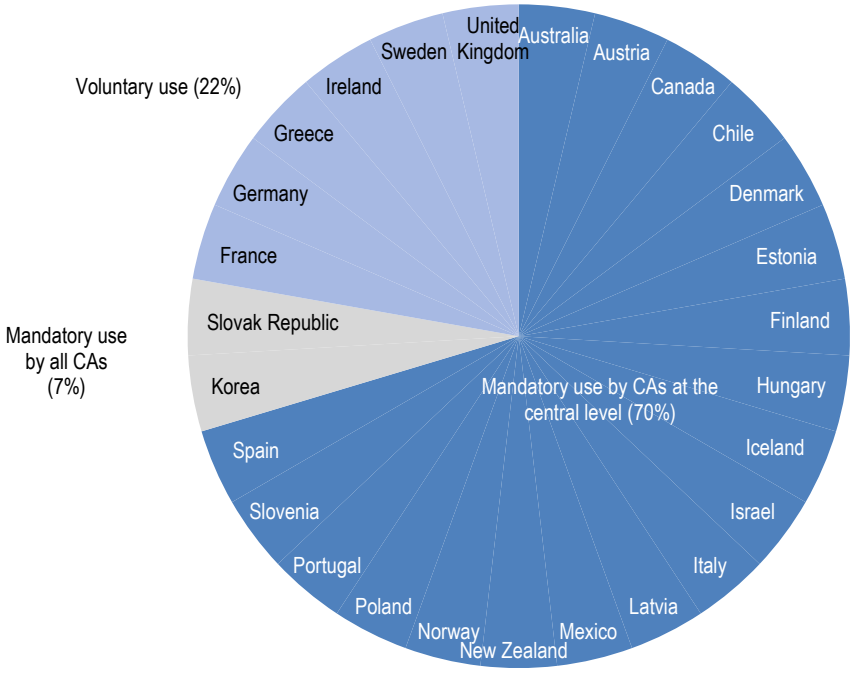
Highly disposable and standardised products require defined procurement strategies aimed at reducing costs. More complex or critical goods and services demand strategies that minimise the likelihood of the disruption of supply. These types of goods and services also prioritise quality over prices. Differences such as these require further considerations with regards to the number of suppliers admitted to the corresponding framework agreement.

In addition to demand analysis, an assessment of market capabilities in response to a CPB's request to implement a framework agreement is also essential during its preparation. Implementing efficient procurement strategies for the award of framework agreements involves understanding market performance and concentration (Church and Ware, 2000[21]). Efficient procurement strategies also require authorities to gather information about the price structure of targeted goods or services. The role of price structures is more pronounced when considering that economies of scale can only occur when suppliers are able to operate at a lower unit cost. An example of this is when production costs comprise a notable fraction of fixed costs, independent of production scales (Albano, Ballarin and Sparro, 2010[22]).

Before looking into the details of specific procurement strategies for the implementation of framework agreements, however, a broader element has to be taken into consideration. Indeed, a critical choice countries must make is whether framework agreements should be mandatory or not. The European Commission stresses the importance of this element, and recommends making framework agreements mostly mandatory (European Commission, n.d.[23]). As discussed above, the voluntary use of framework agreements reinforces the importance of developing attractive value propositions that appeal to contracting

authorities and suppliers. Making framework agreements mandatory provides for greater certainty. It also has potential additional spillover effects for the entire administration beyond public procurement.

Figure 3.4. Mandatory and voluntary use of framework agreements established by CPBs in selected OECD countries



Source: (OECD, 2017[4]), *Government at a Glance 2017*, http://dx.doi.org/10.1787/gov_glance-2017-en.

The vast majority of OECD countries using framework agreements distinguish between contracting authorities at the central and sub-central levels, as shown in Figure 3.4. In the majority of OECD countries, the use of framework agreements is mandatory for public institutions at central level. Institutions on other levels are free to join on a voluntary basis.

By making framework agreements mandatory for central contracting authorities and allowing other institutions to join if they wish, CPBs can rely on a minimum portfolio of clients. At the same time, CPBs have opportunities to expand their client portfolio based on the attractiveness of the offering. The certainty on minimum volumes purchased through framework agreements implied by this structure provides CPBs with a greater understanding of the economic sustainability of its business model.

Given the structure of the federal German public procurement system, the country could consider distinguishing between direct and indirect federal administration in further specifying rules for centralised purchasing and notably in the recourse to framework agreements. At the same time, distinguishing between direct and indirect federal administration might not influence German CPBs' economic efficiency if the procurement volume attracted by existing framework agreements is already high. As for other strategic choices, those policy options depend critically on specific procurement information and subsequent analyses.

Alongside framework agreements, other instruments for pursuing centralisation strategies exist. Examples of these instruments include dynamic purchasing systems and e-catalogues. They generally address

different aspects of centralisation such as increasing inclusiveness of procurement strategies by removing legal barriers to entry or fostering competition at the call-off stage.

Dynamic purchasing systems in the European context allow suppliers to join existing agreements provided they comply with minimum technical criteria. Indeed, as opposed to framework agreements, dynamic purchasing systems only request that suppliers fulfil technical requirements at the initial competition stage. The second stage (call-off stage) then provides for competition among suppliers on the financial aspects. Framework agreements and dynamic purchasing systems are not exclusive and often provide complementary options to respond to collective government procurement.

For low-value contracts and repetitive purchases some countries have implemented e-catalogues in addition to the two instruments listed above, which provide different benefits and also pursue centralisation strategies. While they are not designed to increase direct financial savings they provide indirect economic benefits to both the public sector and suppliers, notably by reducing transaction costs, increasing participation and providing greater transparency. Italy has been able to reap these benefits, as shown in Box 3.4.

Box 3.4. Impact of the use of e-catalogue in Italy

Consip, the national Italian CPB, implemented an electronic catalogue called the Mercato Elettronico della Pubblica amministrazione MEPA for the use of contracting authorities. Unlike other centralised tools, Consip does not act as the contracting authority in procurement procedures conducted via the MEPA. Consip: 1) provides infrastructure and related services; 2) defines authorised product categories; and 3) manages access rights that allow administrations and companies to negotiate their supply contracts with total autonomy.

In 2017, about 600 000 transactions were carried out on the MEPA with a value of EUR 3.1 billion. This compares with EUR 360 million in 2012.The average growth recorded in this period was more than 50% per year.

The MEPA allows contracting authorities to purchase goods, services and works for values below the EU thresholds below which contracting authorities can use simplified procurement procedures. The total volume of procurement procedures carried out under the MEPA accounts for 99% of procurement procedures and for approximately 20% of procurement value.

The MEPA is a tool designed especially for small and medium-sized enterprises, which, in Italy, account for 99% of qualified suppliers. Almost seven in ten companies are micro-enterprises with fewer than ten employees. This means that even companies that do not have a sufficient size to participate in large tenders are able to access public markets.

MEPA provide suppliers with a number of benefits: reduction of commercial costs and optimisation of sales times; opportunities to propose offers throughout the national territory, which enhances the most dynamic and innovative companies; competitiveness and direct comparison with the reference market; and incentives for the renewal of sales processes.

Public administrations also see benefits in making their below-the-threshold purchases on the MEPA. These benefits include: time savings on purchasing procedures; transparency and traceability of the whole process; widening the possibilities of choice for public administrations, as they can compare products offered by suppliers present throughout the national territory; and satisfaction of specific needs, thanks to a wide and deep range of available products and the possibility of issuing requests for offers.

Source: Adapted from Consip (2018), *Consip: il Mercato elettronico della PA (MEPA) supera i 3 miliardi di acquisti nel 2017*, http://www.consip.it/media/news-e-comunicati/consip-il-mercato-elettronico-della-pa-mepa-supera-i-3-miliardi-di-acquisti-nel-2017.

The use of distinct collaborative procurement instruments could provide German CPBs with complementary economic benefits and diverse centralisation strategies. However, choosing a procurement instrument depends to a significant extent on trends and patterns evidenced by analyses of procurement information. This information should also be considered when weighing centralisation strategies.

The German Federal Government initiated a spending review exercise in 2017 to understand major trends in the use of framework agreements in specific product categories, as well as improvements. The spending review's recommendations for action align with many of the OECD's recommendations on centralised procurement. Indeed, this review highlights that further strategic centralisation could be achieved by ensuring that collaborative procurement instruments meet the needs of decentralised contracting authorities. To do so, the review suggests that Germany develop the roles of the KdB and product managers in CPBs to implement a more inclusive approach for addressing the needs of final users. It also points to the strategic importance of regular and structured communication between different stakeholders. Building on these foundations, the review then suggests that federal contracting authorities progressively introduce the mandatory use of framework agreements. Considering their potential for economic efficiency, the review proposes implementing a rule according to which framework agreements have to be used with priority when an option is available for these product categories.

Beside these proposals, the review also addressed opportunities for optimisation of the overall procurement organisation of federal ministries. In particular, the review stated that federal ministries should further examine procurement centralisation in their area of responsibility for a more effective, professional, strategic and demand-oriented procurement system. Finally, the review also recommended procurement centralisation as a means of enhancing legal certainty.

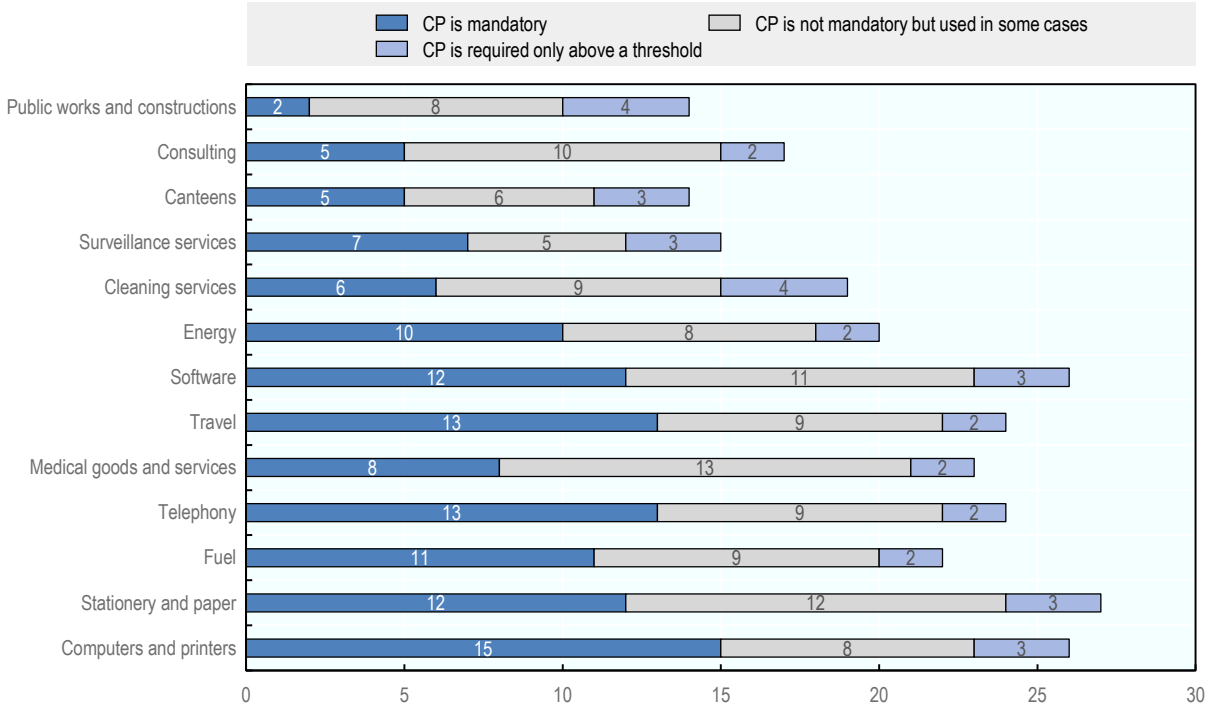
3.2.4. Germany could maximise benefits arising out of centralisation initiatives by further investing in procurement intelligence

To support the costs and benefits assessments of collaborative procurement instruments, e-procurement systems with extended reporting capabilities provide necessary insights. E-procurement can help authorities decide on the centralisation of specific product categories. It can also help policy makers assess the efficiency of collaborative procurement tools in reaching their objectives. Finally, e-procurement can produce economic benefits by reducing red tape, aggregating needs and diversifying the supply base.

Collaborative procurement instruments represent the optimal procurement alternative when CPBs are able to reconcile heterogeneous needs, revenue uncertainty and incentives for suppliers to offer competitive proposals. Furthermore, collaborative procurement instruments are especially effective in a system where contracting authorities have discretionary choices on their use. In accordance with a survey carried out by the Danish Competition Authority on suppliers awarded under a framework agreement, revenue certainty (or uncertainty) is the most decisive factor in a supplier's decision to participate in a call for tender for a framework agreement (Danish Competition and Consumer Authority, 2015[24]).

Increased revenue certainty can come, as discussed above, with a mandatory use of framework agreements. However, it can also be linked to the nature of the goods, services or works targeted for aggregation through the use of framework agreements. Indeed, not all product categories are prone to same centralisation techniques, as shown in Figure 3.5.

Figure 3.5. Product categories used by CPBs in OECD countries, 2016



Source: Adapted from (OECD, 2017[4]), *Government at a Glance 2017*, http://dx.doi.org/10.1787/gov_glance-2017-en.

Choices between different centralisation strategies are often made based on product characteristics, market structure and demand analysis. Indeed, maximised benefits from centralised instruments such as framework agreements occur when: 1) demand can be accurately assessed; and 2) when suppliers can provide offers based on reasonable estimates of procurement volumes.

For now, the needs of German federal contracting authorities are collected through different means, including ad-hoc surveys, Excel, files and web forms. These diverse collection mechanisms prevent authorities from conducting a detailed and consistent assessment of individual needs. This ultimately hinders the ability of German CPBs' to define the most suitable procurement strategies for maximising value creation.

In most of cases, estimates of needs on the demand side does not exceed six months – despite the fact that framework agreements typically run for several years. While this might not affect total volume estimates in certain product categories, other categories are more volatile. This means that volume estimates would not offer optimum benefits because of revenue uncertainties and fluctuations.

A structured approach to needs collection would provide German CPBs with a greater understanding of the demand side of procurement. In turn, this could influence procurement strategy. From the type of collaborative procurement instrument to the number of suppliers and the duration of the contracts. OECD interviews with authorities showed that long-term projections of needs at German CPBs are lacking in certain areas.

To develop estimates of demand-side needs that are as accurate possible, CPBs could consider verifying self-needs of contracting authorities against could consider past procurement spending. Such investigations could prove decisive when designing future procurement strategies and developing corresponding tender documentation. Several elements contribute to sound future procurement strategies.

These elements include: information on the share of products transacted, distribution of revenues across suppliers in cases where multiple suppliers have participated and patterns relating to purchasing cycles.

International examples, such as in Korea, the United States and Chile, show that strategic centralisation relies heavily on a strong underlying technological environment. In turn, this environment promotes evidence-based decision-making, as shown in Box 3.5.

Box 3.5. Assessing operational efficiencies of framework agreements in Chile

Chile's central purchasing body, the Directorate of Government Procurement and Contracting of Chile (also known as ChileCompra), has developed framework agreements in a number of product categories. In addition, Chile's CPB has also developed an electronic marketplace called ChileCompra Express where purchase orders can be processed by contracting authorities.

In 2014, around 850 public entities procured goods and services through the electronic platform administered by ChileCompra. That same year, a total of 810,434 purchase orders valued at approximately USD 1.8 billion were made on ChileCompra Express. The number and value of purchases made via ChileCompra's electronic platform made it the largest virtual store in the country – almost equivalent to all private electronic commerce in Chile.

ChileCompra's electronic platform provides detailed procurement information. This information informs future procurement strategies and allows the CPB to carry out multidimensional efficiency assessments of existing framework agreements. Furthermore, the platform provides:

- ***User benefits due to the use of framework agreements.*** In Chile, a dual arrangement exists where central contracting authorities are obliged to use framework agreements and municipalities, the army and police forces can voluntarily adhere to them. Through this arrangement, authorities are able to gather information on the number of products purchased under framework agreements and those procured outside these agreements. In turn, this information allows authorities to gain greater understanding of their capability to respond to user requirements. ChileCompra can also optimise the product offering under framework agreements to users' needs because it has access to detailed information on the share and number of products transacted under each framework agreement.
- ***Benefits for suppliers participating in framework agreements.*** Detailed analyses of transactions carried out on ChileCompra's e-procurement platform allow authorities to assess the share of transacting suppliers (i.e. suppliers having received at least on purchase order) and the revenue accumulated by the biggest suppliers.. These analyses can then provide information on market concentration and optimal design (in terms of the number of suppliers). Such analyses can be coupled with an assessment of the number of suppliers providing the same products to gain a better understanding of market structure and benefits for the suppliers.
- ***CPB's costs in operating framework agreements.*** To assess the cost effectiveness of framework agreements, ChileCompra carries out analyses on the internal costs associated with the management of framework agreements. It can also calculate the average number of hours spent on modifications to the online catalogue, according to the type of modifications.

Source: Adapted from (OECD, 2017[8]), *Public Procurement in Chile: Policy Options for Efficient and Inclusive Framework Agreements*.

Detailed analyses of the demand and supply-side of procurement allow countries to decide on the optimal centralisation tool for their unique contexts. The centralisation tools countries can choose from include framework agreements with one or multiple suppliers, e-catalogues and dynamic purchasing systems.

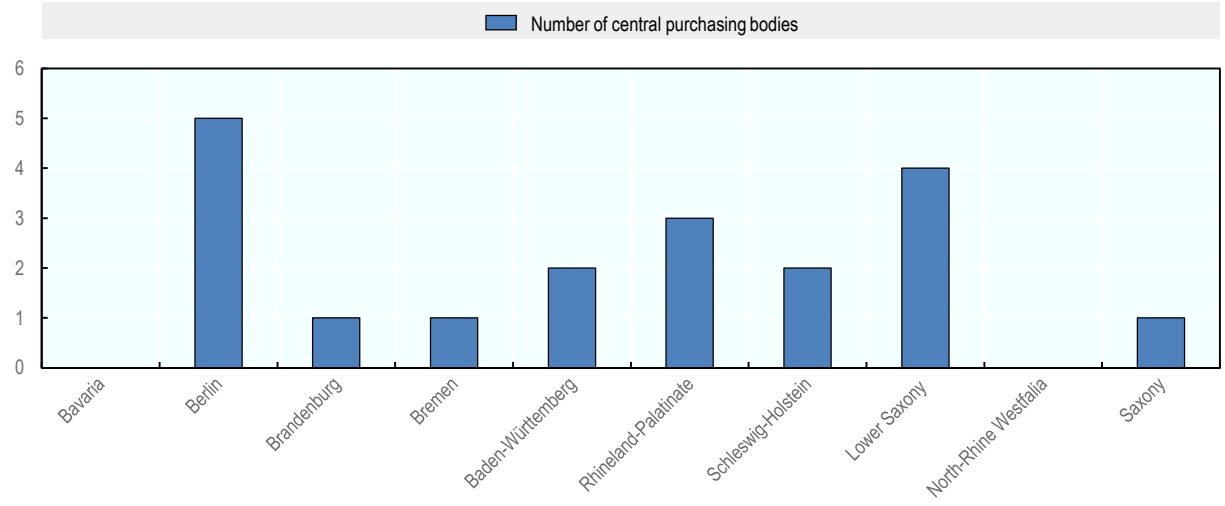
Indeed, different procurement instruments provide for alternatives in the mechanisms used for pooling the needs of the public sector and defining supply arrangements.

3.3. Different centralisation strategies and practices exist in Germany's *Länder*

3.3.1. An overview of centralisation strategies in the Länder

Centralisation initiatives developed at the federal level in Germany often mirror those carried out at the sub-central level. In addition, federal-level centralisation initiatives can reflect initiatives begun at the sub-central level. That said, an OECD survey carried out at the *Länder* level revealed differences that provide additional insights into the state of centralisation in Germany (see Figure 3.6). Accounting for more than two-thirds of procurement expenditure, the centralisation initiatives undertaken at the sub-central level in Germany could provide substantial economic impacts.

Figure 3.6. CPBs in the German Länder, a quantitative overview



Note: *While North-Rhine Westphalia (Nordrhein-Westfalen, NRW) does not have CPBs, NRW has introduced the concept of lead buyers. This means that certain entities can centralise the procurement activities of other institutions. There are eight lead buyers in NRW.*
Source: Responses from German federal and state-level institutions to an OECD questionnaire and interviews.

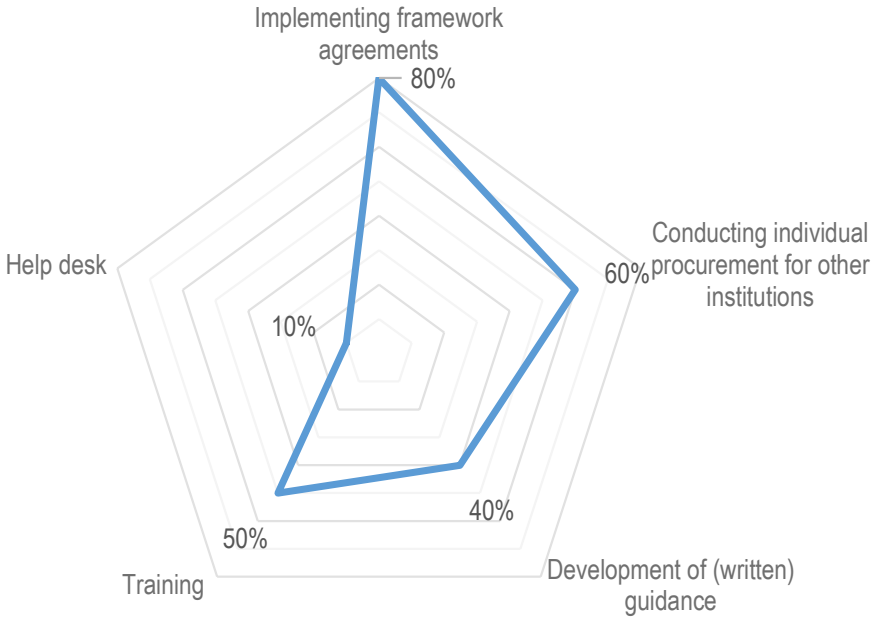
As shown in the figure above, a number of *Länder* have implemented different CPBs. Almost all of these CPBs function as specialised units for certain product categories. One noticeable exception is the CPB in Lower Saxony (Logistik Zentrum Niedersachsen, LZN). The LZN has a broader mandate than other CPBs in that it provides *Länder* across the country with protective clothing for police forces, forestry and correctional services.

Even in *Länder* where CPBs do not exist, such as in North-Rhine Westphalia (Nordrhein-Westfalen, NRW), centralisation initiatives exist. Indeed, NRW has implemented a concept of lead buyers, whereby if a public entity is designated as a lead buyer in certain product categories, other public institutions are obliged to purchase those products via the lead buyer. The concept differs from the functioning of CPBs, since lead buyers primarily procure for themselves. However, the concept also operates according to certain

overarching principles that are common to collaborative procurement and centralised institutions. These principles include responding to diverse needs and delegating oversight on contract execution to decentralised contracting authorities.

In terms of the roles carried out by CPBs at the *Länder* level, analyses show that these CPBs mostly implement framework agreements for the use of other contracting authorities at the *Länder*-level. However, some CPBs such as that of the City State of Berlin, have expanded their role to ad-hoc support and training (see Figure 3.7).

Figure 3.7. The roles of CPBs at the Länder level in Germany

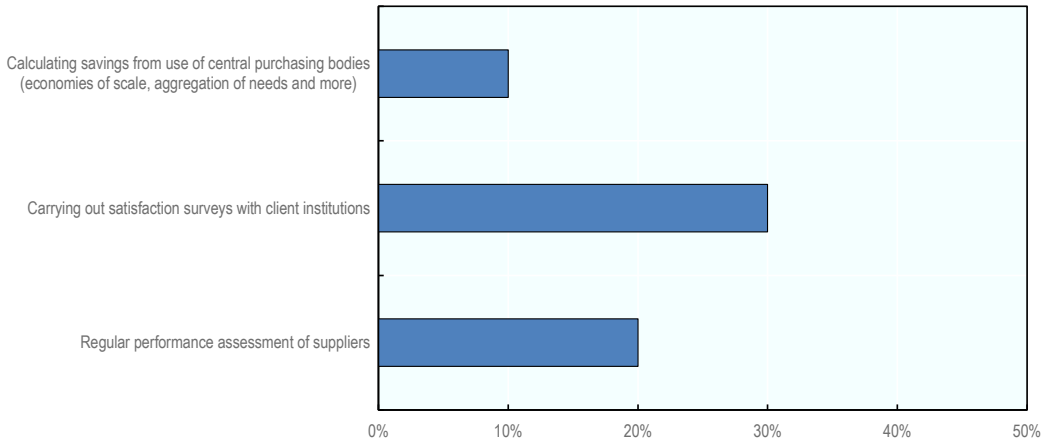


Source: Responses from German federal and state-level institutions to an OECD questionnaire and interviews.

The most common activity of CPBs at the *Länder* level is implementing framework agreements on behalf of contracting authorities. That said, *Länder*-level CPBs and contracting authorities also carry out the collection of needs on an ad-hoc basis through informal contacts. One interesting exception lies with the CPB in Lower-Saxony, which carries out surveys with client institutions in a thorough manner, and analyses past procurement spending. As discussed further below, the reason why this CPB carries out stronger demand analysis might reside in its specific status as a wholesaler.

Länder seldom carry out assessments of their CPBs' operational efficiencies and financial impacts. Interestingly, the first and most common objective of CPBs – that of generating savings through centralisation – is the least measured in the German *Länder* (see Figure 3.8).

Figure 3.8. Measuring the performance of CPBs in Germany's *Länder*



Source: Responses from German federal and state-level institutions to an OECD questionnaire and interviews.

In fact, only one institution, the CPB of Schleswig-Holstein, has reported calculating savings generated through the use of centralised procurement instruments. Another *Länder*, North-Rhine Westphalia, is in the process of defining a methodology to calculate savings deriving from centralised initiatives. That said, North-Rhine Westphalia is one of the few *Länder* that does not have a CPB, but rather uses the lead buyer concept. The following two boxes, Box 3.6 and Box 3.7, feature two of the centralisation initiatives at *Länder* level in more detail: those in Lower-Saxony and in Schleswig-Holstein.

Box 3.6. Alternatives in institutional settings for CPBs: The case of Lower-Saxony

In the beginning of the 2000s, the state of Lower-Saxony took a strong centralised approach to public procurement at the *Länder* level. It empowered five different CPBs to procure goods, services, works and infrastructure. Two main procurement entities fall under the responsibility of the Ministry of Interior and Sports. They are:

- the Logistic Centre of Lower-Saxony (Logistik Zentrum Niedersachsen, LZN), a state-owned enterprise founded in 2001
- IT.Niedersachsen, an office that in 2013 succeeded the State Office for Statistics and Telecommunications of Lower-Saxony (Landesbetrieb für Statistik und Kommunikationstechnologie Niedersachsen, LSKN).

In principle, all direct administrations in Lower Saxony are obliged to procure through these two CPBs. Indirect public administrations can join existing collaborative procurement instruments. To manage centralised tools, both CPBs have also developed electronic platforms on which individual contracting authorities can place orders.

IT.Niedersachsen is responsible for the procurement of goods and services in the field of information technology and telecommunications. The LZN has a more general mandate in that it is responsible for the procurement of all other goods and services, with the exception of public buildings and infrastructure.

The LZN supplies more than 2 300 offices of the state of Lower Saxony. More than 100 000 standardised articles can be accessed from around 40 catalogues via its online system. IT.Niedersachsen provides centralised procurement of IT hardware and software for around 50 000 users.

Aside from aggregation strategies leading to the implementation of framework agreements, these entities also support individual procurement of by contracting authorities. Both not-for-profit entities are financed through fixed fees added to the prices of standard products and on a cost recovery basis for ad-hoc services.

At present, IT.Niedersachsen is embedding some of the main objectives of the Lower-Saxony Digital Strategy 2025 into its procurement strategies. This strategy reaffirms the importance of centralised and standardised procurement for achieving the objectives of greater data security and interoperability. It also stresses the importance of skilled procurement officials in supporting the needs of individual contracting authorities.

Source: Responses from German federal and state-level institutions to an OECD questionnaire and interviews.

Box 3.7. Increasing the use of CPBs: The case of Schleswig-Holstein

The Building Management Schleswig-Holstein (Gebäudemanagement Schleswig-Holstein, GMSH) is a state-owned enterprise responsible for property management of all public buildings in the state. The GMSH also serves as a CPB for the procurement of all sorts of goods and services.

A noticeable feature of this CPB is its operating model. While most CPBs procure on behalf of contracting authorities that place individual orders when a specific need arises, the GMSH serves as a wholesaler. This means that the GMSH buys products and resells them to contracting authorities. This model is not common in OECD countries, but it does exist in France, with the national CPB UGAP (Union des Groupements d'Achats Publics). Wholesale models such as this are usually financed via sales revenue.

The total procurement expenditure managed by GMSH in 2017 amounted to approximately EUR 350 million. This figure falls in line with average annual procurement levels. Prior to 2017, the GMSH embarked on two years of exceptional procurement spending (around EUR 650 million) due to the heavy construction work it undertook to host refugees.

All direct public administrations in Schleswig-Holstein are obliged to use the centralised procurement services of GMSH. Indirect public administrations and municipalities can use centralised procurement instruments on a voluntary basis. The share of procurement carried out for contracting authorities using the services of GMSH voluntarily has steadily increased by 10% every year, thanks to a greater understanding of the benefits of centralisation. In 2016, more than 53% of the 75 municipalities surveyed reported using the services of GMSH (Wegweiser, 2016[25]).

The benefits of using the GMSH began to be better highlighted and communicated following the reorganisation of the GMSH in 2005, and the creation of a sales team. This strategic reorganisation corresponded to a law passed by the government of Schleswig-Holstein the same year. The law mandated that all direct public administrations procure through the GMSH.

Specific aggregation strategies have been implemented for certain product categories to maximise financial benefits for both the CPB (which adds a margin to the purchased price) and for the contracting authorities. Because of its operating model and financing structure, GMSH is incentivised to identify product categories that are prone to economies of scale.

Because of this, the GMSH has created a specific unit dedicated to standardisation to ensure that costs-benefit analyses of aggregation through framework agreements are carried out whenever the same product is being ordered more than five times in a year. Depending on the most beneficial outcomes, framework agreements are either concluded with one or multiple suppliers. These efforts have led to an increase in the use of framework agreements where their volume corresponds to 75% of the total procurement volume of GMSH.

Source: Responses from German federal and state-level institutions to an OECD questionnaire and interviews.

Proposals for action

Centralisation initiatives maximise the attractiveness of their value propositions by adapting structures and tools tailored to specific objectives. These objectives include increased financial benefits stemming from economies of scale and the development of procurement expertise that supports decentralised entities.

Ensuring that centralisation strategies – from institutional settings to roles and financing schemes – are tailored to stakeholders' needs and expectations creates economic benefits. Germany can tailor centralisation to stakeholders' needs by further emphasising strategic alignment between different stakeholders participating in centralisation efforts. Notably, German public authorities could:

- reinforce links between CPBs and the unit responsible for the electronic platform on which products and services subject to centralisation strategies are ordered
- tailor operating models of CPBs according to specific centralisation objectives and characteristics of the product categories in which they operate.

These aims could be achieved by:

- deciding on mandatory or voluntary use of CPBs for direct federal administration, depending on the centralisation objectives
- defining the roles of CPBs – be it in order to aggregate needs, support individual contracting authorities in ad-hoc procurement processes or developing training activities
- adapting the financing structure of the CPBs according to their roles.

Germany could implement a number of measures and initiatives to maximise the impact of centralised procurement instruments. Maximised impact could be achieved by:

- Implementing a structured and automated method for collecting and analysing the needs of contracting authorities. Such a method could provide greater visibility to the estimated procurement volumes of contracting authorities. It could also help authorities to monitor the effective use of centralised procurement instruments and refine demand analysis over time.
- Developing indicators, such as the volume of centralised procurement as a share of all procurement, so that authorities better understand the potential benefits of centralisation
- Strengthening communication with both contracting authorities and suppliers on the benefits of centralisation. Stronger communication would encourage greater use of centralised purchasing options and increased competition. At the federal level, the KdB could undertake communication strategies, considering its co-ordination role.
- Diversifying collaborative procurement instruments would provide complementary centralisation benefits. Collaborative procurement instruments could include dynamic purchasing systems and e-catalogues.
- Devoting additional resources to strengthening the technological environment supporting the implementation of centralisation strategies so as to increase analysis of procurement performance data.

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4 Electronic procurement in Germany

As part of the broader digitalisation of government activity, electronic procurement (e-procurement) is changing the way the public and private sectors interact. The benefits of this transition include increased efficiency in the execution of tenders, reduced cost of tendering for suppliers and improvements in the collection and use of data. Recent EU directives have imposed deadlines for the implementation of e-procurement in EU member states, yet low maturity in electronic tendering presents timeframe challenges for both contracting authorities and suppliers. This chapter identifies barriers to implementing e-procurement at different levels of German government. Notably, it discusses the complexity of the technological environment, the need to improve visibility of procurement information and enhance systematic data collection. Finally, the chapter offers avenues for expanding and systematising e-procurement usage by embedding efforts into change management plans, building on stakeholder engagement and linking e-procurement to the wider digitalisation agenda in Germany.

A continued challenge for governments is providing adequate public services while containing budgetary pressures (OECD, 2017[1]). In order to meet this challenge, countries have implemented reforms that seek to increase the effectiveness of the public sector, while improving the efficiency of government spending. The digitalisation of government activity presents an opportunity to increase the productivity of civil servants, while also radically improving government's interaction with citizens, businesses and civil society. The *OECD Recommendation of the Council on Public Procurement* advocates for the use of electronic procurement (e-procurement) to achieve governmental objectives through the strategic use of public procurement (see Box 4.1).

Box 4.1. OECD Recommendation of the Council on Public Procurement: Principle on e-procurement

The Council:

VII. RECOMMENDS that Adherents improve the public procurement system by harnessing the use of digital technologies to support appropriate e-procurement innovations throughout the procurement cycle.

To this end, Adherents should:

i. Employ recent digital technology developments that allow integrated e-procurement solutions covering the procurement cycle. Information and communication technologies should be used in public procurement to ensure transparency and access to public tenders, increasing competition, simplifying processes for contract award and management, driving cost savings and integrating public procurement and public finance information.

ii. Pursue state-of-the-art e-procurement tools that are modular, flexible, scalable and secure, in order to assure business continuity, privacy and integrity, provide fair treatment and protect sensitive data, while supplying the core capabilities and functions that allow business innovation. E-procurement tools should be simple to use and appropriate to their purpose, and consistent across procurement agencies, to the extent possible; excessively complicated systems could create implementation risks and challenges for new entrants or small and medium enterprises.

Source: (OECD, 2015[2]), *OECD Recommendation of the Council on Public Procurement*, http://www.oecd.org/gov/public-procurement/recommendation/.

In 2012, the European Union (EU) presented its view of the benefits of digitalisation of public procurement in member states. These benefits include:

- significant savings for all parties
- simplified and shortened processes
- reductions in red-tape and administrative burdens
- increased transparency
- greater innovation
- increased opportunities due to improved access for businesses to public procurement markets, including increased opportunities for small and medium-sized enterprises (SMEs) (European Commission, 2012[3]).

E-procurement promotes the diffusion of innovation, investment in knowledge-based capital and investment in information and communications technologies (ICT). E-procurement also enables the spillover of innovation and these investments to the greater economy (OECD, 2015[4]; OECD, 2013[5];

OECD, 2011[6]). Investment in e-procurement is particularly important for Germany. The German federal government's spending on ICT is one of the lowest among OECD countries (OECD, 2015[7]). In addition, the government's limited use of electronic governance and procurement techniques, along with restrictive regulations on certain sectors (e.g. telecommunications), hampers growth and valuable competition (OECD, 2017[1]).

A 2017 OECD review of economic policy in Germany found that the country's "government administrations make little use of electronic governance and procurement techniques" (OECD, 2017[1]). In response, Germany has renewed its focus on increasing the reach and use of electronic procurement. In addition the growing appreciation of the benefits of e-procurement, Germany is taking steps to increase the use of electronic procurement because of legislative timeframes imposed by the European Union. These timeframes aim to encourage the adoption of e-procurement among member states.

As discussed above, the proliferation of e-procurement globally, as well as in Germany, has resulted in efficiencies for procurement practitioners and suppliers (OECD, 2017[8]). However, those efficiencies can be eroded where systems are not designed to avoid mistakes and repetitive tasks and to streamline processes such as data collection. The benefits of e-procurement may seem apparent, yet the measurement of the benefits of e-procurement systems is still in its infancy. Among OECD countries, 66% do not measure the efficiencies or savings generated by e-procurement. A failure to understand or measure the impacts of e-procurement does mean, however, that countries will not still reap the benefits from its implementation (OECD, 2017[8]).

OECD stakeholder interviews revealed that the main barriers to realising the benefits of e-procurement in Germany are the following:

- Many contracting authorities, in particular at the *Länder* (state) and municipal level, have not yet transitioned to the use of e-procurement platforms to execute tenders or broadly, to fully cover the procurement cycle.
- Businesses in Germany do not have deep experience with using e-procurement to respond to public tenders.
- Some of the e-procurement platforms that are currently used by contracting authorities, particularly in municipalities, do not seem to comply with national standards for sharing of tender information across platforms.
- Germany does not collect procurement data on the activity that occurs across different e-procurement platforms for further use and analysis.
- Germany has not integrated relevant information on procurement and economic activity held in different government databases at the federal level for comparison and analysis.
- Systems are not widely used to manage other parts of the procurement cycle, including payment and contract execution.

The renewed focus on e-procurement in Germany has resulted in the initiation of a number of activities to meet the EU deadline. Germany's approach to implementing these initiatives and overcoming the current challenges will determine the extent to which potential benefits from e-procurement are fully realised. This chapter analyses the current state of public e-procurement in Germany, its impact on the procurement system and the initiatives in place to make improvements. Based on a comparison with e-procurement practices in other countries, the chapter makes recommendations regarding e-procurement in Germany that are in line with international best practices.

4.1. The regulatory and system landscape for e-procurement in Germany

4.1.1. Implementation of the recent EU directives has provided an opportunity for Germany to enhance its use of e-procurement

At present, contracting authorities at all levels of government in Germany either: 1) do not use e-procurement platforms consistently; or 2) use a number of different platforms. This fragmented approach to the use of e-procurement makes it extremely challenging for federal or sub-national bodies to effectively monitor or analyse procurement activity across the country. This fragmentation also leads to inconsistencies in how government interacts with the supply market. As a result, the federal government has supplemented initiatives to digitalise procurement with an effort to gather data from contracting authorities on their procurement activities.

To encourage the adoption of e-procurement across Europe and ensure both governments and businesses benefit from the digitalisation of processes, the EU directives of 2014 required member states to comply with the following deadlines:

- Tender opportunities and tender documents for tenders above the procurement value specified by the EU threshold had to be made electronically available by April 2016. (April 2016 was the date by which each country was required to transpose the revised EU directive to its country-specific legal system).
- Central purchasing bodies were required to move to full electronic means of communication, including electronic bid submission for tenders above the EU threshold, by April 2017.
- E-submission was made mandatory for all contracting authorities and all procurement procedures above the EU threshold starting in October 2018 (two years after the expected transposition of the revised directive by each member country) (European Commission, 2016[9]).

Germany's first step towards meeting these milestones was to reform its federal procurement legislation. The recent reforms of German procurement law, which were based on the EU directives of 2014, aimed to achieve the following objectives in relation to e-procurement:

- Electronic communication should be mandatory for the procurement process. However, small municipal procurement entities, as well as SMEs, must be given timeframe flexibility to fully achieve electronic processes.
- At present, there is no reliable data on public procurement in Germany. Reliable statistics on public procurement needs to be generated through systematic data collection.

Two legal changes have been introduced in order to achieve these objectives:

- The mandatory use of electronic communications and the corresponding milestones were enacted through changes made to the Law Against Restraints on Competition (Gesetz gegen Wettbewerbsbeschränkungen, GWB).
- An ordinance was passed (the Ordinance on Public Procurement Statistics, Vergabestatistikverordnung, VergStatVO) to mandate the collection of procurement-related data (as discussed in further detail in section 4.2.1).

The scope of the legislation to mandate the use of electronic communications in Germany covers all major stages of the procurement procedure. These stages include the provision of tender documents, the description of services via an online platform, the electronic submission of bids and the publication of contract notices. The transition to electronic means of communication is mandatory for all processes that are subject to procurement legislation, regardless of the good or service that is being purchased (Bundesministerium für Wirtschaft und Energie, 2017[10]).

The procurement legal framework (Code of Procedure for Procuring Suppliers and Services below EU-Thresholds, UVgO) has also been extended to include tenders below the EU threshold. According to the revised legislation, contracting authorities must implement electronic communications for tenders above the EU threshold by 2018. In the case of tenders below the threshold, contracting authorities must implement electronic communications by 2020. This excludes the procurement method of direct awards, which can be applied for procurements below a value of EUR 25 000. In order to be enacted beyond the federal government, these mandates will need to be included in the budget laws of each German state. As of the end of 2017, the city-state of Hamburg became the second state to implement the revised thresholds (Cosinex, 2017[11]).

In the course of advising member countries on the implementation of the e-invoicing directive, the EU suggested a number of approaches for national rollouts of e-procurement tools (European Multi-Stakeholder Forum on e-Invoicing, 2016[12]):

- Individual public sector organisations may be integrated for operational purposes into a centrally provided infrastructure, such as a national portal or set of gateways through which public sector transactions are captured and then distributed to the various central, local and autonomous bodies making up the public sector.
- In the absence of any centrally provided guidance, contracting authorities may be entirely free to decide on and implement their own e-procurement models.
- Alternatively, contracting authorities may be required to establish their own models, but only in accordance with centrally provided guidelines or standards.

Currently, e-procurement in Germany most closely aligns with the third option (contracting authorities can establish their own models as long as they closely align with centrally provided guidelines). The federal system in Germany provides states with a large amount of autonomy over legislation and policy. Each state has an established way of working that does not always align with other states or the approaches taken by the federal government. Because of this, the federal government has attempted to introduce initiatives that co-ordinate activity and set common standards. These initiatives can then reap the benefits of a standardised way of working while respecting states' autonomy.

Despite the fact that the federal government has a greater degree of control over contracting authorities at the federal level, co-ordination of e-procurement activity at the federal level can be challenging. At this level of government, fragmentation of approaches can persist. This fragmentation underscores how responsibilities for procurement governance are shared across several federal institutions in Germany. For example:

- The Federal Ministry for Economic Affairs and Energy (BMWi) manages legislation dictating the use of e-procurement and all resulting statistical analyses of procurement data.
- The e-procurement project (*Projekt E-Beschaffung*) is managed by the Federal Ministry of the Interior, Building and Community, (Bundesministerium des Innern, für Bau und Heimat, BMI) and developed and implemented by a unit within the Federal Procurement Office of the BMI (BeschA).
- A separate unit within BeschA manages the Kaufhaus des Bundes (KdB), an e-catalogue system for products and services from framework agreements. It is important to note, however, that four different central purchasing bodies develop these framework agreements.

