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OECD Skills Strategy Implementation Guidance for Flanders, Belgium

THE FACES OF LEARNERS IN FLANDERS

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OECD Skills Strategy Implementation Guidance for Flanders, Belgium

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BETTER POLICIES FOR BETTER LIVES

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Foreword

In Flanders, Belgium, as in other economies across the OECD, megatrends such as globalisation, digitalisation, climate change and demographic change are reshaping how citizens work and live. COVID-19 has accelerated the proliferation of digital technologies and has been the impetus for the large-scale adoption of new working arrangements and practices such as teleworking. Together, these trends are reshaping the skills needed for success in work and society. In this context, lifelong learning is increasingly necessary to ensure that people are adaptable and resilient to changing skills demands. High-quality and inclusive learning opportunities in formal, non-formal and informal settings should be accessible for everyone to enable full participation in the economy and society.

Flanders has long recognised the importance of lifelong learning strategies and policies to confront the challenges and seize the opportunities inherent in societal and economic changes. Flemish adults can choose from a large variety of learning opportunities, and the Flemish Government offers a wide range of incentives and support measures to help build a culture of lifelong learning.

While Flanders is already a strong performer overall, the Flemish Government has not yet achieved its own aspirations for fostering a culture of lifelong learning. Flanders continues to search for new ways to further strengthen the commitment of its people to continuous learning. More specifically, the government of Flanders aims to close the significant learning gaps across different socio-demographic groups, and between high- and low-skilled adults. Overcoming the lack of motivation to learn on the part of certain adults is proving especially challenging. Still too many adults do not see a need to learn, and this is true even for adults who could arguably benefit the most from upskilling and/or reskilling, such as those with low levels of education and skills and those employed in jobs vulnerable to automation.

This study aims to improve the effectiveness and efficiency of lifelong learning policies by identifying representative types of learners (i.e. learner profiles) that share a set of factors influencing their participation. The insights from this analysis will support Flanders to better target and tailor policies to those most in need of support, and help make lifelong learning a reality for all.

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Abbreviations and acronyms

The following are the main acronyms cited in the report. Other acronyms cited occasionally are defined where used.

AES	Adult Education Survey
AHOVOKS	Agentschap voor Hoger Onderwijs, Volwassenonderwijs, Kwalificaties en Studietoelagen, the Flemish Agency for Higher Education, Adult Education, Qualifications and Allowances
AIC	Akaike Information Criterion
BGT	Burning Glass Technologies
BIC	Bayesian Information Criterion
CELM	Centre of Expertise for Labour Market Monitoring, or Steunpunt Werk in Dutch
CI	Conditional Independence
EM	Expectation Maximisation
ESCO	European Skills, Competences, Qualification and Occupations
EU	European Union
EVC	*Erkenning van Verworven Competenties*, or Skills Validation in English.
GOAL	Guidance and Orientation of Adult Learners, Erasmus+ project
HBO	*Hoger beroepsonderwijs*, or Higher Vocational Education in English
HPWP	High Performance Workplace Practices
IBO	*Individuele Beroepsopleiding*, Flemish Vocational Training Programme for Individuals in Enterprises
ICT	Information and Communication Technology
ILA	Individual Learning Account
ISCO-08	International Standard Classification of Occupations 2008
KMO	*Kleine en Middelgrote Ondernemingen*, or SMEs in English
LCA	Latent Class Analysis
LFS	Labour Force Survey
LIA	Local Independence Assumption
ML	Maximum Likelihood
MOOC	Massive Open Online Courses
NGO	Non-Governmental Organisation
NT2	*Nederlands als tweede taal*, Dutch as a second language
OECD	Organisation for Economic Co-operation and Development
OKOT	*Onderwijs Kwalificerende Opleidings Trajecten*, a Qualifying Trajectory with a VDAB Training Contract
PIAAC	Programme for the International Assessment of Adult Competencies (Survey of Adult Skills)
RIA	Regulatory Impact Assessment
SERV	*Sociaal-Economische Raad van Vlaanderen*, the Flemish Social Economic Council
SME	Small and Medium-Sized Enterprise

SYNTRA	*Vlaams Agentschap voor Ondernemersvorming*, or the Agency for Entrepreneurial Training in English
VDAB	*Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding*, or the Flemish Public Employment Service (PES) in English
VESOC	*Vlaams Economisch Sociaal Overlegcomité*, the Tripartite Committee with Social Partners and the Flemish Government, the SERV is responsible for the secretariat
VLAMT	*Vlaams Arbeidsmarktonderzoek van de Toekomst* or Flemish Labour Market Research of the Future in English
VLOR	*Vlaamse Onderwijsraad*, the Flemish Education Council
WSE	*Beleidsdomein Werk en Sociale Economie*, or the Domain of Work and Social Economy in English

Executive summary

Strengthening a culture of lifelong learning through more targeted and tailored policies

Flanders has long been committed to the goal of creating a culture of lifelong learning, the importance of which has been reinforced by megatrends and the COVID-19 pandemic. Flanders has an extensive range of policies to support lifelong learning. Still, performance is not as strong as desired. The willingness of adults to learn remains comparatively low, and participation by adults most in need of upskilling and reskilling lags behind.

Countries can improve the effectiveness and efficiency of their lifelong learning policies by targeting and tailoring them to the unique needs of different groups of learners. For this reason, OECD countries typically design their lifelong learning polices to respond to the needs of specific groups that participate less frequently in learning, such as adults with low levels of skills, those unemployed and migrants. However, these approaches often ignore the diversity in factors that affect the participation of these adults in learning – ranging from a lack of motivation to learn to a diverse range of obstacles such as lack of time, high costs and a lack of suitable courses. A more nuanced understanding of the different types of learners could be a starting point for designing lifelong learning policies with a higher impact.

Nine adult learner profiles identified based on shared motivations and obstacles

In this Implementation Guidance project, the OECD has developed a segmentation of the adult learning population that identifies nine distinct adult learner profiles that can be used to help Flanders better target and tailor its lifelong learning polices. Flemish stakeholders have played a key role in developing this segmentation by sharing their expertise and perspectives in multiple workshops and bilateral meetings on the methods, findings and potential uses of the profiles for policy-making purposes.

The nine adult learner profiles have been identified using Latent Class Analysis, which enables the identification of subgroups of adults that possess a shared set of motivations to learn and obstacles to participation. Insights from these profiles can be used to reflect on how policies could be adjusted to have a higher impact. For example, the profiles could support the identification of groups of adults that skills policies have previously overlooked, demonstrate the need for additional or different policies to respond to the motivations and obstacles of specific profiles, and support efforts to further refine existing target groups for adult learning policies.

The adult learner profiles can be divided into two broad groups based on their engagement in learning: those who are not currently participating in non-formal or formal learning activities – who are either "unmotivated" or "motivated but facing obstacles" – and those who are participating in non-formal or formal learning activities – who are either "extrinsically motivated" or "intrinsically motivated". For the underlying nine profiles, their distinct characteristics (e.g. age, education level, type of job) have been identified.

Adults not participating in non-formal or formal learning activities

A. Unmotivated

1. **Disengaged from learning:** Unmotivated to participate in learning, and do not see a need to learn.
2. **Unmotivated due to age and health obstacles:** Unmotivated to learn and perceiving no need to participate, largely due to the age and health related obstacles they face.

B. Motivated, but facing obstacles

3. **Motivated but facing time-related obstacles:** Motivated to learn but do not have enough time due to a busy schedule and/or family responsibilities.
4. **Motivated but facing multiple obstacles:** Motivated to learn but facing a range of obstacles, including high cost, the absence of suitable learning offers, and health and age related obstacles.

Adults participating in non-formal or formal learning activities

C. Extrinsically motivated

5. **Reluctant but required to participate:** Learning because they are required to do so by their employer or by law.
6. **Participating in response to work pressures:** Learning to adapt to organisational or technical changes in the workplace, or to perform better in their current job.
7. **Participating to strengthen career prospects:** Learning to achieve a personal goal, such as strengthening professional opportunities by gaining formal certification.

D. Intrinsically motivated

8. **Participating for personal development:** Learning for non-work related reasons, such as to explore their personal interests and passions.
9. **Participating for professional and personal development:** Learning to achieve both work and non-work related objectives, such as exploring personal interests and improving career prospects.

Key policy insights from the nine profiles

Insights from the nine learner profiles could support the design, implementation and evaluation of adult learning policies and measures. Some of the key insights are as follows:

- Adults who are not yet learning need a broad package of policies to stimulate their participation. A more holistic and integrated approach for lifelong learning policies could help to address adult's diverse reasons and obstacles for participation, and would require involvement from different policy domains.

- For the most unmotivated adults, information and guidance on both learning opportunities and careers, supported by active outreach activities, are particularly important, as are accessible learning opportunities and incentives to learn.

- Insights into the motivations and obstacles of the learner profiles could be used to better tailor information and guidance services to respond to the specific factors preventing adults from participating (more). For instance, the profiles could inform the development of targeted advertising on social media, as well as provide career and learning counsellors with insights into the learning opportunities, incentives and support measures that might be most suitable for their clients.

- Flanders needs to ensure that in targeting more resources towards encouraging and supporting learning by those not already participating, it does not reduce the incentives for participation by

those already learning. Information, guidance and incentives are also important for those who already have a strong motivation to learn.

- Insights from the learner profiles could help strengthen existing evaluation practices by demonstrating what groups are reached by existing initiatives, and how new initiatives can be better targeted and tailored to the motivations and obstacles of different adult learner profiles.

- The learner profiles could support the design of new policies in Flanders, particularly the Flemish individual learning account (ILA) – *leer- en loopbaanrekening* – currently being developed. For example, the nine profiles could help to tailor communication about the learning and career account to different learners.

1 Summary and key findings for Flanders, Belgium

This chapter describes the outcomes of the OECD Skills Strategy Implementation Guidance project on *The Faces of Learners in Flanders*. In this project, the OECD developed a population segmentation that resulted in nine profiles of adult learners based on their shared motivations and obstacles to participate in adult learning. The identification of these representative types of adult learners could help to facilitate the development of policies that are better targeted and tailored to the needs of different learners. The chapter provides an overview of the objectives of the project and the characteristics of the nine profiles. It also summarises the main findings of Chapter 2: The nine adult learner profiles in Flanders, Belgium, and Chapter 3: Policy implications of the nine adult learner profiles in Flanders, Belgium.

Introduction

The vital role of developing skills through lifelong learning in the world of tomorrow

Skills are central to the capacity of Flanders to thrive in an increasingly interconnected and rapidly changing world (see Box 1.1 for the OECD definition of skills). Countries in which people develop strong skills, learn throughout their lives, and use their skills fully and effectively are more productive and innovative, and enjoy higher levels of trust, better health outcomes and a higher quality of life (OECD, 2019[1]).

Megatrends such as globalisation, digitalisation, climate change and demographic change are reshaping work and society in Flanders and across the OECD. At the same time, COVID-19 (coronavirus) has been uniquely disruptive and will likely have a long-lasting impact on societies. In this context, skills are becoming increasingly important. Strong foundational skills will make people more adaptable and resilient to changing skills demands, and digital, transversal, social and emotional, and job-specific skills will become increasingly essential for adults to succeed in both work and life. The *OECD Skills Strategy 2019* provides a framework to support countries in strengthening their skills systems to respond to these trends (see Box 1.2).

To cope with these changes, it will be essential for Flanders to guarantee a lifelong learning system that is resilient and effective (in this report "lifelong learning" is used interchangeably with the concept of "adult learning", but by definition also covers initial education). High-quality and inclusive learning opportunities in formal, non-formal and informal settings should be accessible for everyone to enable full participation in society and to successfully manage transitions in the labour market. Adults will need more opportunities to upskill and reskill to adapt to structurally different labour markets, which will likely require an overall expansion of lifelong learning systems. Learning providers will need to create more flexible and blended forms of learning. Lifelong learning will also be vital in addressing learning losses resulting from disruptions to on-the-job learning due to widespread interruptions of economic activity during COVID-19 (OECD, 2021[2]).

Box 1.1. The OECD definition of skills

The OECD identifies a broad range of skills that matter for economic and social outcomes, including: 1) foundational skills (e.g. literacy, numeracy and digital literacy); 2) transversal cognitive and meta-cognitive skills (e.g. critical thinking, complex problem solving, creative thinking and self-regulation); 3) social and emotional skills (e.g. responsibility, empathy and self-efficacy); and 4) professional, technical, and specialised knowledge and skills needed to meet the demands of specific occupations.

Source: OECD (2019[1]), *OECD Skills Strategy 2019: Skills to Shape a Better Future*, https://dx.doi.org/10.1787/9789264313835-en.

A project to strengthen lifelong learning policies by applying a segmentation approach

In 2019, the *OECD Skills Strategy Flanders: Assessment and Recommendations* report (see Box 1.2) (OECD, 2019[3]) produced a series of recommendations for improving the skills system in Flanders (see Annex A for the full list of recommendations). Lifelong learning was a main theme in this report, with three out of five priority areas investigating related issues such as developing a culture of lifelong learning, strengthening the governance of adult learning and improving the financing of lifelong learning. Recommendations provided direction to Flanders on how to increase participation in adult learning, raise awareness of the need to learn, improve accessibility of learning and improve the effectiveness of financial mechanisms, among other topics.

Box 1.2. OECD Skills Strategies and Flanders

OECD Skills Strategy projects

OECD Skills Strategy projects provide a strategic and comprehensive approach to assess countries' skills challenges and opportunities, and build more effective skills systems. The OECD works collaboratively with countries to develop policy responses tailored to each country's specific skills challenges and needs. The foundation of this approach is the OECD Skills Strategy framework (OECD, 2019[1]), the components of which are: 1) developing relevant skills; 2) using skills effectively; and 3) strengthening the skills system. So far, 28 OECD Skills Strategy projects have been completed or are underway in 20 diverse countries.

Figure 1.1. The OECD Skills Strategy Framework
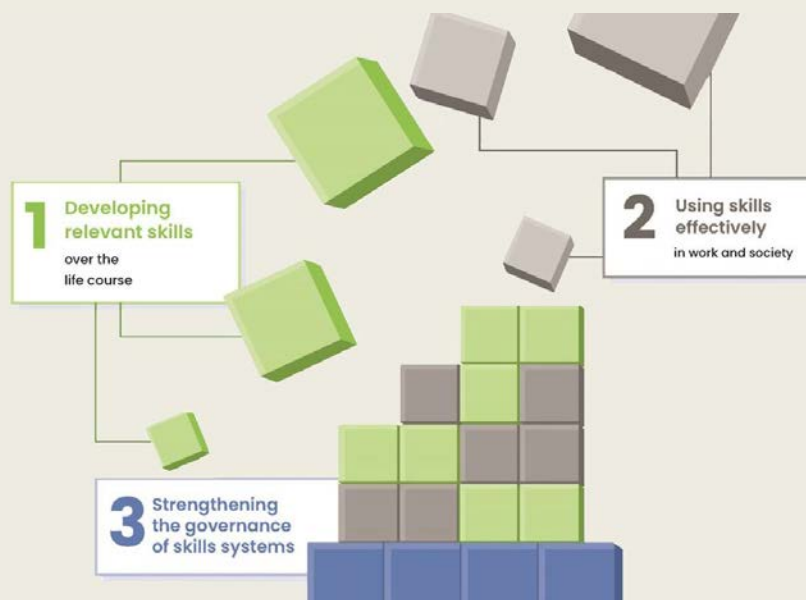
Source: OECD (2019[1]), *OECD Skills Strategy 2019: Skills to Shape a Better Future*, https://dx.doi.org/10.1787/9789264313835-en.

The OECD Skills Strategy Flanders: Assessment and Recommendations project

Flanders participated in an OECD Skills Strategy project between 2018 and 2019 to assess its overall skills performance and receive recommendations for strengthening its skills system (OECD, 2019[3]). The final report provided Flanders with tailored findings and recommendations from an international perspective in five priority areas: 1) developing a learning culture; 2) reducing skills imbalances; 3) strengthening skills use in workplaces; 4) strengthening the governance of adult learning; and 5) improving the financing of adult learning (see Annex A for an overview of recommendations).

Two workshops were held in May and September 2018 to collect input from stakeholders to shape the recommendations. The workshops convened a wide range of stakeholders, including unions, employers, sectoral training providers, education institutions, academics and government representatives. In addition, several bilateral meetings with stakeholders and experts, as well as site visits, were organised for the project. The final report was launched in January 2019.

Source: OECD (2021[4]), Website OECD Skills Strategies, https://www.oecd.org/skills/oecd-skills-strategies.htm.

The successful development and implementation of many of these recommendations depends on Flanders' ability to effectively target and tailor policies to different groups of adults, especially those most in need of education and training. In this implementation guidance project, the OECD has developed a segmentation model to support this process. The model has enabled the identification of representative or "idealised" types of adult learners (i.e. the nine profiles – see Figure 1.2) based on their combinations of motivations and the obstacles they face, as measured by the Adult Education Survey (AES) (see Box 1.3).

Figure 1.2. The nine adult learner profiles and their characteristics
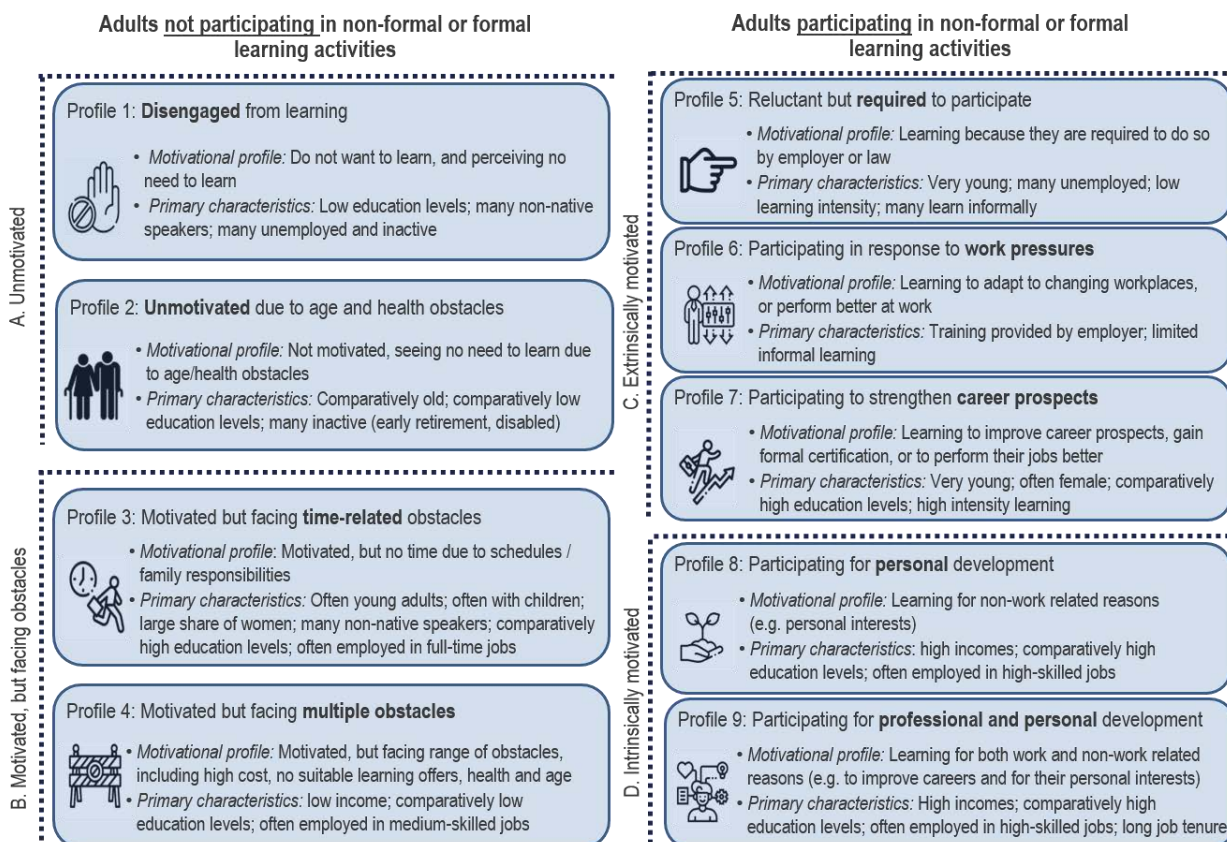
Note: See the Annex 2.A. in Chapter 2 for a full description of the underlying methodology.
Source: Adapted from Eurostat (2021[5]), *Adult Education Survey 2016*, https://ec.europa.eu/eurostat/web/microdata/adult-education-survey.

The nine adult learner profiles provide unique insights into the diversity of factors that impact decisions to participate. While well-known indicators on an adult's willingness to learn and the obstacles they face have been explored in many reports, the added value of segmentation is that it shows with greater granularity the different types of learners by looking at the combinations of motivations and obstacles, and by providing insights into the different types of motivations of participating adults based on reasons to learn (e.g. extrinsic vs. intrinsic motivations). These profiles and their characteristics are examined in more detail in Chapter 2, as well as in the section "The nine adult learner profiles in Flanders" in this chapter.

The adult learner profiles could help Flanders reflect on how to better target and tailor existing and new lifelong learning policies to the needs of learners. For example, they could support the identification of groups of adults that skills policies have previously overlooked, demonstrate the need for additional or different policies to address motivations and obstacles of specific profiles, and support efforts to further refine existing target groups of lifelong learning policies. The policy implications of the nine learner profiles are discussed in Chapter 3, as well as in the section "Policy implications of the nine adult learner profiles in Flanders" in this chapter.

> ### Box 1.3. The Adult Education Survey
>
> The Adult Education Survey (AES) covers adult participation in education and training (formal, non-formal and informal learning) and is one of the main data sources for European Union (EU) lifelong learning statistics. The survey covers the resident population aged 25-64. The reference period for participation in education and training is the 12 months prior to the interview. The latest survey was carried out in 2016, with the sample for Flanders covering 2 782 observations.
>
> While other surveys also present information on participation, motivations to learn and obstacles to participation – including the OECD Survey of Adult Skills, a product of the Programme for the International Assessment of Adult Competencies (PIAAC) – the AES was selected as the basis for the segmentation developed in this project as it is specifically designed to provide insights on adult learning, it has a comprehensive set of indicators on learning activities and learner characteristics, and it took place comparatively recently.
>
> Source: Eurostat (2021[5]), *Adult Education Survey 2016*, https://ec.europa.eu/eurostat/web/microdata/adult-education-survey.

To develop a segmentation of the adult population in Flanders, the OECD combined a data-driven approach (using Latent Class Analysis [LCA]) with extensive input from stakeholders drawn from across the Flemish Government and society. The project has been supported by a multi-disciplinary project team comprising 11 different organisations (see Annex B), which functioned as a steering committee for the project through active participation. The project facilitated stakeholder engagement through interactive workshops, group discussions and meetings with stakeholders and national experts (see Annex B). Over 100 representatives from different organisations participated in the project.

Context for this project

Lifelong learning is still not a reality for all adults in Flanders

Adults most in need of learning are not sufficiently participating in lifelong learning

It is well-documented in the *OECD Skills Strategy Flanders: Assessment and Recommendations* and various Flemish studies and strategic documents that Flanders has a comparatively low participation rate in adult education and training (OECD, 2021[2]; Van Langenhove et al., 2020[6]). According to the AES in 2016, 47.7% of adults in Flanders participated in formal and/or non-formal learning in the last 12 months, which is far below the share found in top-performing countries such as Switzerland (69.1%) and the Netherlands (64.1%) (Eurostat, 2021[5]). It is also still far below Flanders' ambition of a 60% participation rate by 2030. When analysing participation in the last four weeks of 2020, according to the EU Labour Force Survey (LFS), Flanders only had a participation rate of 7.7%, which is below the average of 12.4% across OECD-EU countries (Eurostat, 2021[7]). Even when different data sources or measures of learning activity (e.g. informal learning, continued vocational training) are used, participation rates are generally below that of top-performing countries.

There are significant differences in participation across socio-demographic groups in Flanders, with the gap in participation between high- and low-skilled adults particularly striking. In all countries, low-skilled adults are significantly less likely than high-skilled adults to participate in adult education, but in Flanders the gap is especially large. Taking education levels as an indication for skill levels, only 21% of adults with less than upper secondary education participates in education or training, compared to 68% of adults with tertiary education (Figure 1.3) (Eurostat, 2021[5]). This gap of 47 percentage points between low- and high-educated individuals is also larger than the EU average of 42%. As a result, adult learning may be further reinforcing the skills gap between low- and high-skilled adults. During consultations, the "Matthew effect" was frequently mentioned by government representatives and stakeholders to describe the

phenomenon in which the high-skilled can accumulate further advantages, while those who are low-skilled are left behind (Merton, 1968[8]). The Matthew effect highlights the importance of increasing efforts to ensure that those who are low-skilled, who have most to gain from adult learning, are actually participating (OECD, 2019[3]).

Figure 1.3. Participation rate by education level, 2016

Source: Eurostat (2021[5]), *Adult Education Survey 2016*, https://ec.europa.eu/eurostat/web/microdata/adult-education-survey.

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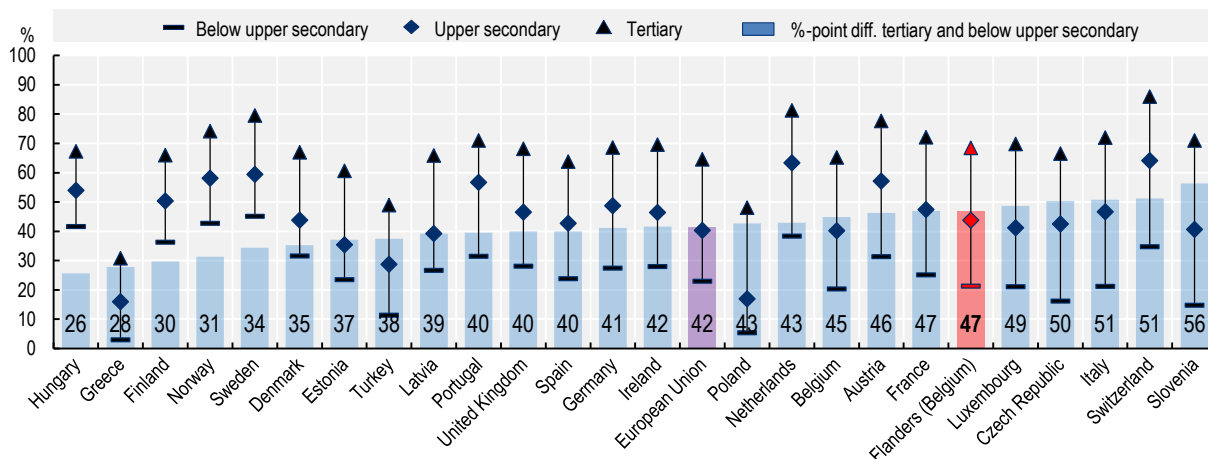
There is also a strong association between the skill requirements of jobs and of participation in learning. While 70% of adults in occupations requiring high levels of skills (e.g. professionals) are participating in education and training, this figure is only 32% for adults in occupations requiring low levels of skills (e.g. elementary occupations) (Eurostat, 2021[5]). This participation gap is particularly problematic because low-skilled jobs are more vulnerable to economic and societal shocks resulting from megatrends and COVID-19. For instance, adults in occupations with the highest risk of automation (e.g. service and sales workers, craft and related trades, plant and machine operators) have the lowest participation rates – 40% compared with 72% for adults in occupations with a very low risk of automation. Calculations are based on automation probability for occupations (2-digit ISCO08) by Nedelkoska and Quintini (2018[9]).