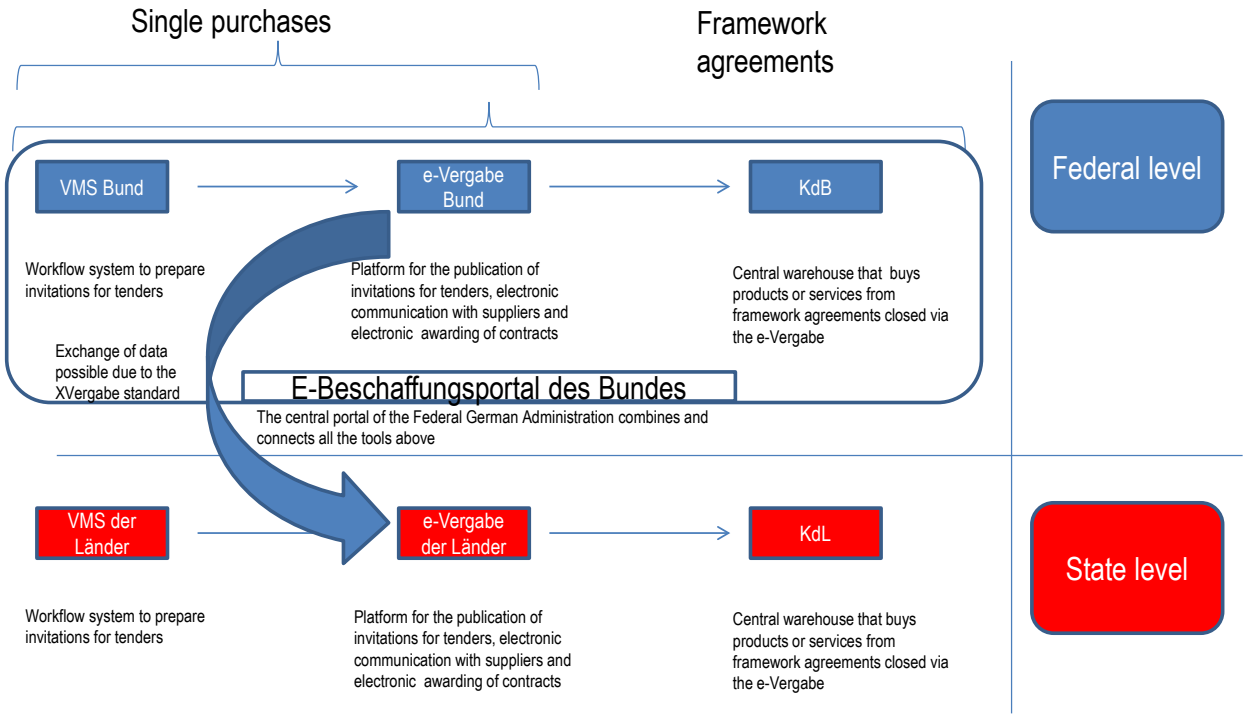
The current focus on e-procurement activity through the implementation of the EU directives presents Germany with an opportunity to find an approach that can be harmonised across different levels of government. Various stakeholder groups should agree on the approach to ensure alignment across the different institutions that will have a key role in ensuring the effective implementation and use of e-procurement systems. At present, an inter-ministerial working group on e-procurement (UAG e-Beschaffung) exists at the federal level. By convening a broader working group on e-procurement at the national level, however, all relevant stakeholders (including representatives of the private sector) can be

brought together to ensure that progress towards implementing the EU directives can be monitored. A broader working group would also enable practices to be shared with the goal of working towards standardisation.

4.1.2. The fragmented e-procurement environment requires co-ordination and governance in order to maintain common standards and alignment

Germany's federal system and the distribution of responsibilities for e-procurement across a number of different bodies have resulted in a fragmented approach to e-procurement. The variance in e-procurement practices across Germany is acutely apparent in the proliferation of different electronic platforms (see Figure 4.1).

Figure 4.1. E-procurement platforms used by contracting authorities across Germany



Source: Responses from German federal and state-level institutions to an OECD questionnaire and interviews.

As Figure 4.1 indicates, the lack of a mandatory e-procurement platform for Germany as a whole has resulted in an open e-procurement market. A number of firms compete to provide e-procurement services to contracting authorities, often competing with platforms that have been developed or managed by the government. The federal level of the German administration has been able to establish a mandatory e-procurement platform for all federal government agencies. This platform is not open to the *Länder* or municipal authorities, however. The open e-procurement market has led to a situation in which dozens of different platforms exist across different levels of government. To be able to manage tender processes for the federal government, these platforms must comply with federal procurement legislation. The systems used across the *Länder* must also be able to cater to regional differences in regulation. This system of multiple platforms tailored to different regulations ultimately impacts the ability of Germany to standardise systems across the country.

Over time, e-procurement systems and technologies have evolved. Portals that use the Internet as a communication tool to support traditional procurement have grown into digital tools that automate and increase the efficiency of the procurement process (United Nations, 2006[13]). The significant benefits of modern e-procurement systems include their ability to transfer knowledge and guide procurement staff through legal frameworks, as well as their ability to help staff follow best practices for procurement (EBRD; UNCITRAL, 2015[14]). In Germany's fragmented environment, however, the automation and standardisation of processes through electronic tools has become increasingly difficult. This is unfortunate, given that procurement professionals are spread widely across 30 000 contracting authorities in Germany (see Chapter 6). This diffusion makes knowledge transfer and standardisation even more important, as such practices can build the capabilities of state- and municipal-level procurement staff.

Nevertheless, opening the e-procurement market to competition offered several benefits, such as providing contracting authorities with the freedom to choose the platform that is best suited to their needs or to the needs of a particular procurement. Opening the e-procurement market to competition also means e-procurement providers have the ability to supply innovative solutions to public buyers. This means public buyers do not have to choose from a monopolised market dominated by one given provider. In turn, this leads to a thriving market.

In order to overcome the challenges of fragmentation, Germany's federal government took steps to build a level of standardisation across e-procurement systems. By building this level of standardisation, the government attempted to ensure interoperability among the various platforms across the country. As a part of these efforts, Germany developed a common e-procurement standard called xVergabe. XVergabe, according to the Procurement Office of the BMI, "defines a cross-platform data and exchange process standard between bidder clients and tendering platforms which ensures the compatibility of data processed by diverse procurement platforms". The objective of the xVergabe project was to achieve broader participation in the digital bidding and awarding process. It sought to do so not by achieving standardisation of software products, but by ensuring that data could be exchanged between different platforms (Beschaffungsamt des Bundesministeriums des Innern, 2017[15]). As a result of this project, tenders posted by a contracting authority on a given platform are automatically transmitted to all other registered platforms, as well as (where applicable) to TED.

Thanks to the requirements that xVergabe puts onto platform providers, an automated import is able to export tender information to the federal platform (*www.bund.de*). This ensures that suppliers are able to visit one site in order to view all tenders above EUR 25 000. The xVergabe standard also introduces a functionality that ensures that suppliers who are registered on one compliant tender portal are automatically registered in all other compliant platforms, including at the state-level. However, according to stakeholder interviews conducted by the OECD, xVergabe has not yet been widely implemented at all levels of government. For example, some states indicated that, while most systems have enabled a connection between their system and the European e-procurement platform (TED), some e-procurement systems have been unable to connect to the federal system. Some authorities in Germany are concerned about the security of sharing procurement information across different platforms. At the same time, however, all over-threshold tenders posted in the majority of German states will be transmitted to TED. Unfortunately, this same functionality has not yet been implemented to enable connectivity across all of Germany.

As a result, a cottage industry of specialised service providers has sprung up in Germany to help economic operators identify suitable opportunities amongst the numerous e-procurement platforms used by government (European Commission, 2016[16]). However, not all suppliers are likely to have the time or resources to either conduct (or outsource) monitoring of a multitude of platforms for tender opportunities. This helps to explain why SME participation in public tenders has fallen (European Commission, 2017[17]). While the share of public contracts awarded to SMEs has increased, the fall in tender participation also correlates to a fall in the number of businesses submitting tender responses electronically (European Commission, 2016[18]).

The new EU directives specifically mention that tools and devices used for communicating tender information electronically should be non-discriminatory, generally available, interoperable and in alignment with the principles of the *OECD Recommendation of the Council on Public Procurement*. This means that electronic platforms should not restrict the ability of a company to participate in a public procurement procedure. For example, a platform used by a public buyer cannot oblige a company to purchase software that is not generally available for replies to tenders.

Ensuring that platforms in operation at the federal level are compliant with xVergabe and EU directives will require ongoing governance and oversight from the federal government. However, achieving system-wide oversight within a decentralised environment can be challenging. As demonstrated in Box 4.2, Italy's national government has worked with dedicated regional bodies to promote the use of e-procurement and co-ordinate data gathering across each region.

Box 4.2. Regional coordination of e-procurement in Italy

The public procurement landscape in Italy is complex. One central purchasing body (CPB), Consip, is responsible for centralised procurement, e-procurement and the monitoring of approximately 36 000 contracting authorities. Only 13 ministries operate at the national level in Italy. At the same time, the local government is split into 20 regions, 110 provinces and 8 101 municipalities.

In order to support Consip in co-ordinating procurement activity across the country, Italy gave legal authority to a permanent group of public procurement aggregators in 2014. The 35 institutions given this authority included 21 regional CPBs, Consip itself and a select number of municipal cities. Italy then established a permanent technical working group in 2015 to allow representatives of the 35 institutions to co-ordinate their objectives. These objectives include:

- assuring co-ordinated planning activities
- strengthening capabilities around needs forecasting
- gathering data on the needs expressed by public administrations
- defining common methodologies and languages
- constructing a common and complete database in order to provide information to policy makers
- monitoring the effects of demand aggregation
- defining and circulating best practices
- promoting the use of e-procurement.

The Italian National Anti-Corruption Authority (ANAC) monitors the work of public procurement aggregators. The ANAC ensures that each CPB is qualified to conduct its work on the basis of a number of basic and additional requirements:

1. **basic**: appropriate organisational structure, skill levels of employees, training of employees and compliance with payment terms, among others;
2. **additional**: quality certifications, number of complaints received, use of electronic means of communications and use of social and environmental criteria, among others.

Source: Russo (2016), General Presentation on Consip, http://www.chilecompra.cl/wp-content/uploads/2017/01/Chile-12-Dec-consip-general-presentation-.ppt.

In order to manage the proliferation of e-procurement systems in Germany and make it easier for suppliers to identify and respond to tenders, mechanisms are needed to strengthen governance over the e-procurement activity of federal contracting authorities. Any governance structure must also consider how

the implementation of xVergabe by suppliers of e-procurement systems to the federal government is monitored and encouraged. At the same time, the government should continue to co-ordinate with state-level partners to ensure that e-procurement platform providers across the country develop platforms that meet national standards.

4.2. Enabling the efficient collection and analysis of public procurement data to deliver insights

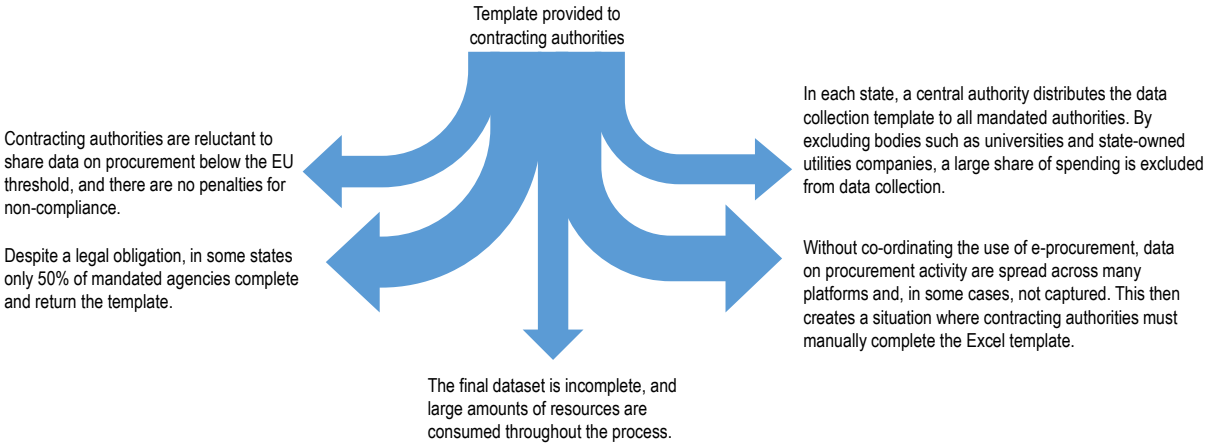
4.2.1. Authorities could build on xVergabe and increased automation throughout the system to gain a more holistic set of public procurement statistics for Germany

While implementing the EU directives on public procurement into German federal law, the German government sought to go beyond the implementation of electronic tender processes. In doing so, the government sought to establish measures that allowed for tender data to be collected centrally for further analysis. Subsequently, Germany passed the Ordinance on Public Procurement Statistics (VergStatVO) to mandate the collection of procurement-related data. The federal government's intent to collect procurement data is in line with international good practices. For example, a key benefit of e-procurement for many countries is that electronic systems facilitate the collection and use of procurement-related data. According to a Deloitte survey of private sector chief procurement officers (CPOs), 65% of CPOs think that analytics is the technology area that will have the largest impact on procurement in the next two years (Deloitte UK, 2017[19]).

The VergStatVO, enacted in April 2016, conveys upon all contracting authorities the obligation to submit information on their procurement activity. All tenders over EUR 25 000 conducted by contracting authorities at the federal, state and local level are compelled to submit a comprehensive suite of information related to the tender (such as the tender value, the type of procedure used, evaluation criteria and a range of information related to the contracting authority and the economic operator).

At the same time, the German federal government has acknowledged that there is currently no mechanism to automatically collect and transmit the data mandated by the VergStatVO. Because of this, the VergStatVO grants a transition period during which time contracting authorities can submit data manually until the required infrastructure is in place. A template in Excel format is sent to contracting authorities on an annual basis to facilitate the collection of data. This process has led to errors. Manual data entry also adds to the administrative burden on contracting authorities. It has been a significant undertaking for entities at all levels of government to document, collect, analyse, synthesise and re-format data from the hundreds of thousands of procurement activities that are conducted each year. Despite the legal obligation to comply, rates of return from contracting authorities at all levels of government have been reportedly low. For example, an OECD interview with one German state indicated they had a return rate of 50%. Some of the challenges experienced during the data collection process are outlined in Figure 4.2.

Figure 4.2. Distribution of all possible procurement data during federal data collection process



Source: Authors' illustration.

Given the importance of collecting procurement data and the amount of time and effort expended by contracting authorities to comply with the new reporting requirements, it is critical to ensure that more consideration is given to how data from multiple platforms are collected, stored and used. The xVergabe project has succeeded in finding a way for tender information to be transferred between platforms. For now, the project has not been designed to include procedures for the collection and centralisation of data on the procurement activity that takes place across different platforms. So while information about a single tender should be shared across multiple platforms, there has been no focus on how these platforms could collect information on multiple tenders so that the information might be analysed. By more effectively using xVergabe to ensure that e-procurement platforms can help to automate the data gathering process, the quality and quantity of data collected would be greatly improved. This would also help to reduce the current administrative burden on contracting authorities.

The current data collection challenges undermine Germany's attempts to analyse procurement activity to measure the economic impacts of procurement, identify inefficiencies and set and measure progress against targets. The collection of procurement data can support policy makers in developing insights into how procurement is contributing to governmental goals like economic performance and productivity. Data can also serve the broader purposes of promoting a more open and transparent government, building public trust and serving the needs of a broad range of stakeholders. However, there are limitations to the effectiveness of data when working from an incomplete dataset. Some of these limitations are particularly pronounced in the case of Germany, given the effort and resources required to undertake the current manual collection process. This process can be improved by utilising existing e-procurement systems to collect data.

4.2.2. Establishing a data management strategy will clarify the right format, location and use for procurement data

The current process for data collection in Germany is not only burdensome for contracting authorities, it also requires additional work prior to analysis. Data collected through spreadsheets that contain a number of open text fields may require a degree of cleaning before results can be pooled together and analysed. Furthermore, it may not be straightforward to use the results from these data to identify trends and issues.

In the United States, the absence of a broadly used e-procurement system for the federal government created challenges for data collection. In response, the government developed an electronic solution to collect procurement data in a fragmented e-procurement environment through a format that quickly and easily enabled procurement data to be used to gain insights (see Box 4.3).

Box 4.3. Electronic data collection by the US federal government

In the United States, a number of electronic procurement tools have been made available for contracting authorities at the federal level. If contracting authorities choose not use these centralised tools, they must submit federal spending data to the Federal Procurement Data System. Federal contracts over a value of USD 3 500 (as well as contracts that incur subsequent modifications) must also be submitted to the Federal Procurement Data System.

The federal government uses the data kept in this system to measure and assess: 1) the impact of federal procurement on the nation's economy; 2) how awards are made to businesses in various socio-economic categories; 3) to understand the impact of full and open competition on the acquisition process; and 4) to address changes to procurement policy. These measurements and assessments are made possible through the use of unique identifiers. These identifiers connect the collected information to other systems that hold information on suppliers. Each supplier is given a code that allows authorities to reference the number of transactions with suppliers against other information like company size and tax information.

The System of Award Management (SAM) is a separate database that suppliers must register with before being able to bid for (and provide) services to the federal government. SAM allows government agencies and contractors to search for companies based on ability, size, location, experience and ownership. When connected to information in the Federal Procurement Data System, the government can monitor the success in bidding for public tenders of: SMEs; businesses owned by women, veterans and minorities; and businesses located in economically challenged areas.

Contracts can also be aligned to special spending categories in order to monitor spending at a more granular level. For example, the government has established unique codes for natural disasters. Associated contracts are aligned to the code for natural disasters in order to monitor spending on clean-up efforts.

Source: General Services Administration (n.d.), *Federal Procurement Data System*, https://www.fpds.gov/fpdsng_cms/index.php/en/reports.html.

In Germany, the xVergabe project has established standards for the format of data so that tender information can be transferred across platforms. However, while these standards focus on how data packages can be transferred, there is no stipulation of what format tender documents must take. Countries increasingly implement data management strategies that align with open data standards.

The use of open data standards can bring about many benefits, one of which is the use of procurement data to increase accountability and enable analysis (see Box 4.4). In many of the systems currently used across Germany, the process for achieving transparency and accountability in procurement involves public disclosure of a large number of documents in formats like scanned PDFs. This means that control entities and other stakeholders (e.g. auditors or the public) must invest considerable effort and resources to identify trends or unique cases worthy of investigation. For example, collusive behaviour is a significant inhibitor to competition. Therefore, providing competition authorities with procurement data in a usable format will enable them to identify and prevent this behaviour. Thus, ensuring accountability for government spending requires the public disclosure of high-quality data in a format that allows analysts to detect trends and exceptions.

Box 4.4. The Open Government Data movement encourages the effective capture and use of procurement data

According to the OECD, Open Government Data "is a philosophy – and increasingly a set of policies – that promotes transparency, accountability and value creation by making government data available to all" (OECD, 2018[20]). The open data approach acknowledges the importance of harmonised processes for capturing data, including procurement data. This approach can be achieved through a highly efficient tender process that is designed with procurement officials and businesses in mind. Due to the benefits of transparency, accountability and value creation, open data is increasingly seen as a key public good.

Implementing open data in relation to procurement can be challenging given that data relating to contracts and tenders are often incomplete. Frequently, these data are incomplete because they do not cover all procurement stages (including payment and delivery), or because certain processes have been left undocumented or captured in different formats. Data can also be fragmented due to different collection methods in numerous government departments. Finally, data can be left largely unused.

The Open Government Data movement regards the availability of high-quality data together with the application of big data analytics to strengthen their interpretation as indispensable conditions to supporting a more efficient use of public resources and more accountable governments. The application of big data analytics techniques to public procurement data can provide a number of opportunities for sounder policy making, stronger oversight of governments' activities and the assessment of governments' performance. The transition from open procurement information (which can include unreadable and inflexible formats such as PDFs) to open contracting data supports these aims. This is because open contracting data more easily enables data to be captured and used for monitoring and analytics purposes.

Some of the advantages of Open Government Data include:

- **Assessing organisational behaviour:** Linking open data on multiple transactions over time (such as data on individual tenders, organisations, local governments' programmes and government programmes) can help officials track patterns in organisational behaviours, decisions, investments and more.
- **Embedding new performance indicators in policy making:** Linking public procurement data with other administrative datasets, such as national company registries, can provide new sources of evidence and statistics to measure government performance.
- **Using market analytics to detect collusive behaviours:** Governments increasingly use public procurement data in an innovative way to detect collusion among suppliers, and to punish anti-competitive behaviour (Cingolani et al., 2016[21]). Signs of collusive behaviour can be detected by analysing price-related variables like: bid distribution characteristics; specific bidding patterns like bid rotation or bid suppression; and market structure-related variables like market concentration.
- **Holding governments accountable and safeguarding public spending:** Recent developments show that many open data portals are being created by civil society organisations with a view to holding governments accountable for their efficiency and transparency in public spending.
- **Delivering benefits to various stakeholder groups:** Several types of users can benefit from public procurement information: citizens can check how projects are being managed and funded in their area of their interest; investigative journalists can gain access to information on public procurement cases; potential suppliers can explore new public procurement markets; and public oversight bodies can use the data to investigate specific cases or identify general trends.

Source: (OECD, 2016[22]), *Compendium of good practices on the use of open data for Anti-corruption: Towards data-driven public sector integrity and civic auditing*, https://www.oecd.org/gov/digital-government/g20-oecd-compendium.pdf.

While the use of procurement data to achieve strategic and policy objectives may be well understood, there are challenges to the centralisation and analysis of data in Germany. Implementing initiatives such as open data contracting and data gathering at the federal level may be possible in the short to medium term. However, collecting and concentrating a broad range of data from across different states in Germany will be more challenging. The reason for this is that the autonomy of the different *Länder* also extends to the provision of data to the federal government on state-level activity.

Acknowledging that the use of data to identify trends and challenges is a worthwhile effort, Germany could consider alternative approaches to allow data collection to occur within a decentralised environment. As described in Box 4.5, in 2017, the UK developed a tool to analyse procurement data in order to flag potential indicators of collusive behaviour. Subsequently, however, the UK had to develop an alternative approach because of local authorities' concerns about sharing commercially sensitive data outside of their IT environments. During this phase of the project, authorities had to develop a decentralised approach to data analysis, resulting in the tool being distributed for use by contracting authorities themselves.

Box 4.5. Using procurement data to screen for anti-competitive behaviour in the UK

As a part of the implementation of the UK's Anti-Corruption Strategy, the Competition and Markets Authority (CMA) initiated a project to design and test a tool that could analyse procurement data to identify anti-competitive behaviour. At the time, the UK was hampered by a lack of a central repository for procurement data. This lack of central repository restricted the country's ability to monitor collusive behaviour over time and track market trends. Discussions with local authorities also unearthed concerns about sharing commercially sensitive procurement data outside of their IT environments.

In response to these limitations, the CMA developed a tool for local authorities that allowed them to analyse their own data. The tool analyses information from tenders (including the underlying meta data from tender documents) to identify patterns related to a number of indicators:

- number and pattern of bidders (i.e. a low numbers of bidders)
- suspicious pricing patterns (winning price as an outlier, similar pricing across bids)
- low endeavour submissions (documents developed by the same author, similar text across bids or small amounts of time spent preparing bidding documents)
- combinations of the above factors.

Weighting can be applied to each of the above factors depending on their strength as an indicator within the relevant market, resulting in an overall score. The tool relies on data documents in Microsoft Word or readable PDF files (not including scanned PDFs) to conduct its analysis.

This distributed method for data collection has limitations. The method is dependent on local authorities conducting their own analyses using the tool and flagging issues for the CMA when relevant. By building a network of users of the tool across different regions, CMA hopes that users can share lessons and trends on identification of collusive behaviour.

Source: Competition and Markets Authority (2017), *CMA launches digital tool to fight bid-rigging*, https://www.gov.uk/government/news/cma-launches-digital-tool-to-fight-bid-rigging.

Where procurement data is captured in the right format, analysis can unlock valuable and insightful findings. Doing so within a federal system requires careful consideration of data. Authorities should differentiate between data that should be concentrated and data that should remain de-concentrated at the sub-national level, yet still put to use by the authorities, when appropriate. The federal government could therefore establish a data management strategy that identifies how data collected by platforms

across Germany can be harvested to enable valuable and insightful analysis. At the same time, the federal government should consider providing tools that enable decentralised analysis when necessary.

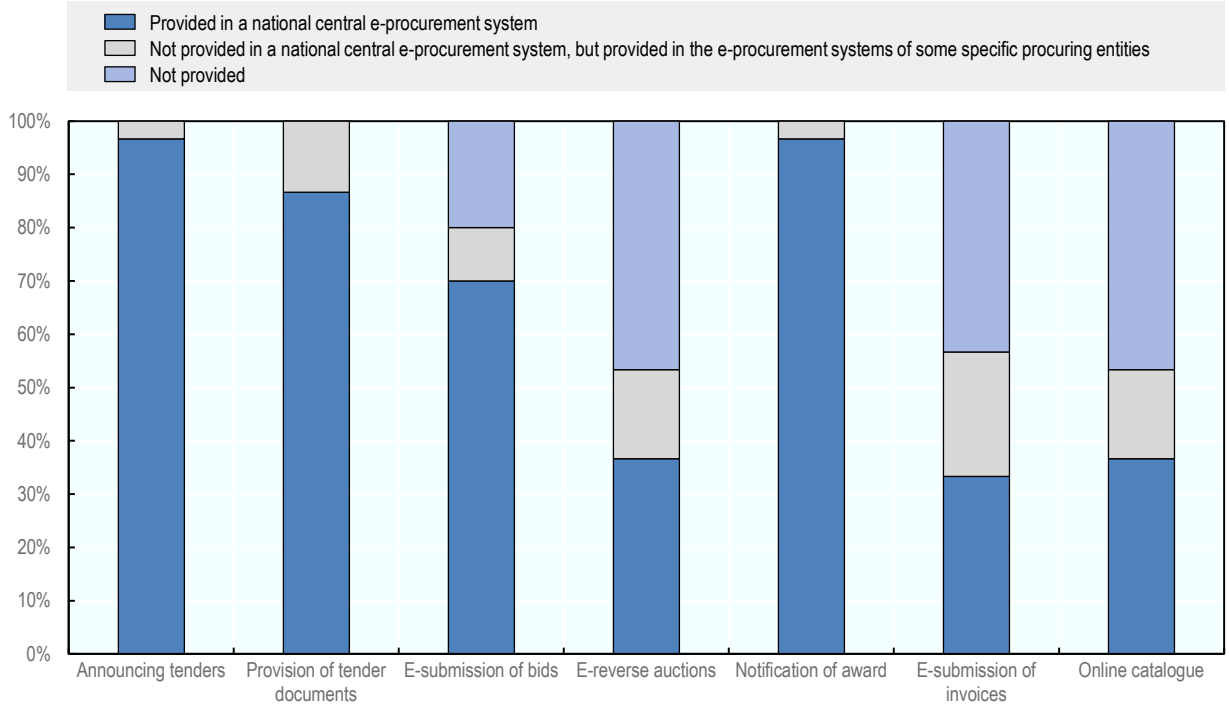
4.3. Expanding the scope and reach of digitalisation

4.3.1. Co-ordinating e-procurement development with broader e-government reforms can increase the benefits of digitalisation

OECD countries have identified additional benefits that can be achieved from expanding the scope of digitalisation in procurement to incorporate pre- and post-tender activities. These benefits include increasing efficiency and standardisation across the procurement cycle, and more closely managing government spending and contract compliance. Furthermore, by integrating procurement platforms with finance systems and other federal databases, the federal government can gain broad visibility of the use of federal funds. In turn, this visibility will better enable the monitoring of economic activity.

OECD member countries are slowly developing their e-procurement systems to cover more transactional functionalities beyond the core steps of the procurement process (i.e. announcing tenders, providing tender documents and posting contract award notices) (OECD, 2017[8]). As demonstrated in Figure 4.3, survey data shows that all OECD countries have the ability to use electronic platforms for the publication phases of the procurement cycle, namely publishing tenders and award notices. 80% of OECD countries have begun the transition to more transactional systems by enabling the electronic submission of bids. However, most countries (including Germany) do not have national systems that are able to manage post-tender activities such as e-invoicing and reverse auctions.

Figure 4.3. Use of electronic processes for managing procurement cycles in OECD countries



Source: OECD (2016), Survey on Public Procurement.

Procurement data can be used to shape procurement policy, but it can also be combined with other federal information sources to achieve government objectives. The digitalisation of processes across different

parts of government presents opportunities to link procurement data with information from other federal systems.

The European Commission recommends that countries link databases across government so that comprehensive information on companies can be made available (European Commission, n.d.[23]). Linking databases can generate efficiencies for both the government and the private sector. For example, as shown in Box 4.6, information on companies in New Zealand is linked through the New Zealand Business Number, an initiative that seeks to streamline interactions between government and businesses.

Box 4.6. Improving interactions between government and businesses in New Zealand

The New Zealand Business Number (NZBN) is a single, unique identifier that helps businesses maintain a singular version of the information that identifies their companies in New Zealand and globally. Businesses of any size can apply for a number.

Each business' core information (referred to as primary business data) is held securely online in the NZBN Register. This information includes a business' trading name, its address and other contact details. Businesses can also opt to include additional information such as invoicing details.

The NZBN is intended to ease interactions both between businesses and government, and between businesses. NZBN details can be updated with one government agency as changes are made to their information in the NZBN Registry avoid having to speak to multiple departments to inform them of these changes. Furthermore, other businesses and government agencies can access information in the NZBN Registry to save time during invoicing and procurement processes. Provision of a business' NBZN in a government tender process eliminates the need to continue to provide generic information.

A number of success stories have been collected by the NZBN project team to demonstrate the benefits that have been provided to government and businesses by the introduction of the NZBN, such as:

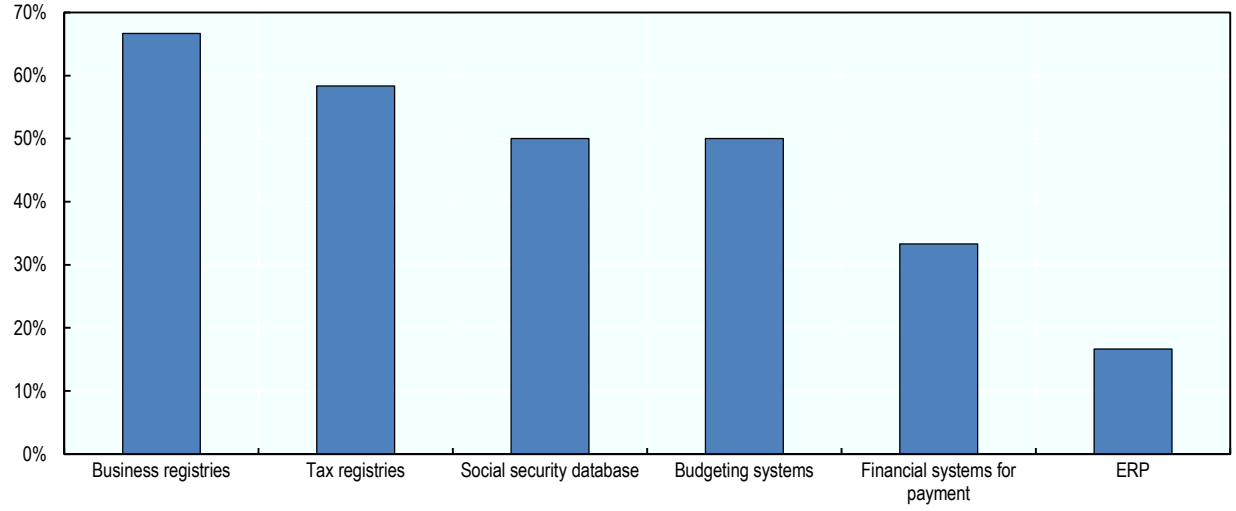
- A business providing accounting software has highlighted how the NZB was used to ensure that information about other businesses, both customers and suppliers, was accurate.
- A bank described how pulling information from the NZBN Register allowed them to gather up-to-date customer data in real time.
- The Ministry of Social Development uses the NZBNs of social service providers to prevent duplication and inconsistent information across the sector.

Source: New Zealand Business Number (n.d.), *New Zealand Business Number*, https://www.nzbn.govt.nz.

Germany's anti-corruption framework was updated in 2017 with a law that introduced a competition register (Wettbewerbsregister). The register enables procurers to digitally verify whether potential suppliers have committed a criminal offence. Furthermore, the register permits public authorities to access company information. Once the procurement process is digitalised, information from the competition register can be incorporated directly into the e-procurement process.

Connecting information across systems ensures that companies listed in the register are prohibited from registering for and participating in tenders. If company information in the register includes information such as company size, it will enable enhanced reporting of SME participation and success in public tenders. At present, OECD countries connect their procurement systems with several other types of national government information systems in order to better monitor procurement and collect more holistic data. The central systems most commonly integrated with procurement systems in OECD countries are demonstrated in Figure 4.4.

Figure 4.4. Most popular central government information systems integrated with procurement systems in OECD countries



Source: OECD (2016), Survey on Public Procurement.

As described in Box 4.7, countries such as Colombia have benefited from developing a connection between their national e-procurement and financial management systems.

Box 4.7. Horizontal system integration with the national finance system in Colombia

In 2015, Colombia upgraded its e-procurement platform. During the second phase of this upgrade, officials expanded the Electronic System for Public Procurement (Sistema Electrónico para la Contratación Pública, SECOP II) and integrated it with the Integrated System of Financial Information (Sistema Integrado de Información Financiera, SIIF). This direct connection between the e-procurement system and the financial reporting system greatly increased data accuracy and transparency on spending by procurement entities.

Integrating procurement and budget data eliminated risks of corruption, including the separation of financial duties, examples of false accounting and cost misallocation, and late payment of invoices. In Colombia, some government entities are required to use the system, and some are merely encouraged to do so.

To attract government bodies (such as state-owned entities) that are not mandated by law to use the system, Colombia's public procurement authority Colombia Compra Eficiente has developed a series of key performance indicators that measure the performance of the national procurement system in a number of categories. Each measure uses a baseline result from the preceding year to develop targets in the following areas:

- value for money: including metrics on the time required for procurement processes and savings achieved through procurement
- integrity and transparency in competition: including measures on the number of contracts awarded to new suppliers and the percentage of contracts awarded through non-competitive processes
- accountability: including measures of public entities using SECOP and the percentage of awarded contracts published on SECOP
- risk management: features one single measure of the percentage of contracts with modifications of time or value.

Source: (OECD, 2016[24]), *Towards Efficient Public Procurement in Colombia: Making the Difference*, http://dx.doi.org/10.1787/9789264252103-en.

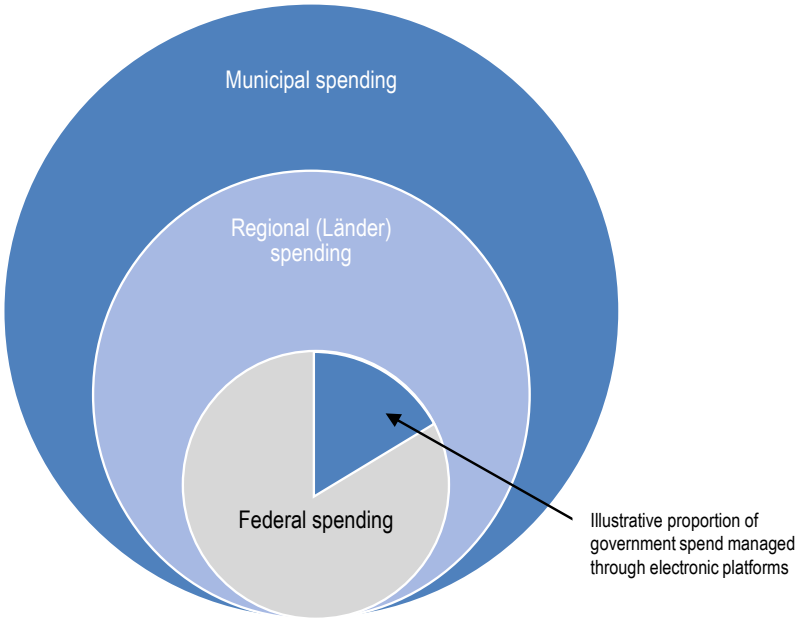
Procurement information can help provide a more holistic picture of economic trends and the business environment in a country if it is integrated with information that is collected by other parts of the federal government.

4.3.2. The KdB provides a valuable service, but it is used only for a small proportion of government spending

The scope of centralised post-tender management at the federal level in Germany at present is limited to the KdB. The KdB is an e-catalogue that allows federal contracting authorities to purchase common goods and services from framework agreements. All CPBs at the federal level (except the ZV-BMEL) post framework agreements to the KdB so that eligible contracting authorities can purchase from them.

At present, around 460 contracts are available through the KdB. Approximately 380 contracting authorities and other public institutions use these contracts. However, as illustrated in Figure 4.5, this figure only represents a proportion of spending both at the federal level and across Germany.

Figure 4.5. Illustrative proportion of government spending managed through federal framework agreements



Note: the size of circles is not representative of the amount of spending.
Source: Authors' illustration.

With the exception of procurement under federal framework agreements, contracting authorities at all levels in Germany have the autonomy to manage post-tender activity (i.e. the execution of a contract, ordering, ongoing contract management, and invoicing) as they see fit. Authorities in this position often use manual and paper-based processes. Stakeholders interviewed by the OECD stated that it is likely that a large proportion of purchases under federal framework agreements are not conducted through the KdB. In these cases, federal contracting authorities may be purchasing from framework agreements, but doing so by dealing directly with suppliers.

The KdB provides access to framework agreements that cover a range of goods and services for which there is a common need across government. Yet, as discussed in Chapter 3, the volume of transactions

that go through the KdB indicates that these framework agreements do not represent a large proportion of federal spending, even in common product categories. Even with this relatively low coverage, there are concerns that, in its current form, the KdB platform will not be able to sustain a substantial increase in the number of users or framework agreements. The current transaction volumes are causing system performance issues, and each framework agreement that is added to the system further degrades its performance. Therefore, future projects to enhance e-procurement in Germany could seek to upgrade the KdB so that it is able to cope with the expected expansion of framework agreements. Indeed, this agenda is included in the aims of the IT project ERP/KdB 4.0, which outlines the overall implementation of the reform of Germany's e-procurement system.

The KdB system acts as a portal for contracting authorities to make purchases from catalogues established by framework agreements. The administrative office of the KdB resides in the Federal Procurement Office of the Ministry of the Interior (BeschA). This office is responsible for managing the system and ensuring that the system's workflows for purchasing goods and services are structured in accordance with contracting authority approval procedures. The KdB uses electronic signatures to approve contracts, generate invoices automatically and send them to contracting authorities. There is no requirement for interoperability between KdB and the finance systems of contracting authorities for purchases to be made. The KdB undoubtedly adds value to the German procurement system by facilitating the efficient use of framework agreements by federal contracting authorities. However, greater value can be added by expanding the system's usage and reach.

4.3.3. Digitalising post-tender processes is a necessary next step for enhancing the management of government spending

The European Commission has taken steps to increase the use of electronic methods beyond the traditional tender cycle by introducing a directive on electronic invoicing. Businesses across Europe currently experience inefficiencies in working with different invoicing systems and processes in different countries. Often, these companies must also work with different invoicing systems and processes in the same EU member state. Invoices that vary in format and content cause unnecessary complexity and high costs for businesses and public entities. According to the 2014 European Commission directive, all federal contracting authorities must accept electronic invoices that comply with the European norm by November 2018 (E-Rechnungsgesetz 2018). Smaller contracting authorities have an additional 12 months to comply with the directive. However, nationally specific rules that do not contravene the directive will remain valid. The directive is not intended to result in a European e-invoicing infrastructure. Instead, the supplier market will be responsible for developing compliant solutions (European Commission, 2018[25]).

The implication of the EU directive for contracting authorities is that they must be able to receive and process electronic invoices that comply with the European standard on electronic invoicing. There are a number of ways in which this can be achieved technologically. The most efficient process would involve the automatic transmission of an invoice from a supplier's system to the system of a contracting authority. This would require contracting authorities to employ an electronic financial management or payment system. Based on findings from OECD interviews, this technology is not commonplace among contracting authorities in Germany, particularly at the state-level. However, contracting authorities that implement these systems do stand to reap considerable benefits, as described in Box 4.8.

Box 4.8. Using systems to enhance financial management at the Federal Ministry of Defence

According to OECD interviews with stakeholders, German contracting authorities that have implemented electronic systems to monitor and manage finances and spending areas have realised substantial benefits from the investment.

Germany's Federal Ministry of Defence (BMVg) analysed organisation-wide spending, allowing the BMVg to gather 90 contracts in one particular category into one framework agreement. The added visibility that the e-procurement system introduced has enabled BMVg to form a true picture of spending across the organisation. All new contracts and procurement activity are now conducted through the system. In turn, this better spending picture has enabled a greater degree of control over spending, better management of suppliers and increased efficiency in contract management processes.

Source: Responses from German federal and state-level institutions to an OECD questionnaire and interviews.

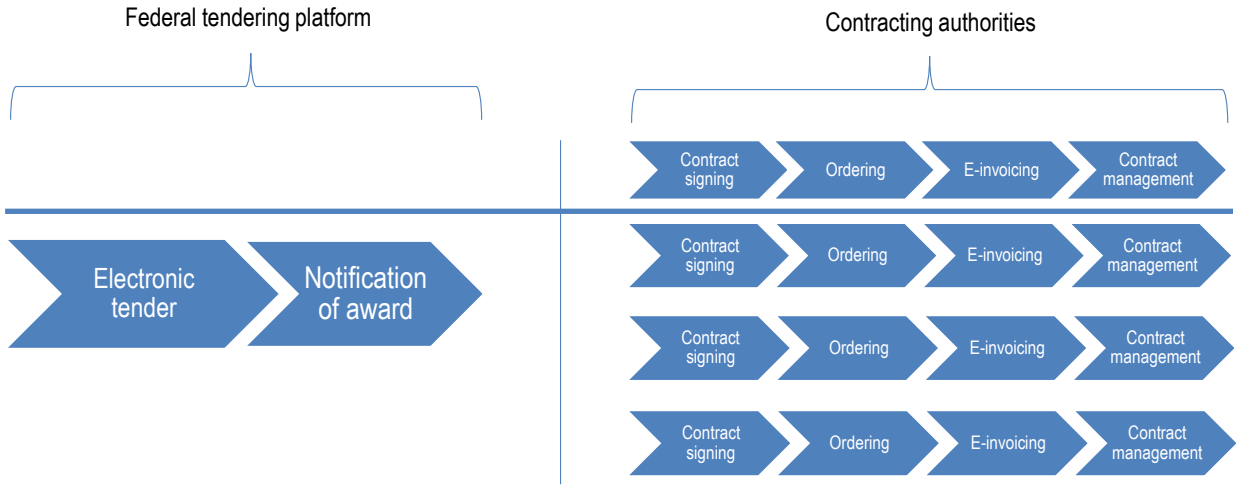
Less efficient alternatives exist that allow contracting authorities to comply with the EU invoicing directive. For example, a contracting authority will still comply with the directive if it accepts supplier invoices that are in an electronic data file, submitted through a portal, or from data supplied in a machine-generated PDF (European Multi-Stakeholder Forum on e-Invoicing, 2016[12]).