Age is also strongly associated with participation in learning. Older adults are much less likely than younger adults to participate in adult learning – 62% of 25-34 year-olds participate in adult education and training, compared to only 32% of 55-65 year-olds. In the context of an ageing population, it is increasingly important that adults of all age groups remain engaged. The engagement of older generations is also important because of the health and social benefits of remaining active in learning, and for their active participation in a more digitalised society.

Another important factor is migration status. Immigrants are less likely to participate in adult education and training than native-born Flemish adults – the participation rate of adults born in Belgium is 11 percentage points higher than for adults not born in Belgium. This is a particular concern as immigrants in Flanders are three times more likely to have very low literacy levels (level 1 or below in PIAAC) than natives (38% vs. 13%) (OECD, 2019[3]). However, when immigrants participate in non-formal education, they spend 60% more hours on the learning activity than native adults, which is likely the result of the intensive Dutch as a second language courses (*Nederlands als Tweede Taal,* NT2) that immigrants often enrol on. Dutch as a second language is, by a large margin, the most popular course in Centres for Adult Education (*Centra voor Volwassenonderwijs*) and Centres for Adult Basic Education (*Ligo – Centra voor Basiseducatie)* (Department of Education and Training, 2021[10]).

COVID-19 has deepened existing inequalities in lifelong learning

COVID-19 provided impetus to expand access to online learning (OECD, 2020[11]). Online and distance training was already expanding rapidly before the pandemic (e.g. with the rise of massive open online courses – MOOCs) (OECD, 2019[12]), but lockdowns due to COVID-19 helped to accelerate this expansion. A Flemish survey among education and training providers on e-learning in 2020 showed that 80% of providers either moved programmes online during the pandemic or developed new online programmes (Department for Work and Social Economy, 2020[13]). Many adults were using their time during lockdowns to participate in online and distance learning – for example, Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding (VDAB), the Flemish public employment service, noted an increase in participation in its free online courses, and LinkedIn found that the number of enterprise learners more than doubled between 2019 and 2020 (LinkedIn, 2021[14]). This expansion underscores the potential of online learning to become a more permanent feature of adult learning systems (OECD, 2020[11]).

This expansion of online learning has predominantly benefited more high-skilled adults. Recent LFS data show that for high-educated adults there was an increase in learning between 2019 and 2020 in Flanders (from 41% to 42.7%), while adults with low levels of education experienced a decrease in participation (from 18.4% to 17.7%) (Eurostat, 2021[7]). This finding is supported by various studies in Flanders. For example, a recent COVID-19 survey shows that around 27% of Flemish adults participated in some form of education or training during the COVID-19 pandemic, but that this figure disguises large disparities (see Figure 1.4) (Statistiek Vlaanderen, 2021[15]). Participation rates were only 4% and 16% for low- and mid-educated adults, respectively, compared with 32% for high-educated adults. The participation rate of the oldest age cohort (55-64) is half that of young adults (25-34) (15% vs. 30%, respectively). Within the Centres for Adult Education and Centres for Adult Basic Education, enrolment dropped 13% and 30%, respectively. Online learning has not worked well for many low-skilled and non-native speakers – the main target groups for these centres – and their programmes are not well-suited to adapt to online or blended formats. While some new groups were reached through online learning, these gains did not outweigh the losses in enrolment of existing target groups.

Figure 1.4. Participation in education and training during COVID-19, early 2021
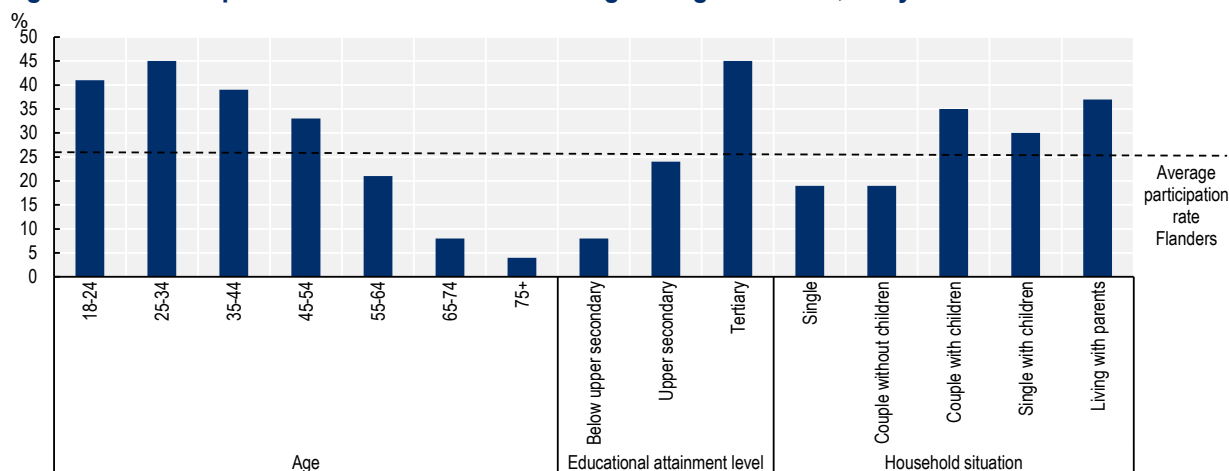
Note: Participation rate is covering both work–related and not work-related participation.
Source: Statistiek Vlaanderen (2021[15]), *Results COVID-19 Survey: Work, Income and Lifelong Learning [Resultaten COVID-19-bevraging: Werk, Inkomen en Levenslang Leren]*, https://www.statistiekvlaanderen.be/nl/resultaten-covid-19-bevraging.

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A lack of motivation to participate in learning is a significant challenge

The *OECD Skills Strategy Flanders: Assessment and Recommendations* report from 2019, as well as various other Flemish studies, all point to a lack of willingness to participate in learning (both formal and non-formal) as a main driver behind the low participation rate in Flanders (OECD, 2019[16]; Van Langenhove and Vansteenkiste, 2020[17]; Van Langenhove et al., 2020[6]). About 42% of the population does not participate and does not want to participate, which is far higher than the share in OECD countries with similar economic, social and educational outcomes (e.g. the Netherlands with 27%) (Eurostat, 2021[5]). For many of these adults, the lack of motivation is a result of not seeing a need to learn, and this is often particularly the case for adults who are most in need of upskilling and/or reskilling. For example, for adults in jobs with a significant or high risk of automation, the share reporting no need to learn is double that of adults in jobs with a very low risk of automation – calculations based on Nedelkoska and Quintini (2018[9]) and the AES (Eurostat, 2021[5]).

In discussions with stakeholders, strengthening motivations to participate was considered the most important challenge for Flanders' lifelong learning system, and viewed as an issue underpinning many of the other challenges that Flanders faces. Participants in consultations indicated a general need to better understand the drivers behind motivation, especially for the most unmotivated groups.

Motivations to learn are arguably becoming even more important in the context of COVID-19. For instance, for the successful participation in online and blended learning, higher levels of autonomy and self-motivation are required (OECD, 2021[18]). This is again particularly relevant for the most vulnerable groups in Flanders, who generally exhibit a lower willingness to learn (Eurostat, 2021[5]). This low willingness, combined with higher obstacles to participation in online and blended learning (e.g. limited digital skills, no access to computer/internet) – which also partly drives the lower motivation to participate – risks widening existing participation gaps in Flanders when online and blended learning becomes a more integral part of lifelong learning. Low-skilled adults already have lower completion rates for online learning (as low as 10% in MOOCs) than high-skilled adults (OECD, 2019[1]).

When discussing the motivations of learners, it is important to consider the large heterogeneity in motivational profiles. Adults can have very diverse reasons for participating, or not participating, in learning activities, reflecting a variety of motivations. Studies that examine the motivations of learners often apply self-determination theory, which distinguishes three main profiles: intrinsically motivated (driven by inherent pleasure and satisfaction), extrinsically motivated (driven by external rewards or punishments) and unmotivated learners (not feeling a connection between their actions and expected results) (Deci and Ryan, 2000[19]). This theory has regularly been applied to compulsory education, but for adult education few studies differentiate between different motivational profiles. In consultations with Flemish stakeholders, the different types of motivation were a recurring topic of discussion. For example, stakeholders noted the relevance of developing intrinsic motivations to strengthen a culture of lifelong learning, which is also highlighted as an objective in several Flemish strategic documents, such as the 2020 "learning society" report (*Conceptnota de lerende samenleving*) (Tindemans and Dekocker, 2020[20]).

Finally, obstacles to learning need to be considered when evaluating motivational profiles, as they can directly affect motivation. Some obstacles (especially health and family responsibilities) are important drivers behind an overall low motivation to participate in adult education and training in Flanders. Obstacles are experienced by most adults in Flanders, even the most motivated adults who do manage to participate. Even though many adults manage to overcome these obstacles, 22-26% of the adult population indicates that schedules (e.g. time constraints due to work) and competing family responsibilities are obstacles to their participation in learning activities (Eurostat, 2021[5]).

Lifelong learning is vital for reducing skills gaps in a post-COVID world

Since the *OECD Skills Strategy Flanders: Assessment and Recommendatio*ns report was published, COVID-19 has reshaped economies and societies. It has helped to accelerate existing megatrends and is expected to drive a broader shift in the economy – creating jobs in some sectors, while destroying jobs in others. These trends will have major implications for the types of skills required in the labour market, thereby creating potential skills gaps that lifelong learning could help to address.

The impact of COVID-19 on skills demand is already evident. Trends in the skills, knowledge and abilities identified in online job postings before and after COVID-19 show that there has been a major acceleration in the importance of certain abilities, such as the ability to adapt to change (Burning Glass Technologies, 2022[21]). In addition, various digital and soft skills have become much more important, including skills related to communication, collaboration and creativity (e.g. liaising, negotiating with other people, developing solutions to problem), as well as skills related to working with computers.

In a post-COVID world, people will also need stronger foundational skills, and to develop attitudes and mind-sets that will help them adjust positively to change and manage uncertainty (OECD, 2020[22]). Moreover, digital skills are fast becoming a prerequisite to actively participate in more complex, interconnected societies. However, 37% of Flemish adults had low basic digital skills in 2019 – as indicated by reporting that they had not used the Internet in recent months or that they have no or low digital skills (see Figure 1.5) (Statistiek Vlaanderen, 2020[23]). While this share is below the EU-average, it is far above that of the best-performing countries, and some groups in particular risk digital exclusion, including older generations, adults with lower levels of education and those on low incomes.

Figure 1.5. Prevalence of low or no digital skills in Flanders, 2019
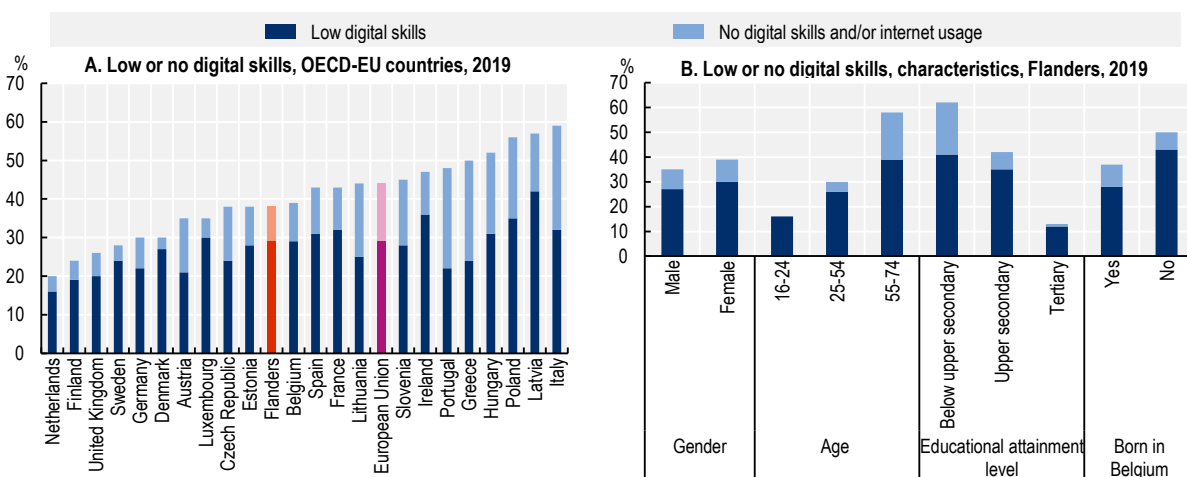
Source: Statistiek Vlaanderen (2020[23]), *Digital skills of Flemish adults [Digitale vaardigheden bij burgers]*, https://www.statistiekvlaanderen.be/nl/digitale-vaardigheden-bij-burgers#sources.

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A variety of specific skills are projected to become more relevant for the future Flemish labour market. Findings from Flemish projections at the sectoral level show that 11 types of skills will become increasingly important, including interdisciplinary teamwork, complex problem solving, use of digital tools, adaptability, innovation capabilities and taking responsibility (Departement for Work and Social Economy, 2021[24]). Projections of how the green transition will impact on skills needs suggest that in the future there will be greater need for technical knowledge, technical skills and soft skills (e.g. self-management, planning, communication) (Department for Work and Social Economy, 2021[25]). Flanders has several initiatives underway to map future skills needs at the macro-level, and has plans to integrate these efforts into a single skills projection model.

The role of targeted and tailored approaches in improving lifelong learning outcomes

Existing initiatives are not yet sufficiently reaching the groups most in need of learning

Based on the assessment of lifelong learning in Flanders, three overarching challenges can be identified: 1) raising participation of the groups most in need of learning (e.g. adults with low levels of education); 2) addressing an overall low motivation to participate; and 3) ensuring that adults develop the skills needed in current and future labour markets and societies.