As government processes increasingly transition towards digitalisation, the electronic management of finances across different levels of government – including managing spending with third parties – should be seen as an area of priority for investment. Vertical integration of systems (i.e. integration of the central tendering platform with financial systems or contract management systems of contracting authorities) will result in a fully integrated, end-to-end management of spending. Gaining full visibility of spending and moving away from paper-based transactions will result in efficiency benefits for contracting authorities and the government as a whole. Additional benefits that should occur from a more integrated and end-to-end e-procurement system include:

- the ability to collect data on government spending to inform economic and procurement policy
- closer monitoring of supplier compliance with government contracts
- the establishment of centralised tools such as contract management modules to build contract management capability and increase efficiency in the post-procurement phase of the cycle.

As demonstrated in Figure 4.6, to enable the seamless connection of processes and data across different systems throughout the procurement cycle, each procurement step must be carried out digitally.

Figure 4.6. Illustration of the separation between procurement steps covered by federal systems and contracting authority processes



Source: Author's illustration based on responses from German federal and state-level institutions to an OECD questionnaire and interviews.

As shown above, the digitalisation of the contract signing and approval process represents a key step in the digitalisation of the procurement cycle. In Germany, the xVergabe standard stipulates the features of the authorisation technology that platforms are required to use. Despite this guidance, many contracting authorities remain reluctant to embrace the digitalisation of this step. This reluctance may stem from concerns related to the privacy and security of digital processes. For example, some public buyers and suppliers in Germany consider electronic signatures to be complicated, error prone and expensive to implement. In a survey of SMEs across the EU, about 7% of SMEs cited the lack of a domestic electronic authentication infrastructure to accept e-signatures as the most crucial problem in connection with the introduction of e-procurement solutions. Overall in this survey, the lack of a domestic authentication infrastructure to accept e-signatures was mentioned the fifth most frequently (Vincze et al., 2010[26]).

According to EU directives, member states may require electronic tenders to be accompanied by an advanced electronic signature. However, EU regulations have clarified that e-signatures are no longer considered a means of authentication, but merely a tool for signing documents.

Many countries have effectively implemented other forms of authentication. Digital submission and acceptance of offers is reliant on electronic authentication and certification technologies. However, there have been recurring challenges with implementation among EU member states. These challenges are due the fact that:

- certification can act as a barrier to cross-border trade, as certification for out-of-country suppliers is too difficult or costly
- some suppliers do not have the technological means or the human capabilities to use authentication software
- some member states do not have the appropriate software to support implementation.

Therefore, federal authorities must consider these factors when selecting an appropriate authentication solution. In addition, federal authorities should act to alleviate concerns about digital authentication among users. These efforts should be supported by the provision of training for contracting authorities and suppliers on how to use authentication tools and how to avoid common pitfalls. Austria, for example, relies on the use of electronic authentication, and has found a technical process that meets its needs (see Box 4.9).

Box 4.9. Implementation of electronic authentication at Bundesbeschaffung GmbH (BBG) in Austria

A key tenet of the Austrian e-procurement system is the ability of users to submit offers (and contracting authorities to accept offers) digitally. Austrian procurement law provides the electronically qualified signature and gives it equal importance to a manual signature.

In order to be able to sign an electronic document in a legally binding manner (e.g. an offer), the signatory requires a qualified certificate. To obtain a certificate, suppliers must meet several formal requirements in Austria. To ensure the security of the certificate, the agency providing certification contacts the supplier to provide them with secret information that is required to activate their signature.

To sign a document, the signatory requires a mobile phone or a signature card and appropriate software, which may be obtained online. The process is similar to the mobile transaction authentication number (TAN) procedure, which is widely used in e-banking.

Source: Information provided by BBG.

Germany can further unlock the benefits of digitalisation by considering how e-procurement reform will fit with a broader e-government agenda. This may involve embracing digital processes for transactions outside of the tender process. Such steps would enable greater end-to-end visibility (i.e., visibility of the entire procurement cycle) and management of public spending, as already planned for in the ERP/KDB 4.0 project. Expanding digital processes for procurement will make the use of taxpayer funds more visible.

4.4. Overcoming barriers to the use of e-procurement

4.4.1. Germany's efforts to reform the federal e-procurement system must take into account the causes of low system use by contracting authorities

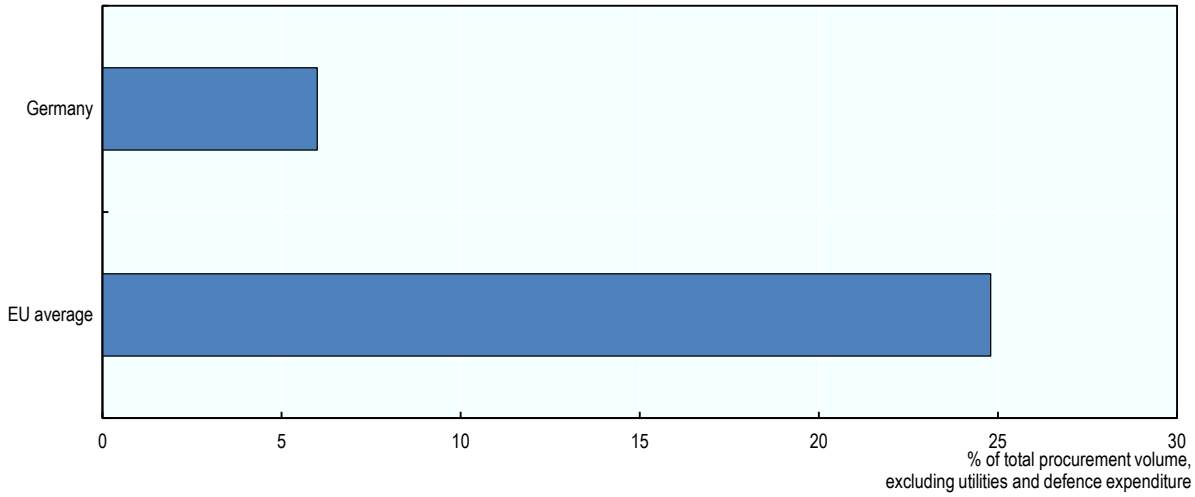
At present, Germany is undertaking a project to harmonise its e-procurement environment into a single platform. The project, which is due to run from spring 2018 until spring 2021, will establish a single platform onto which federal contracting authorities will be mandated to post their tender opportunities. The project will also go beyond the traditional steps of the procurement process by incorporating the current KdB functionality and by providing electronic invoicing. The integration of e-invoicing into the system will allow data to be collected on order volume. The platform will also be available for use by state and municipal contracting authorities. Furthermore, authorities are planning to enhance tender functionalities to fully manage communication between contracting authorities and suppliers during the tender process. These efforts will also enable the timestamping of tender documents so that compliance can be more accurately audited.

If successful, this project should resolve several of the issues that have been identified in this chapter. But beyond the difficulties that are typically associated with this type of project, such as selecting the right solution and successfully rolling out the technology within time and cost constraints, the low use of e-procurement by contracting authorities and suppliers at present will make the implementation of the platform especially challenging.

The challenges Germany has faced in adopting e-procurement are evidenced by the country's performance in different areas when compared to other EU member states. Currently, it is reasonable to say that Germany still lags behind other EU member states in the use of information and communication technologies for public procurement. Considering, for example, online publication of tenders above the

thresholds, in 2015, Germany was the country with the lowest publication rate in the EU, with only 6% of all tenders publicly advertised on the European tender site, European Tenders Daily (TED) (see Figure 4.7). This figure is significantly lower than the EU average of 24.8% (European Commission, 2016[16]). The value of public tenders listed on TED represents just 1.1% of Germany's GDP, or 6.4% of public expenditure (excluding utilities). The European average is 3.2% of GDP, or 19.1% of public spending, meaning that Germany is only providing pan-European visibility of a third of the number of tender opportunities compared to its European counterparts. Although the low publication rate does not automatically imply a low use of e-procurement, it shows there is room for improvement to align Germany with the EU in specific indicators.

Figure 4.7. Publication rates on TED: Germany vs. the EU average



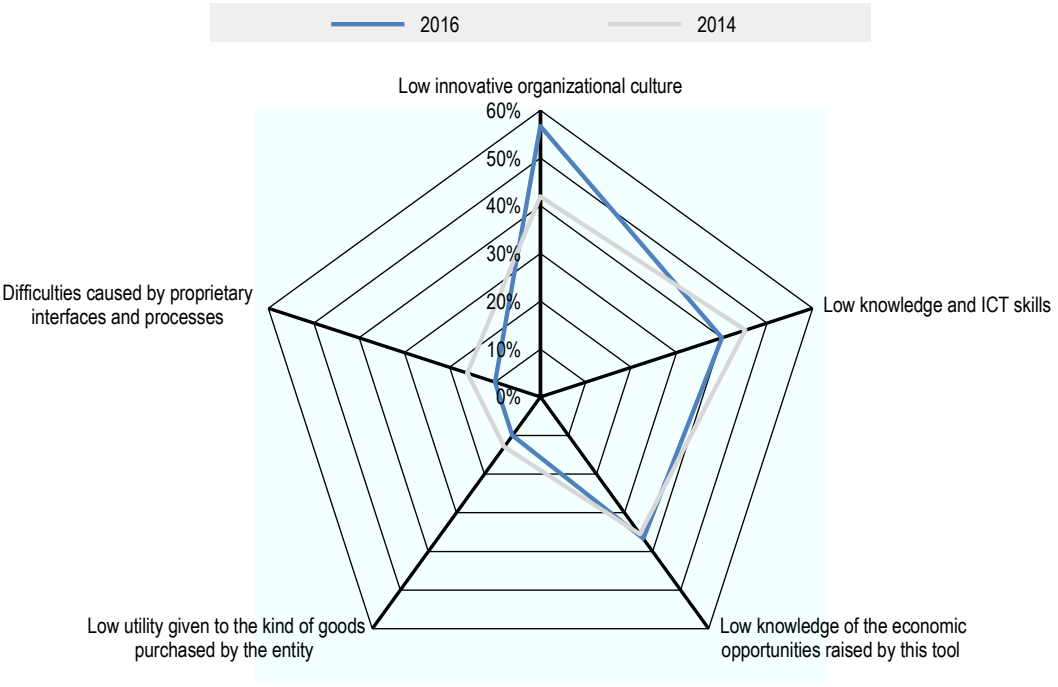
Source: (European Commission, 2016[16]), *Public procurement – Study on administrative capacity in the EU: Germany Country Profile*, http://ec.europa.eu/regional_policy/sources/policy/how/improving-investment/public-procurement/study/country_profile/de.pdf.

There are mitigating factors that might explain this low number. In EU member states where public procurement is largely decentralised to states and municipalities (as in Germany), tenders tend to be smaller. In addition, in these countries, many tenders do not exceed the EU thresholds above which publication in TED is obligatory (Vincze et al., 2010[26]).

Non-residential investment has declined in Germany since the financial crisis, despite strong a macroeconomic and financial recovery. At present, Germany also has a declining amount of non-residential (i.e. foreign) capital growth, particularly in IT software and infrastructure, which also correlates to a lack of productivity growth. E-procurement could attract non-residential investment and capital growth, but Germany will need to make better use of the electronic procurement system to achieve these results. The implications of failing to attract external businesses to invest in Germany through the use of e-procurement could be significant. There are also concerns that the comparatively low level of investment in infrastructure has resulted in a lack of expertise in delivering complex procurements at the local level, which is where the majority of procurement spend is located (Fuentes Hutfilter et al., 2016[27]).

As regularly, in 2016, the OECD undertook a survey on public procurement. The survey found that contracting authorities in OECD countries using e-procurement systems faced many challenges. These challenges included: 1) an organisational culture that was not as innovative as it could be (57%), 2) limited ICT knowledge and skills (40%) and 3) limited familiarity with the economic opportunities that e-procurement systems can offer (37%) (see Figure 4.8).

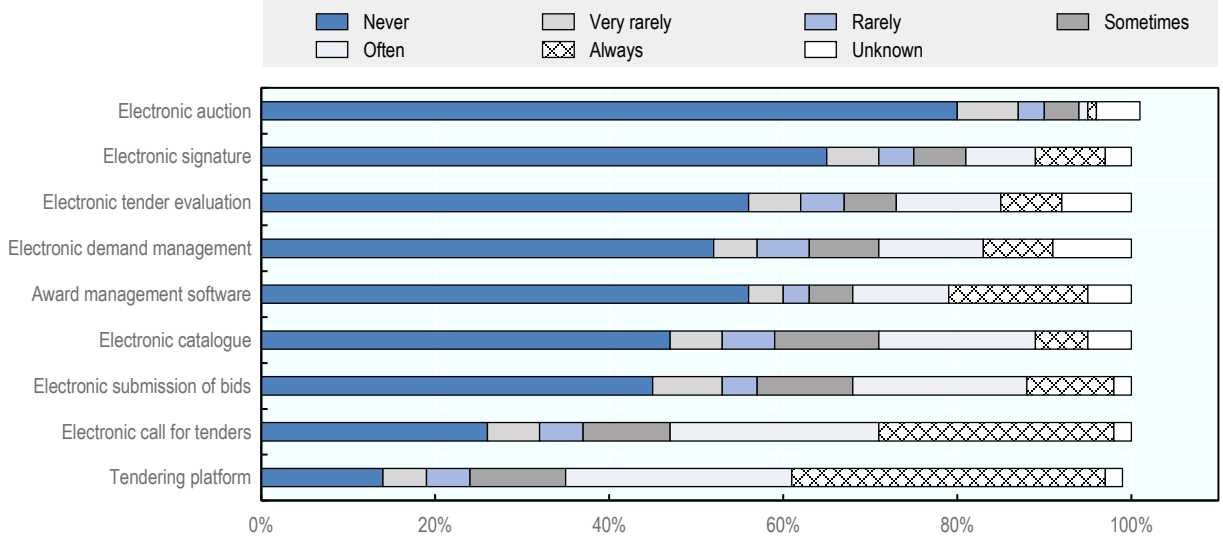
Figure 4.8. Challenges facing contracting authorities using e-procurement in OECD countries



Source: OECD (2016), Survey on Public Procurement.

Data collected on the use of e-procurement by contracting authorities in Germany confirms that public buyers experience many of these challenges. As demonstrated in Figure 4.9, familiarity with (and use of) e-procurement in Germany decreases outside of the core stages of the tender process.

Figure 4.9. Use of e-procurement technologies by public buyers in Germany



Source: (Schaupp, Eßig and von Deimling, 2017[28]), *Anwendung von Werkzeugen der innovativen öffentlichen Beschaffung in der Praxis: Eine Analyse der TED-Datenbank*.

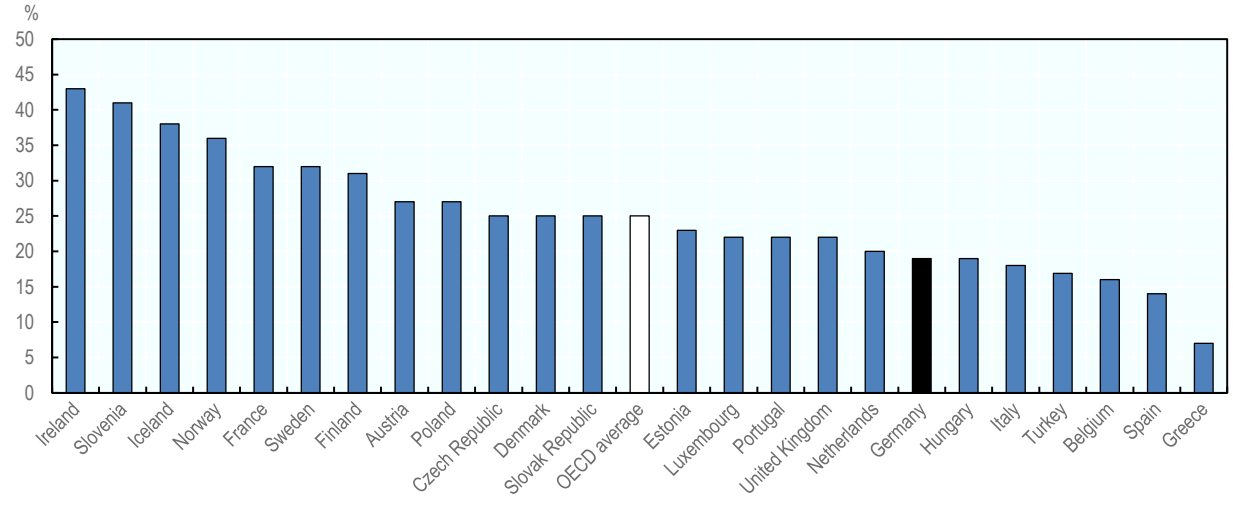
The lower use of e-procurement outside the core stages of the tender process indicates that many contracting authorities may not be complying with the obligation to run tenders electronically. If contracting authorities do not use electronic procurement for the parts of the procurement process that they are mandated to, Germany will fail to comply with EU law on electronic posting of tenders over the EU threshold. In addition, failing to use mandated e-procurement could produce high-levels of inefficiency in the procurement process, an inability to encourage suppliers to transition to digitalisation and lower rates of competition.

4.4.2. Suppliers must be given an incentive to engage in the rollout of e-procurement – as they stand to benefit too

As discussed above, the transition to e-procurement presents the potential to achieve many benefits, including increasing the efficiency of the procurement process for buyers and suppliers. However, businesses in Germany demonstrate a lower level of maturity in the use of e-procurement when compared with other OECD countries. Therefore, efforts to achieve legislative deadlines and transition to digital processes must consider the business community. If businesses are not sufficiently prepared or trained for the transition, there will be a decrease in efficiency for suppliers – or even a reduction in competition for public tenders.

German businesses are losing the opportunity to increase their productivity through the use of e-procurement. The figure below demonstrates that German businesses do not perform well when compared to other European businesses in the use of electronic procurement (Fuentes Hutfilter et al., 2016[27]). As demonstrated in Figure 4.10, less than 20% of German businesses use electronic platforms to access tender documents and specifications, while less than 10% conduct e-tendering. Research has shown that the use of e-procurement in the manufacturing sector can lift firm productivity by 2.5% (Clayton, Criscuolo and Goodridge, 2004[29]). Therefore, efforts to guide contracting authorities towards digitalisation must also consider the capabilities of the private sector in order to achieve the resulting widespread economic benefits.

Figure 4.10. Use of e-procurement by businesses in OECD countries



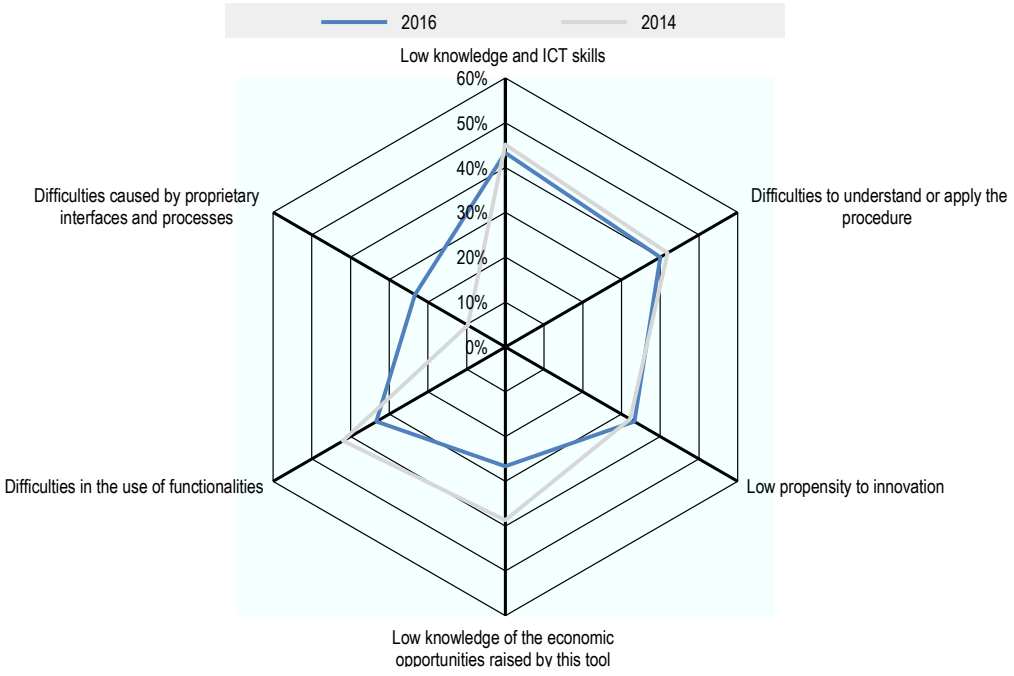
Note: Missing OECD member countries are not included in the OECD average.
Source: (OECD, 2013[30]), *Government at a Glance 2013*, http://dx.doi.org/10.1787/gov_glance-2013-en.

The investment required to ensure that businesses are prepared for the transition to e-procurement should not be underestimated. In the state of Lower Saxony for example, an estimated 90% of the e-procurement

budget is used to train businesses on how to use the system and to widely promote its use. Indeed, interviews with business representatives indicated that, although the use of e-invoicing and e-submission will soon be mandatory, German businesses are not ready for their implementation. One reason businesses are not ready for implementation is that there are still e-commerce interoperability issues that must be solved.

According to the OECD survey on public procurement, the barriers for businesses in using e-procurement differ from those faced by contracting authorities. As shown in Figure 4.11, barriers for businesses are more diverse and include limitations in their knowledge and skills in using ICT, difficulties in interacting with the system and problems with understanding or applying the necessary procedures.

Figure 4.11. Challenges facing suppliers using e-procurement in OECD countries



Source: OECD (2014, 2016), Survey on Public Procurement.

Germany needs to send a strong message to motivate suppliers to adopt e-procurement. The country should also give suppliers clear incentives to engage. The federal government has already conducted research into the benefits businesses could reap by engaging in an electronic as opposed to paper-based procurement procedure. The findings indicate efficiency savings for businesses. These findings should be shared with suppliers in order to promote the transition.

At the same time, stakeholders that are supportive of e-procurement feel that the role of business in supporting decision making around e-procurement is diminishing. Committees involving the private sector once dominated decision making on German procurement. Now, only the committee responsible for works is functioning, with much of the decision-making power reverting to the government. The business community also feels that consultation with the private sector on recent legal changes related to e-procurement did not allow sufficient time to enable thorough and comprehensive feedback. To avoid significant challenges during implementation, future changes to the e-procurement system in Germany must ensure that concerns and challenges of the private sector are taken into account.

E-procurement can play a significant role in public procurement reform, but it will not necessarily remedy poor procurement practices or solve underlying problems in public procurement operations. Benefits yielded by e-procurement are usually a result of stronger management and co-ordination facilitated by technology, rather than a result of the technology itself (Asian Development Bank, 2013[31]). These facts about the key role human management and operations play in e-procurement highlight the need for a project that takes a comprehensive approach to implementation, and identifies ways to overcome the current barriers to the use of e-procurement.

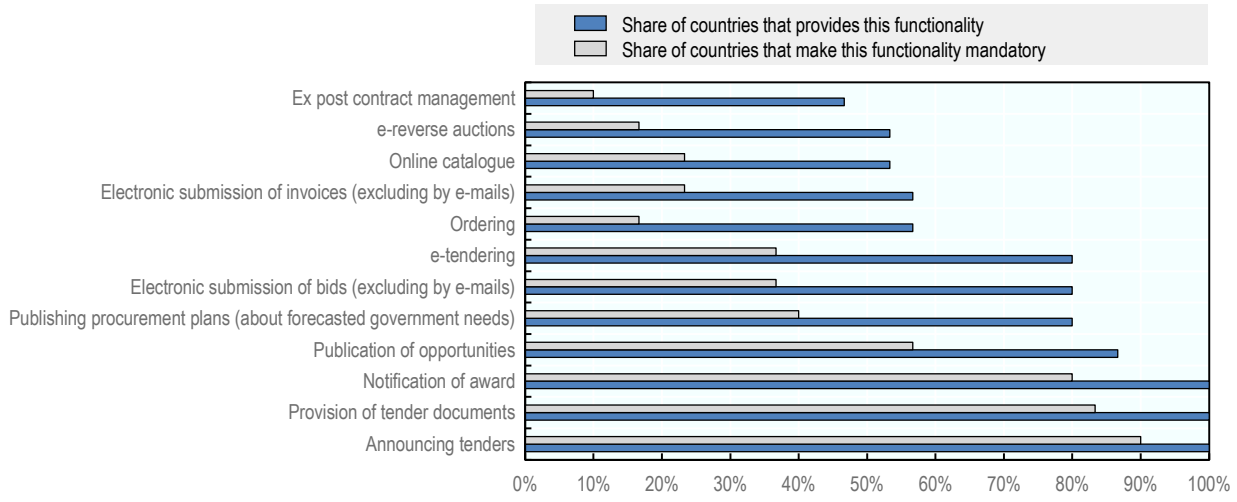
4.4.3. Efforts to upgrade the e-procurement system must be part of a comprehensive programme to effectively bring about change

Technological change must be part of a comprehensive strategy that removes barriers to the effective use of e-procurement. According to a study carried out by the European Bank for Reconstruction and Development on implementing diverse e-procurement solutions, these five pillars are the essential elements of an e-procurement strategy (EBRD; UNCITRAL, 2015[14]):

1. **Government and institutional leadership:** Government sets the vision for what is to be achieved; the operational implementation of e-procurement must then be owned or co-ordinated by one agency to achieve commonality of standards and approaches.
2. **Management, legislation, regulation and policy:** E-procurement is a business rather than a technological system, and it requires strong legislative and management frameworks to be successful. Changes to the e-procurement system will result in amendments to the processes and policies surrounding government procurement, including revised audit and compliance regimes and improved management information on all aspects of procurement. These changes must be understood and prepared for in advance of any modifications to the system.
3. **Private sector activation:** As mentioned in prior, an e-procurement strategy needs to be mindful of the private sector. Government should consult with the private sector to make the e-procurement strategy effective in terms of both supply and demand. Any engagement strategy should consider communication with businesses as a means to building the case for system changes and preparing users for changes in functionality.
4. **Infrastructure and web services:** The success of a government e-procurement system depends on the extent to which all government procurement practitioners and all actual and potential suppliers to government can access it. In addition, an e-procurement strategy must be anchored by other IT management practices, such as data management, security management and access management.
5. **Functionality and standards:** The level of functionality required depends on the types of procurement transactions the system is used for. (Conversely, the more complex the transaction, the simpler the system requirements). Selecting open or proprietary technical standards is a complex decision that involves many factors.

Until now, legislation has been the main tool for encouraging the use of e-procurement in Germany. Using legislation to bolster e-procurement is a common approach among OECD countries, with many countries extending the obligation to use e-procurement beyond the core stages of the tendering process (see Figure 4.12).

Figure 4.12. OECD countries offer e-procurement functionalities along the procurement cycle to a differing extent



Source: OECD (2016), Survey on Public Procurement.

Efforts to encourage the adoption of new initiatives such as e-procurement should also include initiatives to encourage the transition to a new way of working, reinforced by a discouragement of the status quo. A combination of incentives and disincentives is required in order to compel users to adopt change. Chile's approach to encouraging users to transition from paper-based to electronic procurement methods is explained in Box 4.10.

Box 4.10. Encouraging the transition from paper to electronic procurement in Chile

In Chile, the transition from paper-based and mixed tender submissions to electronic tender documents required the country's CPB, ChileCompra, to provide incentives for suppliers and contracting authorities. ChileCompra did this by:

- intensifying the number of audits on mixed and physical processes while communicating the strategy clearly to contracting authorities
- using the system's terms and conditions of use to establish a strict and demanding deadline for uploading paper-based tender files
- communicating statistics on the number of upload errors made by contracting authorities to the supplier community
- calculating the cost of the hours the contracting authority spent uploading documents and disseminating results to demonstrate efficiency gaps across the public sector.

Beyond relying on legal instruments that compelled the use of e-procurement, these various tactics enabled ChileCompra to quickly transition users to electronic processes.

Source: (OECD, 2018[32]), *Mexico's e-Procurement System: Redesigning CompraNet through Stakeholder Engagement*, http://dx.doi.org/10.1787/9789264287426-en.

The project to enhance e-procurement in Germany could take a number of different approaches in terms of scale and scope. To prepare member countries for the forthcoming implementation of the e-invoicing

directive, the European Union identified a number of options for aligning a national implementation project with other e-procurement tools (European Multi-Stakeholder Forum on e-Invoicing, 2016[12]):

- An end-to-end approach could be used, whereby both pre-award and post-award phases of e-procurement are automated through an end-to-end change programme. E-invoicing is integrated as a process in the post-award phase, resulting in a fully integrated approach to the automation of e-procurement. This is not a common approach among organisations.
- Post-award phases such as e-invoicing could be rolled out as part of a stand-alone project. Automating pre-award procurement presents different challenges in terms of the complexity and inevitable need for more human intervention. E-invoicing is a more straightforward implementation that forms a part of the transaction processing chain.
- A third scenario is to take a modular approach in the implementation of end-to-end automation by implementing each discrete element (such as notification, access, submission, award, ordering, invoicing and payment) as a single project, while ensuring their close co-ordination and coherence.

The European Union provides a number of resources for countries when implementing e-procurement projects. These include a checklist of the key steps to be taken in implementing an e-procurement programme within a public-sector contracting authority, as described in Box 4.11.

Box 4.11. Success factors for the rollout of an e-procurement project

The following attributes are key to the successful rollout of e-procurement projects. The EU has identified these attributes by observing practices among EU member countries. Successful countries:

- Decide whether the overall approach to e-procurement will be a centrally managed or de-centralised model, whilst avoiding too ambitious projects.
- Decide whether to make or buy e-invoicing services. If outsourcing is the preferred option, then formal procurement procedures will need to be followed.
- Establish the necessary project governance model with a properly balanced business and IT focus.
- Create project ownership and the right blend of skills and organisational perspectives to ensure tight project management and risk containment.
- Consider the use of shared services models to create economies of scale and scope among a number of public sector organisations co-operating together.
- Consider garnering support from e-invoicing partners with experienced business processes for outsourcing skills. These businesses should have strong service provider and network capabilities, as well as reach.
- Evaluate existing building blocks and tools, as well as the organisations that make them available.
- Consider step-by-step implementation to reap quick wins.

Source: European Multi-Stakeholder Forum on e-Invoicing (2016), The adoption of e-invoicing in public procurement: Guidance for EU public administrations, http://ec.europa.eu/DocsRoom/documents/17301/attachments/1/translations.

The success of the e-procurement system and the benefits that can be achieved from it are reliant on the development of a co-ordinated and comprehensive rollout programme. Such a programme must carefully consider how to manage changes that will be imposed on private and public sector users. A number of tools, including educational and behavioural tools, can supplement legislation and support the implementation.

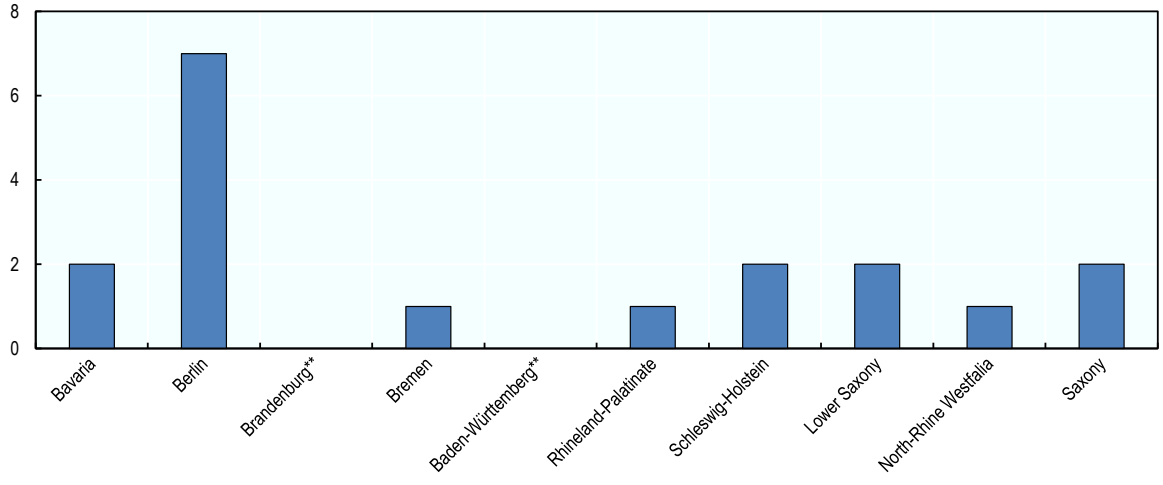
4.5. Enhancing the use of e-procurement among states in Germany

4.5.1. Due to Germany's fragmented e-procurement environment the ability to collect and analyse tender data is rare among Länder

The use and effectiveness of e-procurement among different states in Germany varies greatly. The nature of German's federal system, coupled with low adoption of federal mandates and standards, has resulted in a wide variety of practices. With sub-national spending representing the majority of government spending in Germany, there is a great deal to gain from increasing the implementation of e-procurement. This includes increasing the efficiencies brought about by e-procurement, and realising the greater economic benefits associated with increased competition and the inclusion of more SMEs (OECD, 2017[1]).

All ten of the *Länder* that participated in the OECD review indicated that they rely on their own state-level procurement system as opposed to sharing systems across states or using systems provided at the federal level. However, as discussed in Figure 4.1, the e-procurement landscape at the state level is highly fragmented due to the number of different platforms available for the use of procurement officials. In response to the OECD questionnaire, only three states asserted that they had a single, centrally mandated platform. As shown in Figure 4.13, this means that in the majority of surveyed states, procurement officials can choose from a range of tender platforms. If these platforms do not comply with xVergabe, tender opportunities will not be shared across platforms, resulting in a fragmented approach that adds workload and cost for suppliers monitoring public tender opportunities.

Figure 4.13. Number of e-procurement platforms available in German states



Note: ** Neither Brandenburg nor Baden-Württemberg were able to respond on the number of available e-procurement platforms, even though such platforms are in use.
Source: Responses from German federal and state-level institutions to an OECD questionnaire and interviews.

As discussed above, this fragmented landscape presents a challenge for the collection and analysis of procurement data in Germany. Very few states are able to collect and analyse procurement data from across their state. At present, only one of the ten *Länder* surveyed collects and analyses the data that are captured by its e-procurement system.

During the data collection process mandated by the VergStatVO, a central ministry within each state (typically the ministry responsible for regional procurement legislation) acts as a co-ordination point. This

ministry provides the Excel template for procurement data collection to all other contracting authorities. Despite the fact that the provision of procurement data is mandatory and a legal obligation, return rates in some states are reported to be as low as 50%. Should data collection capabilities be strengthened, each region would be empowered to analyse and use procurement data to monitor the economic and social impacts of procurement. In North Rhine-Westphalia, some initial work has been done to enable the concentration of procurement data, as described in Box 4.12.

Box 4.12. Analysis of procurement metadata in North Rhine-Westphalia

North Rhine-Westphalia has achieved a degree of centralised electronic procurement, though there are no central purchasing bodies within the state. As an alternative to a CPB, authorities appoint lead buyers to guide the co-ordination of purchasing across categories.

Above a value of EUR 25 000, North Rhine-Westphalia requires that procurements be conducted using a central electronic platform. Because of this, the availability of procurement data is dependent on this platform being used by procurement officials. Products purchased by lead buyers, often through framework agreements, are added to the central e-catalogue for other contracting authorities to purchase from.

Over 80% of municipalities also use North Rhine-Westphalia's online marketplace. Municipalities are charged for the service, and the fee is dependent on the number of inhabitants in the municipality. The remaining municipalities either use separate platforms or do not conduct procurement electronically. Many municipalities require the use of e-procurement for products with the same threshold value as North Rhine-Westphalia (EUR 25 000). However, municipalities are not obligated to use a particular system.

At present, North Rhine-Westphalia has begun to analyse the data that is held on its central platform. Data collected on the platform typically relates to the use of framework agreements through the e-catalogue, and tenders posted and awarded through the e-procurement catalogue. Connections with the TED enable the automatic transmission of above-threshold tenders to the European tender system.

Source: Responses from German federal and state-level institutions to an OECD questionnaire and interviews.

4.5.2. States are at varied stages of readiness for implementing the EU directives on e-procurement

As EU countries prepare to comply with the EU directives on electronic advertisement and submission of tenders, the functionality available in state-level systems is varied. As demonstrated in Table 4.1, in Germany, all *Länder*-level systems are equipped for the electronic advertisement of tender opportunities. However, several German states are not yet able to cater to electronic bid submissions. The components of the latter stages of the procurement cycle are not broadly covered by systems at present. Currently, e-signature is available in 60% of the *Länder*; contract management functionalities are available in 20% of the *Länder*, and e-invoicing is available in 10% of the *Länder*.

Table 4.1. E-procurement functionalities available in *Länder*-level systems

Feature available (•); information not available (-)

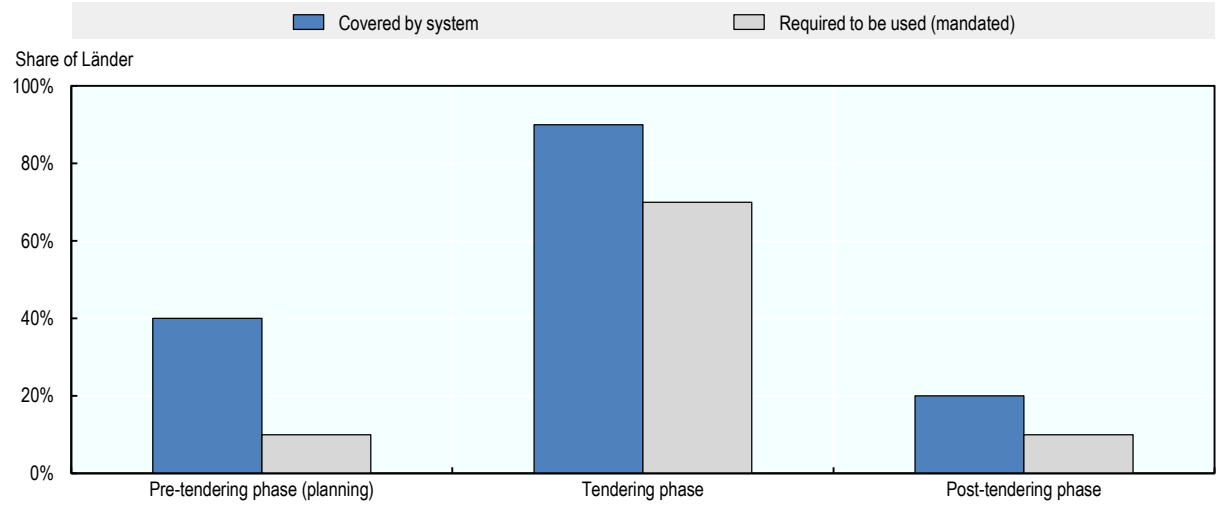
	Publishing opportunities	Submitting bids	E-signature	Contract management	Communication with bidder	Data gathering	Link to federal system	Link to EU level (TED)	Accessible for municipalities	Invoicing	Ordering	E-catalogue
Bavaria	•	•	•		•			•	•		•	•
Berlin	•	•	•		•			•	•			
Brandenburg	•	-		-	-			•	•			
Bremen	•	•	•	•	•	-	•	•	-	•	•	•
Baden-Württemberg	•	•	•	-	-	-	-	-	-	-	-	-
Rhineland-Palatinate	•	•	-	•	•	-	-	•	•	-	-	-
Schleswig-Holstein	•	•	•	•	•	-	-	•	•			
Lower Saxony	•	•	•	-	•	-	-	•	•	-	-	•
North Rhine-Westphalia	•	•	•		•	•	•	•	•	•	•	•
Saxony	•							•	•			

Source: Responses from German federal and state-level institutions to an OECD questionnaire and interviews, supported by additional online research and interviews.
Note: Invoicing will become available in North Rhine-Westphalia by early 2019.

Table 4.1 demonstrates that state-level systems in Germany are well connected with municipalities and EU systems. 80% of *Länder* systems are accessible to municipalities, and 80% of *Länder* systems can link tenders to the TED system. However, few state-level systems appear to have links to systems at the federal level. The implication for Germany's forthcoming e-procurement improvement project is that by improving engagement and co-ordination with *Länder*, the municipalities are also likely to be engaged in the process because of their connection to regional systems.

Most states in Germany require the use of e-procurement tools for the tendering phase of the procurement cycle. States have implemented this requirement in an effort to increase their use of e-procurement tools, and to ensure that contracting authorities are ready for the upcoming deadline to implement the EU directives on electronic bid advertisement and submission. As demonstrated in Figure 4.14, some states have also mandated the use of electronic tools for pre- and post-tendering activities. The adoption of the e-invoicing directive into state law is likely to change this situation, by extending the use of e-procurement to other parts of the procurement cycle, allowing for more functionalities to be available.

Figure 4.14. Scope of available e-procurement functionality at the *Länder* level and mandatory use of e-procurement under *Länder* legislation



Source: Responses from German federal and state-level institutions to an OECD questionnaire and interviews.

Despite the current attempts to develop homogenised regulations for public procurement activity across Germany, states have laws that deviate from federal reforms in fairly significant ways. For example, federal law requires that contracting authorities retain stringent rules with regards to the submission of tenders below EUR 25 000. Such stringent rules include the submission of bids in encrypted format, which excludes the submission of bids by email. However, a state law passed by Hamburg, for example, requires that responses submitted by email to tenders under EUR 25 000, must still be accepted.

As the October 2018 deadline for the electronic submission of bids approached, regional contracting authorities in Germany were still likely to rely heavily on the use of email to receive bids. While email meets the requirements of the directive, there are challenges with its use. A recent legal decision in the UK clarified that a read receipt must be obtained and documented to ensure that buyers can provide proof that participants have received tender updates. Despite the complicated nature of this process, electronic platforms are adept at managing the bid submission process in a way that minimises the risk of legal challenge.

4.5.3. Strategies for increasing the use of e-procurement in the Länder

While e-procurement systems are available at the state-level in Germany, it is not clear when or how procurement officials use them. As indicated earlier, the use of electronic means for conducting procurement procedures is low in the *Länder*. According to a survey with procurement officials, only 36% of respondents indicated that they always use electronic platforms for conducting tenders. That number decreases for earlier and later stages of the procurement process (Schaupp, Eßig and von Deimling, 2017[28]). The reluctance to embrace e-procurement could point to a lack of understanding of its benefits.