Flanders is aware of these challenges and has introduced many initiatives to address them. For example, adults are provided with information on various portals, and career guidance is subsidised through career guidance vouchers *(Loopbaancheques)*. Moreover, the Flemish Government has a range of measures, including Flemish training incentives comprised of Flemish education leave (*Vlaams opleidingsverlof*), training vouchers (*Opleidingscheques*) and Flemish training credit (*Vlaams opleidingskrediet*).

There are, however, indications that the impact of these lifelong learning initiatives could be enhanced as they are not yet effectively reaching the groups most in need of learning. For example, while training credit (*opleidingskrediet*) targets low- and mid-educated adults, 29% of training credit users in 2020/2021 had completed tertiary education, and adults who have not completed upper secondary education are most under-represented (Department for Work and Social Economy, 2021[26]). Moreover, consulted stakeholders often referred to an information gap, indicating that more vulnerable groups often have less access to information than other groups in Flanders. Data support this finding – 55% of adults with tertiary education received free information or help on learning possibilities, compared to only 19% of adults with less than upper secondary education received (Eurostat, 2021[5]).

Flanders could raise the impact of policies through better targeting and tailoring

Targeting and tailoring lifelong learning policies to specific cohorts can be an effective way to raise the impact of policies and address the challenge of raising the participation of groups most in need of learning. When policies are targeted and tailored to groups with specific profiles their contribution to raising the participation of these groups is likely higher than if a more universal approach is taken (OECD, 2020[27]).

In Flanders, lifelong learning initiatives are already targeted and tailored to some specific groups, including adults with low levels of education, unemployed adults, non-native speakers, prisoners, adults in rural areas, and small and medium-sized enterprises (SMEs). For example, for training vouchers (*opleidingscheques*), adults without upper secondary are exempted from a personal contribution (usually 50% of total costs) when they want to participate in specific types of training, and adults without tertiary education who want to study for a graduate or bachelor degree can receive additional funding (EUR 500 instead of EUR 250) (Department for Work and Social Economy, 2021[26]).

Despite these efforts, the participation rates of these groups have not improved in recent years. This could be explained by a variety of factors, including a focus on the costs of learning in existing initiatives, even though financial obstacles to participation are not considered among the most important in Flanders; current incentives could be too restrictive (e.g. eligibility criteria are too strict); some initiatives have been only recently implemented and their impact might not yet be felt; and the overall availability of funding for incentives has been decreasing (Department for Work and Social Economy, 2021[26]). In addition, the groups of adults targeted are often highly diverse. For example, those with low levels of education may also be early school leavers, long-term unemployed and/or older generations, all of which are characteristics associated with different obstacles to taking up learning opportunities (OECD, 2019[1]). Finally, current targeted and tailored initiatives do not consider the varying motivational profiles of adults, even though lack of willingness to participate is a main driver behind the low participation rate in Flanders.

Segmentation of the adult learning population could help to better target and tailor lifelong learning policies

Population segmentation facilitates the creation of more insightful profiles of potential learners, allowing policy makers to better understand how a constellation of factors influence the likelihood that adults will participate in learning. Separating the adult learning population into smaller segments can enable more effective policy design and implementation, and improve the allocation of resources.

Applying a population segmentation approach to adult learning allows Flanders to better understand how to develop lifelong learning policies, programmes and courses that are better targeted and tailored to the needs of adults with different profiles. The resulting representative types of learners are not be defined by their possession of a single characteristic (as for existing target groups of lifelong learning policies – e.g. education levels), but rather by their possession of multiple characteristics known to have an impact on people's decisions to learn. Specifically, the segmentation approach allowed for the examination of the different motivations to learn, combinations of obstacles to learning, as well as the inter-relationship between these motivations and obstacles (e.g. age and health barriers could be causes of low motivation to learn).

Segmentation could help Flanders identify gaps in the current policy response for lifelong learning, including by helping to identify groups of adults that skills policies have previously overlooked, and by demonstrating the need for additional or different and more tailored policies to strengthen the motivations and overcome the obstacles of specific profiles. The nine profiles identified in the segmentation exercise need not replace existing target groups, but do provide new insights into how multiple factors combine to influence the decisions of people in these target groups to participate, which can support policy design, implementation and evaluation.

Some other OECD countries have already started using segmentation strategies to improve the development of lifelong learning policies. For example, in 2018 the Government of the United Kingdom commissioned research on adult learner profiles, which resulted in the development of an attitudinal typology with six types of learners identified (Kantar Public and Learning and Work Institute, 2018[28]). Nonetheless, the implementation of segmentation strategies to improve lifelong learning is still relatively new among OECD countries, meaning that with this OECD Skills Strategy project, Flanders is at the forefront of developments using these methods. Developing segmentation based on the characteristics of adult learners could also be considered a good first step towards more tailored interventions directed at individuals, as well as more targeted approaches directed at employers.

Policy context

Flanders has a long history of developing lifelong learning strategies and policies to confront the challenges and seize the opportunities inherent in societal and economic changes. Accordingly, Flanders has already taken several steps to address many of the lifelong challenges identified in this chapter.

Since 2019, the Flemish Government has taken important steps to improve the adult learning system. The government approved the concept note "the learning society" (*Conceptnota de lerende samenleving*) to promote a culture of lifelong learning (Tindemans and Dekocker, 2020[20]). The concept note was based on extensive consultations and identified ten assignments for lifelong learning, with one ("a data driven segmentation to identify skills needs and to ensure that resources for learning can be better targeted at these specific needs") providing a starting point for discussions for this project on the segmentation of the adult learning population. The paper also marked the beginning of the establishment of a Partnership for Lifelong Learning (*Partnerschap Levenslang Leren*), which is also mentioned in the Flemish Coalition Agreement 2019-2024. The partnership aims to strengthen synergies and co-operation on lifelong learning in the Flemish Government, and to further develop the ambitions and objectives through a clear vision, which is reflected in an action plan (Partnership for Lifelong Learning, 2021[29]) (see Box 1.4).

Box 1.4. The Partnership for Lifelong Learning and its action plan

The concept note, "the learning society" (*Conceptnota de lerende samenleving*), described four main challenges and ten assignments to ensure that people can deal with transitions proactively and become more intrinsically motivated. Several organisations were asked to provide their views on the document, including the Social and Economic Council of Flanders (Sociaal-Economische Raad van Vlaanderen – SERV), the Flemish Education Council (Vlaamse Onderwijsraad – VLOR), the Flemish Advisory Council for Innovation and Enterprise (Vlaamse Adviesraad voor Innoveren & Ondernemen – VARIO), and the Economic Restart Committee (*Economische Relance-comité*). Based on advice by these bodies, the Partnership for Lifelong Learning was established. Chaired by Ans De Vos from the Antwerp Management School, the Partnership has 18 members representing SERV, the education landscape and education providers, private learning providers, sectoral funds, Syntra, the local level, business schools, and the VLOR Commission Lifelong Learning.

In December 2021, an action plan developed by the Partnership for Lifelong Learning, *Set a course for a learning Flanders* (*Actieplan levenslang leren: koers zetten naar een lerend Vlaanderen*), was approved by the Flemish Government. This action plan formulates the partnership's ambitions and actions to make Flanders a learning society, and describes the functioning of the partnership and the implementation of the action plan. The partnership has listed ten ambitions with more than 16 actions. It has also prioritised seven flagship directions with a set of actions. These flagship directions indicate a move to: 1) a knowledge agenda for lifelong learning; 2) a strategy to mobilise the segments of the adult learning population; 3) an assessment of personalised approaches to lifelong learning incentives; 4) one Flemish strategic competency programme; 5) guidance and support to elaborate flanking policies; 6) guidance and support of providers of education and training; and 7) strengthening futureproof partnerships for learning.

Source: Tindemans and Dekocker (2020[20]), *The Learning Society*, https://www.oecd.org/skills/centre-for-skills/The_Learning_Society.pdf.; Partnership for Lifelong Learning (2021[29]), *Action plan lifelong learning: Set a course for a learning Flanders [Actieplan levenslang leren: koers zetten naar een lerend Vlaanderen]*, https://www.vlaanderen.be/publicaties/actieplan-levenslang-leren-koers-zetten-naar-een-lerend-vlaanderen.

Other recent strategies aim to support the recovery of education systems and labour markets following COVID-19, with lifelong learning often a central topic. In 2020, the Flemish Government and social partners concluded a VESOC agreement (Flemish Economic and Social Consultative Committee [Vlaams Economisch Sociaal Overlegcomité]) on the recovery of the Flemish labour market (Flemish Government and Social Partners, 2020[30]). The resulting plan, "All-hands-on-deck" (*Alle hens aan dek*), allocates EUR 190 million to support the development of a strong, sustainable recovery and the transformation of the labour market, with EUR 120 million reserved for a training offensive – the largest pillar of the plan. Flanders also launched a "restart-plan" ("Flemish resilience" [*Vlaamse veerkracht*]) in 2020, with one of its seven ambitions to strengthen human capital by investing in training and lifelong learning (Flemish Government, 2020[31]). Several plans were launched to support this ambition, including *Edusprong* (for adult education), *Voorsprongfonds* (for higher education) and *Digisprong* (to support digitalisation). EUR 50 million has been made available for hubs providing guidance and access to digital tools and to strengthen digital skills (*Digibanken*). In 2020, the Flemish Minister for Work also requested that six labour market experts draw up expert advice for the recovery of the Flemish labour market during and after COVID-19 (Department for Work and Social Economy, 2021[32]). Two reports have been published so far, containing a comprehensive set of recommendations for strengthening the labour market and emphasising the role of lifelong learning and skills. The latest report from October 2021 presented an assessment of how a learning and career strategy can help to better align what people know and can do with what employers are looking for (De Vos et al., 2021[33]).

The Flemish Government has also launched several tailored plans on more specific topics in recent years. In the Flemish Coalition Agreement for 2019-2024, the government committed to work towards the development of individual learning accounts (ILA) to make existing training incentives simpler, clearer and more transferable (Flemish Government, 2019[34]). To launch work on the development of the ILA, the Flemish Government approved *Vision note: Towards a learning and career account in Flanders* in 2022, which identifies the different steps of the development of this learning and career account (*leer- en loopbaanrekening*) (Department for Work and Social Economy, 2022[35]). In addition, the Flemish Government has committed to extend dual learning to higher education and adult education – the related decree has been approved and will be implemented in September 2022 – and several strategic policy papers have considered the learning of specific groups of adults, including prisoners, internees and the elderly (Flemish Government, 2020[36]; 2020[37]; 2020[38]).

Since 2019, several major studies have been published on lifelong learning. The Centre of Expertise for Labour Market Monitoring (CELM) (*Steunpunt Werk*), in collaboration with the Department for Work and Social Economy (WSE), publishes a yearly monitor of training efforts (Van Langenhove et al., 2020[6]; Penders et al., 2021[39]). WSE also recently published a report on the customer journeys of adult learners (Van Cauwenberghe et al., 2021[40]), as well as annual reports on Flemish training incentives (*Jaarrapport Vlaamse opleidingsincentives*) (Department for Work and Social Economy, 2021[26]). A VIONA-study by IDEA Consult for the Flemish Government reviewed the road towards the Flemish learning and career account (IDEA Consult, 2021[41]), and SERV has published several relevant reports on lifelong learning, including one on the possible benefits of an individual learning account in Flanders and advice on how to make learning in higher education more attractive during people's careers (SERV, 2020[42]; 2021[43]).

The Flemish Government recently reformed the funding arrangements of the adult education sector. A new financing decree for adult education (*Financieringsdecreet volwassenenonderwijs*) aims to provide a more stable and predictable financing system for institutions (Flemish Government, 2019[44]). The decree includes a "qualification bonus" for centres when participants finish a certain programme; more funding to increase the supply of courses, especially for basic skills courses; a cap on the number of seats in fields of study other than Dutch as a second language and basic skills; and more financial support for vulnerable groups. A larger share of funding is allocated to certain training programmes, including training for bottleneck professions and training in areas of social importance (e.g. the Dutch language), partly at the expense of funding for other training programmes (e.g. foreign languages). Centres for Adult Education also receive a larger share of funding, which can be considered an incentive to maintain learning provision in more rural areas. However, despite the new financing decree, there are still concerns about whether funding for adult education is stable and adequate; for example, in 2020 an educational bridging loan was required to address a budget shortfall.

In 2019, the three reformed Flemish training incentives were introduced: educational leave, training vouchers and training credit. In addition to giving these incentives a more labour market and future-oriented focus, the reforms introduced a single recognised training database, uniform monitoring and evaluation, and more. One of the main points of the reform was to target specific groups (Flemish Government, 2021[45]). Since 2019, another decree has transferred responsibility for higher vocational education (*Graduaatsopleidingen*, HBO5) – including, for example, informatics and orthopaedics – from Centres for Adult Education to university colleges (Flemish Government, 2019[46]). Moreover, while still in the process of being implemented, a decree from 2019 proposed a more integrated policy for the recognition of prior learning (e*rkenning van Verworven Competenties* – EVC), which includes more means for the validation of these skills acquired through non-formal and informal learning (Flemish Government, 2019[47]). In new sectoral agreements (*Sectorconvenants*), sectoral social partners agreed to engage in lifelong learning, in addition to improving connections between education and labour markets, and promoting diversity (Department for Work and Social Economy, 2021[48]).

The nine adult learner profiles in Flanders

The OECD has developed a model to segment the adult learning population based on adults' motivations to participate or not participate in learning, and on the obstacles that adults face to participation. The OECD's segmentation approach employs an LCA methodology to identify sub-groups in the adult population with similar profiles using data from the AES (see Box 1.5) for a high-level description of the methodology; for a full description see Annex 2.A. of Chapter 2) (Eurostat, 2021[5]).

Box 1.5. Identifying adult learner profiles with Latent Class Analysis

Latent Class Analysis (LCA)

LCA is a statistical method for identifying population subgroups based on multivariate categorical data. Similar to other clustering methods, LCA identifies mutually exclusive and exhaustive latent (or unobserved) classes based on patterns in observed data. LCA estimates class membership probabilities and uses iterative numerical methods to find the model that best fits the data (based on a statistical criteria). LCA is extensively used in several applications, such as to classify patterns of behaviour or attitudes, identify consumer preferences, and examine subpopulations based on their responses to survey or test items.

The segmentation models based on motivations and obstacles

For the segmentation of the Flemish population based on the AES 2016, the LCA estimates two different baseline models for two different groups of adults: 1) adults not participating in non-formal or formal learning activities; and 2) adults participating in non-formal or formal learning activities. The reason for this is that the most effective policies for these two groups are considerably different, with likely different policy objectives (e.g. for non-participating adults, policies will mainly aim to ensure that adults participate, while for participating adults policies will mainly aim to ensure that adults participate more or in more relevant learning activities). These models include the indicators that best describe the main drivers behind not participating (i.e. a lack of motivation and obstacles to participation) and participating (i.e. the different reasons for participating and motivations to participate more).

For the first group of profiles (non-participating), the model includes indicators on both motivation and obstacles to participation (see first column in Table 1.1). In the AES, all adults who did not participate in learning activities were asked whether they would have liked to participate, thereby indicating their motivation. If they did not want to participate, they were asked if it is because they do not see a need for learning. Regardless of whether adults want to participate, they were also asked about the obstacles that they face. For some cases, the obstacles are grouped to increase the statistical representativeness of the sample (e.g. time related obstacles include variables on schedule constraints and family responsibilities).

For the second group of profiles (participating), the model relies primarily on indicators of their reasons for participating in learning, including both job-related and not job-related factors (see second column in Table 1.1). These indicators provide insights into their attitudes towards learning, which could be linked to different types of motivational profiles (e.g. extrinsic and intrinsic motivations to learn). In addition, to have a more comprehensive view of these motivational profiles, indicators in AES of the willingness to participate more – i.e. in addition to the learning activities they already participate in – are included (see Table 1.1), thereby providing insights into motivations *ex post* the learning activity (in contrast to the *ex ante* reasons to learn).

Table 1.1. Indicators in baseline models for participants and non-participants

Not participating	Participating	
Motivation preventing participation	**Reasons for participating**	
• Did not want to participate in education and training • Did not see a need for participating in education and training	• To do my job better • To improve my career prospects • To be less likely to lose my job • To increase my possibilities of getting a job, or changing a job/profession • To start my own business • Because of organisational and/or technological changes at work	• To get knowledge/skills useful in my everyday life • To increase my knowledge/skills on a subject that interests me • To obtain a certificate • To meet new people/for fun • For health reasons • To do voluntary work better • Required by the employer or by law (in non-formal education and training) • Obliged to participate (in formal education and training)
Obstacles preventing participation	**Willingness to participate more**	
• Costs of participating • Schedule and family responsibilities • Lack of employer support or lack of public services support • Health and/or age obstacles • Personal reasons, including negative experiences; no access to computer/Internet • No suitable programmes, as well as lacking prerequisites for training and/or programmes are inaccessible as they are located too far away	• Did (not) want to participate in <u>more</u> education and training • Did (not) see a need for participating in <u>additional</u> education and training	

Covariates for identifying additional characteristics

After having identified the nine adult learner profiles through estimating two baseline models, additional variables have been included in the model to identify the associated characteristics of the profiles. Following a three-step approach, more detailed information on the nine profiles were examined, including socio-demographic characteristics (e.g. level of education, age, income), labour market characteristics (e.g. occupation, labour market status), skills requirements of their occupations, and learning patterns and outcomes (see Chapter 2 for a more detailed description).

The resulting nine adult learner profiles in Flanders (as presented in Figure 1.2) are comprised of four profiles of adults currently not participating in non-formal or formal learning activities (referred to as "non-participating" adults), and five profiles of adults participating in non-formal or formal learning activities (referred to as "participating" adults). These profiles provide unique insights into the shared motivations and obstacles of those not yet participating and those participating. The non-participating group can be further broken down into two sub-groups, specifically those "unmotivated" and those "motivated but facing obstacles". The participating group can be further broken down into those "extrinsically motivated" and those "intrinsically motivated".

After identifying the nine profiles based on their motivations and obstacles, additional quantitative analysis was undertaken to identify which characteristics (e.g. socio-demographic, labour market status, skills required, learning outcomes and patterns) are most associated with each of the nine profiles. This has involved using other data sources, such as Burning Glass job postings data. The characteristics of each of the nine profiles are described in the box below.

It should be noted that the descriptions of the profiles are based on generalisations derived from a long list of characteristics – the LCA method does not allocate individuals and characteristics to profiles in a deterministic way, but instead presents probabilities. As a result, while specific characteristics may have strong associations with the specific profiles (and indeed all presented results are statistically significant), they generally are not linked in a 1-to-1 relationship.

The nine adult learner profiles

Adults not participating in non-formal or formal learning activities

A. Unmotivated

1. **Disengaged from learning:** These adults are unmotivated to participate in learning and do not see a need to participate.

   This profile is characterised by having the lowest education levels of all profiles (41% educated below the upper secondary level), the largest share of adults not in employment (13% unemployed and 34% inactive) and the lowest average income. These characteristics partly explain the low motivation of the profile (e.g. socio-economic challenges, such as poverty and inadequate housing may mean that learning is a lower priority). Adults with this profile are comparatively old, and non-native speakers represent a significant minority. Working adults with this profile tend to be employed in jobs requiring low- to mid-level skills, have a high likelihood of working in manufacturing, and tend to be in jobs facing a high risk of automation. Despite not participating in non-formal or formal learning, 61% participates in informal learning, such as learning on-the-job or visiting learning centres (e.g. libraries). Profile 1 represents 19% of the adult population in Flanders.

2. **Unmotivated due to age and health obstacles:** This profile consists of adults who are unmotivated to learn and perceive no need to participate in learning opportunities. However, this low motivation is largely the result of the age and health related obstacles they face (e.g. adults feeling too old to learn new things).

   Adults with this profile have the highest average age (42% of individuals aged between 55 and 65), education levels that are comparatively low, and a high likelihood of inactivity due to early retirement and/or disability (together representing 25% of adults with this profile). Compared to Profile 1, adults with Profile 2 are more likely to be employed and work predominantly in small businesses in jobs requiring low or medium levels of skills. In addition, adults with this profile are more likely than others to be working in a job at high risk of automation. 50% of adults participates in informal learning, which is one of the lowest shares of all profiles. Profile 2 represents 18% of the adult population in Flanders.

B. Motivated, but facing obstacles

3. **Motivated but facing time-related obstacles:** The majority of adults with this profile are motivated to participate in learning, but do not have enough time due to either a busy schedule (37% of adults), family responsibilities (29% of adults), or both.

   This profile is characterised by having the largest shares of both adults in a relationship with children (69%) and single parents (9%). Moreover, non-native speakers represent a significant minority for this profile (22%). Among non-participating profiles, this is the youngest (59% of adults are below 45 years of age), the highest educated (41% has a tertiary degree) and has the highest proportion of females (55%). Almost 80% of adults with this profile are working, with most employed in full time jobs. Some 67% of adults participates in informal learning, the highest share among non-participating profiles. Profile 3 represents 6% of the adult population in Flanders.

4. **Motivated but facing multiple obstacles:** Adults with this profile are motivated to engage in learning but face a range of obstacles, including high cost, the absence of suitable learning offers, and health and age related obstacles.

Adults with this profile are relatively old, but not as old as Profile 2, and have relatively low levels of education, but higher than adults in Profile 1. The income of adults with this profile is comparatively low, partly because a comparatively large share are inactive. Looking at different job characteristics, there is a large share of adults in medium-skilled occupations (57%), with jobs in small businesses (55%) and/or with jobs that tend to have a very high risk of automation (63% – the highest share of all profiles). This profile stands out as having the lowest share of adults participating in informal learning (45%). Profile 4 represents 9% of the adult population in Flanders.

Adults participating in non-formal or formal learning activities

C. Extrinsically motivated

5. **Reluctant but required to participate:** These adults are participating in learning, but only because they are required to do so by the employer or by law.

   This is a very young profile (47% of adults under 35). While it is one the lowest educated participating profiles (only 49% of adults completed tertiary education), the profile is still more highly educated than any non-participating profile. This is also the profile with the second highest proportion of unemployed adults (9%). Working adults with this profile are typically employed in jobs requiring mid- to high-level skills, and these jobs face a relatively high risk of automation compared to those held by other participating profiles. While Profile 5 stands out with a comparatively low to medium intensity of learning (as measured by the number of hours in learning), a relatively large share participates in informal learning (76%). Profile 5 represents 16% of the adult population in Flanders.

6. **Participating in response to work pressures:** The majority of adults with this profile are extrinsically motivated learners who are participating in learning to adapt to organisational or technical changes in the workplace, or are participating to perform better in their current job.

   Compared to Profile 5, adults with this profile are older and more often employed, and their jobs have a lower risk of automation. Non-formal learning is often provided by the employer, and the participation rate in informal learning (69%) is the lowest among the participating profiles. Profile 6 represents 17% of the adult population in Flanders.

7. **Participating to strengthen career prospects:** Adults with this profile are participating to improve their career prospects, to improve their professional opportunities by gaining formal certification, or to perform their jobs better. Their motivation to learn could be characterised as "identified regulation", which is a type of extrinsic motivation characterised by the ambition to attain a personally valuable goal. This type of motivation is more self-determined and personal than the extrinsic motivations of adults with Profile 5 and 6, and not far removed from intrinsic motivation.

   Looking at their socio-demographic characteristics, adults in this profile are comparatively often female (63%), highly educated (62%) and/or very young (47% of adults are under 35 years of age). When analysing labour characteristics, many adults with this profile are employed in jobs requiring high levels of skills (66%) and/or are typically employed in medium-large enterprises (63%). This profile also has the largest proportion of part time workers (22%). Learning by adults with this profile is characterised by a comparatively high intensity (i.e. learning for many hours), as well as by participation in informal learning (87%). Profile 7 represents 5% of the adult population in Flanders.

D. Intrinsically motivated

8. **Participating for personal development:** Adults with this profile are intrinsically motivated and participating in learning for non-work related reasons, such as to gain knowledge/skills that are useful for everyday life or to explore their personal interests and passions.

   This profile has the highest share of adults employed in occupations requiring high levels of skills (74%). They are found in professional occupations, with a large share employed in health and social work and education. Working adults with this profile have the lowest risk of automation of any profile. Adults are typically highly educated and have comparatively high household incomes. Most adults with this profile participate in informal learning (84%). Profile 8 is the smallest profile, representing 3% of the adult population in Flanders.

9. **Participating for professional and personal development:** As with Profile 8, these are intrinsically motivated adults who want to participate in learning. Unlike Profile 8, their primary motivation for learning is to achieve work related objectives. For example, many adults with this profile participate to perform better in their current job or to improve career prospects.

   Looking at their socio-demographic characteristics, this profile has adults who are highly educated, work predominantly in high-skilled occupations (often managerial positions), and/or are generally employed in medium- to large-sized firms. This profile has the highest household income of all profiles. Adults with this profile have the longest tenure and the majority train with the support of their employers. A large share (82%) also participates in informal learning. Profile 9 represents 7% of the adult population in Flanders.

Policy implications of the nine adult learner profiles in Flanders

The insights generated from these profiles can help make policy makers and stakeholders more aware of the different motivations of learners and the different obstacles they face. Furthermore, a more nuanced understanding of the different types of learners could help to strengthen the design of future adult learning policies and practices at various levels.

Specific policy insights for each adult learner profile

Insights from the nine profiles can help Flanders to make its adult learning policies even more targeted and tailored, including by helping to identify groups not well served by existing skills policies, and by demonstrating the need for additional or different policies to bolster the motivation to learn and overcome the obstacles faced by specific profiles. In this section, relevant insights for policy making will be discussed for each of the four categories of motivational profiles ("unmotivated", "motivated but facing obstacles", "extrinsically motivated" and "intrinsically motivated") and their nine underlying learner profiles. An overview of the key insights is presented in Figure 1.6.

Figure 1.6. Overview of key insights for the four categories of motivational profiles

Category of motivational profile	Most important policy levers	Key insights for policy making
A. Unmotivated • Do not want to learn, perceiving no need to learn Profile 1: **Disengaged** from learning Profile 2: Unmotivated due to **age and health obstacles**	A **broad package of policies** is required, including information and guidance services, accessible learning opportunities, learning incentives	• Existing **information and guidance services** often do not respond effectively to the diverse and multiple needs of "unmotivated" adults. • **Active outreach by stakeholders** in most direct contact with these adults can help to increase their participation in learning. • Insights into the **motivations and obstacles** faced by these adults can be used to better **tailor information and guidance services.** • Information and guidance alone is insufficient to boost learning among "unmotivated" adults – they also require access to **relevant adult learning opportunities** and **incentives** to learn.
B. Motivated, but facing obstacles • Want to learn, but unable due to various obstacles Profile 3: Motivated but facing **time-related** obstacles Profile 4: Motivated but facing **multiple obstacles**	**Financial and non-financial** incentives are important to address the obstacles they face	• Raising awareness of **training leave** and encouraging firms to provide more **on-the-job learning opportunities** would help to raise participation of adults facing **time-related obstacles.** • **Financial incentives** for individuals and employers could be better designed to encourage the participation in learning of adults facing **a lack of support and cost obstacles.** • Incentives should be complemented with **tailored and targeted information and guidance o**n the availability of incentives and learning opportunities.
C. Extrinsically motivated • Learn primarily in response to external factors Profile 5: Reluctant but **required** to participate Profile 6: Participating in response to **work pressures** Profile 7: Participating to strengthen **career prospects**	Many are already benefitting from the **existing incentives** as well as **information and guidance** services	• The motivation to continue learning can be boosted through the provision of **high-quality and relevant learning opportunities.** • **Information and guidance** is important to build a culture of lifelong learning, even among those who already have a strong motivation to learn.
D. Intrinsically motivated • Learn for its inherent pleasure and satisfaction Profile 8: Participating for **personal** development Profile 9: Participating for **professional and personal** development	Support measures are **less crucial** for their participation – their intrinsic drive to learn is often enough	• Even the most motivated learners may need **incentives and support** to maintain their strong engagement in learning.