OECD interviews with officials from *Länder* identified several barriers to the effective use of e-procurement by *Länder*-level procurement staff. These barriers include:

- A lack of familiarity with IT in general, including some state-level staff not having access to IT in the course of their day-to-day roles.
- Smaller contracting authorities may not currently use e-procurement platforms. Instead, they rely on larger contracting authorities for the execution of procurement processes.

- Low levels of political will or encouragement from leadership for sub-national level staff to use e-procurement instead of conventional methods.
- A perception that e-procurement systems complicate (as opposed to simplify) the procurement process.
- Low levels of maturity in e-procurement amongst the business community, including skilled use and access to technology.

Some states have achieved greater control over post-tender spending than others. In the state of Rhineland-Palatinate for example (see Box 4.13), a link has been developed between tender platforms and an e-catalogue system. The German states that are able to achieve this degree of spending control are typically those that have been able to achieve greater levels of centralisation. Those states that have initiated centralisation initiatives such as specialised CPBs, joint procurement and framework agreements have also been able to implement e-catalogue systems to streamline purchasing activity. As described in Box 4.13, the state of Rhineland-Palatinate has implemented the state-level e-catalogue system, Kaufhaus des Landes, which allows contracting authorities to purchase goods and services from framework agreements.

Box 4.13. Post-tender spending management in Rhineland-Palatinate

The state of Rhineland-Palatinate has achieved a degree of procurement centralisation through the creation of three central purchasing bodies. They are State Services Property and Construction Management (Landesbetrieb Liegenschafts- und Baubetreuung, LBB), State Services Data and Information (Landesbetrieb Daten und Information, LDI) and State Services Mobility (Landesbetrieb Mobilität, LBM). The central procurement office within the LBM (Zentrale Beschaffungsstelle des Landes, ZBL) is also responsible for all procurement of standard supplies and services for the state.

Contracting authorities in the state also carry out procurement not handled by the central purchasing bodies. This type of procurement usually occurs on an ad hoc basis or is specialised in nature. There is some variety in the processes used by contracting authorities when undertaking procurement. Some standardisation can be assured, however, through the supervision of a central purchasing body.

Tenders in the state are advertised on one of two electronic procurement systems, either on the Procurement Market (Vergabemarktplatz, VMP) or the Procurement Management System (Vergabemanagementsystem, VMS). These systems provide the following functionalities:

- publication of pre-tender and post-award announcements
- the execution of different types of procedures allowed under federal- and state-level legislation, including below-threshold procurement processes
- data connections with TED and federal publishing sites
- electronic provision and submission of tender documents
- communication with bidders
- documentation of the entire procurement process to provide guidance to procurement staff and suppliers, including on assessment and awarding.

Once completed, any contracts that are eligible for use by contracting authorities are loaded onto the Kaufhaus des Landes (KdL), the state-level e-catalogue system.

Source: Responses from German federal and state-level institutions to an OECD questionnaire and interviews.

A large number of procurement staff in the approximately 30 000 contracting authorities in Germany will require training on the usage of e-procurement systems. In an attempt to reduce the cost of e-procurement implementation, as well to achieve numerous other benefits such as economies of scale and the development of specialised capabilities, some states have centralised their procurement activities to such an extent that users outside of a small number of CPBs are not required to conduct procurement or use the system (see Chapter 3). The approach taken by Lower Saxony to overcome these challenges by centralising the use of the e-procurement system is described in Box 4.14.

Box 4.14. Centralising e-procurement activity in Lower Saxony

Four central purchasing bodies lead procurement in the state of Lower Saxony. Logistics Centre Niedersachsen (LZN) procures a range of goods and services, and IT Niedersachsen focuses on IT procurement. The State Office for Road Construction and Building handles public works, and the State Office for Construction and Real Estate procures government property. In principle, these four bodies conduct all procurement in the state. The only exceptions relate to goods or services that are not suitable for centralisation, such as products or services that are heavily specialised or fast-paced. The four CPBs collaborate to cover procurement in a state that does not have a central co-ordinating body and operates with rigid “department principles” – i.e. principles that mandate that ministries remain completely independent.

An e-procurement platform operates centrally and covers a number of stages of the procurement lifecycle in Lower Saxony, including the publication of offers, bid submission, communication with bidders, contract award notices and electronic approval and signature of contracts. Individuals within each central purchasing body undertake procurement activities through the e-procurement platform. These individuals base their procurement activities on a thorough collection of needs from contracting authorities. This collection of needs is corroborated with historic purchasing data.

The fact that procurement activity is conducted within a single system means that central purchasing bodies can conduct analyses of metadata collected by the system. Lower Saxony is in the early stages of exploring the use of this data to inform policy making and commercial decision making.

Source: Responses from German federal and state-level institutions to an OECD questionnaire and interviews.

Practices identified in some *Länder* have resulted in a greater implementation of e-procurement methods. However, usage of systems for conducting tender processes is still low. *Länder* governments should provide more vocal support for the use of e-procurement. The support and leadership of state-level governments is essential to bringing about change in a decentralised environment. The federal government can lend its support to these efforts by helping to clearly articulate the benefits of e-procurement for users, standardising training resources and developing a clear roadmap for the evolution of e-procurement in Germany.

Proposals for Action

The German government has already taken decisive steps towards digitalising procurement processes. The implementation of the revised legal framework for procurement has also presented opportunities to enhance data collection. In order to meet EU directives and align the country with international good practices, there must be continued focus on preparing the private and public sectors for the transition. The following recommendations identify actions the federal government can carry out to support this transition so that the benefits of e-procurement can be unlocked.

- Develop a national e-procurement working group that convenes stakeholders from all levels of government, including the private sector. The objectives of the group should be to bring about greater visibility of e-procurement practices across Germany, increase collaboration and standardisation, and enable the sharing of good practices.
- Formulate a data management strategy that aligns with open data standards and outlines a transition to streamlined, automated data collection from e-procurement systems at the federal level. At the same time, the data management strategy should consider privacy concerns and ensure the *Länder* can be supported in analysing and using their own data.
- Link e-procurement reform with the broader e-government agenda to broaden the scope of digitalisation, enabling connections between contracting authority systems and other federal databases.
- Ensure that future e-procurement projects take a comprehensive change management approach to ensuring the smooth transition of public and private users to digital processes.
- Provide support for the rollout of e-procurement in the *Länder* by outlining a vision and roadmap for e-procurement, and by clearly articulating the benefits of transitioning to digital processes.

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5 The use of strategic procurement in Germany

Different approaches to acquiring goods and services can lead to public funds being used to achieve complementary policy objectives. Strategic procurement takes into account these complementary policy objectives. Strategic procurement can deliver varied policy goals in addition to the immediate objectives of achieving value for money and maximising efficiency in delivering public services. In recent years, the German government has placed importance on strategic procurement, developing several national strategies and work plans to support it. This chapter discusses the approaches Germany has taken to mainstream the use of strategic procurement. Germany's specialised competence centres have been successful in supporting contracting authorities and suppliers, for example. In addition, several policies have created a framework for strategic procurement in the country. To maximise impact, however, additional measures may be necessary to diffuse a systematic approach to strategic procurement – especially at the sub-central level.

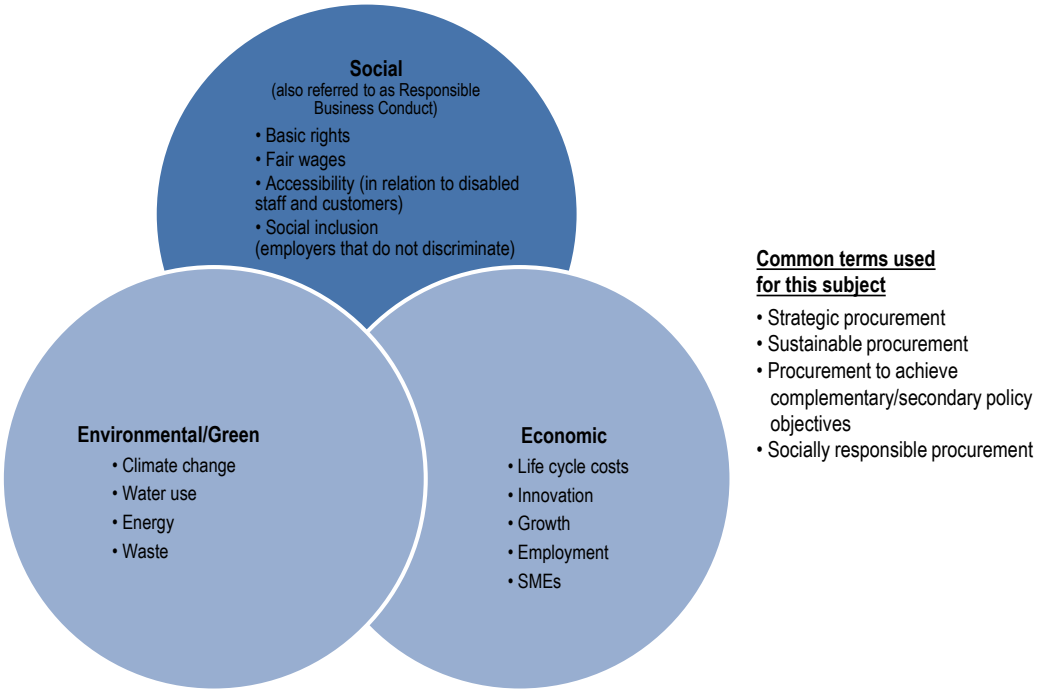
Public procurement represents a large economic value, delivers public services and connects the public and private sectors. Due to these factors, public procurement has become a lever to pursue several complementary benefits. How governments decide to spend the large volume that procurement represents is important for achieving broader policy objectives and reaping these complementary benefits. For years, the main and most natural focus of public procurement has been to achieve the best value for public spending by encouraging competition in order to drive down costs and obtain monetary savings. In this context, value was defined as obtaining better quantity or quality for the lowest price. Over time, the definition of value has evolved to incorporate other government policy considerations. These policy considerations include, among others, ensuring that the goods and services bought by the government are environmentally friendly, or that the businesses engaged through public procurement have characteristics that the government wishes to encourage or develop. For example, some governments may place value on procuring goods and services from small- and medium-sized enterprises (SMEs), businesses that invest in new or innovative products or services, female- or minority-owned businesses and businesses that focus on achieving social objectives.

This change in approach has introduced a greater degree of complexity to the procurement process. Tenders can no longer be assessed simply according to cost. Tender evaluations must now take a much more holistic and strategic approach. Studies by the OECD have found that this strategic approach to procurement can produce additional benefits for governments (OECD, 2017[1]; OECD, 2015[2]):

- The benefits of adopting green public procurement policies are numerous. The environmental benefits alone are substantial, as procurement can be used to address issues such as deforestation, greenhouse gas emissions, water quality and waste. By focusing on these objectives, governments can also set a positive example for private enterprises and citizens. Economically, green procurement can result in lower life-cycle costs by reducing reliance on electricity and other resources. Broader societal benefits include improving citizens' quality of life and shifting markets to focus on greener products (European Commission, 2016[3]).
- Public procurement of innovative goods and services can be an important tool for contracting authorities to improve the effectiveness and efficiency of public services, while also addressing their challenges and needs. To this end, governments can use strategic procurement to improve services that address mobility, health, aging, construction, environment, security and safety, and IT services. At the same time, strategic procurement can help create jobs and boost the competitiveness of industries and SMEs. By spurring innovation from the demand side and steering the development of innovative solutions, procurers can avoid the costs of unnecessary features, prevent supplier lock-ins and take account of longer-term public sector requirements (European Commission, 2014[4]).
- Increasing the participation of SMEs in public procurement markets ensures a more competitive bidding process and gives procurers access to a wider choice of available solutions. This in turn helps governments to meet the needs of contracting authorities and achieve value for money in their purchases. Increasing SME engagement can also lead to higher value purchases, better quality service and more innovation (Her Majesty's Treasury, 2008[5]).

Strategic and holistic approaches to procurement have only begun to gain prominence in the past five to ten years. During this time, a number of terms have been used to describe this type of procurement. The OECD has been at the forefront of advancing the strategic procurement agenda, together with many other international organisations (OECD, 2017[6]). The diagram below (Figure 5.1) seeks to clarify the relationship between different terms related to strategic procurement, as well as the several approaches that fall within this field.

Figure 5.1. Illustrative map of the categories of strategic procurement



Source: Procura+ (2016), The Procura+ Manual, http://www.procuraplus.org/fileadmin/user_upload/Manual/Procuraplus_Manual_Third_Edition.pdf.

Germany has already identified the benefits of pursuing strategic procurement objectives, and has launched a number of strategies and policies to pursue them. These strategies and policies have been made possible by the high-level political support Germany has given to its strategic procurement priorities. However, the success of Germany's approach depends on strategic procurement considerations being incorporated into public tenders on a daily basis. In Germany's federal system, challenges lay in ensuring that procurement officials are provided the necessary training and support to be able to execute this mandate. The extent to which these efforts succeed will dependent on the government's ability to monitor and measure the impact of these efforts.

This chapter explores these areas of strategic procurement to analyse how Germany enables the pursuit of complementary policy objectives through public procurement. The first section outlines the international context and legal and policy framework, as well as the current state of strategic procurement in Germany. Second, the chapter reviews the work of the competence centres that Germany has established to support contracting authorities in implementing complementary policy objectives. The third section of the chapter highlights how strategic procurement has been implemented throughout Germany. A fourth section explores how Germany could use the ongoing monitoring and evaluation of strategic procurement to improve its adoption. Finally, a dedicated section outlines how German states fare with regards to strategic procurement.

5.1. Legal and policy frameworks, reinforced by international co-operation, support contracting authorities in pursuing complementary policy objectives

5.1.1. International organisations encourage and support the implementation of national policies and strategies to encourage the use of strategic procurement

At present, a number of international institutions, including the European Union (EU), the United Nations (UN) and the OECD, encourage the use of strategic public procurement. For example, the European Union has included strategic procurement in EU directives. Similarly, strategic procurement is crucial for achieving the UN Sustainable Development Goals (SDGs). Finally, the *OECD Recommendation of the Council on Public Procurement* includes strategic procurement as one of its principles (see Box 5.1).

Box 5.1. *OECD Recommendation of the Council on Public Procurement* – principle on balance

The Council:

V. RECOMMENDS that Adherents recognise that any use of the public procurement system to pursue secondary policy objectives should be balanced against the primary procurement objective.

To this end, Adherents should:

i. Evaluate the use of public procurement as one method of pursuing secondary policy objectives in accordance with clear national priorities, balancing the potential benefits against the need to achieve value for money. Both the capacity of the procurement workforce to support secondary policy objectives and the burden associated with monitoring progress in promoting such objectives should be considered.

ii. Develop an appropriate strategy for the integration of secondary policy objectives in public procurement systems. For secondary policy objectives that will be supported by public procurement, appropriate planning, baseline analysis, risk assessment and target outcomes should be established as the basis for the development of action plans or guidelines for implementation.

iii. Employ appropriate impact assessment methodology to measure the effectiveness of procurement in achieving secondary policy objectives. The results of any use of the public procurement system to support secondary policy objectives should be measured according to appropriate milestones to provide policy makers with necessary information regarding the benefits and costs of such use. Effectiveness should be measured both at the level of individual procurements, and against policy objective target outcomes. Additionally, the aggregate effect of pursuing secondary policy objectives on the public procurement system should be periodically assessed to address potential objective overload.

Source: (OECD, 2015[7]), *OECD Recommendation of the Council on Public Procurement*, https://www.oecd.org/gov/ethics/OECD-Recommendation-on-Public-Procurement.pdf.

Adopted in October 2017, the European Commission's public procurement strategy aims to improve public procurement practices in the EU by supporting government and contracting authorities in implementing strategic procurement. Amendments to EU legislation aid the execution of the strategy. These amendments encourage practices such as (European Parliament and the Council, 2014[8]):

- introducing greater flexibility by allowing contracting authorities to choose the best quality-to-price ratio (value for money), and by in turn allowing price to be removed as the sole award criterion
- encouraging innovation by enabling co-operation between contracting authorities and companies to develop innovative products or services that do not exist in the market

- limiting turnover requirements and introducing the option of dividing tenders into lots to make it easier for SMEs to bid for public contracts
- encouraging contracting authorities to purchase socially responsible goods to help enterprises make wider use of social standards in the management, production and provision of services
- providing opportunities to spur eco-innovation by using new award criteria in contract notices that place more emphasis on environmental considerations.

The award criteria advocated by the revised EU directive of 2014 are based on the principle of the "most economically advantageous tender" (MEAT criteria). These criteria place more emphasis on environmental considerations, social aspects, innovative characteristics and other factors, such as the experience of the staff performing the contract and offers of after-sales service and technical assistance. Value for money is assured by taking into account the life-cycle costs of the work, good or service procured (European Parliament, 2014[9]).

The international community agreed on the Sustainable Development Goals (SDGs) in September 2015. These goals identify a number of objectives related to global issues such as poverty, sanitation, economic growth and climate action. At the global level, the 17 Sustainable Development Goals and 169 targets of this new agenda will be monitored and reviewed using a set of indicators. Countries will also develop their own national indicators to assist in monitoring progress against the goals and targets (United Nations, 2015[10]).

Two of the SDG targets relate to public procurement directly, as they ask countries to improve their procurement systems (UN Sustainable Development Knowledge Platform, n.d.[11]):

- Target 12.7 calls on countries to “promote public procurement practices that are sustainable, in accordance with national policies and priorities”.
- Target 16.6 requires countries to “develop effective, accountable and transparent institutions at all levels” – including procurement institutions.

In addition, a number of SDG targets have an indirect link to procurement, as the activities referenced in these targets are delivered using public procurement. These targets include:

- achieving higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high value-added and labour-intensive sectors
- promoting development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalisation and growth of micro-, small- and medium-sized enterprises, including through access to financial services.

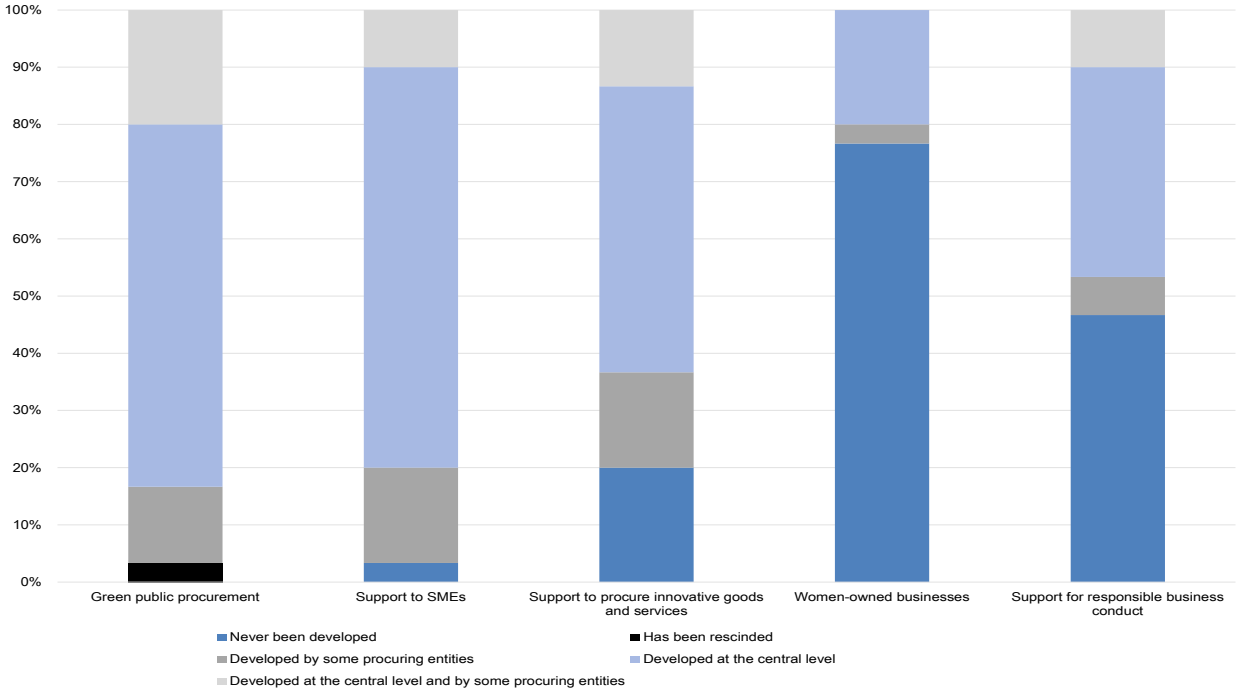
While these references help to raise the profile of procurement’s role in efforts to achieve these targets, it also means that policy makers must ensure that progress towards these targets can be monitored at a national level. In order to achieve its Sustainable Development Goals, the UN relies on countries to set a clear direction. According to SDG goal 17, implementation of these goals will require countries to re-tool the “monitoring frameworks, regulations and incentive structures that enable such investments” in order to “attract investments and reinforce sustainable development. National oversight mechanisms such as supreme audit institutions and oversight functions by legislatures should be strengthened.” (United Nations, n.d.[12])

As shown in Figure 5.2, many OECD countries have already taken steps to increase the use of strategic procurement. The work done to support the implementation of strategic procurement can be divided into three categories:

- **legislation, strategies and policies:** the over-arching laws and frameworks put in place to encourage strategic procurement

- **institutions and bodies:** the departments and teams that have been established to implement, oversee and monitor implementation of strategic procurement
- **tools and guidance:** the resources that are made available to procurement staff to help them to implement strategic procurement on a day-to-day basis.

Figure 5.2. Strategies and policies for pursuing complementary policy objectives through procurement in OECD countries



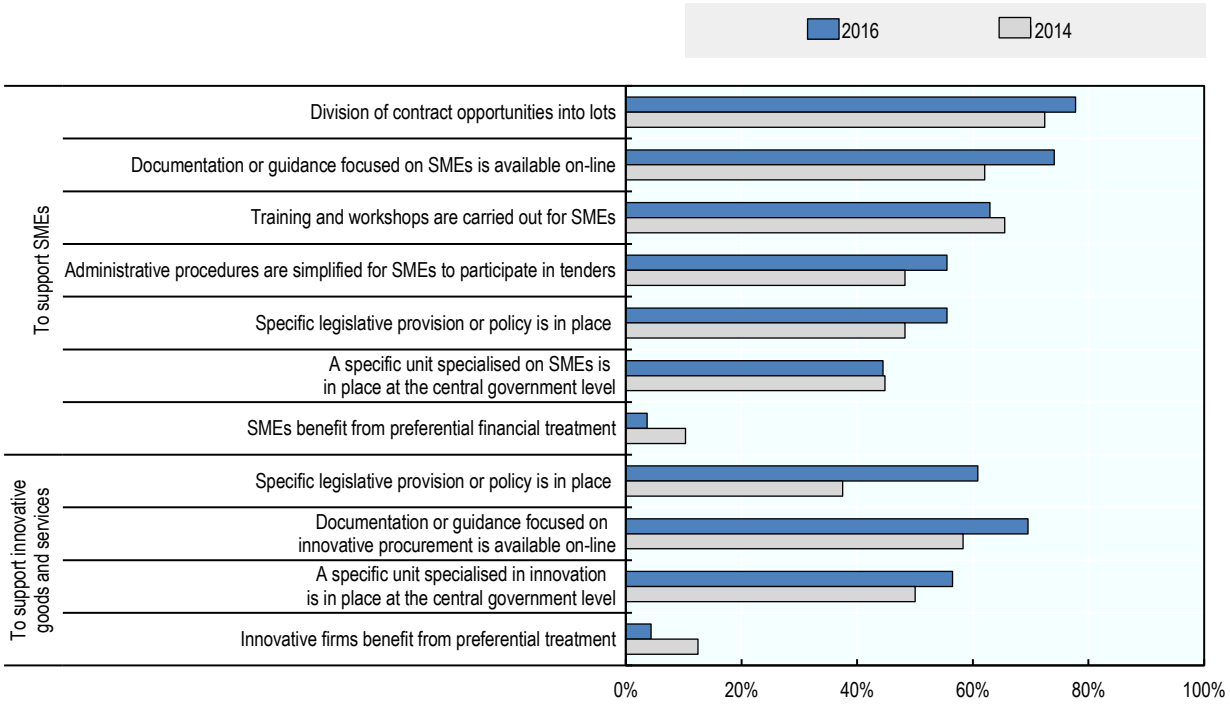
Source: OECD (2016), Survey on Public Procurement.

As seen in Figure 5.2, the majority of OECD countries have developed policies or strategies to support green public procurement, SME development and innovation. A smaller proportion has also implemented policies and strategies targeting the development of women-owned businesses and the application of other types of responsible business conducts.

These policies and strategies typically pursue a number of different tools in order to support strategic procurement. For example, in pursuit of the objective of increasing SME participation in public procurement, OECD countries have implemented a range of approaches. These approaches include encouraging or mandating the division of contract opportunities into smaller lots so that public tenders are not beyond the reach of SMEs. Some OECD countries have also provided training to SMEs themselves to support them in responding to public tenders.

To encourage the adoption of innovative practices for strategic procurement, countries take different avenues. These avenues include the introduction of legislation, the creation of a dedicated body to support and monitor implementation, and the provision of tools, training and guidance to procurement staff (see Figure 5.3).

Figure 5.3. Different approaches to supporting complementary policy objectives through public procurement in OECD countries



Source: OECD (2014, 2016), Survey on Public Procurement.

If applied effectively, these tools can build an environment that is conducive to strategic procurement. However, achieving this outcome requires a clear strategy supported by a comprehensive implementation plan and subsequent monitoring of progress. To attain these three key steps within the German public procurement system, each tool and step must be well co-ordinated and aligned.

5.1.2. Germany has established overarching policies and strategies to launch its sustainability agenda

Germany's pursuit of sustainability pre-dates the establishment of the Sustainable Development Goals. Germany's first national sustainability strategy was established in 2002. An updated strategy was officially approved in January 2017 to align it with the Sustainable Development Goals. Germany's updated strategy is now known as the German Sustainability Strategy 2016 (Deutsche Nachhaltigkeitsstrategie Neuauflage 2016). The updated strategy incorporates the government's Programme of Measures on Sustainability (Maßnahmenprogramm Nachhaltigkeit) (Staatssekretärsausschuss für nachhaltige Entwicklung, 2015[13])

In addition, Germany has adopted a plethora of action plans, strategies and laws related to sustainability and procurement. There are two main types of policies. First, Germany has implemented sustainability policies that aim at the sustainable development of the country as a whole. These sustainability policies specifically mention the role of public procurement. Second, Germany has implemented policies aimed at increasing the sustainability of the German federal administration in its daily work. These policies count procurement as an aspect of administrative activity. Post-implementation monitoring reports follow many of these policies, and authorities subsequently improve them. While the policies related to increasing the sustainability of the federal administration are more relevant for the purpose of this public procurement review, the number and depth of overarching policies illustrates the increasing importance of sustainability

in the German policy landscape. At the same time, a large number of strategies make it increasingly complex for the individual civil servant to work towards these strategies. Table 5.1 provides an overview of the different policies in place.

Table 5.1. Evolution of Germany's sustainability framework, focus on procurement

	Type of policy	Coverage	First edition	Update	Monitoring reports
Circular Economy Law (Kreislaufwirtschaftsgesetz)	Law	Waste management in Germany	1994	2007, 2012	2014, 2016
National Sustainability Strategy (Nationale Nachhaltigkeitsstrategie)	Strategy / plan	Sustainable development of Germany as a whole	2002	2017	Progress reports: 2004, 2008, 2012, 2018 Indicator reports: 2006, 2008, 2010, 2012, 2014, 2016
Joint Decree for Procurement of Wooden Products (Gemeinsamer Erlass zur Beschaffung von Holzprodukten)	Regulation	Public procurement of wood products in the federal administration	2007	2011	
General Administrative Provision for the Procurement of Energy-Efficient Products and Services (Allgemeine Verwaltungsvorschrift zur Beschaffung energieeffizienter Produkte und Dienstleistungen, AVV-EnEff)	Regulation	Purchasing of energy-efficient products by the administration	2008	2013, 2017	
Programme of Measures on Sustainability (Maßnahmenprogramm Nachhaltigkeit)	Strategy / plan	Sustainability in Germany's federal administration	2010	2015, 2017	2015, 2016
German Resource Efficiency Programme (Deutsches Ressourceneffizienzprogramm)	Strategy / plan	Germany's use of resources as a whole	2012	2016	2015
National Programme for Sustainable Consumption (Nationales Programm für nachhaltigen Konsum)	Strategy / plan	Sustainability for Germany's citizens and their consumption	2016		

Source: Author's compilation.

Germany's first national sustainable development strategy was adopted in 2002. However, the strategy did not reference public procurement at first (Die Bundesregierung, 2002[14]). Following several rounds of monitoring, the role of public procurement gradually increased. The 2008 monitoring report suggested orienting public procurement towards sustainability, and increasing the role of public procurement in a more binding sustainability strategy (Die Bundesregierung, 2008[15]). In 2012, the monitoring report highlighted several individual initiatives that had been introduced or were about to be introduced. These initiatives included: the Alliance for Sustainable Procurement, the Programme of Measures for Sustainability of the Federal Administration and the Centre for Sustainable Procurement.

Germany's federal government issued its new National Sustainability Strategy in January 2017, following the adoption of the Sustainable Development Goals (SDGs). The National Sustainability Strategy mainly describes the contribution of different levels of government and institutions to achieving Germany's targets under the SDGs. In addition, the federal administration has featured public procurement as a part of its sustainable management plan. The key activities cited in the strategy in relation to public procurement are the revised procurement law (see section 5.1.3) and a programme of measures to increase the sustainability of the federal administration (see below). The administration also included additional provisions on public procurement in the thematic aspects of the strategy. A major focus of the strategy, for

example, is increasing investment in infrastructure. However, the strategy does not explicitly mention the use of strategic procurement as a means to achieving greater sustainability in infrastructure projects.

Germany could benefit from mainstreaming sustainable procurement through the different action areas of its sustainability strategy. Often, public procurement is central to implementing major policy goals like sustainable infrastructure. Handling the procurement process for large-scale projects – such as infrastructure projects – in a smart way can deliver additional benefits. Beyond the general planning of these projects, procurement processes can determine the outcome of these projects through technical specifications and via the selection and award criteria. Innovative procurement strategies like pre-commercial procurement can facilitate sustainable solutions that might not have been presented otherwise.

Public procurement is a strong focus of the German federal administration's sustainability goals. The Programme of Measures for Sustainability (Nachhaltigkeit konkret im Verwaltungshandeln umsetzen. Maßnahmenprogramm Nachhaltigkeit) lays out these goals. While the programme of measures is a part of the National Sustainability Strategy, the Committee of State Secretaries for Sustainable Development (Staatssekretärsausschuss für nachhaltige Entwicklung) developed a first version of the programme in 2010. Subsequently, the Committee of State Secretaries for Sustainable Development adopted a second version in 2015.

The Programme of Measures for Sustainability includes 12 action points to support the achievement of sustainability goals. The programme tasks all institutions in the federal administration with implementing these action points. While many of the action points are not explicitly about public procurement, they are nevertheless affected by it, such as the goal to make administrative buildings more energy efficient. One action point specifically targets "further focus of public procurement on the guiding principle of sustainable development", according to the Programme of Measures for Sustainability. The action points emphasise the value for money that sustainable procurement can achieve, suggesting that sustainable procurement can be budget-neutral (Staatssekretärsausschuss für nachhaltige Entwicklung, 2010[16]) (Staatssekretärsausschuss für nachhaltige Entwicklung, 2015[13]).

The Programme of Measures for Sustainability presents eight concrete activities that pertain to sustainable procurement:

1. Each contracting authority shall appoint a contact person responsible for liaising with the Competence Centre for Sustainable Procurement (Kompetenzstelle für nachhaltige Beschaffung, KNB). That person shall be responsible for the planning, organisation and implementation of changes to procurement processes recommended by the KNB. This contact person will also be tasked with acting as the link between the KNB and the contracting authority more generally.
2. Authorities should utilise the framework agreements available on the online catalogue portal of the federal government, the KdB, to bring about sustainable outcomes. As new framework agreements are made or existing ones renewed, sustainability criteria and guidelines should be included.
3. Sustainability considerations in German law should be strengthened by the transposition of EU directives.
4. The KNB will undertake a number of activities to support the implementation of sustainable procurement, including: supporting sustainable contracting of the KdB, developing the advisory material and guidance available on their portal, organising and participating in events to promote best practices, delivering an annual monitoring report, and building on existing training programmes by embracing other media such as e-learning.
5. Continue the work of the Alliance for Sustainable Procurement, a cross-government working group currently chaired by the Federal Ministry for Economic Affairs and Energy (Bundesministerium für Wirtschaft und Energie, BMWi). In addition, expand the influence of the Alliance for Sustainable Procurement so it can co-operate with states and municipalities.

6. Ensure that other legal requirements related to sustainability are taken into account, such as increasing the proportion of recycled paper that is purchased, achieving emissions targets for government vehicles and ensuring that wood and textiles are bought according to pre-agreed criteria.
7. Measures should be implemented so that procurement and construction factors help to ensure that bio-diversity preservation standards are met by 2020.
8. The purchase of green electricity (electricity derived from 100% renewable energy sources) should be continued and expanded.

Implementation of the national sustainability strategies and the programme of measures for the federal administration were supported by a set of working groups from different levels of government. Each working group operated with different levels of public involvement. The working groups included the Committee of State Secretaries for Sustainable Development, the Parliamentary Advisory Council on Sustainable Development and the Council for Sustainable Development (Die Bundesregierung, 2017[17]). With regard to sustainability in public procurement, the BMWi has created and chaired the Alliance for Sustainable Procurement (Allianz für eine Nachhaltige Beschaffung, AfNB). Since 2010, the AfNB has convened representatives from procurement institutions at the federal, state and municipal level. The goal of AfNB is to promote the exchange of good practices and lessons learned in implementing strategic procurement (Die Bundesregierung, 2016[18]). AfNB has brought together experts on many procurement-related topics, including e-mobility, public transport and resource efficiency. These groups then developed suggestions on how to increase sustainability in their areas (Bundesministerium für Wirtschaft und Energie, 2014[19]).

Overall, a large number of actors and strategies in the field of sustainability have not yet been brought into the mainstream of public procurement in Germany. Germany has to be careful not to thwart the positive effects of its focus on sustainability by confusing government officials and the public with a number of different strategies, each seeking to achieve different objectives. In addition, international best practices are moving toward encouraging sustainability as the standard approach – rather than a one-off activity. This standard, integrated approach is also described in the *OECD Recommendation of the Council on Public Procurement*'s principle on balance (see Box 5.1). According to this recommendation and international best practices, sustainable public procurement should be routinely included in strategic considerations. For example, investment in infrastructure with a large potential for sustainability can be realised by using public procurement strategically.

5.1.3. Germany's legal and regulatory framework provides sufficient flexibility for contracting authorities to pursue complementary objectives

Germany's 2016 procurement reform has facilitated the pursuit of complementary policy objectives. In fact, this was one of the main intentions of the reform, following developments at the EU level to place greater focus on complementary policy objectives. The 2016 reform established a new legal basis for incorporating sustainability criteria into the public procurement process (Die Bundesregierung, 2016[18]). All procurements of goods, works and services with a procurement value above and below the thresholds specified in the law must now give consideration to environmental, social and innovative aspects.

Germany's 2016 procurement law broadened the possibilities for procurement officials to include complementary policy objectives in their tenders. The law specifically mentions social, environmental and innovative aspects as possible specifications for tenders, and lists these aspects as suitable for selection and award criteria (Law against Restraints on Competition, § 97 paragraph 3). In addition, contracting authorities can exclude companies that have violated environmental, social or labour law obligations from procurement processes. Equally, a company can be excluded if they are found to have engaged in fraud in connection with these obligations (e.g. if the company incorrectly claimed to comply with obligations). Any decision to exclude a company must be based on the principle of proportionality (i.e., consider the

extent of the wrongdoing) and must be supported by evidence (Law against Restraints on Competition, § 124) (Kompetenzstelle für nachhaltige Beschaffung, 2016[20]).

The Ordinance on the Award of Contracts (Vergabeverordnung, VgV) further specifies that contracting authorities have the option to include complementary objectives in procurement processes. For example, the application of criteria or specifications related to complementary objectives can take a broad view of the good or service being procured. As such, authorities can take the whole life cycle – from sourcing and production to delivery – into account. However, complementary aspects must be linked to the procurement in question (Ordinance on the Award of Contracts, § 31 paragraph 3). For example, when assessing environmentally friendly transport, criteria cannot be applied to the entirety of a supplier's fleet in addition to the vehicles being requested in a tender (Von Wietersheim, 2017[21]).

Germany's revised procurement ordinance also permits the use of life-cycle costing (Ordinance on the Award of Contracts, § 59). The law outlines the different elements that can be considered a part of life-cycle cost analysis, and how they should be evidenced. Contracting authorities must develop a methodology to calculate life-cycle costs that follows the three requirements below (Ordinance on the Award of Contracts, § 59 paragraph 3):

1. the methodology has to be based on verifiable and non-discriminatory elements;
2. the methodology has to be accessible to all interested parties;
3. the required information has to be reasonable (i.e. balancing the use of life-cycle costing against the efforts that are necessary to come up with the assessment).

German authorities have included additional legal requirements in the revised procurement law that relate to several complementary objectives in particular:

- **Energy efficiency:** For goods and services that consume energy, the Ordinance on the Award of Contracts requires that contracting authorities demand the highest energy efficiency class where possible as a part of technical specifications (Ordinance on the Award of Contracts,§ 67). For works, energy efficiency must be considered to an adequate extent (Regulation on Contract Awards for Public Works, § 8c) (Von Wietersheim, 2017[21]).
- **SMEs:** Dividing tenders into lots is mandatory above and, in general, below the EU threshold for goods, works and services. This requirement helps ensure that SMEs, mid-sized and family-owned businesses (the German *Mittelstand*) can participate in tenders. Exceptions are allowed due to technical or economic reasons (i.e. exceptions are allowed so that the contracting authority can balance the gain from splitting the tender into lots against any additional costs and technical limitations) (Law against Restraints on Competition, § 97 paragraph 4; Regulation on Contract Awards for Public Works, § 5; Code of Procedure for Procuring Supplies and Services below EU-Thresholds, § 22). For example, a contracting authority can decide not to divide a tender into lots if it would result in too many lots or lots that are too small, rendering the entire tender uneconomical. A technical limitation may relate to the need to secure matching parts or to simplify the supply chain in order to have clearer ownership of the solution (Von Wietersheim, 2017[21]).
- **Minimum wage:** According to Germany's Act against Restrictions of Competition, companies have to adhere to all applicable laws when implementing a public contract. The law specifically requires adherence to the Law on Minimum Wage and any collective wage agreements (Law against Restraints on Competition, § 128).

Overall, following the 2016 reform, the current legal and regulatory framework in Germany provides procurers support in conducting strategic procurement. The following sections of this chapter explore how the legal framework has been implemented to date, and what tools have been effective.

5.2. Drawing upon the expertise of dedicated institutions to support the rollout of strategic procurement

5.2.1. Competence centres: Centralised advisory services to support the implementation of strategic procurement

In the heavily decentralised environment of the German government, where new initiatives and directives must be implemented by over 30 000 contracting authorities, the centralisation of expertise and resources on particular topics can be highly beneficial. To support the implementation of strategic procurement in Germany, the government has established a number of dedicated bodies to house expertise in specific areas of strategic procurement. The rest of the government can then deploy this expertise widely.

The Competence Centre for Sustainable Procurement (KNB) plays a key role in the achievement of sustainability goals. The KNB was established in 2012 within the Federal Procurement Office of the Ministry of the Interior (Beschaffungsamt des Bundesministeriums des Innern, BeschA). This competence centre has the status of a central authority. According to the German Sustainability Strategy 2016, the KNB "helps contracting authorities consider sustainability criteria in their procurement projects. It thus offers the approximately 30 000 contracting agencies of the federal government, states and municipalities information, materials and training, and develops new approaches for anchoring the sustainability principle in the activities of contracting authorities, drawing on the assistance of an expert body set up for this purpose." (Die Bundesregierung, 2016[18]) Because of its broad mandate, the KNB has been highlighted in Germany's new sustainability strategy as a flagship project. (Die Bundesregierung, 2016[18])

The KNB uses a variety of channels and techniques for disseminating information and building knowledge related to sustainable procurement. To begin with, it provides a telephone and email hotline to respond to questions and provide advice to procurement staff. The KNB also provides training through one-day, on-site seminars covering strategic sustainable procurement, the legal framework for sustainable procurement, climate-friendly procurement and training focusing on specific product groups. The KNB supplements this training by disseminating procurement guidelines, information brochures and newsletters. Many of these approaches have been developed in collaboration with important stakeholder groups, such as representatives of contracting authorities from across government and members of industry, NGOs, and associations.

A dedicated competence centre called the German Competence Centre for Innovation Procurement (Kompetenzzentrum innovative Beschaffung, KOINNO) supports innovation in public procurement. KOINNO is a registered association hosted by the Association of Materials Management, Purchasing and Logistics (BME) on behalf of the Federal Ministry for Economic Affairs and Energy (BMWi). KOINNO was founded in 2013. KOINNO's objective is to increase public procurement of innovative goods and services in Germany, and, by doing so, trigger innovation and increased competiveness in the German economy. In order to measure progress towards this objective, KOINNO has targeted a considerable increase in the percentage of procurement procedures for new technologies, products and services. Both the KNB and KOINNO co-ordinate their work in order to learn from successes and challenges. Furthermore, many innovative solutions also further sustainable and environmentally friendly outcomes, so both centres often work towards the same objectives.

The services provided by KOINNO are similar to those of KNB in that they provide contracting authorities with training, workshops, networking opportunities, on-call consulting and a website containing best practices, templates and guidance. KOINNO also supports contracting authorities in obtaining funding from the EU's Horizon 2020 fund for research and innovation. Given that KOINNO operates on periodic mandates from the German government in the form of memoranda of understanding, the centre must continue to demonstrate value in order to have its commission renewed periodically. (KOINNU is currently in its second term of renewal).

KOINNO's work also targets businesses in order to encourage the adoption of innovative practices and to ensure SMEs understand and participate in unique tender procedures like pre-commercial procurement. A next step for KOINNO is to launch an idea symposium in order to bring businesses together and facilitate networking and matchmaking, particularly between start-ups and SMEs. New Zealand has taken a structured approach to developing products and solutions that can improve interactions between government and businesses, as described in Box 5.2.

Box 5.2. The R9 Accelerator Programme as a launch platform for start-ups

Businesses have to deal with government in a number of areas, including navigating the tax system, complying with labour laws, registering company details and providing infrastructure. When these services are complex and fragmented, it can mean that businesses have to expend a lot of effort to accomplish these basic tasks. Result 9 – Better for Business is one of the New Zealand Government's focus areas for improving the interaction between businesses and the New Zealand government.

The R9 Accelerator programme, a sub-programme of Result 9, was started to test new ways of sourcing and procuring innovative solutions to governmental problems. Working with partners such as Creative HQ, an association supporting innovative start-ups that use proven innovation methodologies like design thinking and agile management, the R9 Accelerator selects teams of creative innovators from the public and private sector for an in-residence accelerator programme. The programme takes innovators through the following steps:

- **Opportunities identified:** The programme works with sponsoring organisations to identify and define opportunities, such as government-customer interactions, that do not currently meet customers' needs.
- **Rev' up:** Rev'd up is the name of the launching weekend that is used to allow potential participants to meet and form teams, explore opportunities, and get a taste of how the programme will work.
- **Team application and selection:** Applicants are selected based on their entrepreneurial and innovative skills. They are then paired with participants with complimentary skillsets.
- **Accelerate:** Teams go through the three-month structured process with support and mentoring by Creative HQ in order to test and re-develop their products.
- **Demo Day:** Teams pitch their products to an audience of senior decision makers in the public and private sector who have an opportunity to sponsor projects that meet their needs.
- **Post-Accelerator Support Programme:** Teams that are successful in securing funding for their products proceed to this stage where further support is provided to develop their products.

The R9 Accelerator programme is one of the first programmes of its kind in the world, and was a finalist for the New Zealand Innovation Awards 2016.

Source: Better for Business (n.d.), R9 Accelerator, https://www.r9accelerator.co.nz/about/how-it-works/.

The services provided by the competence centres seem to have a positive impact on the work of contracting authorities. However, a lack of data to provide an impact assessment makes it challenging to substantiate this assumption. In the course of evaluating the activities undertaken by competence centres, the German government should consider the mandate and the scope of their work in order to consider whether additional steps could be taken to increase their impact.

5.2.2. To increase the impact competence centres have, they must focus on raising awareness of strategic procurement at all levels of government

Both KNB and KOINNO operate with a limited number of staff due to budget restrictions. Therefore, both competence centres are limited in the amount of hands-on support they can provide to contracting authorities. KNB operates with a staff of only five people and KOINNO has a team of eight. This limited workforce means that their websites are a prominent tool for disseminating information to stakeholders. The KNB website acts as an information platform and a communication and networking hub for its customers. Because of different state laws on procurement, each state has its own web page and is responsible for its content. The popularity of the KNB's website has grown of late, with more than 25 000 documents downloaded in a single year. The number of page views has also more than doubled since the website was launched. The KNB's online platform offers practical advice and modules on life-cycle analysis for many different products, from motor vehicles and consumer electronics to household appliances.

Much of the support that KOINNO provides to contracting authorities involves providing practical and detailed advice. Because this work is in-depth by nature, a limit of 20 workdays is applied to each initiative in order to ensure resources are not too heavily consumed by one project. The risk of overconsumption is significant, given that the service provided by KOINNO is free. Unfortunately, this fact gives contracting authorities little incentive to regulate their use of support services.

According to representatives from both competence centres, the greatest challenge they face is building the skills of a large number of procurement staff to enable them to execute increasingly complex criteria. Procurement officers must demonstrate a broad range of skills to be successful in the current environment, including business expertise, technical knowledge, management and soft skills such as confidence, assertiveness and public speaking. The Chief Procurement Officer role in private sector organisations is a senior (and often board-level) manager, whereas the role does not typically have the same seniority and importance within German contracting authorities. This in turn impacts the status and capability levels of procurement officers.

A 2017 OECD study on innovation procurement echoed this assessment and identified a number of barriers to using procurement for innovation successfully. According to the study, countries cite staff capacity as the third most commonly encountered challenge (OECD, 2017[1]). The top five most commonly cited challenges were as follows (listed from the most- to least-reported challenges by responding countries):

1. risk aversion;
2. management and co-ordination;
3. capacity (in terms of numbers and skills);
4. political support;
5. resistance to change.

Furthermore, the study found that successful strategic procurement for innovation requires governments to (OECD, 2017[1]):

- communicate on the positive outcomes of innovation
- co-ordinate more closely on the horizontal and vertical management of tasks in government
- demonstrate political leadership and political commitment
- increase the capacity and numbers of skilled staff
- cultivate a more open culture towards new ways of working
- encourage co-operation between different branches of government on public procurement processes.

Applied to the German context, the findings from this study demonstrate that additional steps could be taken to improve the effectiveness and reach of German competence centres. While the federal government supports many of these priorities, in the case of procurement for innovation and green procurement, contracting authorities must undertake a complex decision-making process involving procurement officials and various department officials. Many of the barriers to implementing strategic procurement, particularly those that exist within contracting authorities, are beyond the scope of the "arm's length" support provided by KOINNO and KNB.

With their current mandate, the areas of greatest impact for German competence centres are restricted to: building the capabilities of procurement staff in certain areas, building awareness of their respective topics more broadly, and monitoring and reporting on benefits and results. By promoting the successes of strategic procurement and the benefits that can be achieved from these practices, the competence centres have had an important role to play as vocal advocates for strategic procurement (see Box 5.3).

Box 5.3. Communication and co-ordination of strategic procurement in OECD countries

In many OECD countries, dedicated bodies have been established to further the cause of strategic procurement. Those bodies typically have an important role to play in communicating and co-ordinating strategic procurement activity. These activities often involve:

- disseminating information about the different aspects of the strategic procurement framework (e.g. legislation, policies, key stakeholders)
- regularly communicating successes delivered through strategic procurement
- leading co-ordination between different levels of government (horizontally and vertically)
- communicating risk management strategies to policy makers, particularly in balancing risk and benefit in strategic procurement
- developing strong partnerships with relevant stakeholders
- engaging with business associations and stakeholder groups to garner support for strategic procurement
- co-ordinating between different branches of government involved in the public procurement process.

Source: (OECD, 2017[1]), *Public Procurement for Innovation: Good Practices and Strategies*, https://doi.org/10.1787/9789264265820-en.

Some OECD countries have expanded the role of such bodies so that they play a more intermediary role. For example, in relation to procurement for innovation, installing an institution or agency to help manage risk through intermediation between purchasers and suppliers has been identified as a successful approach (Edler and Yeow, 2016[22]). Countries such as Korea have established similar bodies. At the same time, countries using intermediation institutions have given them the authority to conduct monitoring and reporting on the implementation of green procurement. In Belgium, the Federal Institute for Sustainable Development plays a leadership role by consulting with a broad network of stakeholders to provide guidance on strategic procurement (see Box 5.4).

Box 5.4. Leadership for Sustainable Competence Development in Belgium

Since the 1999-2003 parliament, the Belgian government has attached great importance to issues of sustainable development. During this period, the government appointed a Secretary of State to oversee sustainable development, and created the Public Service for Sustainable Development Planning (PODDO). In 2014, the Federal Institute for Sustainable Development (FIDO) replaced the PODDO.

The Secretary of State realised that the Belgian federal authorities could not roll out a sustainable public procurement policy without a web-based user's guide. This guide should outline the technical sustainability criteria to be included in specifications for the purchase of supplies and services. These efforts resulted in the development of the *Sustainable Procurement Guide*. In order to ensure that the guide was kept up to date and was based on knowledge from industry experts and locally based operational staff, the FIDO set up a standing working party with members from Belgium's communities, regions, provinces and municipal councils. FIDO also founded this working party in order to avoid taking one-sided decisions. Finally, FIDO decided to update the *Sustainable Procurement Guide* in collaboration with Belgium's other public bodies.

FIDO's role in the process of creating the guide helped ensure that all interested parties worked closely together, and that high-level support (in this case from the Belgian federal government) was in place. FIDO also made sure that businesses were aware that collaboration was in their best interests, and that communication channels with all parties and stakeholders should be kept open and active.

Source: (OECD, 2015[2]), *Going Green: Best Practices for Sustainable Procurement*, https://www.oecd.org/gov/ethics/Going_Green_Best_Practices_for_Sustainable_Procurement.pdf.

The German federal government should consider whether more could be done to empower its competence centres to provide leadership in the area of strategic procurement. For example, the competence centres could act as focal points for gathering relevant stakeholders and reporting from contracting authorities. According to their current mandates, the KNB and KOINNO must continue to build awareness and capacity in the field of strategic procurement, including by educating senior government officials and decision makers.

5.3. Enabling contracting authorities to translate legislation and policy into implementation

5.3.1. Despite the German government's efforts to promote broader evaluations of tender submissions, procurement officials still primarily use price-based criteria

The implementation of strategic procurement approaches is ultimately dependent on the ability of procurement officials to implement these approaches during their day-to-day work. Adjusting technical specifications and incorporating diverse award criteria, as well as reorganising requirements to include a broad array of environmental, social and economic concerns, can be complex. At the same time, procurement officials must use discretion when pursuing these approaches to avoid overloading tenders with additional requirements that add unnecessary cost and complexity. The *OECD Recommendation of the Council on Public Procurement* notes that tenders must be clear and simple in order to encourage businesses (and, in particular, new suppliers and SMEs) to participate (see Box 5.5).

Box 5.5. *OECD Recommendation of the Council on Public Procurement* – principle on access

The Council:

IV. RECOMMENDS that Adherents facilitate access to procurement opportunities for potential competitors of all sizes. To this end, Adherents should:

ii) Deliver clear and integrated tender documentation, standardised where possible and proportionate to the need, to ensure that:

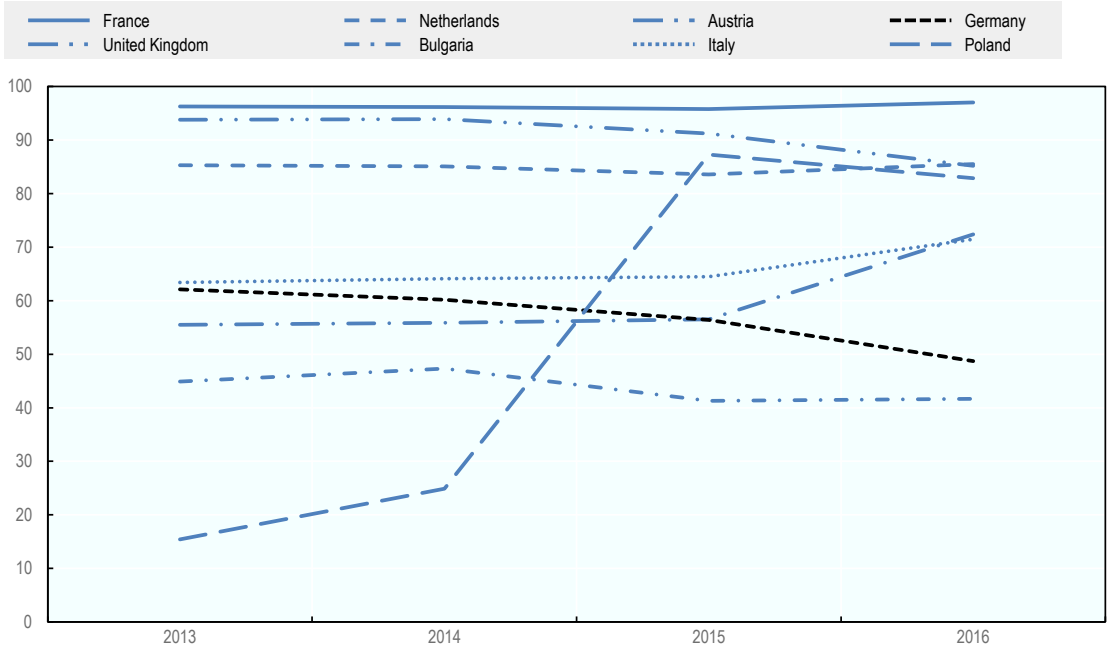
1. Specific tender opportunities are designed so as to encourage broad participation from potential competitors, including new entrants and small and medium enterprises. This requires providing clear guidance to inform buyers' expectations (including specifications and contract as well as payment terms) and binding information about evaluation and award criteria and their weights (whether they are focused specifically on price, include elements of price/quality ratio or support secondary policy objectives); and
2. The extent and complexity of information required in tender documentation and the time allotted for suppliers to respond is proportionate to the size and complexity of the procurement, taking into account any exigent circumstances such as emergency procurement.

Source: (OECD, 2015[7]), *OECD Recommendation of the Council on Public Procurement*, http://www.oecd.org/gov/public-procurement/recommendation/.

In an OECD survey on green procurement, OECD countries highlighted the risk of overloading procurement with policy objectives such as environmental protection, in addition to the primary objective of public procurement (which is to deliver necessary goods and services in a timely, economical and efficient manner that allows for fair competition) (OECD, 2015[2]). This is not an uncommon sentiment. According to research conducted in the UK, the burden of overly prescriptive requirements, including qualification criteria like health and safety policies, is SME's most common concern. Efforts to include some complementary objectives (such as environmental and social considerations) into procurement will increase the complexity of requirements and may then be detrimental to other objectives (such as increasing the participation of SMEs) (Loader, 2015[23]).

As discussed above, Germany has established a number of dedicated bodies to support procurement officials in navigating these complexities. At present, however, many procurement officials in Germany are not including these complementary considerations in tender processes. As shown in Figure 5.4, the number of tenders posted on Tenders Electronic Daily (TED) – Europe's central electronic procurement platform – by German contracting authorities using MEAT criterion in procurement procedures above the EU thresholds was low when compared to other EU countries. Additionally, these numbers have fallen since 2013. Germany is not alone, however, in facing challenges in getting contracting authorities to use the MEAT criterion. Statistics show that 55% of procurement procedures in countries across the EU still use lowest price as the only award criterion (European Commission, 2017[24]).

Figure 5.4. Use of the MEAT criterion in TED tenders in selection of EU countries over time (percent)



Source: (Schaupp, Eßig and von Deimling, 2017[25]), Anwendung von Werkzeugen der innovativen öffentlichen Beschaffung in der Praxis: Eine Analyse der TED-Datenbank.

Continuing to use price as the only criterion for procurement has consequences. These consequences can be seen, for example, in the low engagement of SMEs in Europe. Nevertheless, SMEs do account for a larger percentage of the total value of public contracts in Germany. 48% of public contracts go to SMEs in Germany, while only 29% go to SMEs in the EU on average. However, both of these figures are low considering the weight that SMEs carry in both economies. Contracting authorities begin to realise the importance of SME participation, and conduct their own monitoring and reporting on the share of contracts awarded to SMEs (Schaupp, Eßig and von Deimling, 2017[25]).

According to the German federal government's monitoring report on the implementation of the EU directives on procurement, monitoring of SME participation in procurement varies greatly between different contracting authorities. On the one hand, the way information is collected differs; on the other hand, wherever figures are available, large differences exist in terms of the level of participation by SMEs (Bundesregierung, 2017[26]). For example, the German Federal Press Office has stated that three contracts were awarded to SMEs since the implementation of the new procurement law in 2016. According to the report, the Ministry of Justice and Consumer Protection awarded one contract to SMEs during that time. The ministry has left the overall number of contracts unclear, however. The Ministry for Family Affairs, Senior Citizens, Women and Youth has stated that two out of two contracts went to SMEs in 2016 – but this overall number of contracts seems low for a ministry. The Federal Ministry of the Interior, Building and Community reported that it awarded 71% of its contracts to SMEs during this same time. Finally, the Federal Ministry of Transport and Infrastructure has provided a more disaggregated picture of the share of contracts awarded to SMEs by the ministry in 2016:

- Up to 50% of contracts were awarded to SMEs in the area of research services.
- The majority of contracts awarded in the area of building services went to SMEs.
- 14 out of 16 contracts for the General Directorate for Water Ways and Shipping (Generaldirektion Wasserstraßen und Schifffahrt) went to SMEs.

- 76 out of 110 contracts in the area of highways went to SMEs.
- SMEs received 46 out of 79 contracts for delivery services.

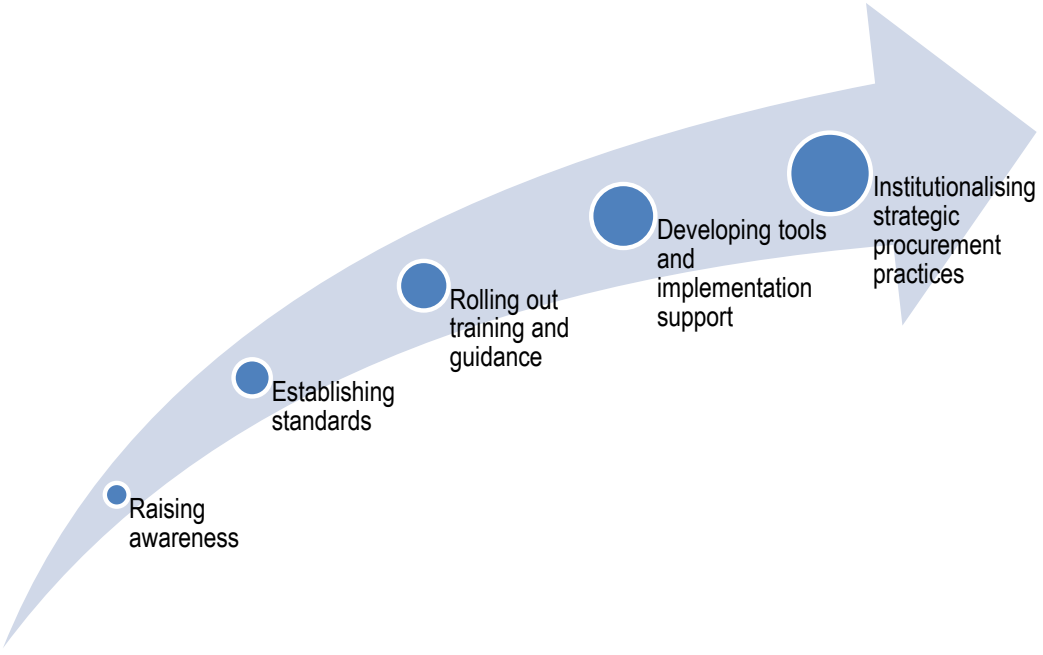
The above summary illustrates a general challenge. The federal government and its institutions do not gather evidence on progress towards achieving the strategic goals of public procurement, such as increased SME participation, in a consistent manner. Without this evidence only limited insight into the status of implementation of strategic procurement policy can be achieved. However, the BMWi could make guidelines and data gathering tools available for voluntary application by government authorities.

Already available data on the current application of strategic procurement in Germany points to the fact that more can be done to increase its application by contracting authorities. According to the European Commission, to achieve optimum outcomes in public procurement, strategic criteria need to be applied systematically. Systematic application of strategic criteria can be enabled if the government disseminates good practices and provides training and extensive practical support to contracting authorities. Training and support include the introduction of tools and regular updates of labels and evaluation criteria (European Commission, 2017[24]).

5.3.2. Building procurement capabilities through training and guidance

SMEs surveyed in the UK have indicated that, while the procurement process itself served as a barrier to entry for some SMEs, SMEs also held a poor opinion of public procurement staff. Issues noted included the poor preparation of technical specifications, a lack of knowledge of the market, and a lack of communication, especially in the form of feedback (Loader, 2015[23]). As discussed in Chapter 6, the expectations of what is required from procurement staff have increased over time. Governments must now provide staff with additional training and support in order to implement and bolster strategic procurement. As shown in Figure 5.5, an evolution of practices to build the skills of procurement staff in relation to strategic procurement has taken place among OECD countries.

Figure 5.5. Evolution of capability-building practices in OECD countries



Source: Author's illustration.

According to Procura+, a network of European public authorities that exchanges ideas and practices on implementing procurement for sustainability and innovation, a lack of understanding of the benefits of sustainable procurement among politicians and budget holders continues to be a barrier to strategic procurement. Key to addressing this issue is changing the "lowest price only" mind-set, and altering perceptions regarding the true cost or value of a purchase. Changing this mind-set and perception is particularly important in situations where only purchase prices are assessed, as opposed to life-cycle costs. Therefore, as demonstrated by the city of Vienna in Box 5.6, countries' education efforts must begin with an understanding of how to communicate the value of strategic procurement in a tangible way.

Box 5.6. Raising awareness of strategic public procurement in the city of Vienna

The public procurement expenditure of the city of Vienna amounts to EUR 5 billion annually, of which approximately 50% is spent on supplies and 50% on works and services. The Vienna ÖkoKauf programme was set up in 1998 to use this large purchasing volume to support the procurement of ecologically sound products and services. It aims to orient the procurement of the Vienna city administration toward climate protection while respecting legal requirements and achieving value for money.

Since 2003, an ordinance of the director general of administrative services has obliged all services of the city of Vienna to take the objectives of ÖkoKauf into account. Thus, in any given procurement, the responsible procurement officer integrates the relevant texts from ÖkoKauf into the tender documents. Subsequently, this officer makes sure that the ecological requirements become part of the contract.

When ÖkoKauf was set up in 1998, the main challenge was to raise awareness of the importance and feasibility of ecologically sound procurement at the level of policy and decision makers. The political support of the City Councillor for Environment helped to initiate the project and overcome the belief that ecologically sound and organic products and services were more expensive than conventional products.

Apart from achieving technically measurable results, ÖkoKauf also aims to raise the awareness of the city's employees, private households and businesses with regard to ecologically sound goods and services. ÖkoKauf publishes the results of its efforts on a publicly accessible website.

In addition to high-level political support, two initial decisions have been key factors in the successful implementation of the ÖkoKauf project:

- Authorities focused their work on the development of standards to define and describe ecologically sound products and services, instead of defining qualification and award criteria and contract clauses. This focus helped authorities to achieve buy-in by procurement staff, as well as the adoption of the project's solutions.
- The establishment of a legal committee boosted the acceptance of the results of the project, as legal compliance plays an important role in procurement practice.

Source: (OECD, 2015[2]), *Going Green: Best Practices for Sustainable Procurement*, https://www.oecd.org/gov/ethics/Going_Green_Best_Practices_for_Sustainable_Procurement.pdf.

To further promote this change of mind-set with regards to procurement, the European Union has shown its support for life-cycle costing as a way of implementing MEAT criteria and considering all of the costs that will be incurred during the lifetime of a product, work or service. To support the use of this methodology, the European Union developed detailed green procurement criteria for 22 different product groups. The criteria were designed to facilitate the inclusion of green requirements into public tender documents, and

help procurement staff to understand the environmental impacts of common product groups (European Commission, 2018[27]). Life-cycle costing methodology takes into account:

- purchase price and all associated costs (delivery, installation, insurance and more)
- operating costs, including energy, fuel and water use, spare parts and maintenance
- end-of-life costs (such as decommissioning or disposal), and residual value (i.e. revenue from the sale of the product).

The German government has supplemented European standards with the provision of tangible support and guidance for procurement officials in relation to sustainable procurement. The Sustainability Compass (Kompass Nachhaltigkeit) website established by the German federal government provides a number of learning materials and practical examples to support procurement staff in increasing their skills (see Box 5.7).

Box 5.7. Certification of suppliers by the Sustainability Compass in Germany

As the German federal government's commitment to sustainable procurement increased, authorities realised that procurement practitioners needed support in implementing sustainable procurement. In 2010, the federal government, in partnership with a consultancy firm specialising in sustainable procurement, developed an electronic platform to provide both buyers and suppliers with support and advice on how to overcome challenges at each step of the procurement process. At present, two full-time employees manage the platform, called the Sustainability Compass. These employees work on supporting the system and developing new product groups.

The Sustainability Compass contains a number of resources on both the ecological and social aspects of sustainable procurement, including:

- a self-check for companies to identify risks in their supply chains and guidance on how to manage them
- a five-step process providing standard tools and instruments (complete with detailed guidance on their use) for each stage of the tender process, suitable for all users from beginners to experts
- an overview of relevant social and environmental issues along the supply chain for certain product groups – which can be taken into consideration in the procurement process
- the ability to analyse and compare sustainability labels (such as certification for sustainable practices) to more effectively establish that works, services and supplies correspond to certain sustainability criteria
- best practice examples of operational aspects of procurement, such as sustainability evaluation criteria
- ready-made text modules to be used in tender documents
- comprehensive information on legal frameworks at the German state level.

Authorities have recently created a version of the Sustainability Compass for procurement staff within municipalities. This version of the platform provides municipal staff with information specific to their region, such as lists of local suppliers and the sustainability certificates they hold.

Source: Deutsche Gesellschaft für internationale Zusammenarbeit (GIZ) GmbH (n.d.), Kompass Nachhaltigkeit, http://oeffentlichebeschaffung.kompass-nachhaltigkeit.de/en/.

Since its launch, the popularity of the Sustainability Compass website has grown. The site now has an average 1 800 visitors per month. The use of these resources is voluntary however, and contracting authorities remain free to select their own procurement strategies. Some countries have identified that training and guidance alone are not sufficient for assisting procurement professionals to balance the many factors at play in a tender process. In response, these countries have developed tools to help operationalise guidance on strategic procurement. For example, the Netherlands developed a number of tools to incorporate life-cycle costing into the tender evaluation process. In doing so, Dutch procurement officials were able to see the true cost of the products and materials they purchased (see Box 5.8).

Box 5.8. Developing detailed assessments of environmental impacts in the Netherlands

In 2010, the Dutch House of Commons ruled that Dutch public authorities had to implement 100% sustainable procurement by 2015. In response to this, the Department of Public Works of the Ministry of Infrastructure and the Environment (Rijkswaterstaat, RWS) developed a methodology for infrastructure projects. This methodology mandated the functional specification of the tender together with quality input from the client to ensure an innovative and high-quality solution.

The RWS has decided to focus on two criteria when assessing the sustainability attributes of offers, work processes and associated products. These two criteria are CO_2 emissions and environmental impact. Furthermore, the RWS developed two instruments to support the assessment: the CO_2 performance ladder and the DuboCalc.

CO_2 Performance Ladder

Contractors in the Netherlands can apply for a CO_2 performance ladder certificate. In order to receive the certificate, contractors need to take steps towards reducing their carbon footprints. The first step (or "rung" on the ladder) is to measure the company's CO_2 emissions. Subsequent steps measure the CO_2 emissions of the contractor's supply chain and, more importantly, set goals toward reducing emissions. The higher levels on the CO_2 ladder include steps towards CO_2 reduction in the supply chain. A commitment to a higher level of compliance results in a greater deduction from the submission price, which increases the contractor's chances of winning the contract. Each CO_2 ambition level corresponds to a different percentage reduction from the submission price.

DuboCalc

To quantify the sustainability of materials to be used as a part of a project, Dutch authorities developed a software tool that calculates the environmental impact of different construction materials. The software is called the Sustainable Building Calculator, or DuboCalc. DuboCalc was developed as a part of an overall shift toward performance-based tendering for assessing the overall environmental impact of constructions rather than prescribing details. With DuboCalc, the embedded environmental impacts of a material's use can be calculated, from raw material extraction and production up to and including demolition and recycling. As such, DuboCalc measures the entire life cycle of materials. DuboCalc also calculates the energy consumed by infrastructure works during the use phase.

Source: (OECD, 2015[2]), *Going Green: Best Practices for Sustainable Procurement*, https://www.oecd.org/gov/ethics/Going_Green_Best_Practices_for_Sustainable_Procurement.pdf.

Germany has developed a tool to assist procurement professionals in overcoming another complex aspect of strategic procurement – the inclusion of SMEs. Promoting the participation of SMEs in public procurement has at times appeared to be at odds with the pursuit of better value for money for the public sector. Governments' attempts to pursue a strategy of supplier reduction via collaboration and aggregation of contracts was found by researchers to be "perhaps the most fundamental strategic issue" (Loader,

2015[23]) for SMEs attempting to provide services to the public sector. Inclusion of SMEs is a concern for many OECD countries, which is why nearly 80% of OECD countries divide contracts into lots in order to encourage SMEs to participate. This is also true of Germany, where legislation dictates that contracting authorities must divide contracts into lots. However, procurement professionals must still consider a number of market factors in order to divide contracts into lots that are of an appropriate size for businesses within a particular industry. The German government has identified this challenge and developed a tool to support procurement officials with their decision making (see Box 5.9).

Box 5.9. An automated SME lot division tool in Germany

Procurement practitioners often find it difficult to reconcile the competing priorities of aggregating spending in order to generate cost savings and developing tenders that are accessible for SMEs. A common approach for supporting SME participation in public procurement in OECD countries is to divide contracts into lots. However, dividing contracts in a fair and proportionate way can be a challenging activity that must be tailored to each industry. Incorrectly dividing contracts can have a negative impact on an industry, adversely affecting both SMEs and large organisations.

To assist procurement practitioners, the federal government in Germany partnered with a consultancy firm to develop a tool that uses complex algorithms to support decision-making. The tool uses statistics from the Federal Statistical Office (Destatis) on the number of employees, sales and production values from various industries and trades. For reasons of simplification, the tool uses nationwide data to provide a high-level industry assessment. However, a separate setting in the tool enables smaller-scale regional markets to be taken into account as well. Once relevant information on the procurement in question is inserted into the tool to take into account the specifics of the industry, the tool then generates a suggested split of the contract.

The tool can be used by all major industries that are relevant for public procurement, and can be further developed to include additional sectors if required. There has been limited feedback on the success of the tool to date, given it was only launched in 2014, but the government continues to monitor its progress.

Source: Responses from German federal and state-level institutions to an OECD questionnaire and interviews. Guidelines (in German) available at: https://www.bmwi.de/Redaktion/DE/Downloads/J-L/leitfaden-mittelstandsgerechte-teillosbildung.html; electronic calculation tool (in German) available at: https://www.bmwi.de/Redaktion/DE/Downloads/berechnungshilfe.html.

In some countries, authorities have developed programmes aimed at institutionalising the pursuit of complementary objectives. The Southeast Norway Health Region, for example, developed a programme called Win-Win. Win-Win has aimed at professionalising procurement practices to include the consideration of sustainability in a more structured way (see Box 5.10).

Box 5.10. Developing a structured approach to strategic procurement at Southeast Norway Health Region

The Southeast Norway Health Region is the largest of four health regions in Norway. It covers 56% of Norway's population, providing healthcare for 2.7 million people. Norway developed the Win-Win programme to ensure that the EUR 8 billion spent each year on healthcare was targeted at environmentally sustainable products and suppliers that upheld fair working conditions.

Sustainable procurement began from the bottom up in the Southeast Norway Health Region, with a focus on socially responsible procurement of individual products. These first experiments proved that sustainable public procurement was possible and beneficial, and these examples were used to build the business case for the broader use of strategic procurement. Officials analysed between 60 and 100 procurement categories. In doing so, these officials used a specifically designed input-output methodology to identify products and services with significant potential for carbon savings through sustainable procurement. The aim was to achieve practical sustainable procurement that was knowledge-based and grounded in evidence.

The Southeast Norway Health Region also takes an active role in ensuring acceptable working conditions and human rights for labour in their supply chain. This involves visits and inspections at factories. Results from the due diligence conducted include a reduction in working hours for staff at an Indian textile factory, and much improved conditions for workers in a medical glove factory in Malaysia. The Malaysian workers had previously had their passports removed, had received low wages and had worked in poor conditions.

Source: Procura+ (2016), The Procura+ Manual: A Guide to Implementing Sustainable Procurement, http://www.procuraplus.org/fileadmin/user_upload/Manual/Procuraplus_Manual_Third_Edition.pdf.

Efforts to go beyond training and provide procurement tools that institutionalise complementary policy objectives appear to have borne fruit for the countries that have pursued this approach. The German government has developed numerous practical resources for procurement professionals, and their adoption and use of these tools is increasing. However, given that price-based criteria are still the most commonly used approach, Germany must take steps to make the use of strategic procurement the default approach. This will require the use of a number of methods, including training, dissemination of evaluation criteria and ongoing monitoring and communication.

5.4. More structured monitoring of public procurement can further increase the impact of Germany's strategic procurement

In practice, strategic procurement is often a careful balance of several complementary and "traditional" objectives like cost reduction. Different objectives have to be reconciled and prioritised to achieve strategic procurement. To manage this process of balance in the most effective and beneficial way, policy makers need hard evidence on the impacts of the different policy measures used to pursue complementary objectives. This is why the *OECD Recommendation of the Council on Public Procurement* includes one sub-principle on monitoring within the principle of balance:

> *iii. Employ appropriate impact assessment methodology to measure the effectiveness of procurement in achieving secondary policy objectives. The results of any use of the public procurement system to support secondary policy objectives should be measured according to appropriate milestones to provide policy makers with necessary information regarding the benefits and costs of such use. Effectiveness should be measured both at the level of individual procurements, and against policy objective target outcomes. Additionally, the aggregate effect of pursuing secondary policy objectives on the public procurement system should be periodically assessed to address potential objective overload. (OECD, 2015[7])*

Monitoring policy impact can prove or disprove that policies are having their intended effects – even when experience points to logical causation. For example, a 2013 study found that while there was an overall push by contracting authorities in the UK to facilitate SME access to public tender opportunities, the reality was that SMEs were faced with increasingly complex requirements that discouraged their participation. (Loader, 2015[23]). In this case, an open feedback survey of SMEs provided to be a "reality check" for contracting authorities. In other circumstances, insights might be drawn from alternative methods, notably procurement statistics derived from results-based reviews of procurement cases.

Germany is in the process of building a system to collect procurement statistics. This sub-section of the chapter attempts to analyse the monitoring landscape with regards to strategic procurement in Germany, while acknowledging the fact that Germany is currently undertaking steps to improve it. The short timeframe since the introduction of the most recent sustainability strategy in January 2017 has not yet allowed for meaningful monitoring. However, previous monitoring reports and academic studies provide an overview of the current status of strategic procurement in Germany. A combined analysis also provides insight into the monitoring approaches that could be used in the future to reap further benefits.

5.4.1. Official monitoring and evaluation reports by German institutions

Germany monitored the 2002 National Sustainability Strategy through a series of progress reports. In addition, the Federal Statistical Agency (Destatis) developed more frequent reports about progress on concrete, quantitative indicators. The Federal Statistical Agency has published six reports every two years since 2004. However, none of these reports include indicators related to procurement (such as the proportion of procurements conducted that observe sustainability criteria or the rate of participation of SMEs). This makes it difficult to gauge progress on strategic procurement. As argued in Chapter 1, solid data gathering with regards to public procurement would support the attainment of all public procurement goals in Germany.

Germany's Programme of Measures on Sustainability included one requirement to monitor the goals set by the programme. For public procurement, the programme of measures contained targets that were easily quantifiable. For example, the programme made it mandatory for procurement officials to either: 1) include life-cycle cost analysis in purchasing processes; or 2) purchase the products with the highest possible energy efficiency level. The Programme of Measures on Sustainability was followed by two monitoring reports - one in 2015 and the other in 2016. However, these two monitoring reports did not include analysis of the extent to which the mandates for public procurement specifically had been followed. This seems to be due to insufficient data gathering on the part of contracting authorities at the federal level. The programme also tracked some other quantifiable targets, which were not reached across the board, such as the average amount of CO_2 emissions from government car fleets, for example. For some areas, such as the requirement to purchase goods with the highest energy efficiency level, many contracting authorities seemed unaware that this was a requirement which meant that no attempt had been made to measure progress (Die Bundesregierung, 2017[28]; Die Bundesregierung, 2016[29]).

The Programme of Measures on Sustainability's monitoring report for 2016 also found a tension between different policy goals, namely between increasing centralisation and increasing sustainability. According to the monitoring report, many contracting authorities assumed that all framework agreements available through the KdB complied with the sustainability standards of the programme of measures, which was not the case. Because not all framework agreements honoured the goals of the programme, contracting authorities were required to favour one of the conflicting policy goals (of purchasing centrally for greater efficiency or purchasing sustainably to comply with the programme of measures). The monitoring report sought to resolve this conflict by suggesting that all framework agreements in the KdB be amended to comply with the sustainability criteria (Die Bundesregierung, 2017[28]). The Finnish central purchasing body (CPB), Hansel, has incrementally implemented green criteria in framework agreements (see Box 5.11).

Box 5.11. Implementing green criteria in framework agreements in Finland

When establishing framework agreements for use by the central government of Finland, the Finnish CPB Hansel tries to impact what is available in the market by incorporating environmental considerations into the procurement process. With the exception of framework agreements for consultancy services, all framework agreements in Finland now include green criteria.

In order to receive Hansel's environmental marking, framework contracts must incorporate environmental considerations into at least two of the following:

1. Requirement analysis: Can the good or service be fulfilled in a more environmentally friendly way? Such as travelling by train instead of flying, or performing meetings via videoconference instead of travelling.
2. Compulsory requirements for goods or services: These are detailed for each product or service group based on the Swan label, the EU Green Public Procurement (GPP) GPP Criteria, or assistance from environmental agencies. The energy efficiency requirements are set for lamps, televisions and for household machinery. Office equipment must also have energy star labelling.
3. Qualification of the supplier: These can be used to assess a supplier's ability to manage environmental issues in the course of producing or delivering goods, for example by reducing CO_2 emissions from deliveries or reducing the use of harmful chemicals
4. Evaluation criteria: This might involve the use of evaluation criteria that cover the product life cycle or extending the life cycle of the good or service.
5. Contract clauses: Additional terms might require the recycling of products after use, use of recyclable packaging or the use of recycled material in packaging.

Hansel tracks the amount of green consumption by contracting authorities. It tracks this consumption by monitoring spending against contracts that have obtained Hansel's environmental marking.

Source: (Bauer et al., 2016[30]), Greening state framework contracts – Approaches in the Nordic countries, https://doi.org/10.6027/TN2016-506.

As a part of the implementation of the 2014 EU public procurement directives, Germany was obliged to provide a report on implementation. Per EU mandate, the report had to examine implementation of the directives throughout the German federal and state administrations one year after the reform entered into force (Bundesregierung, 2017[26]). The majority of Germany's report relates to the legal structures in place to ensure compliance with the EU directives. That said, the report also asks federal institutions to what extent their procurements were awarded to SMEs, and to what extent strategic procurement was pursued. According to the monitoring report, all federal institutions observed requirements to support SMEs, and all followed requirements to incorporate complementary policy objectives. Not all federal institutions could provide data to prove their compliance, however. Few federal institutions could provide information on the share of contracts awarded to SMEs or the share of tenders that took complementary policy objectives into account. Most institutions referred to the other legal obligations that they complied with, for example the General Administrative Regulation on the Procurement of Energy Efficient Products and Services (Allgemeine Verwaltungsvorschrift zur Beschaffung energieeffizienter Produkte und Dienstleistungen, AVV-EnEff) (Bundesregierung, 2017[26]). The reporting and data available offer limited insight into the implementation of strategic procurement, making it difficult to make decisions to amend policy.

In 2016, the BMWi tasked the consulting firm Technopolis Group with an evaluation of KOINNO. Several of the findings of the Technopolis Group's report are relevant to the broader implementation of strategic procurement in Germany. Indeed, lessons can be drawn from the report regarding activities beyond

procurement for innovation. The report identified successful activities, as well as areas where approaches should be changed. The report identified the most relevant impact of KOINNO's work as direct interaction and advice activities, confirming that case-related, concrete and detailed support for contracting authorities is an important tool for increasing procurement for innovation by building the capacity of procurement officials. Similarly, the award given by KOINNO for innovative practices helped to increase the visibility of good practices in the country (Berger et al., 2016[31]).

Based on OECD interviews with experts, it was not possible to determine the more general impact of KOINNO's work with regards to certain subjects. These subjects include the objective of raising awareness of procurement's potential to spur innovation, and the objective of increasing the number of innovative procurement practices. OECD interviews indicated that KOINNO's profile (and the profile of procurement for innovation) was not as high as it should have been with decision makers. The Technopolis Group's report also points to the lack of reliable data in this area. To overcome these issues, Germany's monitoring report highlighted the need for a more structured communications strategy. Authorities could improve the usability of the website for example, and increase the involvement of political decision makers in KOINNO's work (Berger et al., 2016[31]).

Finally, Technopolis suggested that KOINNO expand its services for the municipal level of government. This recommendation is consistent with a recognised disparity between stronger contracting authorities (often closer to the federal level) and smaller contracting authorities with less capacity to implement complementary policy objectives (Berger et al., 2016[31]).

In addition to these official monitoring reports, academic studies have attempted to determine the status, extent and potential for inclusion of strategic policy objectives in Germany. In 2016, researchers Eßig and Schaupp authored a study aiming to determine the potential volume of public procurement that could use procurement for innovation. The study was conducted on behalf of KOINNO and the Research Centre for Law and Management of Public Procurement (Forschungszentrum für Recht und Management öffentlicher Beschaffung, FoRMöB). The study found that innovation for procurement could be applied to approximately 12% to 15% of Germany's public procurement, representing approximately EUR 40-50 billion (Eßig and Schaupp, 2016, pp. 53-54[32]).

The study by Eßig and Schaupp attempted to gauge the impact that such a sum would have on innovation in Germany. In doing so, the researchers compared the volumes that are potentially available to support procurement for innovation with similar projects to support innovation through other means. For example Eßig and Schaupp compared funding for research provided by public institutions or subsidies for purchasing newer, greener and more innovative cars. The sums available for these conventional innovation support programmes were relatively small, and, according to the study, only accounted for 1% of the public procurement volume (Eßig and Schaupp, 2016[32]).

5.4.2. Data gathering, methodological monitoring and sound policy making go hand in hand

The existing efforts to provide strategies and tools to support strategic procurement in Germany should be complemented by a more rigorous set of tools to monitor their implementation. Currently, limited information is available to determine where implementation is already reaping the expected benefits from sustainability strategies, and where additional support could enable institutions to increase their efforts.

The monitoring reports Germany has undertaken have shown that the largest impact strategic procurement tools have had has been on two aspects that are relatively easy to monitor qualitatively: 1) compliance with the requirements delineated in the legal and regulatory framework; and 2) direct guidance to support contracting authorities. However, Germany has yet to realise a broader impact that could enable high levels of performance across many contracting authorities (Berger et al., 2016[31]). This broader impact depends on changing the mind-set of procurers. The change in mind-set that is required can be brought about by

several actions. These actions include ongoing strategic communication to highlight good practices, the dissemination of results of monitoring and the provision of incentives to procurers and contracting authorities as a whole to achieve better results.

International good practices demonstrate that systems can be used to transparently monitor the achievement of quantitative targets (see Box 5.12 on Korea's efforts in that regard). Once an electronic system to gather statistics has been developed in Germany, measures could be set up to track procurement processes that support the goals of the Programme of Measures on Sustainability or the National Sustainability Strategy. However, this approach will only work if, as described in Chapter 4, electronic procurement is more broadly used at all levels of government in Germany.

Box 5.12. Monitoring and evaluating green public procurement in Korea

The Korean government established the Act on Encouragement of the Purchase of Green Products in 2005. The act aimed at preventing the waste of resources, reducing environmental pollution and contributing to sustainable development by encouraging green purchasing.

The act did not set a quantitative target for these goals, but it did compel contracting authorities to produce and report to the Ministry of the Environment on their implementation plans and the green procurement they have conducted voluntarily. The act also compelled authorities to produce an annual performance report that includes the amount of green products they have purchased overall.

Products can be classified as green if they meet the certification standards Korea Eco-Label or the Good Recycled Mark. Products can also be labelled as green if they meet other environmental standards set by the Ministry of the Environment in consultation with relevant ministries.

The metrics produced on the total amount of green products purchased measure both the number of units and their economic value, as well as the percentage of green purchases in relation to total spending. Each institution submits its implementation plan and reporting via the electronic Green Product Information System (GPIS). Korea's central purchasing body, PPS, then compiles performance reports.

Over the eight years in which reporting has been available, the public sector's green procurement in 19 product categories resulted in 3.71 million tons of CO_2-equivalent emission reduction and 12 143 new jobs.