Adults not participating (categories A and B); *Adults participating* (categories C and D)

Key insights: "Unmotivated" profiles

The "unmotivated" profiles represent the least motivated learners, and include Profile 1: "Disengaged from learning"; and Profile 2: "Unmotivated due to age and health obstacles". Together, these unmotivated adults represent 37% of the adult population. These profiles are still far from being lifelong learners. Profile 1: "Disengaged from learning" is a particular concern since they are not learning, and either are not working or are at risk of losing their jobs. For adults with Profile 2: "Unmotivated due to age and health obstacles" it will be even more difficult to convince them of the merits of becoming lifelong learners.

Adults with these profiles are arguably most in need of both upskilling and reskilling opportunities, and a broad package of policies is needed to raise their participation, including information and guidance services, accessible learning opportunities, and incentives to participate in learning. The following are key insights for policy making that have emerged from the analysis of the unmotivated profiles:

- **Existing information and guidance services often do not respond effectively to the diverse and multiple needs of "unmotivated" adults**. High-quality learning information and guidance services are particularly important for engaging "unmotivated" adults. However, the current offer of information and guidance is not yet effectively reaching these adults. A more targeted approach is needed that considers the diversity of these two profiles. For example, Profile 1: "Disengaged from learning" should receive information and guidance that considers the socio-economic challenges stemming from high-levels of unemployment and inactivity, while Profile 2: "Unmotivated due to age and health obstacles" should receive information and guidance tailored to a context of early, or close to, retirement, or having permanent disabilities. The segmentation demonstrates that the existing broadly defined target groups (e.g. adults with low levels of education) are quite diverse in terms of motivations, obstacles and characteristics, and that encouraging their participation in learning will require a package of incentives and support measures that responds to these diverse and multiple needs.

- **Active outreach by stakeholders in the most direct contact with "unmotivated" adults could help to increase their participation in learning.** The take up of in-person information and guidance services by "unmotivated" profiles could be increased by encouraging the greater use of existing support measures, such as career guidance vouchers (*loopbaancheques*). Stakeholders who are in the closest contact with these profiles could also play a more important role in raising awareness of the importance and availability of learning incentives and support services. For example, local organisations and charities that work closely with vulnerable groups could play a part in promoting learning among adults with Profile 1: "Disengaged from learning". For Profile 2: "Unmotivated due to age and health obstacles", Flanders could mobilise the help of organisations in direct contact with adults with permanent disabilities and older workers. For employed "unmotivated" adults who are working, the involvement of employers, trade unions and sectoral organisation is vital for promoting and facilitating their participation in learning. Small businesses in particular could play an important role as they are comparatively often the employers of workers with "unmotivated" profiles, especially as on-the-job learning will be particularly important for these adults. Finally, one-stop learning resources, such as "learning Shops" (*leerwinkels*), could be expanded to provide relevant advice to "unmotivated" adults.

- **Insights into the motivations and obstacles faced by "unmotivated" adults can be used to better tailor information and guidance services.** For the two "unmotivated" profiles, these tailored messages should be substantially different. To encourage and support participation by Profile 1: "Disengaged from learning", it would be important that information is provided about the benefits of learning, as well as what incentives, support services and learning opportunities are available and how they might be accessed. For Profile 2: "Unmotivated due to age and health obstacles", it would be particularly important that information is made available on the benefits of learning and opportunities to learn for older learners or adults with health problems or disabilities. In addition, sharing testimonials of learners with similar profiles, and being informed about the many personal and professional benefits, could help adults gain the confidence required to participate in learning. Information targeted at "unmotivated" profiles could also highlight the availability of upskilling and reskilling opportunities that can help them transition to sectors and jobs with a lower risk of automation, as well as the availability of career guidance vouchers.

- **Information and guidance alone is insufficient to boost learning among "unmotivated" adults – they also require access to relevant adult learning opportunities and incentives to learn**. While information and guidance services are arguably the most important policy levers for promoting learning among "unmotivated" profiles, access to relevant learning opportunities and incentives to learn are also important. There are already large numbers of learning providers and incentives that specifically target those "unmotivated" to learn, especially for Profile 1: "Disengaged from learning". These include registration fee exemptions and targeted courses in adult education centres. The profiles can also provide valuable input into how to improve the design of

programmes, including the type of courses to offer to different profiles of learners and their content. For example, employed "unmotivated" adults are often found in occupations related to manufacturing and engineering, which could provide an indication of the sorts of skills they might need. However, many of these adults work in occupations facing a high risk of automation, and potential pathways between occupations in decline and those experiencing growth should be identified, as should the skills that need to be developed to facilitate these transitions. Stakeholders indicated that current adult learning incentives in Flanders do not always effectively support these broader transitions.

Key insights: "Motivated, but facing obstacles" profiles

The "motivated but facing obstacles" profiles represent those willing to learn but impeded from doing so. They include Profile 3: "Motivated but facing time-related obstacles" and Profile 4: "Motivated but facing multiple obstacles". Together, these two profiles represent 15% of the adult population in Flanders. Since these profiles are already motivated to learn, if their barriers could be overcome, they could more easily become lifelong learners than the "unmotivated" learners.

Both financial and non-financial incentives are considered important policy levers for boosting the participation of these profiles. Incentives can both raise extrinsic motivations to learn and respond to specific obstacles faced by adults and employers. The following are key insights for policy making that emerged from the analysis of "motivated, but facing obstacles" profiles:

- **Raising awareness of training leave and encouraging firms to provide more on-the-job learning opportunities would help to raise participation in learning of adults facing time-related obstacles.** Time-related obstacles, such as being too busy at work and family responsibilities, are the most frequently mentioned obstacles to participation in learning in Flanders, and are the defining characteristic of Profile 3: "Motivated but facing time-related obstacles". Flanders could increase take up of existing initiatives designed to overcome time-related obstacles by more actively reaching out to adults with this profile, who are comparatively often young adults with children, to inform them about available incentives and support measures. In addition, given that time-related obstacles are an important impediment to greater adult participation in learning for all profiles, there is a potential opportunity to expand and/or further promote the use of Flemish training leave and time credits for training, while considering how to offset the additional burden this may place on employers. Furthermore, Flanders could encourage more on-the-job learning and other initiatives that combine learning and work (e.g. dual learning), improve access to training with flexible formats (e.g. part-time, online) and designs (modular, credit-based courses), as well as provide affordable and accessible childcare.

- **Financial incentives for individuals and employers could be better designed to encourage the participation in learning of adults facing a lack of support and cost obstacles.** Despite the wide range of financial incentives directed at both individuals and employers, many adults still report cost and a lack of support (by both employers and public services) as their main reason for not participating in learning, especially in Profile 4: "Motivated but facing multiple obstacles". This highlights the potential to improve the design of these incentives. Flanders could encourage greater take up of existing financial incentives by individuals for whom cost is an important consideration, such as those with low levels of income. This could entail reducing the amount of required personal contribution to training vouchers (which is currently 50% of the total voucher). In addition, Flanders could encourage small businesses, where workers facing cost-related obstacles are highly concentrated, to increase their provision of on-the-job and other sorts of training, with financial incentives targeting SMEs.

- **Incentives should be complemented with tailored and targeted information and guidance on the availability of incentives and learning opportunities**. The many obstacles to learning faced by otherwise motivated adults highlights the need for a diverse policy mix to support their participation. Financial incentives, non-financial incentives and a comprehensive and accessible education and training offer are all elements of an effective policy response for these adults. However, these policies need be complemented with information and guidance to raise awareness of available learning opportunities, incentives and support measures to facilitate access. This information and guidance should be tailored to the unique needs and characteristics of adults. For example, to encourage the participation of Profile 3: "Motivated but facing time-related obstacles", Flanders should raise awareness of training leave, flexible course offerings (e.g. part-time, modular, online courses) and other initiatives designed to overcome time-related obstacles. Similarly, to encourage the participation of Profile 4: "Motivated but facing multiple obstacles", Flanders should raise awareness of the wide range of financial incentives currently available and how they might be accessed.

Key insights: "Extrinsically motivated" profiles

The "extrinsically motivated" profiles represent those already learning and whose participation in learning is driven by external factors, such as being required to learn by an employer or by law, the need to adapt to organisational or technical changes in the workplace, etc. This category of motivational profile can be further divided into Profile 5: "Reluctant but required to participate", Profile 6: "Participating in response to work pressures" and Profile 7: "Participating to strengthen career prospects". Together these profiles represent 37% of the adult population in Flanders.

Since these profiles are young and, therefore, will be in the workforce for many years to come, they are important profiles to consider in policy-making. In particular Profile 5: "Reluctant but required to participate" is an important target for policy as they lack commitment to further learning. Profile 6: "Participating in response to work pressures" underscores that new technologies and other workplace innovations that demand the greater use of skills or, indeed, new skills, play an important role in encouraging lifelong learning. Adults with Profile 7: "Participating to strengthen career prospects" exhibit a stronger commitment to learning and can be considered borderline with respect to whether their motivation is extrinsic or intrinsic.

Many with these profiles are already benefitting from existing incentives and from information and guidance services. Flanders needs to ensure that in targeting more resources at encouraging and supporting learning by those not already participating (e.g. "unmotivated" and "motivated, but facing obstacles" profiles), it does not reduce incentives for participation by those already learning. The following are key insights for policy making that emerged from the analysis of "extrinsically motivated" profiles:

- **The motivation to continue learning can be boosted through the provision of high-quality and relevant learning opportunities.** The fact that participation by extrinsically motivated adults is motivated by external factors makes their participation more vulnerable to changing circumstances. To strengthen their commitment to learning, Flanders could aim to improve the learning experience. First and foremost, this entails ensuring access to a high-quality and relevant education and training offer. Ensuring that course offerings and programmes are responsive to the specific needs of different types of learners could also help to improve learning experiences. For example, Profile 6: "Participating in response to work pressures" is associated with employment in the health and social work sectors and, therefore, raising awareness of courses in these sectors could encourage continued participation in learning. In addition, making learning opportunities available in a wide range of contexts, but especially in the workplace where people apply their skills, should increase motivation to learn, support the successful acquisition of knowledge and skills, and, by extension, strengthen commitment to continuous learning.

- **Information and guidance is important to build a culture of lifelong learning, even among those who already have a strong motivation to learn.** Stakeholders consulted during this project warned against assuming that those currently participating in learning due to external pressures will continue to be motivated to learn if their access to incentives and support measures is redirected to adults not yet participating. At the same time, to free up resources to support learning by those currently not participating, it is important for countries to minimise deadweight loss effects – i.e. the financing of learning activities that would have occurred even without public support. One potential way to balance these pressures is to appeal further to extrinsic and intrinsic motivations to learn. This would entail the development of information and guidance services that emphasise how adults benefit from continued participation. For example, Profile 5: "Reluctant but required to participate", should be informed about the benefits of continuous learning and upskilling throughout life to overcome this profile's comparatively low motivation to participate further once having already participated. Profile 6: "Participating in response to work pressures" and Profile 7: "Participating to strengthen career prospects", should be informed about learning options that could increase career prospects or facilitate new career paths.

Key insights: "Intrinsically motivated" profiles

The "intrinsically motivated" profiles represent those already learning and whose participation in learning is driven by its inherent pleasure and rewards. This category of motivational profile can be further divided into Profile 8: "Participating for personal development" and Profile 9: "Participating for professional and personal development". Together these profiles represent 10% of the Flemish adult population.

For intrinsically motivated learners, incentives and information and guidance services are less crucial for ensuring participation, as their intrinsic drive to learn is often enough. Still, many learners with these profiles are benefitting from existing incentives and support, and continued access to this assistance may be important for their sustained engagement. A key insight for policy making that emerged from the analysis of "intrinsically motivated" profiles is provided below:

- **Even the most motivated learners may need incentives and support to maintain their strong engagement in learning.** There are various indications that intrinsically motivated adults are actively using available incentives and support measures for learning. While Flanders may wish to target more resources at those not currently engaging in learning, it will be important not to undermine the motivation of those already engaged in learning by withdrawing certain financial and non-financial benefits that may underpin that motivation. Flanders will need to strike a balance between universal approaches on the one hand, which can improve administrative efficiency and support the objective of access for all, and more targeted and tailored approaches on the other hand, which can help ensure that more public support is available to those most in need.

General policy implications of the adult learner profiles

The findings of this study also have more general policy implications beyond specific adult learner profiles. These implications could involve the use of the nine profiles to strengthen the evaluation and monitoring of policies, and to support the design and implementation of adult learning measures.

Using the nine profiles to strengthen the evaluation and monitoring of policies

The learner profiles could help strengthen existing evaluation practices by providing insights into what groups are reached by existing initiatives and how new initiatives can be better targeted and tailored to the motivations and obstacles of different adult learner profiles.

The profiles could be used to strengthen *ex ante* policy evaluation practices in Flanders. Flanders could introduce new guidelines and requirements, including the requirement that departments designing adult

learning policies and programmes explicitly evaluate the expected impacts on the different adult learner profiles. The departments involved in adult learning could also co-develop guidelines on how to utilise adult learner profiles in adult learning policy design.