Source: Lee (n.d.), Monitoring and Evaluating Green Public Procurement in the Republic of Korea https://cleanenergysolutions.org/sites/default/files/documents/Monitoring-and-Evaluating-GPPHyunju.pdf.

To demonstrate commitment to sustainability objectives and increase awareness of the role that procurement has to play in pursuing sustainability, a quantitative target for indicators representing sustainable procurement could be included in Germany's national sustainability strategy. Quantitative targets for strategic procurement can be developed in several ways with varying levels of sophistication, as demonstrated in Box 5.13.

Box 5.13. Establishing targets for strategic procurement

Quantitative measurement of strategic procurement can be challenging given the often ambiguous nature of strategic procurement objectives. However, many countries have managed to establish and monitor targets using different methods. Monitoring can take different formats depending on the type and quantity of data that is available. The following examples illustrate the different types of targets.

Targets based on implementing strategic criteria: The CPB for the central government in Finland, Hansel, aims to implement green criteria in all of its framework agreements. The criteria differ according to category (e.g. vehicles vs. paper), making it challenging to aggregate performance. To meet this challenge, Hansel established a target of 100% of framework agreements containing environmental criteria. This allowed Hansel to report the amount of spending through framework agreements (EUR 770 million in 2016) that could be considered green procurement.

Targets based on specific outcomes: As described in Chapter One, there are several ways to measure the achievement of specific strategic procurement outcomes. For example, the city of Vienna was able to set targets such as a 15 000 tonne annual reduction in CO_2 emissions and a reduction of harmful solvents by over 4 000 kg per year. Based on these targets, measurement is made possible through a comparison of previous spending with new spending, comparing the environmental characteristics of old and new products.

Targets based on spending levels: To encourage the use of procurement to encourage the development of innovative businesses, the government of Finland established a target of 5% procurement spending toward innovative goods and services. Subsequently, a number of dedicated institutions have been tasked with supporting and monitoring progress toward the target.

Source: Hatvan et al. (2014), Oko Kauf Wien: Protecting our Climate and Our environment, https://cleanenergysolutions.org/sites/default/files/documents/Monitoring-and-Evaluating-GPPHyunju.pdf; Hansel (2016), Annual Report 2016, https://annualreport2016.hansel.fi/year-2016/from-the-managing-director/.

Aside from a requirement to improve data gathering in Germany, the results of monitoring reports and studies to date also point to a need to increase knowledge and skills, particularly at the sub-national level.

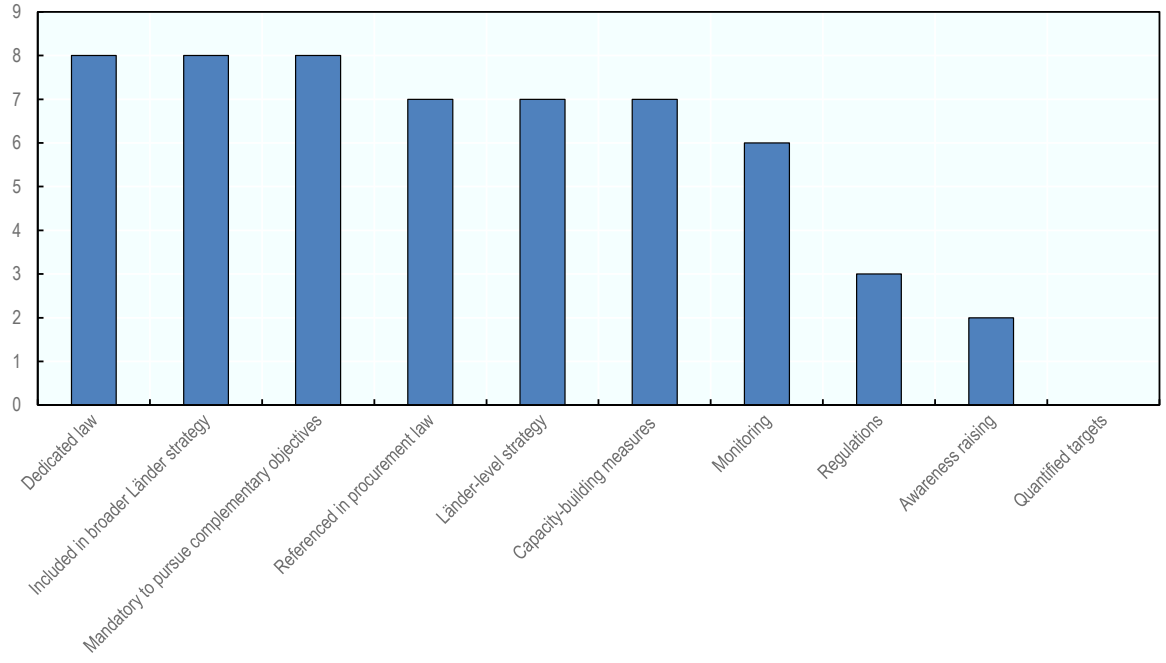
5.5. States use different approaches to pursue a common set of strategic objectives

For the purposes of this report, the OECD submitted a questionnaire on strategic procurement to all 16 German states; ten states responded. In responding to the questionnaire, all ten states reported undertaking measures to pursue complementary policy objectives in public procurement. Some states were at the forefront of creating a favourable policy environment before the federal level broadened the scope for complementary objectives. At the same time, states are diverse in the way they implement support for complementary policy objectives. This section of the chapter takes stock of German states' efforts to support complementary policy objectives. It also looked at factors that are relevant to the implementation of strategic procurement at all levels of government.

5.5.1. All German states pursue complementary policy objectives to procurement through their legal and policy frameworks

The majority of German states surveyed by the OECD have a broad suite of instruments in place to support complementary policy objectives. Laws and strategies are the most common instruments among states. In most cases, these laws and strategies also contain mandatory requirements for the pursuit of complementary policy objectives. In most states, capacity-building initiatives and monitoring support high-level strategic and legal frameworks. Evidence suggests that few states are advanced in the gathering of data for monitoring purposes. One of the surveyed states implements hard targets for the achievement of objectives. The OECD's 2017 report on good practices in implementing procurement for innovation identified the definition of targets at national, sub-national and regional levels as a good practice for securing strong political commitments (OECD, 2017[1]). See Figure 5.6 for an overview of the different policy tools German states use to support strategic procurement.

Figure 5.6. Tools employed to implement strategic procurement



Note: 10 out of 16 German federal states responded.
Source: Responses from German federal and state-level institutions to an OECD questionnaire and interviews.

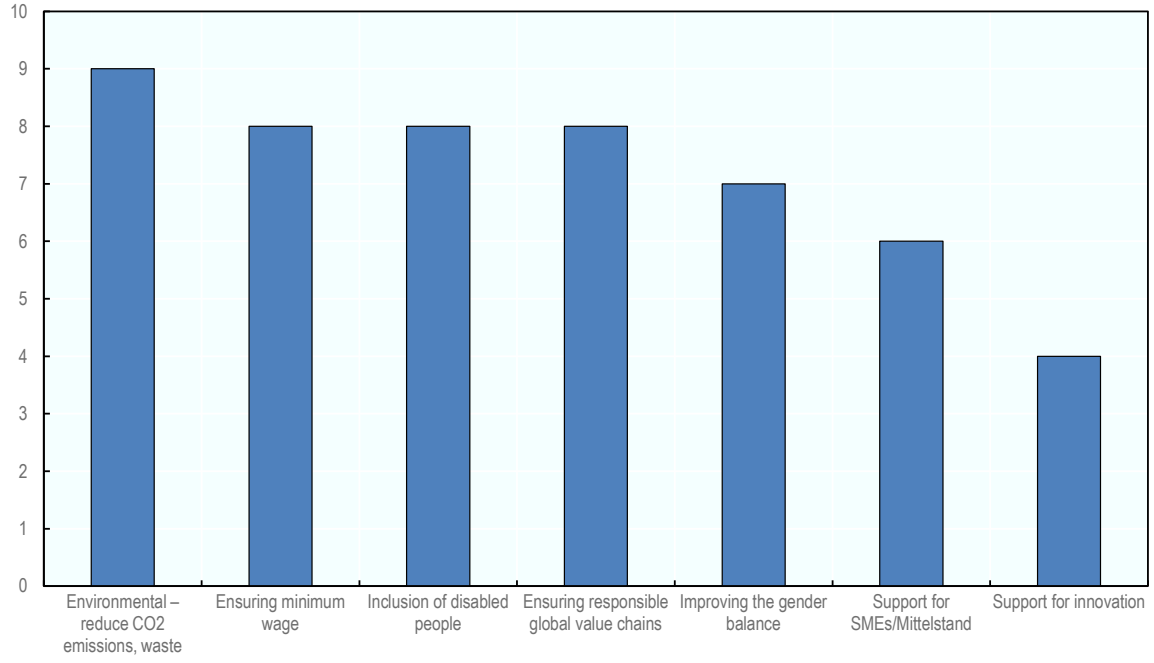
German states are not required to have individual procurement laws. Where there is no law on the state level (such as in Bavaria), federal law takes effect. However, up until the 2016 reform of the federal procurement legal framework, many states went further in their implementation of complementary policy objectives than was mandated and allowed by the federal legal framework. The use of public procurement to achieve complementary policy objectives was the impetus for the creation of many procurement laws at the state level. Many states used legislation primarily to ensure that requirements to pay minimum wage were also mandatory for businesses engaged in public procurement. Dedicated minimum wage laws or collective wage agreements generally mandate minimum wage requirements in German states. Courts have handled complaints on the question of whether a universal requirement of a set minimum wage is in line with German constitutional law and European law. A dispute over the minimum wage has arisen in cases where there is no collective wage agreement or other requirement, yet a procurement law

establishes a quantified minimum wage. While German courts have upheld, for example, Berlin's requirement for a minimum wage, the European Court of Justice ruled that Lower Saxony's legal framework violated EU law in the most recent cases of Regio Post – EuGH and Bundesdruckerei – EuGH (Rechten, Röbke and Koke, 2017[33]).

The first push by states for certain social objectives allowed for other complementary policy objectives to be included in state procurement laws. Most German federal states (*Länder*) require businesses engaged in public procurement to follow the standards of the International Labour Organisation. In addition, *Länder* commonly prioritise environmental objectives, as well as other social objectives like the inclusion of the long-term unemployed or SMEs in procurement processes. Following the reform of the federal procurement law to include complementary policy objectives, some states are considering repealing their laws. Others, such as North Rhine–Westphalia, have already done so (Bundesregierung, 2017[26]).

Today, the different types of complementary objectives states pursue are fairly consistent. This consistency demonstrates an alignment of strategic procurement objectives across Germany. As demonstrated in Figure 5.7, the majority of surveyed states pursue objectives related to the environment, employee wages, access for people with disabilities and global value chains (namely requiring that standards are upheld through supply chains). Less than half of surveyed states pursue objectives related to innovation. Germany's monitoring report following the implementation of the 2014 EU directives on procurement suggested that the low use of public procurement for innovation in states was due to capacity constraints (Bundesregierung, 2017[26]).

Figure 5.7. Strategic and complementary objectives pursued by different German states

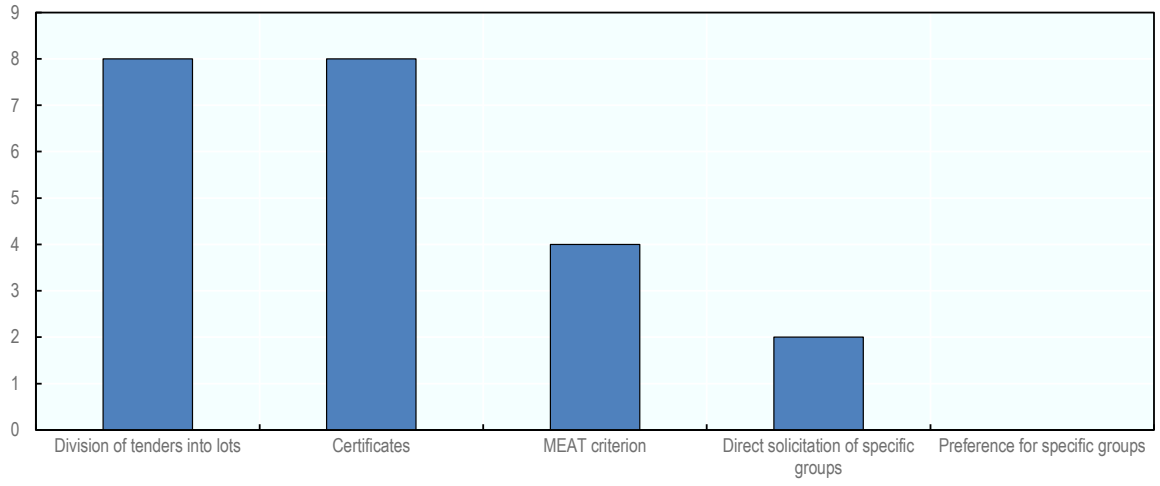


Note: 10 out of 16 German states responded.
Source: Responses from German federal and state-level institutions to an OECD questionnaire and interviews.

5.5.2. German states diverge when it comes to practical implementation of measures to support complementary policy objectives

In line with international good practices, German states employ several tools to support the use of complementary policy objectives in public procurement. The majority of states divide procurements into lots in order to ease the participation of SMEs. Similarly, 80% of surveyed states require the certification of suppliers' products and services. The MEAT criterion is used relatively scarcely to support complementary policy objectives, however. In fact, the MEAT criterion is not widely used in general (whether in support of complementary objectives or traditional objectives such as financial savings). Figure 5.8 illustrates these findings.

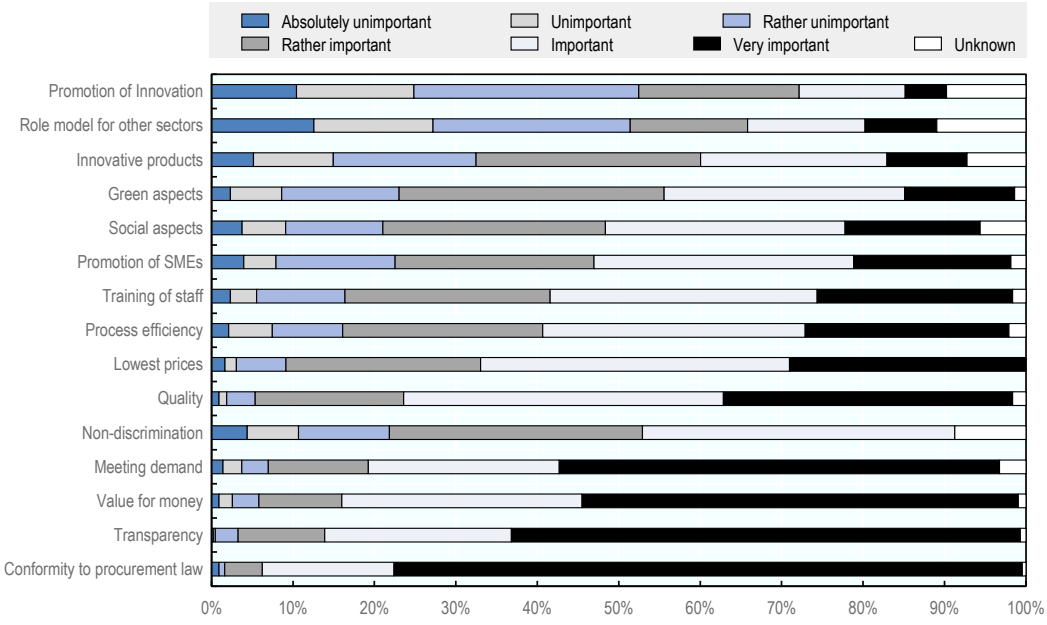
Figure 5.8. Procurement strategies used by German states in pursuit of strategic procurement



Note: 10 out of 16 German states responded.
Source: Responses from German federal and state-level institutions to an OECD questionnaire and interviews.

The A 2016 Eßig and Schaupp survey of the implementation of strategic procurement by contracting authorities (in particular, their use of procurement for innovation) further illustrates the lack of use of the MEAT criterion. While the survey targeted contracting authorities on all levels, two-thirds of the respondents were located at the sub-national level. Furthermore, the majority of respondents hailed from municipalities. The results of the survey highlighted a substantial implementation gap when it comes to complementary policy objectives at sub-national levels. The survey found that, while good practices with regards to complementary policy objectives do exist, contracting authorities do not generally prioritise complementary policy objectives (Eßig and Schaupp, 2016, p. 5[34]). In addition, 76% of procurers responded that they always awarded contracts based on price-only comparisons (Eßig and Schaupp, 2016, p. 6[34]). See Figure 5.9 for further details.

Figure 5.9. Prioritisation of procurement objectives by German contracting authorities in 2015



Source: Adaptation from (Eßig and Schaupp, 2016[34]), Erfassung des aktuellen Standes der innovativen öffentlichen Beschaffung in Deutschland – Darstellung der wichtigsten Ergebnisse [Recording the Current Status of Innovative Public Procurement in Germany – Presentation of the Most Important Results].

According to the Eßig and Schaupp survey, German states made surprisingly strong efforts to adhere the federal strategic procurement framework, including efforts to monitor policy. A state that has succeeded in creating a comprehensive environment for strategic procurement in pursuit of societal wellbeing is North Rhine-Westphalia (NRW), as described in Box 5.14.

Box 5.14. Obtaining the right balance for businesses in North Rhine-Westphalia

The state of North Rhine-Westphalia (Nordrhein-Westfalen, NRW) has attempted to promote the use of strategic procurement, in particular sustainability, in different areas and at different levels across the state. NRW has adopted a strategic plan to create a sustainable administration. Part of this strategic plan is dedicated to sustainable procurement. Following insights into what has worked and what has not, policy makers in NRW have adapted their approaches to sustainable public procurement. Previously, NRW followed legal provisions related to minimum wages and International Labour Organisation (ILO) labour standards in public procurement projects. Following feedback from contracting authorities, these requirements have been repealed from the legal and regulatory framework (see below). In their place, NRW has increased its emphasis on measures beyond the legal realm to increase sustainability in public procurement.

NRW initially introduced requirements in 2011 to ensure minimum wages in public contracts because there was no minimum wage legislation at the federal level. At the time, additional procurement rules in the state included rules on compliance with union-negotiated wages, sustainable and green procurement, compliance with international ILO labour standards, and the promotion of gender equality. Local authorities and state contracting authorities were also required by decree to favour suppliers that aimed to integrate staff with disabilities. Since 2011, however, two factors have encouraged the NRW government to reconsider its policies:

- Feedback from contracting authorities, especially smaller ones and those on the municipal level, revealed that the legal requirements were too complex for efficient and effective implementation in practice.
- A general minimum wage law was adopted at the federal level.

In light of these factors, NRW undertook a study to assess the success of sustainable procurement laws. Results were mixed but insightful, as they demonstrated that:

- Some companies were dissuaded from participating in public tenders, as they were concerned about delivering in light of more concrete sustainable requirements and goals.
- It is challenging to measure compliance with social goals, as not all products have meaningful seals or certificates.
- Not all core labour standards of the ILO are verifiable, meaning not all aspects of compliance can be verified.
- If certification processes are too complicated for companies, they lose an incentive to qualify to participate in public tenders.

As a consequence of this study, NRW repealed the detailed requirements in its public procurement law. Instead, public procurement in NRW now focuses on measures beyond the legal and regulatory framework, such as ad hoc support for contracting authorities in implementing strategic procurement. Finally, a sustainable procurement newsletter is used to raise awareness of strategic procurement.

Source: Responses from German federal and state-level institutions to an OECD questionnaire and interviews.

A large number of German states are able to provide concrete estimates of the share of SME participation and the share of procurement processes in pursuit of complementary policy objectives they undertake. Some states are also able to share estimates with a good level of detail. However, as Table 5.2 illustrates, the estimates vary not only in value, but also in terms of what and how they measure policy objectives. This is due to the fact that no overarching guidance for monitoring complementary policy objectives exists.

Table 5.2. Available quantitative estimates on SME participation and complementary policy objectives in public procurement in different German states (2016 and 2017)

	Share of SME participation or number of contracts awarded	Share of strategic procurement processes
Baden-Württemberg	Majority of contracts to all contracts, depending on area	
Bavaria	Majority	
Berlin	"High share"	
Bremen		90-95% for paper
Hamburg	30-40%	
Mecklenburg-Vorpommern	50-95%	
Lower Saxony	Majority	75% in the area of public transport Social criteria: 63% in the area of public transport 13-18% for the remainder
Rhineland Palatinate	"As a general rule"	
Saxony Anhalt	In the area of public works: SMEs: 62.5% Joint proposals by SMEs and large companies: 12.5% Large companies: 25%	
Schleswig-Holstein	Declining SME participation between 2013 and 2016	Share of individual criteria or strategies used: 57% environmental friendliness 53% energy efficiency 40% life-cycle costing 30% innovation procurement

Source: Author's compilation based on information in. Bundesregierung (2017), Monitoring-Bericht der Bundesregierung zur Anwendung des Vergaberechts 2017, https://www.bmwi.de/Redaktion/DE/Downloads/M-O/monitoring-bericht-der-bundesregierung-zur-anwendung-des-vergaberechts-2017.pdf?__blob=publicationFile&v=6.

Schleswig Holstein, a state with an advanced electronic procurement system and high capacity to conduct data-driven impact monitoring, was able to show that the participation of SMEs in state-level procurement was declining – despite a general push to support SMEs. The decline started in 2013, following the implementation of Schleswig-Holstein's law on abiding by collective wage agreements (Tariftreuegesetz, "wage loyalty law"). This law required suppliers to provide proof that their employees were paid the wage required by collective wage agreements. In the wake of the law, a quarter of contracting authorities in Schleswig Holstein observed the trend of declining SME participation. Subsequently, Schleswig-Holstein identified two factors as reasons for why fewer SMEs submitted bids. These two factors were: 1) increased requirements that were mainly concerned with more formal standards; and 2) low expectations of winning the bid (Bundesregierung, 2017[26]).

Across the board, SME participation is high in the German federal states. Often the majority of companies winning bids at the state level are SMEs. In contrast, the use of strategic criteria, like energy efficiency or social criteria, in procurement at the state level in Germany is less well-tracked. From the available information it is clear that states need additional support in pursuing complementary objectives. This information is in line with the findings of the aforementioned 2016 survey by Eßig and Schaupp, as both show that states do not prioritise complementary objectives. Policy makers therefore need to make additional efforts to demonstrate the tangible results of strategic procurement, and communicate these benefits widely. Berlin has demonstrated how monitoring can be combined with the communication of the benefits procurement through two related monitoring studies on green procurement (see Box 5.15).

Box 5.15. Monitoring the implementation of green public procurement in Berlin

Berlin is one of the federal states in Germany that has tracked the implementation of regulations related to complementary policy objectives. Berlin has included in its procurement law the option to give preference to environmentally friendly products and services. In 2013, Berlin issued its Administrative Regulation of Procurement and the Environment (Verwaltungsvorschrift Beschaffung und Umwelt, VwVBU) in order to further support contracting authorities. VwVBU made it mandatory for authorities to conduct environmentally friendly procurement. The regulation also contained a number of templates that could be used to draft environmentally friendly specifications for 65 standard goods and services.

In 2015, Berlin took steps to determine to what extent the regulation had been implemented. To do so, Berlin hired a think tank to conduct two detailed studies. The think tank Öko Institut e.V. explored the extent to which Berlin's contracting authorities observed requirements for environmentally friendly purchasing. The think tank also looked at the economic and environmental impact of the public procurement of 15 goods that were frequently purchased in the state. The studies made the case that VwVBU was successful because it combined binding requirements with very concrete support for implementation. In addition, analysing the savings potential of environmentally friendly procurement, the studies were able to highlight the tangible economic advantage environmentally friendly procurement can produce. Therefore, the studies provided additional incentives for contracting authorities to comply with policies on environmentally friendly procurement.

Status of the implementation of VwVBU

Berlin's senate made the decision to require an evaluation of the implementation of VwVBU. Berlin has 2 000 contracting authorities that are required to implement VwVBU. Öko Institut e.V. conducted written and face-to-face interviews with procurers, bidders and suppliers. The analysis found that VwVBU was well implemented, with most procurement following environmentally friendly criteria. According to the interviews, a decisive factor was that the regulation included templates that were relatively simple to transfer into every day procurement cases. Challenges remained in areas where technical specifications were complex, and where deep knowledge was required to evaluate proposals. The study recommended creating a centralised procurement unit combined with an online catalogue to alleviate pressures for individual contracting authorities.

Economic savings through environmentally friendly procurement in Berlin

Furthermore, the study aimed at identifying how much money Berlin could save by procuring environmentally friendly goods instead of standard versions. It is worth noting that the study did not attempt to identify actual savings due to a lack of data. Instead, it compared 15 products and services typically procured by Berlin's administration, like computers, paper, lamps, garbage disposals and cars against market prices. The study analysed two aspects: 1) the life-cycle costs of the 15 products and services; 2) the aggregated savings that these 15 products would accrue per year if purchased through an environmentally friendly as opposed to conventional process.

Overall, the study found that purchasing these 15 products in an environmentally friendly way would result in: 1) savings of 3.8%; and 2) a 47% reduction in CO_2 emissions. The study found that ten items had lower life-cycle costs, while five were more expensive. However, the more expensive products included some for which the environmental effect was much more positive than the limited cost increase. For example, dishwashers were much more energy efficient and cost only a small amount more. In addition, by using more expensive construction equipment in works projects, those works projects emitted fewer particles. This demonstrates that Berlin could adopt a policy to require contracting authorities to always purchase in an environmentally friendly way.

Source: Öko Institut e.V. im Auftrag der Senatsverwaltung für Stadtentwicklung und Umwelt in Berlin (2015), Umwelt- und Kostenentlastung durch eine umweltverträgliche Beschaffung, http://www.nachhaltige-beschaffung.info/DE/DokumentAnzeigen/dokument-anzeigen.html?idDocument=1546&view=knbdownload.
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Proposals for action

Germany has a robust framework for facilitating the pursuit of complementary policy objectives through public procurement. Germany's 2016 procurement reform broadened opportunities for contracting authorities to implement strategic procurement. Beyond the work done to establish a strong legal framework, Germany should now focus its efforts on the implementation of strategic public procurement. Monitoring and capacity-building measures in particular promise to make the most impact. As such, Germany could consider:

- Building the profile of public procurement as a tool for achieving the goals of the country's sustainability framework while ensuring that all aspects and activities of the sustainability strategy use strategic procurement where possible (e.g. in the area of infrastructure investment).
- Carefully managing the policy and strategy landscape to ensure alignment and clarity of objectives, targets and the roles of different institutions.
- Regularly evaluating the work of the country's competence centres and further empowering them to play a leadership role in championing the cause of strategic procurement.
- Providing more supportive measures to help procurers navigate the complex strategic procurement framework in their daily work. A range of training courses should target different levels of sophistication in strategic procurement, from introductory courses to implementing complex evaluation criteria and conducting supplier due diligence. These efforts can be supported through broader use of implementation tools and templates.
- Conducting regular and thorough evaluations of the country's progress toward sustainability goals. Germany can help contracting authorities on all levels to achieve their sustainability goals by providing assessment tools for voluntary use. Finally, Germany should continue to gather data on the use of sustainability criteria.

Legal texts

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6 The human resource capital of the German public procurement system

This chapter analyses how Germany manages human resource capital in its public procurement system. German civil servants benefit from solid education and training. However, the current approach to civil service in Germany is to train and employ a workforce of generalists, while expected challenges in the coming years will require increasingly specialised public procurers. To realise the fullest impact of public procurement, Germany could take a strategic approach to establishing public procurement as a profession. Developing systematic training for public procurers could allow for further specialisation and enable procurers to meet the challenges of increasingly complex strategic procurement processes.

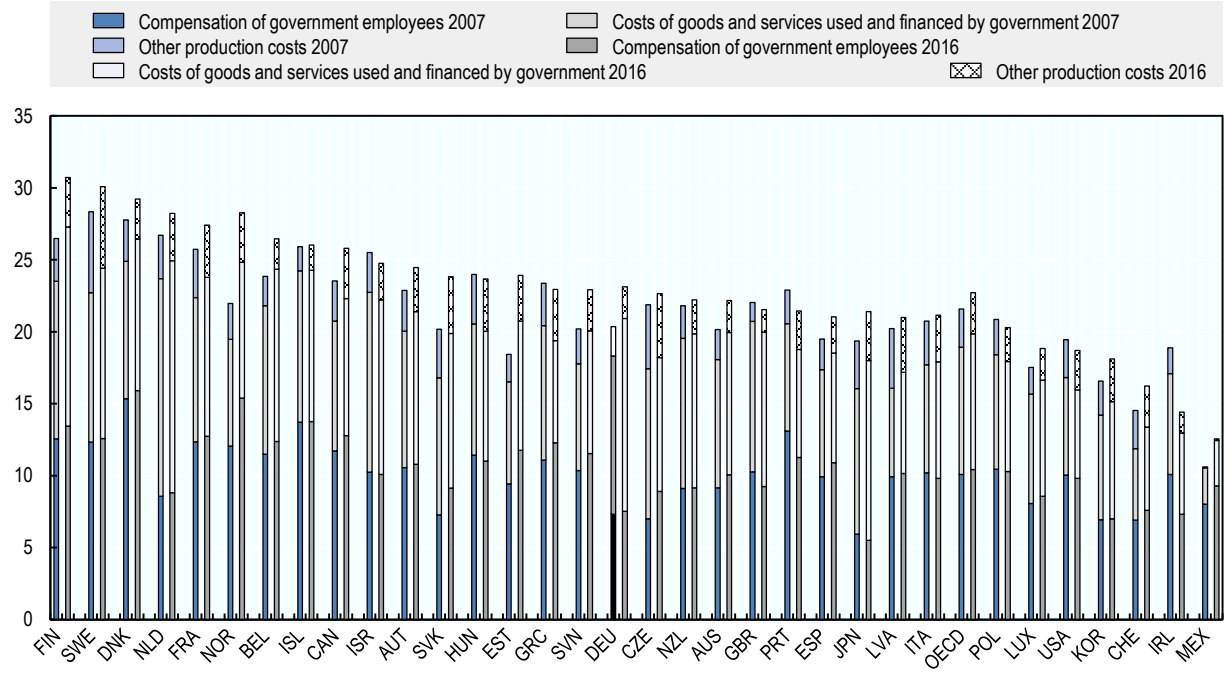
The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Like any governmental activity, the outcomes of public procurement depend on the capacities of the people implementing it. As such, equipping public procurers with the necessary capabilities is paramount to achieving the objectives of public procurement.

In Germany, a general tension exists between two aspects of its public administration. On the one hand, the country's increased push towards strategic procurement and greater centralisation of procurement requires highly specialised procurement experts. On the other hand, the traditional and proven approach to human resource management in the German civil service is built on generalists and like most German civil servants, procurement officials tend to be generalists. This chapter explores how these two approaches can be combined most beneficially.

Like many other countries, Germany faces the challenge of achieving the best value for money from its civil service. In light of this challenge, OECD member countries are placing an increased focus on the economic impact of their public services. In the last decade, the majority of OECD countries has faced rising costs for the delivery of their services. Compensation of government employees accounts for the majority of these increased expenses (see Figure 6.1). In finding ways to address this situation, many countries aim at increasing the effectiveness of their civil servants, while at the same time attempting to reduce their costs (OECD, 2016[1]).

Figure 6.1. Government production costs, 2007 and 2016



Note: Data for 2016 where available. Data for Israel, New Zealand, Australia, Japan, United States, Switzerland, Korea and Mexico are for 2015 rather than 2016. Data for Chile and Turkey are not included in the OECD average because of missing time series or main non-financial government aggregates. Data for Australia are based on a combination of national accounts and government finance statistics data provided by the Australian Bureau of Statistics.
Source: OECD National Accounts Statistics (database) as adapted from (OECD, 2017[2]), *Government at a Glance 2017*, http://dx.doi.org/10.1787/gov_glance-2017-en.

While some countries cut costs following the economic crisis of 2007 and 2008, at present most countries need to increase efficiency to ensure that public procurement maintains a positive economic impact. Public procurers' expenses are counted as a part of the compensation for officials. In addition, procurers'

effectiveness impacts the remainder of the production cost. The economic impact of any public procurement depends highly on the individual capacity of public servants to implement procurement processes in a smart way. Capacity building for public procurers is therefore central to achieving value for taxpayer money. Procurers today often manage complex processes that require broader knowledge than the knowledge that allows them to achieve legal and regulatory compliance. Decision making to account for complementary policy objectives, for example, requires the use of more strategic approaches (OECD, 2017[3]). In addition, evidence shows that guidance and training of procurement officials ensures that procurers use available centralised purchasing options more frequently and more efficiently. This training and guidance can therefore help countries achieve the economic goals associated with centralisation efforts in the area of public procurement (Kauppi and van Raaij, 2015[4]).

Because Germany's procurement system has procuring entities at several levels of government, disseminating skills throughout the system is one way to ensuring high performance across the board. New Zealand's experience in implementing a capacity strategy could be a model for Germany. New Zealand's capacity strategy was built on the insight that it was not possible to centralise all procurement. As a consequence, New Zealand worked to increase the skills of state-level agencies and to provide guidance to state-level procurement staff.

Besides above-mentioned incentives related to cost savings from increased capacity of procurers, studies have demonstrated that structured and specialised human resource management of the public sector is vital to improved public procurement. A more meritocratic public procurement workforce contributes to lower levels of corruption – which means a lower risk of public funds going to waste (Charron, Dahlström and Lapuente, 2017[5]).

The *OECD Recommendation of the Council on Public Procurement* emphasises that capacity building and professionalisation of public procurement are important to maintaining the effectiveness of the public service. Furthermore, the recommendation includes capacity as one of the principles of an effective public procurement system. According to the recommendation, three features define public procurement capacity (OECD, 2016[6]; OECD, 2015[7]):

- high professional standards for knowledge, practical implementation and integrity
- attractive, competitive and merit-based career options specifically for public procurement officials
- collaborative approaches with knowledge centres.

Box 6.1 details the *OECD Recommendation of the Council on Public Procurement*'s principle on capacity.

Box 6.1. *OECD Recommendation of the Council on Public Procurement* – principle on capacity

The Council:

RECOMMENDS that Adherents develop a procurement workforce with the capacity to continually deliver value for money efficiently and effectively.

To this end, Adherents should:

i) Ensure that procurement officials meet high professional standards for knowledge, practical implementation and integrity by providing a dedicated and regularly updated set of tools, for example, sufficient staff in terms of numbers and skills, recognition of public procurement as a specific profession, certification and regular trainings, integrity standards for public procurement officials and the existence of a unit or team analysing public procurement information and monitoring the performance of the public procurement system.

ii) Provide attractive, competitive and merit-based career options for procurement officials through the provision of clear means of advancement, protection from political interference in the procurement process and the promotion of national and international good practices in career development to enhance the performance of the procurement workforce.

iii) Promote collaborative approaches with knowledge centres such as universities, think tanks or policy centres to improve skills and competences of the procurement workforce. The expertise and pedagogical experience of knowledge centres should be enlisted as a valuable means of expanding procurement knowledge and upholding a two-way channel between theory and practice, capable of boosting application of innovation to public procurement systems.

Source: (OECD, 2015[7]), *OECD Recommendation of the Council on Public Procurement*, http://www.oecd.org/gov/ethics/OECD-Recommendation-on-Public-Procurement.pdf.

Besides the OECD Recommendation, an additional international standard on public procurement highlighting the importance of procurement professionalization is the Methodology for Assessing Procurement Systems (MAPS). MAPS is a methodology to assess public procurement systems as a whole. The methodology includes indicators on capacity to ensure that a given system has the means to achieve its procurement objectives. MAPS links the capacity of the public procurement workforce with the capacity of the entire procurement system, and more specifically with the system's ability to develop and improve procurement performance. The MAPS "suite" includes a supplementary module on professionalisation that allows for a focused analysis of this important subject area. (MAPS, 2018[8])

To support these overarching concepts with concrete measures, international best practices include the following elements of a system to promote public procurement capacity building (OECD, 2016[6]).

- strategies to outline capacity building and professionalisation activities, supported by a concrete action plan that outlines steps for implementation
- tools to define and track roles and associated knowledge or skills, such as competency frameworks, job profiles and certification systems
- clear responsibilities (i.e. who is in charge of capacity building with regards to public procurement specifically)
- tools and activities to increase the knowledge or skills of the public procurement workforce (i.e. training)
- incentives, including a definition of a clear career trajectory combined with attractive and merit-based remuneration and progression

- analytical systems to identify needs and monitor impact
- adequate financial resources for capacity-building activities
- advisory services or help desks
- exchange with knowledge centres outside of public procurement institutions.

This chapter takes stock of Germany's management of procurement human resources to identify areas where good practices can be expanded to achieve greater impact. First, the chapter analyses the status of public procurement as a profession in Germany, in line with the OECD recommendation and international good practices. Second, the chapter discusses opportunities for increasing performance through monitoring and evaluation. Third, the chapter explores avenues for building the capacity of public procurers in Germany. Finally, additional sections illustrate the professionalisation of public procurement at the sub-national level, and summarise areas for action.

6.1. Considering public procurement as a profession

In Germany, most matters related to human resource management and the professional status of public procurers follow the general employment rules of the civil service. As such, only limited considerations exist that are specific to procurers. This sub-section of the chapter explores the general framework of the civil service under which public procurers are hired and managed. The chapter then proposes measures that could serve to professionalise the procurement workforce within the overarching framework.

The professionalisation of public procurement encompasses several activities. These activities all strive to 1) make public procurement a dedicated profession that is considered separately within a country's civil service (MAPS, 2018[8]); and 2) to make public procurers more professional (that is, increasing the individual and systemic capacities of public procurers.) Countries increase individual and systemic capacities by using measures like training, guidance and more (MAPS, forthcoming[9]).

In October 2017, the EU adopted a recommendation on the professionalisation of public procurers as a part of its public procurement package. Given the strategic importance of public procurement and its ability to influence policy outcomes, the recommendation aimed at increasing the professionalism with which officials in the EU purchased goods, works and services. The recommendation suggested that EU countries tackle professionalisation of public procurement using the following three avenues (European Union, 2017[10]):

1. **policy architecture –** create a strategy to increase the professionalism of public procurement;
2. **human resources –** provide training and a career path for public procurers;
3. **systems –** supply structured tools, methodologies and processes to support the professionalisation of public procurement.

The concrete steps outlined by the EU recommendation can inform a capacity-building strategy, as the three domains highlighted by the EU affect capacity. The EU recommendation, issued by one of the most important standard setters in the area of public procurement, illustrates the immense importance of building procurers' capacities. Around the world, other institutions are following a global trend by embarking on a push for greater professionalisation of public procurement. The World Bank, for example, has organised co-ordinated professionalisation activities for interested countries, ranging from training to guidance.[1]

6.1.1. Germany's public procurement workforce belongs to the country's civil service, which follows a generalist model

This section examines the profile of the average public procurer in the German federal administration, and to what extent there is room to hire entrants with characteristics that are conducive to becoming successful

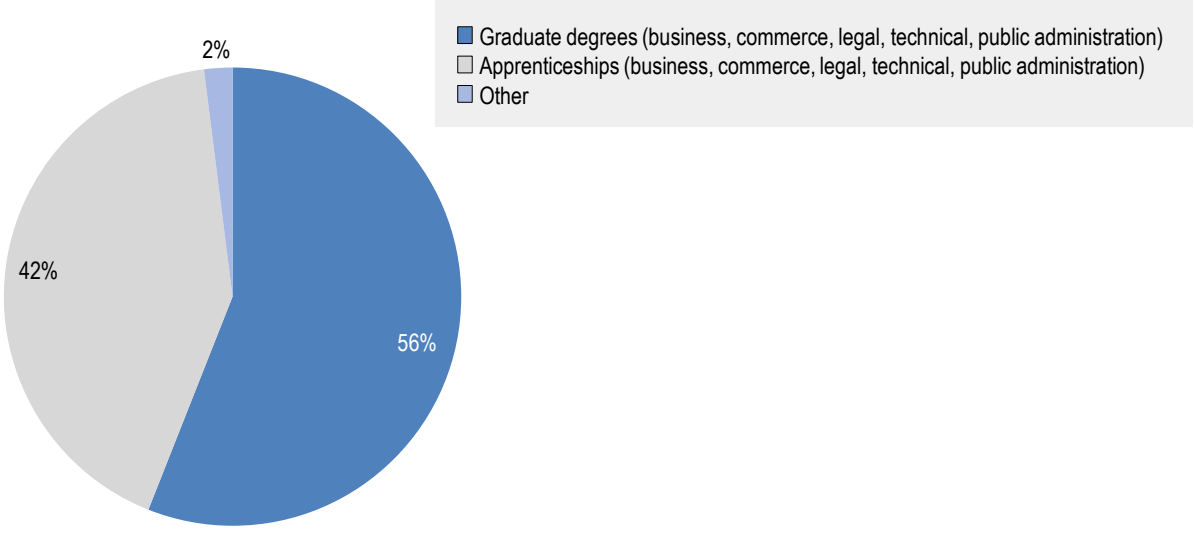
procurers. In the context of Germany's increasing emphasis on strategic and centralised procurement, a specialisation-focused model of human resource management in public procurement will be needed. Only with the right skills can public procurers meet the upcoming challenges.

Specialisation in public procurement can help officials from diverse backgrounds achieve procurement objectives. New entrants to the job should have the necessary education to be successful public procurers. Setting clear expectations for these officials can help them succeed. Once these baselines are established, specialisation can be achieved in different ways. The civil service can establish dedicated career paths, give officers training and offer experience to officials by assigning them to dedicated procurement-related posts. International good practices consider specialisation to be an important aspect of a professional public procurement workforce (European Union, 2017[10]; MAPS, 2018[8]; OECD, 2015[7]).

Germany's public procurement workforce is diverse – especially with regard to the profiles of individual procurers. A 2015 academic survey revealed that public procurers in Germany have a variety of educational backgrounds, but limited educational specialisation in public procurement. This diversity is not surprising, considering that there is no dedicated profile for public procurers in Germany, and procurers are hired from within the general public service. Furthermore, just over half of procurers have conducted degree-level studies in the country; roughly the other half have conducted an apprenticeship, as illustrated in Figure 6.2.

Figure 6.2. Educational background of public procurers in Germany: Level of education

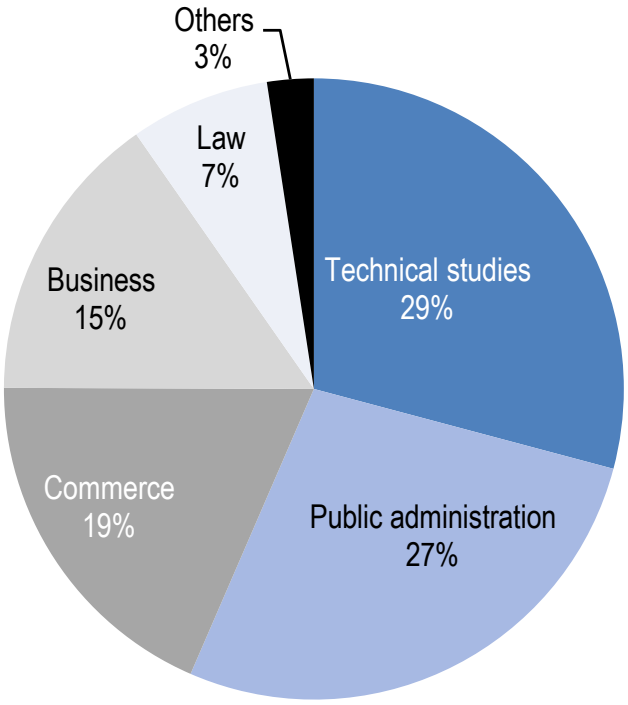
Number of responses by level of education



Note: Figure represents responses to an academic survey of German procurers. The survey looked at innovation procurement. Researchers received 453 responses, with multiple responses possible.
Source: Unpublished survey data from (Eßig and Schaupp, 2016[11]), *Erfassung des aktuellen Standes der innovativen öffentlichen Beschaffung in Deutschland – Darstellung der wichtigsten Ergebnisse*, https://www.koinno-bmwi.de/fileadmin/user_upload/publikationen/Erfassung_des_aktuellen_Standes_der_innovativen_oeffentlichen_Beschaffung....pdf.

The educational background of public procurers in Germany is diverse in terms of field of specialisation. A majority of respondents to the academic survey discussed above received education in a technical area (i.e., specialisation in a specific topic) or in general public administration (see Figure 6.3.).

Figure 6.3. Educational background of public procurers in Germany: Fields of education



Note: Figure represents responses to an academic survey of German procurers. The survey looked at innovation procurement. Researchers received 453 responses, with multiple responses possible.
Source: Unpublished survey data from (Eßig and Schaupp, 2016[11]), *Erfassung des aktuellen Standes der innovativen öffentlichen Beschaffung in Deutschland – Darstellung der wichtigsten Ergebnisse,* https://www.koinno-bmwi.de/fileadmin/user_upload/publikationen/Erfassung_des_aktuellen_Standes_der_innovativen_oeffentlichen_Beschaffung....pdf.

The results of the survey above seem to be representative for the majority of public procurers in Germany. According to stakeholder interviews, in Germany's general customs administration, for example, general customs officers who have gathered experience from dedicated training and "learning by doing" conduct procurement. Furthermore, a separate technical service (*Technischer Dienst*) is tasked with market analysis. Leadership positions are often filled by lawyers. Recently, however, the leadership level has gradually become open to applicants from other backgrounds.

In Germany, public procurement is part of the general training that new entrants to the general public service receive, though to a limited extent. While it is possible to enter the public service laterally (i.e., from a position outside of the public service or from other government posts), a large number of officials at the federal level enter the public service by studying at the Federal University of Applied Administrative Sciences (Hochschule des Bundes für öffentliche Verwaltung, HS Bund). HS Bund offers several programmes equivalent to both bachelor's and master's studies that prepare students for a career in the civil service of the federal administration. About 50% of new entrants to the civil service at the federal level graduated from the HS Bund. Aside from several specialisations like IT engineers or meteorological studies, HS Bund has a programme of general studies. This general programme aims at educating officials so that they are able to successfully work in a variety of tasks across the federal administration.

HS Bund features public procurement in most of its programmes, including its general civil service programme and information technology (IT) engineering in the context of e-procurement. Students enrolled in general civil service programmes study procurement for only a few lessons. These lessons combine legal studies and practical examples. This amount of training provides a general overview of public

procurement. It is mandatory for all students who are likely to come into contact with public procurement as a part of their specialisation.

Several professors and lecturers teach procurement at HS Bund, both at the bachelor's and master's level. The emphasis of the training is on procurements whose value is below the thresholds set by EU rules, as this is the type of procurement that is most often conducted by regular officials. However, this training is not usually sufficient to enable officials to conduct procurement once they arrive in a procurement position later in their career. Thus, officials often need additional training.

It is possible to informally specialise in public procurement as a part of one's general civil service studies, depending on personal interest within the existing tracks. However, there are no recommendations or guidance as to the kinds of studies a public procurer should undertake, or as to how this specialisation can be used to build a compelling career. Officials with an interest in specialising in public procurement are often highly valued in their administrations, as not many officials have this profile.

Some specialisation happens on an ad hoc basis when individuals decide to continue focusing their career on public procurement. However, in Germany there is no structured procurement career path for officials to embark on at the beginning of their careers, and no structured planning around procurement personnel. For example, procurers in Germany's central purchasing unit for IT procurement do specialise in procurement – but not so much with regard to the type of procurement they conduct or the type of products they purchase. The goal in the unit is to be able to distribute procurement cases across the team, depending on workload.

The approach of specialisation according to the individual interests of civil service professionals may not serve Germany's current needs. Increased bundling of public procurement in the country has resulted in more complex procurement, requiring appropriately skilled procurers in every procurement authority conducting centralised procurement. Increased emphasis on strategic procurement means that procurement processes are becoming increasingly challenging for procurers, as they are required to take into account aspects beyond price, as well as more complex technical specifications. In addition, sustainability issues are becoming a priority in German public policy. Sustainability is often linked to the technical aspects of procurement – and must be understood by procurers. While more specialised education can help ready procurers for these challenges, an emphasis on legal compliance in the education of public servants does not provide necessary knowledge.

To ensure that those in a procurement function have a minimum level of capacity, establishing sample role descriptions or profiles for procurers could be useful. These profiles could be established by an institution at the federal level and could be taken up by contracting authorities as needed. The profiles should establish minimum requirements for the education, experience and skills a procurer has to have for each specific level of responsibility. These sample role descriptions could then provide guidance for hiring within contracting authorities, and could form the basis for a more structured procurement career path where relevant. The EU is working to implement these types of practices. As a part of the implementation of its recommendation on procurement professionalisation, the EU is now preparing a Competency Framework for public procurement. The Competency Framework will define core functions and competences of public procurers and will be applied to EU member states.

6.1.2. Strategic procurement: The challenges faced by public procurers

Like procurers in many other countries, Germany's public procurers face challenges stemming from an increasingly complex policy framework. Germany's 2016 procurement reform brought new rules regarding how public procurers must conduct their work. Adapting to these new rules has been challenging, but procurers face other, broader challenges as well. These broader challenges include increasing demands for strategic procurement, such as the incorporation of complementary policy objectives into procurement

processes. In addition, the increased push for centralised public procurement in Germany has changed the types of skills individual procurers must possess. This development began before the reform.

Challenges facing procurement officials in Germany relate to different aspects of public procurement. On a very general level, stakeholders interviewed for this study reported that they saw procurement as an administrative burden that was best to be avoided at all costs. This attitude contrasts with the international trend to consider the public procurement function a strategic role within the government that can exert considerable influence and promote policy objectives. Strategic procurement requires skilled use of complex selection and award criteria. Unfortunately, the skilled use of selection and award criteria does not always take place. Procurers in smaller entities face greater challenges given that they rarely possess a combination of strong technical knowledge and high-level knowledge of the public procurement process.

As a part of the monitoring of the implementation of the 2014 EU directives on procurement, the German federal government asked institutions at the federal and sub-national levels to flag any problems with implementing Germany's 2016 public procurement law. While state institutions flagged the majority of problems, some federal institutions also recorded certain issues. Notably, federal contracting authorities and requesting units had insufficient personnel to handle the increasingly complex administrative requirements of public procurement processes. In addition, authorities noted that companies had limited interest in participating in procurement opportunities, which resulted in limited competition in tenders (Bundesregierung, 2017[12]). Procurement appeals courts have yet to issue rulings related to the 2016 procurement law, but challenges point to issues that could have been addressed with more practical training. For example, bidders have challenged contracting authorities' use of functional specifications without a transparent evaluation system. Instead of developing and publishing clear and detailed selection and award criteria, the procurers provided a simple system that only had broad categories. (The categories were: offer complies with the needs fully, offer complies with minor gaps, offer complies with large gaps, and more). (Bundeskartellamt, 2017[13]).

In early 2016, the European Commission published a study on member countries' administrative capacities in the area of public procurement. According to this study, Germany's public procurement authorities made less use of the most economically advantageous tender criteria (MEAT criteria) in procurement above the EU threshold. At the same time, German procurement authorities made more use of the simpler, price-only criteria for procurement. In 2014, Germany used the MEAT criterion in 48% of its procurement cases[2]. In contrast, France used the criterion in 96% of its procurement processes and the Netherlands used it in 90% of its procurement cases (European Commission, 2016[14]). These figures illustrate that there is a large potential for further improvement of strategic procurement in Germany. Finally, interviews with German officials have shown that smaller contracting authorities with lower capacities struggle to implement more complex procurement procedures like the MEAT criterion (albeit especially on the sub-national level.)

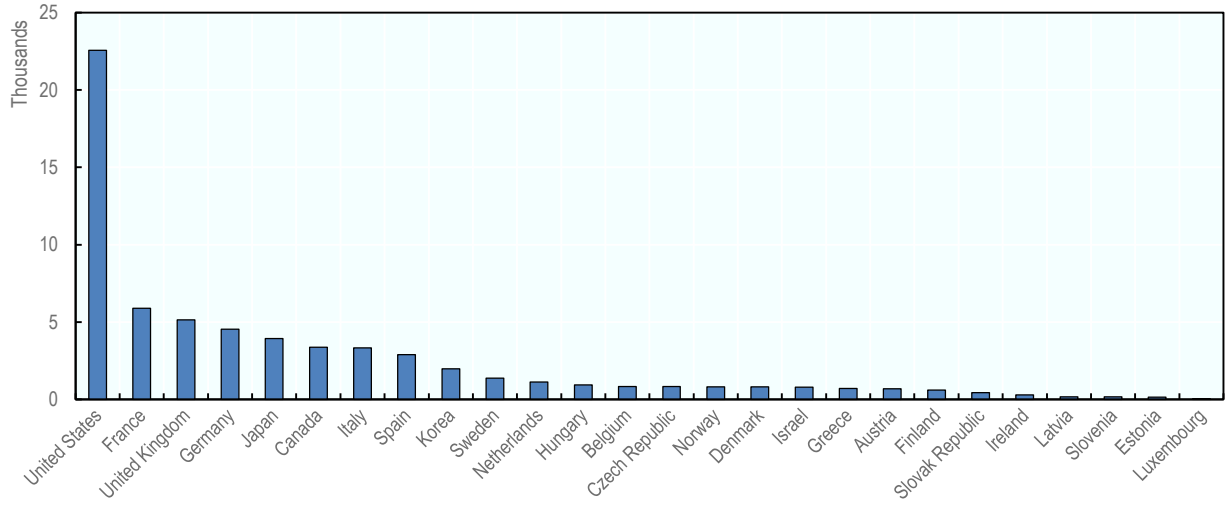
These findings point to a situation in which there is a disparity in performance in the German public procurement system. Case studies, such as those throughout this review, show that excellent performers exist in the German public procurement landscape. However, others lag behind, especially in the periphery of the system (i.e. in smaller contracting authorities, as well as at the state and municipal levels). As outlined above, according to the limited information available about the level of professionalization of public procurers in Germany, many procurement officials have gaps in areas that should be part of the general public procurer's toolbox. While contact points and support exist for specialised procurement processes (i.e. for sustainable procurement and innovative procurement), there is no such competence centre or contact point for the average, but complex procurement case. In some institutions, a contact point with resources for procurement officials might exist in-house. Weaker institutions, however, often do not have public procurement advisors who provide guidance and support for complex cases. In addition, no institution exists in Germany that could monitor the evolving challenges of procurers and propose support mechanisms accordingly.

6.1.3. Germany's public procurement workforce is large and requires specialised human resource management

The ways the German public procurement workforce and its human resource management are structured can shed some light on the origins of the challenges facing the country's procurement system. As mentioned above, Germany faces an increasing need for public procurers with specialised skills. Germany has a large procurement workforce. This means that increasing skills across the entire workforce will require a strategic approach. Increased visibility of the structure of Germany's public procurement workforce will be instrumental in designing this strategic approach.

Germany has one of the largest civil services in the OECD. In 2016, 4.69 million people worked in the public sector in Germany at all levels (federal, state, municipalities and social security institutions). See Figure 6.4 for a comparison of employment in the civil services of a subset of OECD countries.

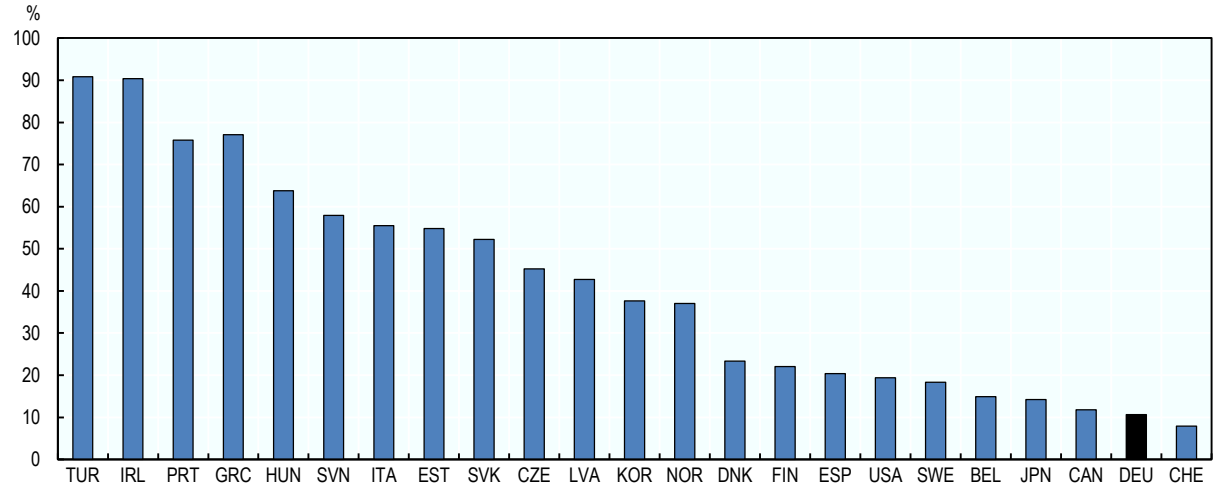
Figure 6.4. Employment in general government: Number of persons, thousands (2015)



Note: Data for Japan, Switzerland, Turkey and the United States are from the International Labour Organization (ILO)'s ILOSTAT database. Public employment by sectors and sub-sectors of national accounts. National authorities provided data for Korea. Data for Canada are estimated values.
Source: OECD National Accounts Statistics (database).

Only about 10% of German officials work at the federal level. This small percentage demonstrates the significance of the share of public service provision that is borne by the sub-national levels of government in Germany. With this rate, Germany has one of the most decentralised civil services in the OECD, as illustrated by Figure 6.5.

Figure 6.5. Percentage of government staff employed at the central level in Germany, 2014



Note: Social security funds are not separately identified (i.e. recorded under central or sub-central governments) for Canada, Estonia, Ireland, Japan, Norway, Spain and the United States. Data from Denmark are from 2013 rather than 2014. Data from Korea are from 2015 rather than 2014. Data represents public employment by sectors and sub-sectors of national accounts. National authorities provided data for Korea and Portugal.

Source: International Labour Organization (ILO), ILOSTAT (database). Data as reported in (OECD, 2017[2]), *Government at a Glance 2017*, http://dx.doi.org/10.1787/gov_glance-2017-en.

There is no dedicated tracking of officials working in public procurement roles in Germany. However, it can be assumed that the general characteristics of the overall German civil service also hold true for the public procurement workforce. Thus, one can infer that 1) Germany's public procurement workforce is relatively large when compared to other OECD countries; and 2) the vast majority of public procurers work in state administrations and municipalities.

Counting the number of public procurers in Germany is difficult because, in many cases, and especially in smaller entities and on the sub-national level, public procurement is not a full-time job. This means that officials conduct procurement in addition to other tasks. Rough estimates by academics and civil society organisations working on public procurement indicate that there are 30 000 contracting authorities in Germany, with several officials each working in a procurement function. Table 6.1 below provides an overview of the number of officials in the main central purchasing units at the federal level in Germany, as well as in the competence centres focusing on procurement. The largest dedicated procurement team is located in the Federal Armed Forces. (The Federal Armed Forces has 670 full-time equivalents working on procurement).

Table 6.1. Overview of the size of units in charge of public procurement in the German federal administration

Name of the unit	Number of officials
General Customs Directorate (Generalzolldirektion, GZD), central procurement unit	200
Federal Office for Equipment, Information Technology and the Use of the Federal Armed Forces (Bundesamt für Ausrüstung, Informationstechnik und Nutzung der Bundeswehr, BAAINBw), central procurement unit	946 individuals or 670 full-time equivalents
Federal Institute for Materials Research and Testing (Bundesanstalt für Materialforschung und -prüfung, BAM), central procurement unit	14
Federal Procurement Office of the Federal Ministry of the Interior (Beschaffungsamt des Bundesministeriums des Innern, BeschA)	268
Central Office for IT Procurement within the Federal Procurement Office of the Federal Ministry of the Interior (Zentralstelle für IT-Beschaffung, ZIB)	78 (65 procurers, 13 administrators), 72 additional procurers to be hired in 2018
Administration Office of the central purchasing unit Kaufhaus des Bundes (KdB) within the Federal Procurement Office of the Federal Ministry of the Interior	12 (including, among others 3 for catalogue and its users; 3 for executive management; 5 for support for platform)
Competence Centre for Sustainable Procurement (Kompetenzstelle für nachhaltige Beschaffung, KNB) within the Federal Procurement Office of the Federal Ministry of the Interior	8
E-procurement unit (Z 14) within the Federal Procurement Office of the Federal Ministry of the Interior	15 overall, including 5 covering the help desk
Central purchasing unit within the Federal Office for Agriculture and Food (Bundesanstalt für Landwirtschaft und Ernährung, BLE)	26, with a requirement for 28
Competence Centre for Innovative Procurement (Kompetenzzentrum innovative Beschaffung, KOINNO)	8

Source: Responses from German federal and state-level institutions to an OECD questionnaire and interviews. .

Given Germany's generalist approach to filling public procurement roles, there is limited information about the procurement workforce. None of the statistics about the German civil service include a special category for procurers. Knowing the size and distribution of the public procurement workforce in different institutions and at different levels could provide insights into the effectiveness of procuring entities. It could also support decision making about human resource management. It would be possible for Germany to introduce categories to civil service positions; Germany already tracks some categories, specifically those related to broad tasks within an administration. Similarly, a sub-category for public procurers could be established. This is particularly important when considering that individual procurers have a large part to play in the overall value for money provided by the civil service. By tracking procurers, specialised education and training could be made available that could ultimately contribute to more strategic spending of public funds.

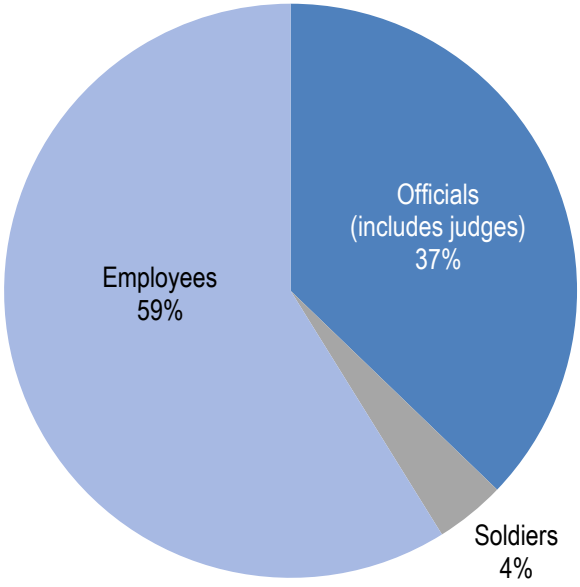
There is no dedicated human resources management for procurers working in the general administration of Germany. The same rules apply to all of the general public service. Members of the public service are hired in two different ways. Public procurers can be employed as civil servants (*Beamte*) or as public employees (*Tarifbeschäftigte*)[3]. Civil servants are appointed, and have specific duties and rights, according to Article 33 of the Basic Law of the Federal Republic of Germany (Grundgesetz für die Bundesrepublik Deutschland). The main difference between civil servants and public employees is that civil servants are appointed for life and cannot go on strike. Civil servants are also required to follow strict standards of legality, neutrality, service in the public interest and loyalty to their institutions. The Federal Civil Servants Law (Bundesbeamtengesetz) regulates conditions of employment.

Unlike civil servants, public employees are hired on the basis of one of many collective wage agreements for the public sector. These agreements vary in scope and are valid for specific levels of government, regions and professions. However, there is no specific salary scale for public procurers.

In general, civil servants conducting public procurement are not recruited for this particular role. As such, there is no dedicated role description for those conducting public procurement in Germany. In the Federal

Procurement Office of the Federal Ministry of the Interior (Beschaffungsamt des Bundesministeriums des Innern, BeschA) for example, approximately 75% of staff are civil servants, while approximately 25% are hired under collective agreements. Procurers usually move to their role from the general pool of civil servants. They are also hired under collective agreements, especially when they are hired for specific tasks. A conversion to official status is possible in accordance with the general laws for civil servants and if a specific, official position exists. The overall composition of the German civil service (at all levels) is slightly different, with the majority being employed under collective agreements, as shown in Figure 6.6.

Figure 6.6. Composition of the public service in Germany, 2016



Note: The analysis is based on full-time equivalents.
Source: Statistisches Bundesamt (2017), Personal Öffentlicher Dienst, https://www.destatis.de/DE/Publikationen/Thematisch/FinanzenSteuern/OeffentlicherDienst/PersonaloeffentlicherDienst.html.

The career path of a public procurer follows their level of service, as there is no dedicated career path for authorities in the public procurement system. The German civil service distinguishes four levels of service according to the complexity of the tasks at hand. They are:

1. ordinary service (einfacher Dienst);
2. intermediate service (mittlerer Dienst);
3. higher intermediate service (gehobener Dienst);
4. higher service (höherer Dienst).

The majority of procurers in Germany are part of levels two and three, intermediate and higher intermediate service. A career path is usually specific for each level, but civil servants can also undertake additional qualifications and exams to gain promotion to a higher level. In addition, civil servants rotate between posts in the same area of the federal administration every three to five years. That means that the person who conducts public procurement today might work in a completely unrelated function tomorrow.

The rotation system has implications for the way training is structured, and disincentivises more in-depth specialisation in the area of public procurement. The system removes the need to develop specialisation in public procurers beyond the knowledge necessary to avoid basic violations. This means that the more specialised knowledge necessary for strategic procurement will likely not be acquired through training. It

remains unclear to what extent procurers in Germany's central purchasing units also rotate within their organisations to posts unrelated to procurement.

From a corruption prevention perspective, the rotation system offers advantages. Civil servants are able to gather diverse experience by rotating through diverse divisions. However, it might be beneficial to devise a system in which procurers rotate between procurement-related positions in different areas across the federal government. This would allow an increased professionalisation of public procurers while maintaining the benefits of the rotation mechanism.

6.2. Using monitoring and performance evaluation for strategic capacity building

Individual institutions are in charge of managing Germany's public service and specifically human resources with regards to public procurers. Because of this, no overarching performance monitoring framework exists that focuses on the performance and capacity of public procurers specifically. However, the performance of the public service can be measured in several ways. This section of the chapter features several indicators that illustrate how structured monitoring and analysis can be beneficial to determining Germany's needs with regards to public procurement capacity building. It is important to note, however, that these indicators are broad and not specifically related to public procurement.

As mentioned above, human resource management has a close connection with an organisation's function for monitoring performance. This is because human resource management is informed by facts (i.e. an analysis of the state of an organisation's workforce, and the workforce's level of performance against expectations). The *OECD Recommendation of the Council on Public Procurement* calls for countries to have in place a "unit or team analysing public procurement information and monitoring the performance of the public procurement system" (OECD, 2016[6]). The revised Methodology for Assessing Procurement Systems (MAPS) takes this recommendation as the starting point for analysing a country's public procurement workforce (MAPS, 2018[8]).

Generally, experts suggest basing capacity-building measures on an analysis of gaps in capacity or of procurement performance. Experts recommend this course of action because it helps authorities to target capacity-building measures most effectively and efficiently (OECD, 2017[3]; OECD, 2016[15]). Indicators can help countries to conduct a structured analysis of where they stand, rendering the analysis comparable across years and different reviewers.

6.2.1. The measurement of staff engagement through surveys can be used as a proxy to gauge institutional performance quantitatively

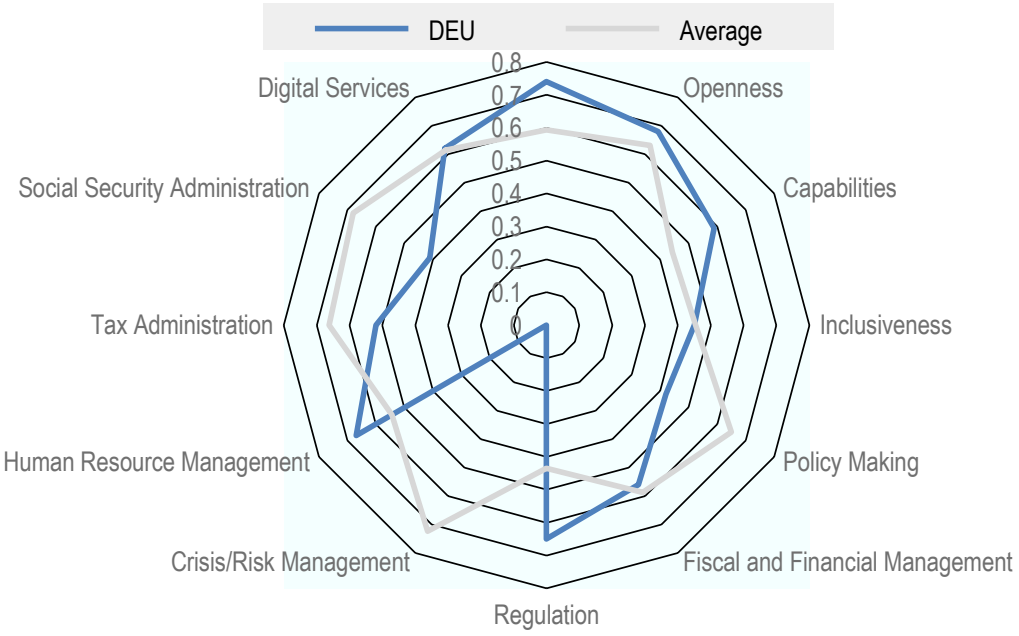
OECD countries increasingly track the performance of their public institutions by measuring staff engagement as a proxy for organisational performance. This technique offers a data-driven approach to human resource management. Employee engagement is about the links between employees and their institutions. Engaged employees show commitment and motivation to contribute to the achievement of an institution's goals, while also being able to balance workload and personal well-being. Evidence links high employee engagement to high organisational performance. As such, motivated and committed public service employees are more productive, innovative and more highly trusted by citizens (OECD, 2016[1]).

Measuring staff engagement as a proxy for organisational performance offers advantages over other proxies that aggregate different aspects and aim mostly at providing international comparisons. One example of a comparison of civil service performance is the International Civil Service Effectiveness Index (InCiSE)[4], developed by the University of Oxford's Blavatnik School of Government and the think tank Institute for Government. Ultimately, the InCiSE builds a composite indicator from several dimensions that describe the performance of the public service in a broad sense, based on the functions usually delivered by a country's administration.

Composite indicators always have to be considered with caution since they simplify complex analysis into a limited set of overarching results that may not communicate the entire depth and complexity of the findings at hand. However, the expert interviews at the base of some dimensions of the index can provide a first sense of how to develop a more quantitative survey. Germany has been assessed using InCiSE most recently in 2017, including with regards to the human resource dimension. This dimension is based on expert assessments gathered by the University of Gothenburg for their Quality of Government (QoG) project. For Germany, 35 experts were interviewed. This approach is relevant to mention in this context because it can provide insights that could contribute to defining Germany's capacity building efforts with regards to public procurement.

Germany's scores with regard to the average performance of civil services in more than 30 countries are depicted in Figure 6.7.

Figure 6.7. Germany's InCiSE score compared to other countries (2017)



Source: Institute for Government, Blavatnik School of Government (2017), The International Civil Service Effectiveness (InCiSE) Index 2017, https://www.bsg.ox.ac.uk/about/partnerships/international-civil-service-effectiveness-index-2017.

Germany's InCiSE composite indicator shows that the country scores slightly above average on human resource management and capabilities. Germany's scores reaches 0.67 on human resource management (compared with an average of 0.54) and 0.59 on capabilities (compared with an average of 0.44).

The level of staff engagement, in contrast, is usually measured via surveys with employees. According to the 2017 OECD study on staff engagement, the majority of OECD countries found value in conducting staff engagement surveys at regular intervals. The results have helped the institutions to improve collaboration, leadership culture and attractiveness as an employer in an increasingly competitive market (OECD, 2016[1]).

Germany's Federal Employment Agency (Bundesagentur für Arbeit, BA) has used the approach of carrying out staff engagement surveys to track and increase organisational performance (see Box 6.2). This approach could also be applied in selected contracting authorities to enhance their performance.

Box 6.2. Tracking staff engagement at Germany's Federal Employment Agency to improve organisational performance

Germany's Federal Employment Agency (BA) developed a specific engagement index whose results feed into the institution's human resource management and business strategy. The index is derived from a survey and focuses on teamwork, values and goal-oriented behaviour. The survey contains 19 questions in the following five dimensions (OECD, 2016, p. 72[1]):

1. willingness to strive (to what extent the employee's day-to-day behaviour at work is geared toward individual and team goals);
2. identification (to what extent the employee's attitude is aligned with BA's goals);
3. psychological contract (to what extent the employee feels they can voice ideas and be perceived as people beyond their work);
4. workability (to what extent the employee is able to deliver at work while being able to balance their private lives);
5. communication (whether the employee supports the team by actively participating in meetings and the exchange of information and ideas).

To ensure that the findings of the survey are transformed into concrete improvements for the BA, the survey results are shared transparently in an IT portal. Leadership workshops support the analysis of results. Top executives receive performance-related pay that is linked to the goals that are informed by the engagement index. Over time, BA's surveys have resulted in increased customer satisfaction, and are expected to have an impact on overall outcomes.

Source: (OECD, 2016[1]), *Engaging Public Employees for a High-Performing Civil Service*, https://dx.doi.org/10.1787/9789264267190-en.

6.2.2. Existing monitoring efforts in Germany could provide a basis for an evidence-based human resource management strategy

There are several examples in the German federal administration of how evidence-based monitoring and evaluation supports decision making and policy reform. Aside from the example by BA mentioned above, several other initiatives provide a good basis for building procurement-related monitoring to increase staff performance.

For example, in 2010, Germany's General Custom's Directorate (Generalzolldirektion, GZD) conducted a reorganisation of its procurement function with the aim of centralising it. Prior to launching the restructuring, GZD conducted a profitability analysis. As a part of this analysis, employees were asked to track how they used their time before and after the restructuring. Following the restructuring, GZD could compare how long employees spent on specific tasks (both before and after the restructuring). This comparison proved helpful in demonstrating the purpose of the centralisation efforts by highlighting the concrete savings that were achieved.

Beyond public procurement, two examples of policy monitoring may be relevant to Germany's evidence-based monitoring and evaluation plans. Germany undertakes structured monitoring endeavours as a part of efforts to contain its regulatory burden. In addition, the Federal Statistical Office surveys citizens about their experiences with public services (OECD, 2015[16]).

Expertise in policy monitoring could be useful to Germany in devising a more structured approach to monitoring performance in the area of public procurement and informing future capacity-building efforts. Responsibility for human resource management in Germany's public procurement system lies with individual institutions, and their organisation of the public procurement function is diverse. Therefore, any efforts to support decision making around human resource management with an increased evidence base have to be flexible. One example of how to balance the need for flexibility with efforts to compare performance has been developed in New Zealand, where contracting authorities can conduct self-assessments with the aim of professionalising the different procurement units according to their needs (see Box 6.3).

Box 6.3. New Zealand's Procurement Capability Index

New Zealand's Procurement Capability Index (PCI) is a self-assessment tool that enables contracting authorities to find out how well they are performing against "best in class" expectations, as well as other contracting authorities. The PCI also allows authorities to identify areas where additional focus may be required to either reach an acceptable level of performance, or to take a high-performing agency to the next level. By using the PCI tool to identify strengths and weaknesses, an agency can develop and implement strategies that result in actual measurable and worthwhile improvements.

At the central level, New Zealand's central procurement body New Zealand Government Procurement (NZGP) has further use for the PCI results. By reviewing the results from different agencies, NZGP can offer tailored support programmes to certain agencies. NZGP also offers to partner agencies that are particularly strong in certain areas with weaker agencies.

The analysis using the PCI tool is based on the contracting authority's own view of its procurement capability, and has to be representative of the entire contracting authority beyond the procurement function. For the self-assessment to be relevant and accurate, it requires a range of people in the agency to be involved (e.g. the procurement team, senior managers, agency buyers and other stakeholders with a view of procurement activity within the agency). The PCI process, while self-assessed, includes evidenced-based external moderation and review.

The PCI tool covers the complete cycle of good procurement practice from strategic planning practice to leadership, policy, supplier and people management. It ultimately concludes with technology and systems.

Once results from the Procurement Capability Index have been developed following the year's results, NZGP will be able to measure the impact of capability-building work by measuring changes in agency capability scores over time.

Source: New Zealand Government Procurement and Property (n.d.), Procurement Capability Index, https://www.procurement.govt.nz/procurement/improving-your-procurement/frameworks-reporting-and-advice/procurement-capability-index/.

6.3. Raising the capacity of the human capital involved in public procurement

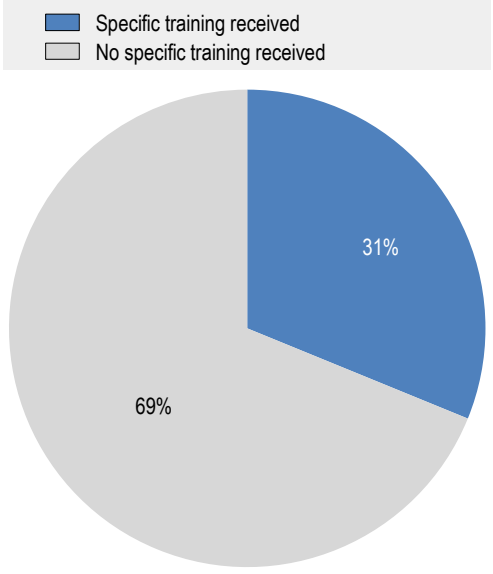
The following sections provide an overview of the most important training opportunities for public procurers, and how these could be better used to raise the capacity of the public procurement workforce. A more structured, strategic and specialised approach to training could increase the performance of Germany's public procurement system overall.

Procurers' capacities – not only in terms of numbers, but particularly in terms of skills – has to grow to keep up with increasing challenges. Capacity building is increasingly seen as an investment, particularly for procurers who have a large influence on the efficiency and effectiveness of public procurement with regard to policy goals and value for money (OECD, 2017[3]). In fact, studies have shown a direct link between procurers' knowledge and their compliance with regulations, laws, policies and strategies. Experience is also one of the most important factors to ensure compliance (Hawkins and Muir, n.d.[17]).

Germany offers a range of capacity-building opportunities for public procurers. The measures aim first to increase the capacity of individual procurers by increasing their knowledge (through training, help desks, guidance documents and tools). Second, Germany aims to increase the performance of contracting authorities overall (by reorganising workflows, for example). Germany's structured capacity building efforts fit broadly into three categories: 1) general training offered by public institutions in the country's administrative academies; 2) general training offered by third parties, such as for-profit, private providers or non-profit organisations; and 3) specialised capacity-building efforts – for example on innovation procurement or sustainable procurement – by Germany's competence centres.

While this is a broad training offering, the average public procurer in Germany does not take as much advantage of the training as they could. According to a 2015 survey conducted by researchers Eßig and Schaupp (Eßig and Schaupp, 2016[11]), more than two-thirds of public procurers in Germany do not seem to have been trained to conduct public procurement, as highlighted in Figure 6.8.

Figure 6.8. The majority of public procurers in Germany have not received specific training



Note: This figure is based on the survey question, "are the employees working in the procurement department of your institution explicitly trained to cover this function?".
Source: Unpublished survey data from (Eßig and Schaupp, 2016[11]), *Erfassung des aktuellen Standes der innovativen öffentlichen Beschaffung in Deutschland – Darstellung der wichtigsten Ergebnisse*, https://www.koinno-bmwi.de/fileadmin/user_upload/publikationen/Erfassung_des_aktuellen_Standes_der_innovativen_oeffentlichen_Beschaffung....pdf.

Efforts to increase the capacity of public procurers in Germany are diverse, similar to the efforts to regulate employment. No central, structured approach or guidelines to increasing procurer capacity exists. However, most institutions in charge of public procurement generally offer guidance and support on the implementation of laws. Often, the institutions tasked with public procurement also provide a help-desk service that is available to answer questions from other institutions. Different ministries on different levels

of government have developed and distributed circulars, guidance materials and handbooks on an ad hoc basis as well. All of these types of trainings, however, have to be sought out by individual procurers with the consent of their managers. While there are no direct barriers to training in Germany, there is also no structured, general guidance on how and when training should be conducted. Because these decisions are made on an ad hoc basis, results are uneven. There is no general legal obligation for permanent training either. Finally the education of lower level administrative staff in Germany covers procurement for less than 10% of total class hours.

6.3.1. Administrative academies in Germany could increase awareness about the importance of procurement professionalisation and procurement training

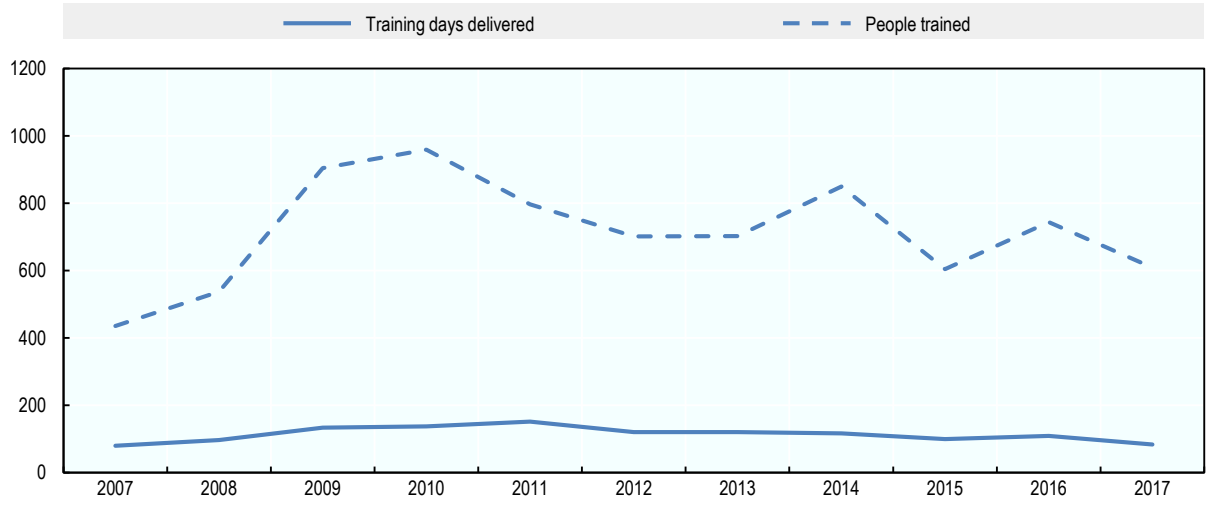
Once on the job, civil servants receive additional training to a large extent at administrative academies. These academies exist at the federal level in the form of the Federal Academy for Public Administration (Bundesakademie für Öffentliche Verwaltung, BAköV), and on the state level. The BAköV features public procurement in its training catalogue. Germany could build on and increase existing training options, adapting them to the current and future challenges of public procurers. If Germany chooses to undertake this work, it will be important to increase awareness that high performance in public procurement largely depends on the individual capabilities of public procurers. Political leadership is necessary to change how authorities view training. Training should be seen as an investment into the impact of public procurement.

The BAköV provides training on all aspects of the administration for officials in the federal administration. Some states have similar institutions that provide training for officials in state administrations.

The BAköV is one training institution that provides training on public procurement. This chapter takes a closer look at this institution because a quantitative analysis of ten years of the BAköV's training courses was possible based on the institution's online training catalogue. While a comprehensive analysis of all procurement training in Germany is not possible, the BAköV's training programme can provide an illustration of the current situation. The BAköV is also the dedicated institution in charge of training for the federal administration, and therefore has an important role to play when it comes to professionalising procurers in the federal administration.

Several of the BAköV's programmes are related to public procurement – some directly, some indirectly. According to the BAköV's online catalogue[5], courses that have been offered over the past ten years convey themes such as the basics of how to conduct procurement processes, how to conduct procurement processes for the needs of different institutions and how to conduct a value for money analysis. Other courses touch upon public procurement as a side note to the main topic, like courses on budget law or competition rules. In 2017, the BAköV trained 609 people in public procurement-related courses, delivering 84 days of training. The BAköV trained its highest number of people on procurement in 2010 (959 people). Finally, the BAköV delivered its highest number of training days with a direct procurement focus in 2011 (152 training days.) That being said, trainings on offer by the BAköV with regard to procurement have been declining in recent years. This is surprising, because the need for training in Germany is higher than ever, as there is an increasing need for procurers who can implement strategic procurement processes. Figure 6.9 illustrates the development of training related to public procurement at the BAköV in the last ten years.

Figure 6.9. Procurement-related training provided by Germany's Federal Academy for the Public Administration (Bundesakademie für öffentliche Verwaltung, BAköV), 2007-2017

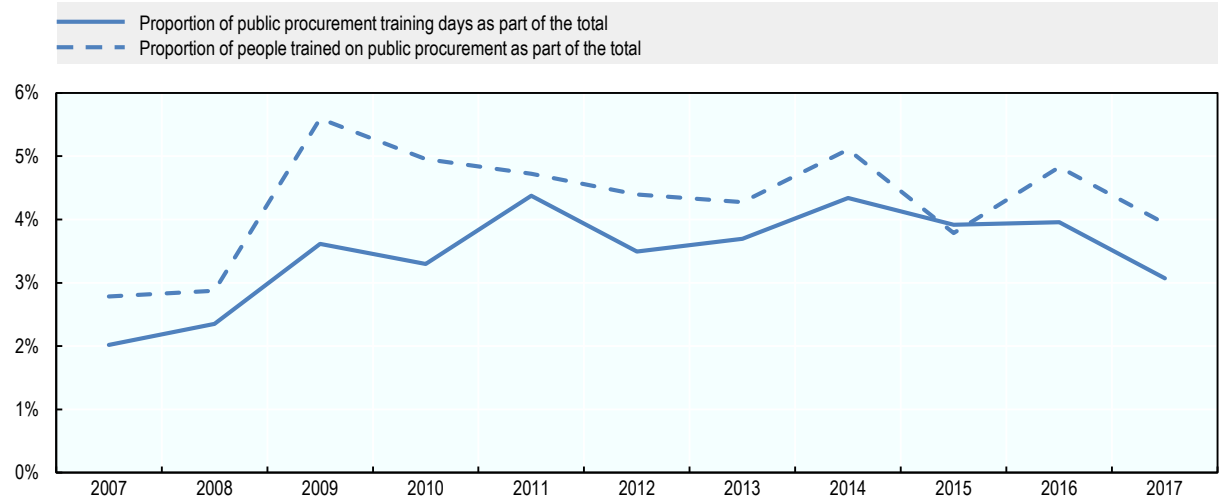


Note: The number of people trained is based on the maximum number of participants noted in the online catalogue.
Source: Authors' analysis based on data in the training catalogue for BAköV at https://www.ifos-bund.de/.