The profiles could also be used to strengthen *ex post* evaluation in Flanders to reveal the extent to which existing adult learning policies improve learning motivation and participation for different learner profiles. Evaluation currently seems to be ad hoc and focused on participation and satisfaction measures rather than outcomes for target groups. More comprehensive programme evaluations could be applied that also seek to uncover whether certain adult learner profiles are not making use of the incentives, or whether there are others in less need who are receiving the support. This could be achieved through new guidelines and requirements for evaluations that could require departments responsible for adult learning policies and programmes explicitly evaluate the outcomes of the policies for adult learner profiles.

To strengthen both *ex ante* and *ex post* evaluation, Flanders could also consider insights into the learner profiles identified in other studies, especially Flanders' "customer journeys" study. By doing so, policy makers can obtain an even more comprehensive view of the different types of learners, thereby providing further insight into how to target and tailor information and guidance services, and learning incentives.

Using the nine profiles for the design and implementation of adult learning policies

Insights from learner profiles could also inform the design and implementation of information, guidance and incentives more broadly. This could involve considering how to use the profiles to improve the provision of information and guidance services, and to support the design of the Flemish individual learning account (ILA). Consideration should be given to additional data and tools that could support operationalising the profiles for policy making and implementation. These opportunities are discussed in more detail below:

- **Using the nine profiles to strengthen the provision of information and guidance services.** The adult learner profiles identified in this project can be used to better target and tailor information and guidance services to adults in various ways. Flanders could develop a communications strategy to raise awareness of these profiles and their potential uses. Insights from the profiles are also expected to inform the Partnership for Lifelong Learning's strategy ("*een gesegmenteerde mobiliseringsstrategie*") for engaging hard-to-reach groups in learning. The profiles can also be used as input for digital marketing tools on social media that provide tailored information to different learner profiles. They could also be used to make information provided on centralised online portals more targeted and tailored to the needs of different learners, for instance with several questions for visitors to direct them to tailored information. Insights from the nine learner profiles could support learning and career guidance. For example, by comparing the characteristics of clients against learner profiles, career and learning counsellors can obtain valuable insights into the sorts of learning opportunities, incentives and support measures that might be most suitable.

- **Using the nine profiles to support the design of the Flemish ILA.** The development of the ILA (*Leer- en loopbaanrekening*) is a priority for the government of Flanders. ILAs provide universal access to training for all groups of individuals, but evidence of their success in increasing training among under-represented groups is limited. A more targeted and tailored scheme would help to better reach those most in need of training. Insights from the learner profiles could support the design of an ILA that is targeted and tailored to those most in need of training support. The recently published *Vision note: Towards a learning and career account in Flanders* noted that this OECD study, as well as the Flemish "customer journey" study, provide important insights into barriers faced by learners and effective policies for overcoming them, which could be helpful in the design of the ILA and complementary support measures. In addition, the nine profiles could be used to tailor communications about the learning and career account to different learners, and as a tool to evaluate whether this account is meeting the needs of different types of learners.

- **Providing insights into how better data and tools could support operationalising the profiles as tools for assessing and referring learners.** Most of the analysis in this chapter has focused on using the profiles to inform policies by providing broad insights; however, they could also be used more directly as a tool to assess what profiles adults most resemble, and, by extension, to decide which learning opportunities and policy measures could be most helpful. This application has not been extensively discussed, primarily due to the question of how to operationalise the profiles in practice. Operationalising the profiles as a tool for assessment and referral would require service providers to have sufficient background data on their clients, as well as a tool that can identify an individuals' likely learner profile based upon this data, which would require addressing gaps in data and improving data sharing between the various actors that collect information on adult learners (e.g. through new protocols to facilitate information sharing). Alternatively, Flanders could develop a tool that enables providers to assess adults' likely learner profiles based on a more limited range of readily observable characteristics (e.g. age, education level and occupation). However, the outcomes of such an exercise should be interpreted with caution as the characteristics of profiles are based on probabilities. Learner profiles could be updated over time based on newly available or updated sources (e.g. the next round of AES) to ensure that they continue to accurately represent the main types of learners in Flanders.

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2 The nine adult learner profiles in Flanders, Belgium

This chapter describes the population segmentation methodology used to identify the nine adult learner profiles in Flanders, Belgium. It explains why applying a segmentation approach matters for Flanders, introduces the model and describes in detail the nine adult learner profiles generated based on the shared motivations and obstacles adults face. The nine identified profiles are analysed and compared in detail to provide new insights into adult learning in Flanders.

Strengthening adult learning policies through population segmentation

Segmentation approaches and adult learning policies

The segmentation of markets is a well-established strategy when seeking to bring a new product to consumers. The concept of "market segmentation" was first articulated by Wendell R. Smith in 1956, and is defined as the practice of dividing a heterogeneous market into a number of smaller homogeneous markets in response to differing preferences among these individual segments (Wendell R. Smith, 1956[1]). Traditionally, market segmentation enables firms to maximise profit by focusing on the segments where they can bring the highest value added or by offering differentiated products to customers with different preferences or tastes. For example, the marketing strategies of companies involves understanding the needs and wants of segments, designing or tailoring their products to a segment, and then reaching out to the individuals in that group (Wind, 2007[2]). Segmentation can be based on a number of factors such as geography, demography, psychographic and behavioural traits (Goyat, 2011[3]).

Whilst segmentation strategies are most known and used for product marketing strategies, they also have a high value for policy makers, including in the field of adult learning. The identification of specific segments of the adult learning population can enable more effective policy design, implementation and resource allocation. For example, segmentation allows policy makers to identify groups of adults currently under-served by existing lifelong learning incentives (Australian National Training Authority, 2000[4]). In general, for segmentation to be an appropriate tool for a particular policy area the corresponding market must be sufficiently large, have significant differences between the characteristics of members, and lead to groups that can tangibly inform the development and implementation of better policy (Australian National Training Authority, 2000[4]). Due to its characteristics, the adult learning "market" likely meets these criteria.

The population segmentation of Flemish adult learners – which will be described in more detail in this chapter – places motivational profiles and obstacles to participation at the centre of the approach by identifying subgroups in the adult population based on similar motivations and obstacles (as measured by the European Union's Adult Education Survey 2016). This enables a detailed assessment of the main reasons for individuals engaging or not in learning.

Using a segmentation approach to better target and tailor Flemish adult learning policies

In the context of budgetary pressures and in the interests of ensuring the efficient and equitable expenditure of public funds, countries are increasingly looking at how to better target and tailor polices to those most in need. This is as true for skills policy as it is for any other policy area. However, effectively reaching and engaging the groups most in need of learning has proven an enduring challenge for adult skills systems across all OECD countries, including for Flanders (see Chapter 1) (OECD, 2019[5]).

To address the challenge of reaching the groups most in need of learning, many lifelong learning initiatives in Flanders are already targeted and tailored to certain specific groups. Stakeholders consulted during this project indicated that eligibility criteria for learning initiatives are often defined by target groups, such as adults with low levels of education, unemployed adults and non-native speakers. However, as discussed in Chapter 1, efforts to tailor policies to these existing target groups in Flanders have not yet led to a significant increase in their participation, and Flanders still faces challenges in reaching adults most in need of upskilling or reskilling.

There are various reasons why these targeted and tailored initiatives have not been fully effective. Flanders, as with most OECD countries, currently targets and tailors policies to specific groups defined by a single characteristic, such as age, educational attainment or labour market status. This approach ignores the fact that adults not participating in learning typically have different attitudes towards learning and face multiple obstacles to participation (e.g. lack of time, cost, health and age). Groups such as "adults with low education levels" or "unemployed" are highly diverse. For example, adults with low levels of education

could consist of early school leavers, long-term unemployed and older generations, all of whom would require different sets of policy interventions to encourage their participation.

Current targeted and tailored initiatives also do not consider the varying motivational profiles of adults. Throughout this project, stakeholders noted that a lack of willingness to participate in learning is a primary driver of the low rate of participation in Flanders, and should be considered when targeting and tailoring policies to specific groups. In Flanders, the relevance of motivations for participation in learning was extensively discussed in the 2019 *OECD Skills Strategy Flanders: Assessment and Recommendations*, as well as in recent Flemish studies (see also Chapter 1) (Van Langenhove et al., 2020[6]; Van Langenhove and Vansteenkiste, 2020[7]). However, existing incentives mostly target the direct costs of education and training (e.g. subsidies, tax incentives), and do not address some of the most important reasons adults do not participate in learning, such as this lack of willingness to participate.

Applying a population segmentation approach to adult learning could help with understanding how to develop lifelong learning policies, programmes and courses that are better targeted and tailored to the needs of adults with different profiles. Population segmentation facilitates the creation of more granular and insightful profiles of potential learners by allowing policy makers to better understand how a constellation of factors (e.g. motivations, obstacles to learning) influence the likelihood that adults will participate in learning. This can help to raise the impact of lifelong learning policies by more accurately addressing the profile-specific issues that prevent adults participating. In addition, dividing the whole adult learning market into smaller segments will help Flanders to assess whether existing policies, programmes and courses reach the right groups, evaluate if Flanders currently has the right mix of policy measures, and establish if existing target groups could be further refined (see Chapter 3 for a discussion on the policy implications of segmentation).

While well-known indicators of adults' willingness to learn and the obstacles they face have been explored in many reports, the added value of segmentation is that it shows with greater granularity the different types of learners by identifying how certain combinations of motivations and obstacles are manifested in people – what is referred to in the report as "learner profiles" – and by providing insights on the different types of motivation of participating adults based on reasons to learn (e.g. extrinsic vs. intrinsic motivations).

Examples of segmenting exercises for education and training markets

The application of segmentation methodology to facilitate the more precise targeting and tailoring of adult learning policies is still relatively underutilised in OECD countries. Nonetheless, several OECD countries have undertaken studies to segment their adult learning populations. In 2000, the Australian National Training Authority commissioned a *National Marketing Strategy for Skills and Lifelong Learning,* which used segmentation methods to identify eight groups of adult learners based extensively on attitudinal and behavioural factors (Australian National Training Authority, 2000[4]). The United Kingdom has also been at the forefront of using these methods and has commissioned two studies, one in 2008 and one in 2016, to more precisely segment the adult learning population (see Box 2.1).

Within the education and training sector, segmentation methods have primarily been used in higher education (Aydin and Ozturk, 2015[8]). Universities have used these methods to understand different categories of students and to support the design of programmes and services that meet their distinct needs. For example, many universities use demographic segmentation to differentiate between younger and mature students, which allows for the design of more targeted and relevant messaging for each segment (Hemsley-Brown, 2017[9]). Segmentation can also be used to identify the common characteristics of individuals least likely to apply to university, which can help universities to widen access. Digital and distance learning similarly benefit from the application of segmentation strategies by supporting the tailoring of more individualised messages to learners and the design of personalised (i.e. responsive to their specific needs) online services (Aydin and Ozturk, 2015[8]).

Box 2.1. Segmentation strategies for adult learning in the United Kingdom

Segmentation of Adults by Attitudes Towards Learning and Obstacles to Learning, 2008

The United Kingdom has relatively extensive experience of applying population segmentation methods to adult learners. In 2008, the Department for Innovation, Universities and Skills (DIUS) commissioned Continental Research to develop a segmentation analysis of attitudes and obstacles to learning among adults. This study used data from the UK National Adult Learning Survey (2005), which focused on adults aged 19-69 living in England and Wales (3 173 respondents). To produce the segments, the dataset was subjected to a hierarchical cluster analysis, which led to a ten segment solution. For this study, the most important predictors of segment membership were obstacles to learning (such as "no time because of family" and "employer would not support learning"), rather than attitudinal or motivational factors. A summary of their findings is included in Table 2.1.

Table 2.1. Segments from UK 2008 cluster analysis

	% of population	Socio-demographics	Obstacles to learning
Enthusiastic and enlightened	29.2%	Mainly no children	None
Fulfilled and family-focused	14.5%	Mainly younger women with children	Too busy with family
Hampered hard workers	7.1%	More male than average	Too busy at work
Looking for learning	4.9%	Younger than average	Don't know where to look for training
Trapped on a treadmill	5.9%	Younger than average	Can't afford learning and busy at work
Older into other things	11.1%	Mainly older men	Not interested in any learning
Too late to learn	10.6%	Mainly older women	Low confidence and busy with family
Sceptical but scraping by	5.5%	More male than average	Not interested and busy with work
Unfulfilled and unhappy	8.6%	More female than average	Low confidence and multiple obstacles
Disaffected and discouraged	2.6%	More male than average	Basic skills and multiple obstacles

Decisions of adult learners, 2018

In 2018, the Department for Education commissioned Kantar Public and Learning and Work Institute to produce another segmentation of the adult learning market. This segmentation relied on qualitative research rather than survey data. The model was built from in-depth interviews with 70 learners, and focus groups with 16 adults not currently learning. The study found that participants' attitudes towards learning were essential for determining whether an individual participates in training. Attitude, or motivation, was considered the most influential determinant of learning. This led to the creation of an attitudinal typology with six types of learner identified: 1) life-long learners; 2) defiant learners; 3) outcome-focused learners; 4) tentative learners; 5) exhausted learners; and 6) stuck in status quo learners. The study uses this typology to discuss the "tipping point" for learners, whereby the benefits to learning outweigh the costs. According to the report, every learner faces four stages of decision making when deciding to participate in learning: 1) pre-contemplation; 2) contemplation; 3) determination; and 4) maintenance.

Source: UK DIUS (2008[10]), *Segmentation of Adults by Attitudes Towards Learning and Obstacles to Learning*, https://dera.ioe.ac.uk//8720/; Kantar Public and Learning and Work Institute (2018[11]), *Decisions of adult learners*, https://learningandwork.org.uk/resources/research-and-reports/decision-making-of-adult-learners/.