Although the BAköV is not the only source of training for procurers, its training programme has to be considered in comparison with the number of contracting authorities in the federal administration. There are close to 700 institutions with a procurement function in the direct and indirect federal administration in Germany. Often, these institutions have several procurers each. Procurers in central procurement units are usually trained in-house by more experienced procurers. Still, with 600 spaces available for trainings every year, there is sufficient capacity for every procurer to participate in a BAköV training once every few years. In fact, as highlighted in stakeholder interviews, demand for public procurement training is high, and not all demand can be met due to shortages of suitable trainers. Usually, procurement practitioners in the public administration run these trainings. However, trainers have to take annual leave to be able to conduct the trainings. These trainers also need to receive a formal approval from their supervisors. In several cases, stakeholders reported to the OECD that the supervisors have not always met BAköV's requests for trainers with enthusiasm. External trainers, however, often did not deliver the type of training that public procurers required. In addition, external trainers were usually prohibitively expensive.

Considered as a proportion of all trainings offered by the BAköV in 2017, procurement was the primary topic of only 3% of total training days and 4% of total people trained. This share has decreased in recent years (see Figure 6.10). Given that there is no information about how many people work in a procurement function in Germany, it is difficult to judge whether this level of training is sufficient.

Figure 6.10. Proportion of procurement training offered by Germany's Federal Academy for the Public Administration (Bundesakademie für öffentliche Verwaltung, BAköV), 2007-17



Source: Authors' analysis based on data in the training catalogue for BAKOEV at https://www.ifos-bund.de/.

The audience for training programmes warrants discussion. As mentioned above, the German civil service distinguishes between several levels of service. Public procurers are predominantly part of the two mid-level categories, the intermediate and higher intermediate service. The BAköV's procurement training courses seem to be less geared to these two levels. Only seven out of 447 trainings delivered since 2007 were geared toward these two levels alone. The majority of trainings did not seem to be geared toward a specific service level. The BAköV designated 387 trainings as pertaining to the upper three levels of civil service. On average, authorities from each of the four levels can choose from more than 400 trainings. However, given the different tasks demanded by different levels of the civil service, most of these trainings target officials with very different tasks. It remains unclear to what extent the trainings can really bridge the differences in the training needs of these different levels of government.

The human resources strategy of Germany's Central Office for IT Procurement (ZIB) within the Federal Procurement Office of the Federal Ministry of the Interior (BeschA) consists of hiring IT experts and training them in procurement issues. This approach is easier than trying to convey IT knowledge to legal or administration experts. The BAköV then trains new hires using an influencers or multipliers approach with the intention that these newly trained procurers pass on knowledge if necessary.

In almost all central purchasing bodies in Germany, managers acknowledge the benefits of hiring increasingly specialised officials. For example, the Federal Institute for Materials Research and Testing (Bundesanstalt für Materialforschung und -prüfung, BAM) mostly purchases items that are needed for scientific application in a research setting. That means that BAM officials in charge of purchasing need 1) knowledge in relation to procurement, including laws and procedures; and 2) knowledge in relation to the technical aspects of the purchased goods.

OECD interviews with German stakeholders revealed that a major obstacle to effective training of procurers was the limited number of trainers available. This limited supply of trainers was partly due to a culture in which training activity outside of the day-to-day tasks of procurement was considered something negative, rather than a distinction for experts in the field. High performers within the public procurement system are essential to disseminating good practices throughout the system. Therefore, they should receive more support.

German policy makers should be aware of the benefits of a professional public procurement workforce, and should work to establish public procurement as a recognised profession. Germany could try to accomplish this by 1) establishing public procurement as a profession; and 2) raising the visibility of professional public procurers and how they contribute to the economic impact of procurement for Germany's citizens. Raising the professionalism of public procurement and public procurement's visibility can be accomplished in different ways. However, this action will likely require more committed and profound leadership at the federal level. Committed action at the federal level will also be vital to achieving a public procurement career path – even if informally.

Germany could begin by working toward a system where a specific person or persons that have successfully worked through a set of courses with BAköV champions procurement in every institution. This procurement champion could then serve as a contact point and source of support to others within the contracting authority. A more advanced step for the long term could be to think about a certification that interested officials (such as the institutional procurement champions) could voluntarily work toward to further specialise in public procurement. The procurer would have to conduct a set of training courses, starting with more basic content and building toward more specialised and advanced content. Following a successful completion of the course, procurers would receive a certificate. Certification would have the advantage of increasing the standing of procurers within the organisation and beyond. A certificate could lend more visibility to those officials that have already gathered immense experience throughout their careers and operate as procurement champions in their organisations. Following the EU recommendation on professionalization of public procurement, some European countries have taken steps to develop such a certification framework.

6.3.2. General training offered by third parties is available to patch training needs on a case-by-case basis

There are a plethora of private providers of public procurement-related training in Germany. Firms offer courses on a for-profit basis (e.g. law firms). In addition, non-profit organisations (e.g. Forum Vergabe, Deutsches Vergabe Netzwerk, regional chambers of industry and commerce, and others) offer classes. Interested procurers can research courses on offer through a variety of online search engines offered by private portals or local chambers of industry and commerce. There is one university-level programme that allows a specialisation in public procurement, offered by the University of the Federal Armed Forces, Munich. This programme was recently launched as a Master of Business Administration in Public Management.

As with other types of training, the individual procurer must take the initiative to choose training. German authorities have not issued any structured guidance as to how public procurers can use training courses to further their professionalisation. The prices for the private courses vary immensely. In addition, it remains unclear who covers the costs of training courses. The majority of courses seem to convey legal knowledge. Courses with more practically oriented content are rare. The market seems to regulate the quality and content of these programmes, as well as access. There is no independent or structured assurance of the quality of these courses, and there is also no independent or structured assurance of their availability. An example of one well-known organisation providing training, Forum Vergabe, is provided in Box 6.4.

Box 6.4. Providing an exchange on public procurement in Germany: Forum Vergabe

Forum Vergabe is a non-profit organisation supporting procurement practitioners with a platform for the exchange of information, experiences and opinions about public procurement in Germany and globally.

Forum Vergabe was founded in 1993. It has around 500 institutional and personal members, stemming from the private and public sector, including interest groups, companies and procurers, among others. The organisation finances its activities solely through member fees, which are EUR 130 for personal members and EUR 1 000 for institutional members per year. Forum Vergabe is organised into eight regional groups.

A strong focus of Forum Vergabe's work is on procurement law. Forum Vergabe's services include provision of information on public procurement law in different countries. As such, Forum Vergabe provides:

- a monthly newsletter on relevant developments, such as new laws, court decisions, and more
- a series of practice-related, scholarly articles
- all decisions of challenges and appeals of procurement cases at the federal, *Länder* and EU level, as well as a database of procurement laws and regulations
- advisory services on national, EU and World Trade Organisation (WTO) procurement rules for members.

Forum Vergabe also facilitates dialogue on public procurement law and its application through:

- a seminar series called Forum Vergabe Talks and other seminars and panels
- exchanges with partner organisations in Europe
- awards for academic research in the area of public procurement.

Finally, Forum Vergabe provides training courses on procurement law. Forum Vergabe has offered structured trainings on the general basics of public procurement since 2015. In 2016, 930 people participated in training. On average, Forum Vergabe trains 500 to 600 people per year. A two-day training costs approximately EUR 450.

Source: Forum Vergabe (2013), Das Forum Vergabe: gemeinnützig - interessenübergreifend - neutral, http://www.forum-vergabe.de/das-forum-vergabe/.

Given the market-regulated landscape in Germany and the lack of central oversight in the country, there is limited information on how many public procurers take advantage of external training institutions. For the same reasons, it is also hard to determine what profile procurers who attend trainings have, and how they use the acquired knowledge. This lack of information makes it difficult to track the impact that training has for the professionalisation of public procurement and human resource capital in Germany. Some measurements exist, however. According to Forum Vergabe, procurement advisory centres run by regional chambers of commerce conducted trainings for 8 135 participants in 2016.

To maximise the potential impact of training courses on the public procurement workforce, it could be beneficial to establish an outline of the minimum that a course should offer with regard to legal and practical knowledge. Such an outline could be known as a guidance framework. Courses that meet the minimum requirements delineated in the guidance framework could be highlighted and recommended. This would provide guidance for individual procurers and ensure that they do not have to rely on hearsay about the quality of courses or professors, or that they are dependent on a knowledgeable leadership that could

advise them on how to choose training content. Providers of these trainings would have an incentive to have their courses aligned with the guidance framework if it generates higher demand.

6.3.3. Germany's competence centres are a strong model and can increase capacity in public procurement

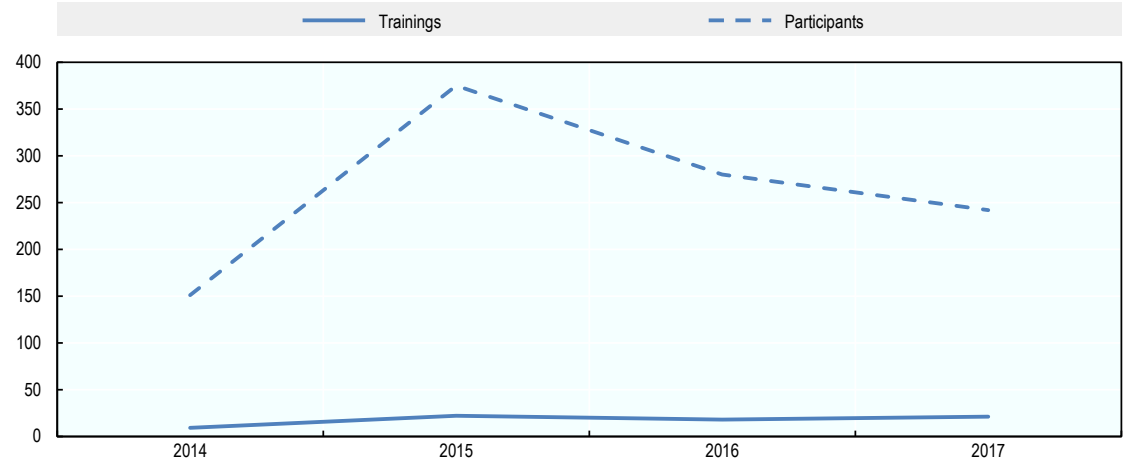
Germany's competence centres have contributed substantially to the increased capacity of the public procurement workforce in the country. In fact, the competence centre model could have benefits for Germany's procurement system in additional ways as well.

Germany has two competence centres on public procurement at the federal level. These two centres have been successful in recent years in increasing the capacity of procurers in their respective areas (see Chapter 5). The centres are called the Competence Centre for Sustainable Procurement (Kompetenzstelle für nachhaltige Beschaffung, KNB) and the Competence Centre for Innovative Procurement (Kompetenzzentrum innovative Beschaffung, KOINNO). Both centres offer a mixture of support through on-demand services, an information portal and structured capacity building.

The KNB aims to provide targeted information and training on sustainable procurement to all contracting authorities at all administrative levels. There are different channels through which the KNB disseminates this knowledge, including an online platform, contact points for support, guidance materials and training (Kompetenzstelle für nachhaltige Beschaffung, n.d.[18]).

Sustainable public procurement training by the KNB follows a modular approach to allow coverage of specific interests and products. Modules cover topics like climate-friendly procurement, certificates and the Programme of Measures for the Federal Administration (Chapter 5.) Since 2014, the KNB has trained a little over 1 000 people in 65 trainings. The majority of these trainings (36 out of 65) were conducted with institutions at the municipal level. In addition, 20 out of 65 trainings were conducted with institutions at the federal level (Kompetenzstelle für nachhaltige Beschaffung, n.d.[19]). Since the majority of procurement occurs at the sub-national level, more training is needed at this level. Furthermore, Germany could benefit from raising awareness further at the federal level about the need for support in capacity building on sustainable public procurement at the state and municipal levels. Figure 6.11. illustrates the development of training courses by KNB.

Figure 6.11. Trainings offered and participants trained by the KNB, 2014-2017



Source: Authors' analysis based on information provided on KNB's website at. Kompetenzstelle für nachhaltige Beschaffung (n.d.), Schulungen zur nachhaltigen Beschaffung, http://www.nachhaltige-beschaffung.info/DE/Schulungen/schulungen_node.html#doc5160128bodyText1.

The KOINNO is another competence centre that supports the professionalisation of public procurers in Germany. The KOINNO has operated since 2014 and has been tasked with supporting contracting authorities in implementing procurement to support innovation. The KOINNO is a joint project of the Federal Ministry for Economic Affairs and Energy (Bundesministerium für Wirtschaft und Energie, BMWi) and the Federal Association for Supply Chain Management, Procurement and Logistics (Bundesverband Materialwirtschaft, Einkauf und Logistik e.V., BME). The BME also has a section for public procurers (aside from private sector purchasers.)

The KOINNO follows a different approach from the KNB as it emphasises concrete, case-related advice for individual contracting authorities. As such, the KOINNO works similarly to a consulting firm in practice. The KOINNO also offers an online platform with guidance, as well as events to complement these services.[6] Training provided by the KOINNO is always specifically geared toward the needs of individual contracting authorities (KOINNO, n.d.[20]).

The KOINNO's success is most visible in its direct advisory role for contracting authorities (Berger et al., 2016[21]). The KOINNO has also been involved in several technically complex projects. For example, the KOINNO provided support to Saxony's state police when it introduced an e-mobility concept for its fleet. In addition, the KOINNO has co-operated with the German Aerospace Centre (Deutsches Zentrum für Luft- und Raumfahrt, DLR) most recently to procure a water-cooled computer centre. Often, however, the guidance provided by the KOINNO relates to general aspects of management and good institutional practices, like change management. For example, the KOINNO advised Saxony's Development Bank (Sächsische Aufbaubank) when it centralised its procurement function. The main goals of this project were to standardise and bundle purchasing in an effective and efficient way, while at the same time avoiding maverick buying. Similarly, the KOINNO has supported Germany's Federal Labour Office in developing a procurement strategy as a part of a new overall institutional strategy. Finally, OECD interviews with authorities at the KOINNO showed that considerable demand by German contracting authorities for support is often linked to fairly general management questions.

Overall, competence centres like the KNB or KOINNO offer a valuable model when it comes to raising the capacity of public procurers and increasing the professionalism with which procurement is conducted. The KOINNO and KNB have championed their respective areas of public procurement (innovation and sustainability), and are known as sources of advice and structured capacity building (see Chapter 5). Similar to these competence centres, some of Germany's central purchasing units take on an advisory role, like the central purchasing unit within the Federal Office for Agriculture and Food (Bundesanstalt für Landwirtschaft und Ernährung, BLE). The most value added by these central purchasing units taking on an advisory role is related to the exchange of practical, case-related knowledge. These knowledge exchanges can occur through a knowledge depository or through the direct, case-related advisory function these central purchasing units have to solve specific questions. The latter, direct exchange, is more frequent.

Germany could choose to use central purchasing units to increase the capacities of public procurers with regard to general, day-to-day procurement (i.e. the areas in which the KOINNO and KNB would not be adequate support institutions). Given the support that is needed, a network for public procurers co-ordinated by one contact point at the federal level might be most useful to achieving the following:

1. connecting procurers in different institutions and providing a safe space for the exchange of experiences among procurers;
2. serving as a help desk for procurers at all administrative levels;
3. assisting in the exchange of knowledge between procurers and organisations working on the procurement topic, including professional bodies (such as the Forum Vergabe, German Network for Public Procurement and BME) and academic institutions;
4. recommending trainings and guidance on how to find the right information (e.g. from the KOINNO or KNB);

5. serving as a repository of experience, information and consistency regarding implementation in a system where procurers rotate;
6. offering a certification mechanism for those procurers that conduct a certain portfolio of training.

Such a network should be accessible to procurers at all levels of government. This network could function similarly to the Bund-Länder Ausschuss. This committee brings together federal-level officials and state representatives to exchange on topics related to public procurement. Different structures are possible for creating a procurement support network for procurers. A 2016 study for example suggested combining the KNB and KOINNO, which might be difficult due to the institutional structures supporting these two bodies (Berger et al., 2016[21]). It might be more worthwhile to emphasise the networking and knowledge exchange aspect instead of the institutional arrangements. Support for such a network co-ordinated by a central contact point could be linked to Germany's 2016 procurement reform and championed by BMWi. A second alternative could be to expand BeschA's role into a general advisory function for all procurements beyond the immediate division. Finally, Germany could consider expanding the administrative dimension of the KOINNO's work (i.e. to incorporate innovation in procurement to make processes more efficient and effective). An example of a successful advisory role can be found in the Dutch PIANOo (Box 6.5.).

Box 6.5. The Dutch advisory service for public procurement, PIANOo

The Netherlands created the Dutch Professional and Innovative Tendering Network for Government Contracting Authorities (PIANOo) in 2005 as a network for public procurers with the goal of disseminating knowledge. Since then, the institution's role has expanded. PIANOo now serves as an expertise centre for public procurement, building on a network of 3 500 procurers and contracting authorities. As a demand-driven organisation, these practitioners provide input for PIANOo's work.

PIANOo's approach combines different activities. These activities include:

- Publications: Based on members' questions and concerns, PIANOo publishes guidance documents that can support procurers in their daily work.
- Meetings: PIANOo organises regular forums in which members come together to discuss current challenges and exchange good practices. These meetings are regional, for specific industries or procurement markets. PIANOo also holds one overarching annual PIANOo conference.
- Online portal: PIANOo collects tools, publications and guidance on its website. This compendium serves as an encyclopaedia for public procurement in the Netherlands.
- Training: PIANOo provides training on the legal framework for public procurement in the Netherlands.

Source: PIANOo (2018), About PIANOo, https://www.pianoo.nl/public-procurement-in-the-netherlands/about-pianoo.

6.3.4. Increasing capacity with strategies beyond training – smarter management and re-organisation solutions for improving the human capital of public procurement in Germany

Some of Germany's contracting authorities have solved capacity challenges by restructuring their workflows. While increased training for existing employees is often a solution to a lack of skills and specific knowledge, in some very specialised areas of public procurement training is not an option. This is the case when a public procurement activity requires knowledge of complex technical subjects. These subjects cannot be taught in a training course of reasonable length and depth, nor can they be acquired on the job.

However, these skills are often also highly sought after. Such high demand has often resulted in a scarcity of personnel with sufficient technical knowledge.

The hiring need at BeschA's centralised IT purchasing body, the Central Office for IT Procurement (Zentralstelle IT-Beschaffung, ZIB), illustrates this problem. With the centralisation of purchasing, the need for IT professionals in BeschA increased. At the same time, competition for these professionals is high. Often, IT professionals have highly lucrative offers from the private sector that cannot be matched by public institutions. For example, an IT professional in the public sector can expect a maximum annual remuneration of EUR 71 472.[7] This remuneration includes the maximum possible addition federal authorities can provide for especially sought-after professions (EUR 12 000 per year). According to stakeholders, a professional hired in information technology can frequently expect to earn up to 30% more in the private sector. In light of these challenges, BeschA is currently exploring whether a different organisation of the existing team could create more efficiency, for example by creating pools of IT experts and procurement experts. This reorganisation would enable one IT expert to work across several procurement processes – but only on the relevant, technical aspects that cannot be covered by other procurement experts. In addition, BeschA is exploring benefits that could make the work more attractive, aside from increased remuneration. BeschA's approach could offer insights for other units as well, even if the scarcity of personnel in these other units might not be as pressing.

Aside from working with a pooling approach, Germany could reconsider the distribution of procurement projects. A 2014 study found a link between the experience of the individual procurer and the extent to which procurement processes comply with procurement rules. Compliance requires adherence to all types of rules that have to be observed during the procurement process, including policies and strategies like complementary policy objectives. The study concluded that high-risk tenders should be allocated to more experienced procurers. That way, compliance can be increased and the negative consequences from rule violation minimised (Hawkins and Muir, n.d.[17]). These changes could help contracting authorities improve their performances by categorising procurement processes by risk in relation to each agency's overarching procurement strategy. In this scenario, a procurement manager would undertake a preliminary analysis and then distribute a project to a procurer who could handle the project well. This process would require: 1) a sufficiently high number of projects to distribute; and 2) a pool with a sufficient number of procurers for the procurement manager to choose from.

6.3.5. Germany could combine the strengths of its civil service and public procurement system to create a comprehensive capacity-building strategy

International good practices offer guidance with regard to what solutions can be most effective in building public procurement capacity. A 2017 OECD study provided a comprehensive set of concrete measures to increase the skills of a civil service based on good practices from OECD countries (OECD, 2017[3]). The OECD also developed a roadmap aimed at helping countries to strategically prioritise their capacity-building efforts in public procurement (OECD, 2016[15]). Similarly, the EU provides a checklist of measures in its recommendation on public procurement (European Union, 2017[10]).

Germany could build on its existing good practices and connect them in order to form a comprehensive framework aimed at increasing the capacity of public procurers. Besides the individual training measures mentioned, there are some examples in Germany of training action plans that support professionalisation in the area of public procurement. For example, BeschA's unit in charge of implementing e-procurement devised a training plan as a part of the project's rollout. First, the e-procurement unit held an information event to address the concerns of future users. Second, the users received targeted training that took into account the specifics of the procurer's daily work. (Not all procurers worked on procurement full-time, so training emphasised the benefits of e-procurement for these workers who were not as familiar with it. Similarly, not all procurers had complex knowledge of procurement, so they needed specialised training.) This example is one of many that could provide a basis for a comprehensive framework in Germany.

Overall, the idea is to convince key influencers within Germany's different institutions of the benefits of training in the area of public procurement.

Germany's public procurement system has many diverse contracting authorities. To allow for sufficient flexibility in this system, a set of voluntary capacity-building measures could be placed on offer, consisting of some of the different elements mentioned in this section:

- a competence centre for procurement that functions as an institution providing guidance for those contracting authorities that require it
- a set of training templates or standard curricula that can be taken up by interested providers
- a portfolio of procurement-related courses that would constitute a sign of distinction for procurement specialists in the procurement workforce once completed.

While some countries have benefited from providing a strict certification mechanism (see Box 6.6), Germany should focus on the influencer effects training certifications could have on its dispersed system.

Box 6.6. Certification of capabilities for procurement in the United States

The American Purchasing Society (APS) is a professional association of buyers and purchasing managers. The APS was the first organisation to establish a nationally recognised certification for buyers and purchasing professionals. APS offers three different certification programmes:

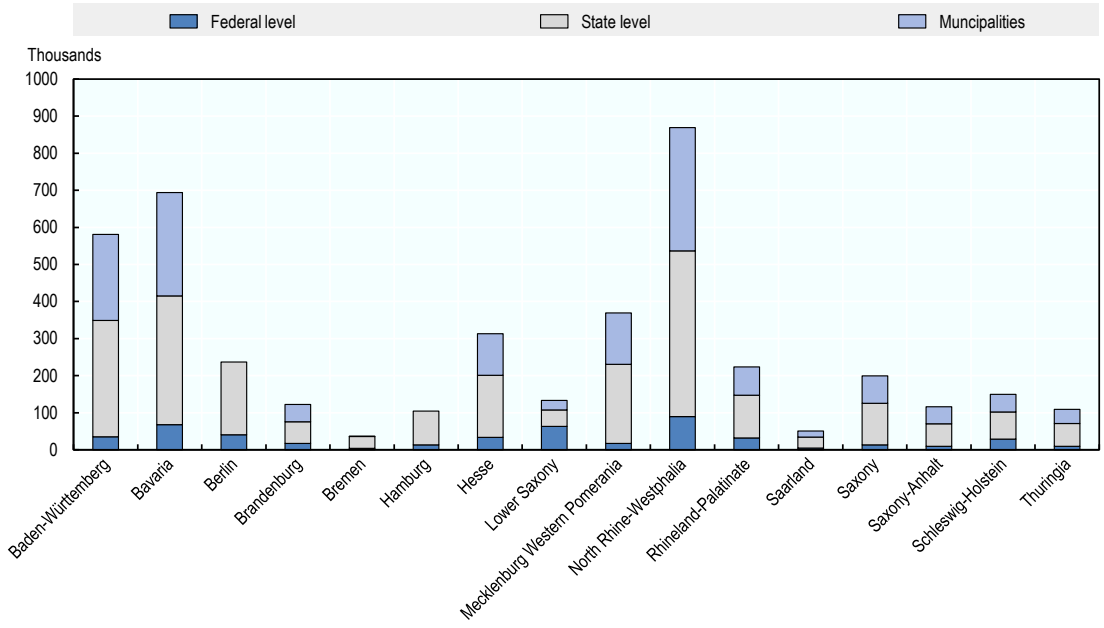
1. the Certified Purchasing Professional Programme is directed at professionals who have demonstrated the skills to successfully implement improved purchasing and supply chain practices as a part of a business solution in an organisation;
2. the Certified Professional Purchasing Manager Programme is aimed at those in managerial positions and those who have managerial experience;
3. the Certified Professional Purchasing Consultant Programme is aimed at certified purchasing professionals who either consult or teach purchasing to people outside their own employer.

Source: (OECD, 2013[22]), Public Procurement Review of the State's Employees' Social Security and Social Services Institute in Mexico, https://doi.org/10.1787/9789264197305-en.

6.4. Procurement capacity on sub-national levels

The majority of public procurement spending in Germany is located at the sub-national level. Similarly and as previously noted, almost 90% of German officials work in administrations at the sub-national level (i.e. in the state administrations or in municipalities.) The proportion of public officials at Germany's three levels of government is illustrated in Figure 6.12.

Figure 6.12. Number of personnel at Germany's three levels of government



Note: Numbers refer to individual employees.
Source: Federal Statistical Office (Destatis) (2016) Personal des öffentlichen Dienstes, https://www.destatis.de/DE/Publikationen/Thematisch/FinanzenSteuern/OeffentlicherDienst/PersonaloeffentlicherDienst.html.

North Rhine-Westphalia (Nordrhein-Westfalen, NRW) boasts the largest population of all German states. NRW has one of the largest civil services in Germany, with almost 780 000 officials working in the administrations of municipalities and the state government. NRW is followed by Bavaria, which has 625 000 officials in its civil service. In comparison to their respective populations, Schleswig-Holstein has one of the largest public services in Germany; Berlin has one of the smallest.

As on the federal level, there is limited information on how many state officials in the public service conduct public procurement in Germany. However, it can be assumed that the respective sizes of the public procurement workforce are proportionate to the size of the overall civil service in each state. In Bremen, the administrative division in charge of public procurement consists of twelve officials tasked with public procurement full-time. This division processes more than 1 000 public procurements per year. In addition, there are other contracting entities in Bremen of varying sizes. Most officials conducting public procurement in these contracting authorities have other tasks beside procurement. Bremen estimates that several hundred officials conduct public procurement at least part-time. Similarly, in NRW no reliable information about the number of public procurers is available. NRW estimates that it employees 4 000 to 5 000 contracting authorities.

6.4.1. German states have developed successful initiatives on training and capacity building

Chapter 2 of this report highlights the specific and diverse requirements of public procurement at the state level in Germany. These requirements delineate specific guidance and capacity-building efforts for each state. Most states have a plethora of resources to support their regional public procurers, such as specific guidance documents, templates, contact points, institutionalised competence centres and academies. NRW, for example, offers several short guidance documents that break down complex requirements step by step. These guidance documents have helped NRW implement certain detailed and complex

requirements, like minimum wage laws and ILO labour standards in public procurements (Vergabe.NRW, n.d.[23]). When the new public procurement laws came into force in 2017, *Länder* institutions organised workshops and peer exchanges to inform contracting authorities of the changes. Often, the institutions tasked with public procurement also served as help desks, available for questions from other institutions. Ministries at different levels of government also developed circulars, guidance materials and handbooks, and distributed them on an ad hoc basis. Table 6.2 gives an overview of procurement support and guidance available in Germany's states.

Table 6.2. Availability of guidance at the state level in Germany

	Procurement guidance document	Standard documents or forms	Help desk or contact point for questions	Competence centre at the state level	Administration academy at the state level with procurement courses	Specialised university for the administration with procurement courses
Bavaria	Yes	Yes	Yes, not clear whether for municipalities	Yes	No procurement coverage	Yes, procurement coverage unclear
Baden-Württemberg	Yes, for public works and the municipal level	Yes	Yes, not clear for whom	-	Yes	Yes, procurement coverage unclear
Berlin	Yes	Yes	No one focal point, but yes, for specific areas	Yes, for specific areas	Yes	-
Brandenburg	Yes, separate for works and services	Yes	-	Yes	Yes	Yes, procurement coverage unclear
Bremen	-	Yes	-	Yes, not a separate institution	Yes, but procurement coverage unclear	Yes, procurement coverage unclear
Lower Saxony	Yes	Yes	Yes	-	-	Yes, procurement coverage unclear
North Rhine-Westphalia	Yes, costs EUR 79.50	Yes	Yes	Yes, some functions	Yes	Yes
Rhineland-Palatinate	Online information portal	-	Yes, status unclear	Yes, status unclear	Yes	Yes, procurement coverage unclear
Saxony	Yes, for the municipal level	Very limited	-	-	Yes	Yes, procurement coverage unclear
Schleswig-Holstein	Yes	Yes	-	Yes	Yes, procurement coverage unclear	Yes

Source: Authors' compilation based on responses from German federal and state-level institutions to an OECD questionnaire and interviews, as well as internet research.

In general, the institutional structure tasked with building capacity for the *Länder*-level civil service, including for the public procurement workforce, mirrors the structure at the federal level. There is no specialised career path for public procurers. A large part of the public procurement workforce originates in the general career civil service. Similar to the federal level, new entries to the public service of the *Länder* governments begin their careers with specialised studies in administrative studies. To progress in the civil service at the state level, these public servants can undergo training at the administrative academy of their *Länder* or complete master's studies at the administrative university. As at the federal level, the education and training conducted at these state-level governmental institutions only enables service in the *Länder* administration. However, lateral entrants can join the public service depending on the nature of their previous education.

Municipalities usually do not have centralised educational institutions. Officials at this administrative level are usually trained on the job or join the service after finishing their education in other fields. This arrangement illustrates the difficulty of the central government in designing capacity-building measures at the state or federal level that are able to impact procurement professionalization at the municipal level.

In addition, many German states have procurement advisory centres (Auftragsberatungsstellen). These specialised centres have different structures and portfolios in different German states. The procurement advisory centres provide guidance on all aspects of public procurement. Their guidance is generally targeted at companies, but is also frequently used by members of the public service. The majority of procurement advisory centres are sponsored by regional Chambers of Industry and Commerce (Industrie- und Handelskammern, IHK). However, regional administrations often participate in providing advisory services. Regional administrations also often co-sponsor the procurement advisory centres, particularly in cases where the centres are geared toward public procurers rather than companies. In some states, there is one procurement advisory centre for the entire *state* (for example in Saxony). In other states like Bavaria, several local procurement advisory centres work with the local community. In Schleswig-Holstein, the procurement advisory centre mainly serves public authorities. In Saxony, the procurement advisory centre focuses on both public and private sectors, with good results. With over two decades of experience, Saxony offers a good example of how these procurement advisory centres can support professional public procurement in both the public and private sectors (see Box 6.7).

Box 6.7. The procurement advisory centre in Saxony

Saxony's Procurement Advisory Centre (Auftragsberatungsstelle Sachsen e.V., ABSt) advises public authorities, companies and interest groups with regard to professional public procurement. Similar to the competence centres at the federal level like the KNB or KOINNO, ABSt provides support for contracting authorities as needed in support of specific procurements. In addition, ABSt provides support for all aspects of public procurement, rather than just specialised aspects.

ABSt was first established in 1994. Under public law, several organisations serve as sponsors (*Träger*) of ABSt. They include: the local Chambers of Commerce, Industry and Crafts in Dresden, Chemnitz and Leipzig; Saxony's Architecture Chamber; and the Free State of Saxony (i.e. the government of Saxony), represented by the Saxon State Ministry for Economy, Labour and Transport (Sächsisches Staatsministerium für Wirtschaft, Arbeit und Verkehr, SMWA). The desk officers in the ABSt include a mix of lawyers and business economists. ABSt's headquarters are located in Dresden. Additionally, the ABSt offers monthly walk-in hours in Chemnitz and Leipzig (ABSt Sachsen e.V., n.d.[24]).

The services provided by ABSt range from providing information on new laws, regulations and court decisions to training and on-demand support. Support includes help for public authorities in conducting a procurement process and advice for companies and public authorities with regard to complaints. During 2018, ABSt also offered six training seminars.

When supporting a procurement process, ABSt goes beyond legal compliance and applies a coaching concept that targets the entire procurement cycle. The institution reviews tender documents in terms of legal compliance, but also offers advice on content (for example on how to structure selection criteria). ABSt also conducts aspects of procurement like communications, dissemination of the offer, retrieving additional information from the bidders and more. Advice is free of charge for up to one hour. Should a party require additional time, ABSt is remunerated by way of an individual contract. (ABSt Sachsen e.V., n.d.[25]; ABSt Sachsen e.V., n.d.[26]).

The ABSt also pre-qualifies potential suppliers for bidding. Companies in possession of the ABSt certificate only need to submit this certificate in bids as proof of their qualification, as opposed to the entire suite of documentation. To receive a pre-qualification certificate, companies need to file a request

with ABSt based on a set of documents. ABSt reviews the documentation and includes the pre-qualified companies in an online database covering all of Germany. The process costs EUR 180 plus a EUR 50 administration fee that goes to the local chamber of industry and commerce. For repeat registrations, the charge is lower (EUR 130 plus EUR 50) (ABSt Sachsen e.V., n.d.[27]).

As a registered association (*eingetragener Verein*), ABSt is led by a board with three board members. These board members are drawn from both business and government, illustrating the close co-operation between the two spheres within the ABSt. ABSt's current chair is also the CEO of the Chamber of Crafts Dresden, while his deputy is the CEO of the Chamber of Industry and Commerce Dresden. The second deputy of ABSt is the desk officer in charge of procurement of Saxony's Ministry for Economy, Labour and Transport (ABSt Sachsen e.V., n.d.[28]).

Source: ABSt Sachsen (n.d.), Website, www.abstsachsen.de.

6.4.2. Challenges at the state level in Germany have sparked practical solutions that can inspire action at all levels of the public procurement system

Interviews with public procurement authorities at the state level in Germany highlight a number of specific challenges. While the German states that responded to the OECD questionnaire for this public procurement review are quite diverse, several common responses emerged. In many cases, states raised the issue of capacity challenges. For many states, these capacity challenges were an impetus to seek practical solutions that addressed the challenge at hand without burdening state budgets.

Even though the majority of public procurement in Germany is conducted at the sub-central level, contracting authorities are relatively small – particularly in municipalities. The large number and volume of public procurements in Germany is distributed across a large number of contracting authorities. Frequently, procurement is not conducted by full-time procurers. This means that these officials only conduct procurements infrequently, increasing the risk of falling out of date with current requirements and good practices, and also being unable to build on experience. Procurers in these small authorities also have less time and incentive to devote to capacity-building efforts like training. This is because non procurement-related tasks constantly demand attention. In addition, the likelihood of applying newly acquired knowledge on capacity building is low, as there is also a limited possibility of receiving recognition from leaders. An example from Schleswig-Holstein illustrates this fact. Increased requirements and instructions like complementary policy objectives frequently represent an overwhelming challenge for many small contracting authorities. Authorities must juggle these new requirements on top of the already complex "basic" requirements on how to conduct a procurement process in compliance with laws at the federal and state level. To support these small contracting authorities, Schleswig-Holstein has developed dedicated guidance. In addition, Schleswig-Holstein requires that officials in the public service undertake continuing education.

Several German states see centralisation of public procurement as an opportunity for increased professionalisation of public procurers. That said, certain states, like Berlin, also see how centralisation increases the need for targeted capacity building and training. From the perspective of a small, low-capacity contracting authority, the possibility of drawing on centralised purchasing services can free up resources to devote to other tasks. In addition, centralisation often allows smaller procurement authorities to realise savings (see Chapter 3). From the perspective of the central purchasing unit, each additional client authority means a greater opportunity to learn from experience and to achieve economies of scale when framework agreements cover a higher proportion of the market. Procurers in central purchasing units have to receive specialised training to be able to realise all the benefits of centralisation of public procurement. Bremen is state that has been making an effort to centralise its procurement. A restructuring of the units handling the procurement cases has been part of this effort, as described in Box 6.8.

Box 6.8. Rethinking the procurement workflow for more efficiency in Bremen

In the Free Hanseatic City of Bremen, restructuring the workflow in the central advisory unit assisting contracting authorities with the legal aspects of their procurements has helped increase efficiency and effectiveness. Procurement has been gradually and organically centralised in Bremen's institution in charge of public buildings and property (*Immobilien Bremen, IB*) over the last years. Other institutions in the relatively small city-state have called on the expertise of IB to help with the procurement of works and other complex procurements. Today, the IB assists with procurements and framework agreements for the entire administration in Bremen. 80% of the procurements handled by IB are still related to works; 20% pertain to goods and services.

Assistance for procurements is concentrated in the Procurement Centre (Einkaufs- und Vergabezentrum, EVZ) within the IB. In turn, this unit is divided into two groups, 1) procurement experts that provide assistance to low-capacity units on how to prepare technical specifications, and 2) legal experts who review the legal compliance of procurements.

In the past, each of the officials in the legal unit focused on a specific part of the procurement cycle and handled these aspects of procurements. This resulted in bottlenecks – if the officials in charge of publishing tender opportunities were delayed or sick, all officials in charge of the following steps could not proceed with their aspects of the procurement. Following a change in leadership in the unit, this process was changed. Gradually, officials were trained to be case managers who were able to handle the entire procurement process for a specific project from start to finish. Aside from the unit head, the unit now employs:

- seven case managers handling entire procurement processes
- two specialists for evaluation and award criteria as well as complex cases
- two managers in charge of publishing tenders and handling submissions.

This arrangement not only eliminated bottlenecks. In addition, it helped allocate procurements to the different case managers with a view to the involved risks, which increased the efficiency and overall quality of the procurements. Specialists now assist with more complex cases as needed. Similarly, more experienced case managers now handle more risk-prone cases.

When IB began to reform its processes, the head of unit had political support from his supervisors, but faced resentment from his staff. This resentment was overcome by a clear demonstration of benefits and opportunities for the individual procurer, such as the possibility to take on additional responsibilities and training. However, this case also demonstrates how important leadership and guidance is to managing such a change process successfully.

This restructuring has to be seen in the context of a political push for more centralisation in the area of public procurement. Whereas the centralisation of procurement in IB happened on an ad hoc basis, the government of Bremen is now working to formalise procurement relationships. That means that IB is currently negotiating formal agreements with those institutions in Bremen for which IB has already conducted procurement. As a part of this formalisation process, Bremen plans to increase the type and volume of procurements across the state.

Source: Immobilien Bremen.

Germany's 2016 public procurement reform presented challenges for the *Länder* procurement institutions, as procedures had to be adapted to a new set of rules. The monitoring report by Germany's federal government about the implementation of the 2014 EU directives summarises a number of challenges faced by the states (Bundesregierung, 2017[12]). The responses show that the challenges are not limited to complex procurements in connection with complementary policy objectives. The following activities were considered to be problematic for *Länder*:

- Estimating the value of a procurement project in the planning phase to determine which rules apply (above or below the EU threshold) – in particular for works.
- When and how to ask bidders for additional information.
- Where states lodged formal challenges in court, these challenges often related to the question of whether the chosen procurement strategy was applied correctly (for example Lower Saxony).
- How and what kind of documents to publish where (Thuringia).
- How to compare offers (Saxony Anhalt).

Several states would like the most recent procurement law to be further updated to establish additional details of the procurement process. While the purpose of the federal monitoring report was to flag any issues with the law, the responses highlight a focus solely on legal compliance. Strategic aspects of procurement and how to achieve best value for money in the broader sense were of lesser concern to respondents (Bundesregierung, 2017[12]).

Proposals for action

Germany has a public procurement system with many diverse contracting authorities and no single profile for an average procurer. In addition, the public procurement workforce in Germany faces a common challenge. This challenge consists of the tension between two aspects of the public procurement system. First, Germany pursues more complex procurement policies with more complex requirements (for example, centralised procurement and complementary policy objectives) that should ideally be implemented by specialised experts on public procurement. Second, a workforce of generalist officials has historically conducted public procurement processes in the country. To ameliorate the situation, this chapter proposes the establishment of a set of support services that can be taken up voluntarily by contracting authorities or individual procurers. That way, units with lower capacity can receive targeted support, while the good practices of stronger units can be disseminated throughout the system.

The following actions are proposed:

- Create a central contact point at the federal level for general public procurement. This contact point can enable the co-ordination of a network of public procurers, empower knowledge exchanges and facilitate demand-driven guidance. Germany could consider including existing professional public procurement bodies into these efforts, including the Forum Vergabe, the German Procurement Network and universities or the section for public procurement in the professional association BME (Bundesverband Materialwirtschaft, Einkauf und Logistik e.V.). Representatives from all these institutions could participate in knowledge exchange and events, and could provide valuable suggestions rooted in practical experience.
- Develop a set of standard curricula for procurement training that can be used as a benchmark for adequate procurement training by public or private providers.
- Develop template profiles for procurement roles, and consider whether implementing a career path for procurers would be appropriate – e.g. by offering a rotation between different procurement bodies.
- Develop a portfolio of public procurement training courses, e.g. delivered by a general procurement expertise centre or BAköV. These training courses could constitute a “certificate light” for procurement experts in the public service.
- Provide support for contracting authorities to monitor their procurement performance, for example by developing a self-assessment tool.
- Provide targeted support for smaller authorities or low-capacity authorities on all levels, based on a needs assessment.

Legal texts

Bundesbeamtengesetz (BBG), http://www.gesetze-im-internet.de/bbg_2009/BBG.pdf

Grundgesetz für die Bundesrepublik Deutschland (GG), http://www.gesetze-im-internet.de/gg/GG.pdf

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Notes

[1] https://www.procurementinet.org/

[2] The share in terms of volume is not readily available.

[3] The overarching category of any person working in a public institution, irrespective of the status, is an official.

[4] See https://www.bsg.ox.ac.uk/international-civil-service-effectiveness-index

[5] https://www.ifos-bund.de/

[6] https://www.koinno-bmwi.de/koinno/das-kompetenzzentrum/siegerkonzepte/

[7] According to interviews, the IT professionals in this example would receive Band 11 of the collective wage agreement for the federal level (i.e. Entgeltgruppe 11, Tarifvertrag für den Öffentlichen Dienst.) The monthly wage offered in Band 11 ranges from EUR 3 168.10 to EUR 4 955.97, according to the latest collective wage agreement.

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