Segmentation strategies have also been applied to labour market policy. For example, the approach has been used to assess the employment obstacles faced by adults. The OECD *Faces of Joblessness* report (Fernandez et al., 2016[12]) develops a segmentation model that uses Latent Class Analysis (LCA) to identify groups of adults facing similar obstacles to employment. This methodology, which has now been applied to several countries, was one of the inspirations for the methodology employed in this report.

Applying a segmentation approach to identify different profiles of adult learners

Nine adult learner profiles based on shared motivations and obstacles

The OECD has developed a model to segment the adult learning population in Flanders, based on motivations to learn and obstacles to participation in learning activities – i.e. the main factors that determine participation. This model identifies nine adult learner profiles in the Flemish adult population (aged 25-64), each characterised by a shared combination of motivations and obstacles (see Figure 2.1).

Figure 2.1. The nine adult learner profiles

Adults not participating in non-formal or formal learning activities

A. Unmotivated
- Profile 1: **Disengaged** from learning
- Profile 2: Unmotivated due to **age and health** obstacles

B. Motivated, but facing obstacles
- Profile 3: Motivated but facing **time-related** obstacles
- Profile 4: Motivated but facing **multiple obstacles**

Adults participating in non-formal or formal learning activities

C. Extrinsically motivated
- Profile 5: Reluctant but **required** to participate
- Profile 6: Participating in response to **work pressures**
- Profile 7: Participating to strengthen **career prospects**

D. Intrinsically motivated
- Profile 8: Participating for **personal** development
- Profile 9: Participating for **professional and personal** development

Note: See Annex 2.A for a full description of the underlying methodology.

The segmentation model is run separately for adults who are not participating in non-formal and formal learning activities, and those who are participating (see Box 2.2 for a description of this definition). Four profiles of "non-participating" adults are identified (representing 52% of the population). Conditional to their willingness to learn and the obstacles preventing their participation in learning activities, these four profiles of non-participating adults can be classified into those who are "unmotivated" and those who are "motivated but facing obstacles". Five profiles of "participating" adults are identified (representing 48% of the population). Based on their reasons for participating in learning activities, the five profiles of participating adults can be classified into those who are "extrinsically motivated" and those who are "intrinsically motivated". The identification of the nine profiles facilitates analysis of how they differ and, by extension, how policies, programmes and courses can be designed or redesigned to better respond to their unique characteristics and needs.

> **Box 2.2. Definition of participation in learning in the segmentation model**
>
> Adults can learn through formal, non-formal and informal learning opportunities:
>
> - **Formal education/learning**: Formal education/learning is provided in schools, colleges, universities or other educational institutions and leads to a certification that is recognised by the national educational classification.
> - **Non-formal education/learning**: Non-formal education/learning is defined as an education or training activity that does not necessarily lead to a formal qualification, such as on-the-job training, open or distance education, courses or private lessons, and seminars or workshops.
> - **Informal learning**: Informal learning relates to typically unstructured, often unintentional, learning activities that do not lead to certification. In the workplace, this is often an automatic by-product of the regular production process of a firm.
>
> In the segmentation model, to distinguish between participants and non-participants, the most common definition for participation in learning was used, specifically participation in formal and non-formal learning (in the last 12 months). This definition is the standard for most international comparable indicators of participation in education and training. However, while not part of the main model, participation in informal learning is explored in this study (see section on "Learning patterns and outcomes").
>
> Source: OECD (2011[13]), *PIAAC Conceptual Framework of the Background Questionnaire Main Survey*, www.oecd.org/skills/piaac/PIAAC(2011_11)MS_BQ_ConceptualFramework_1%20Dec%202011.pdf.

Latent Class Analysis was the methodology applied to identify profiles in the adult population with similar characteristics. The European Union's Adult Education Survey (AES) 2016 was the primary data source used for this analysis (Eurostat, 2021[14]) (see Box 2.3 and Annex 2.A for a detailed description of the applied methodology). This quantitative approach was complemented by qualitative approaches to confirm the validity of the profiles identified by the model. Flemish stakeholders have played a key role in developing and validating this segmentation by sharing their views and providing expertise in multiple consultations.

> **Box 2.3. Identifying adult learner profiles with Latent Class Analysis**
>
> **Latent Class Analysis (LCA)**
>
> LCA is a statistical method for identifying population subgroups based on multivariate categorical data. Similar to other clustering methods, LCA identifies mutually exclusive and exhaustive latent (or unobserved) classes based on patterns in observed data. LCA estimates class membership probabilities and uses iterative numerical methods to find the model that best fits the data (based on a statistical criteria). LCA is extensively used in several applications, such as to classify patterns of behaviour or attitudes, identify consumer preferences, and examine subpopulations based on their response to survey or test items.
>
> **The segmentation models based on motivations and obstacles**
>
> For the segmentation of the Flemish population based on the Adult Education Survey (AES) 2016, the LCA estimates two baseline models for two different groups of adults: 1) adults not participating in non-formal or formal learning activities; and 2) adults participating in non-formal or formal learning activities. The reason for this is that the most effective policies for these two groups are considerably different, and there will likely be different policy objectives (e.g. for non-participating adults, policies will mainly aim to ensure that adults will participate, while for participating adults, policies will mainly aim to ensure that adults participate more or in more relevant learning activities). These models include the

indicators that best describe the main drivers behind not participating (i.e. a lack of motivation and obstacles to participation) and participating (i.e. the different reasons for participating and motivations to participate more).

For the first group of profiles (non-participating), the model includes indicators on both motivation and obstacles to participation (see first column in Table 2.2). In the AES, all adults who did not participate in learning activities were asked whether they would have liked to participate, thereby indicating their motivation. If they did not want to participate, they were asked if that was because they did not see a need for learning. Regardless of whether adults want to participate, they were also asked about the obstacles they face. For some cases, the obstacles are grouped to increase the statistical representativeness of the sample (e.g. time-related obstacles include variables on schedule constraints and family responsibilities).

For the second group of profiles (participating), the model relies primarily on indicators of their reasons for participating in learning, including both job-related and not job-related factors (see second column in Table 2.2). These indicators provide insights into their attitudes towards learning, which could be linked to different types of motivational profiles (e.g. extrinsic and intrinsic motivations to learn). In addition, to have a more comprehensive view of these motivational profiles, indicators in AES of their willingness to participate more – i.e. in addition to the learning activities they already participate in – are included, thereby providing insights into motivations *ex post* the learning activity (in contrast to the *ex ante* reasons to learn).

Table 2.2. Indicators in baseline models for participants and non-participants

Not participating	Participating	
Motivation preventing participation	**Reasons for participating**	
• Did not want to participate in education and training • Did not see a need for participating in education and training	• To do my job better • To improve my career prospects • To be less likely to lose my job • To increase my possibilities of getting a job, or changing a job/profession • To start my own business • Because of organisational and/or technological changes at work	• To get knowledge/skills useful in my everyday life • To increase my knowledge/skills on a subject that interests me • To obtain a certificate • To meet new people/for fun • For health reasons • To do voluntary work better • Required by the employer or by law (in non-formal education and training) • Obliged to participate (in formal education and training)
Obstacles preventing participation	**Willingness to participate more**	
• Costs of participating • Schedule and family responsibilities • Lack of employer support or lack of public services support • Health and/or age obstacles • Personal reasons, including negative experiences; no access to computer/Internet • No suitable programmes, as well as lacking prerequisites for training and/or programmes are inaccessible as located too far away	• Did (not) want to participate in <u>more</u> education and training • Did (not) see a need for participating in <u>additional</u> education and training	

Covariates for identifying additional characteristics

After identifying the nine adult learner profiles through estimating two baseline models, additional variables have been included in the model to identify the associated characteristics of the profiles. Following a three-step approach, more detailed information on the nine profiles were examined, including socio-demographic characteristics (e.g. level of education, age, income), labour market characteristics (e.g. occupation, labour market status), skills requirements of their occupations, and learning patterns and outcomes.

Each of the nine profiles has a set of characterising indicators described by a unique combination of motivations and obstacles. In constructing the nine profiles, the OECD considered significance level (95%) and the strength of the relationship between indicators and the profiles (probability>0.3) of each coefficient. For each profile, a distinction is made between characteristics with the strongest coefficients (so-called "primary characteristics") and characteristics with lower coefficients, but which still meet the criteria of significance and strength of relationship ("secondary characteristics"). Table 2.3 presents an overview of the main characteristics of each profile.

Some profiles are comprised of only primary characteristics, which are all very strongly associated with the profile. For example, Profile 1: "Disengaged from learning" is characterised by not wanting to participate in learning and not seeing a need to participate, both of which are primary characteristics. Other profiles are constructed from combinations of primary and secondary characteristics. For example, for Profile 4: "Motivated but facing multiple obstacles", cost obstacles, health- and age-related obstacles, and the lack of availability of suitable programmes are all important primary characteristics, while a lack of support (e.g. from employers or public services) and personal reasons (e.g. no access to a computer or Internet) are relevant secondary characteristics.

It should be noted that LCA allocates individuals and characteristics to profiles in a probabilistic rather than deterministic way. As a result, specific characteristics could have strong associations with the specific profiles, but they generally are not linked with each other in a 1-to-1 relationship. This means that not every person associated with a given profile will have all of the characteristics of that profile.

Additional characteristics of the nine adult learner profiles

Table 2.4 below describes how additional characteristics map onto the nine learner profiles. These characteristics include socio-demographic characteristics, labour market status, the skills requirements of occupations typically associated with each profile, as well as their typical learning patterns and outcomes (see Box 2.3 for a brief description of the underlying methodology of these covariates, and Annex 2.A for a detailed description). These additional characteristics help to provide a more complete impression of each of the nine profiles.

Table 2.3. Characterising indicators of the nine adult learner profiles

Legend:
- ● Primary characteristics
- ○ Secondary characteristics
- x Insignificant or below treshold

	A. Unmotivated		B. Motivated, but facing obstacles	
	1. Disengaged from learning	2. Unmotivated due to age and health obstacles	3. Motivated but facing time-related obstacles	4. Motivated but facing multiple obstacles
Share of population	19%	18%	6%	9%
Motivation preventing participation				
Did not want to participate in education and training	●	●	x	x
Did not see a need for participating in education and training	●	●	x	x
Obstacles preventing participation				
Costs of participating	x	x	x	●
Schedule and family responsibilities	x	x	●	x
Lack of employer support or lack of public services support	x	x	x	○
Health and/or age obstacles	x	●	x	●
Personal reasons, incl. negative experiences, no access to computer	x	x	x	○
No suitable programmes, including prerequisites and distance	x	x	x	●

	C. Extrinsically motivated			D. Intrinsically motivated	
	5. Reluctant but required to participate	6. Participating in response to work pressures	7. Participating to strengthen career prospects	8. Participating for personal development	9. Participating for professional and personal development
Share of population	16%	17%	5%	3%	7%
Job-related reasons for participating					
To do my job better	●	●	●	○	●
To improve my career prospects	x	x	●	x	●
To be less likely to lose my job	x	x	x	x	x
To increase possibilities of getting/changing a job	x	x	○	x	○
To start my own business	x	x	x	x	x
Because of organisational/technological changes at work		●	x	x	x
Not job-related reasons for participating					
Required by the employer or by law	●	○	x	x	x
To get knowledge/skills useful in my everyday life	x	x	x	●	○
To increase knowledge/skills on subject of interests	x	x	x	●	●
To obtain a certificate	x	x	●	x	○
To meet new people/for fun	x	x	x	○	x
For health reasons	x	x	x	x	x
To do voluntary work better	x	x	x	x	x
I was obliged to participate	○	x	x	x	x

Source: Adapted from Eurostat (2021[14]), *Adult Education Survey 2016*, https://ec.europa.eu/eurostat/web/microdata/adult-education-survey.

Table 2.4. The main additional characteristics of the nine adult learner profiles

Percentage (%) of adults with each profile and characteristics

	A. Unmotivated		B. Motivated, but facing obstacles		C. Extrinsically motivated			D. Intrinsically motivated	
	1. Disengaged	2. Age & health	3. No time	4. Multiple obstacles	5. Required	6. Work pressures	7. Career prospects	8. Personal	9. Professional and personal
Age groups									
Age 25-34	18	12	28	14	47	24	47	29	24
Age 35-44	12	17	30	17	23	28	30	24	23
Age 45-54	40	29	29	27	22	29	17	28	30
Age 55-65	29	42	12	41	7	19	5	19	24
Level of education									
Below upper secondary	41	34	14	35	10	11	9	4	12
Upper secondary	39	41	45	48	40	40	29	35	39
Tertiary	20	25	41	17	50	50	62	61	49
Gender									
Male	46	52	45	54	52	51	37	60	51
Female	54	48	55	46	48	49	63	40	49
Native speakers									
Yes	81	91	79	90	89	91	88	96	94
No	19	9	21	10	11	9	12	4	6
Household's income distribution[1]									
Bottom 40%	58	49	48	50	41	25	27	24	23
Top 40%	25	35	38	30	44	53	50	52	57
Household composition									
Couple with children	53	50	68	51	59	61	53	59	59
Couple with no children	14	23	8	23	15	13	21	19	21
Single parent	8	3	9	7	7	8	5	8	3
One person household	24	24	15	19	18	18	22	14	17
Labour status									
Worker	54	58	79	64	81	87	88	85	90
Unemployed	13	3	2	2	9	5	3	3	2
Inactive	34	39	19	34	10	8	9	12	9
Skill level of occupation									
Low	15	9	12	13	2	5	5	1	4
Medium	46	50	42	57	42	35	29	25	27
High	40	41	46	30	56	60	66	73	69
Risk of automation									
Low	18	22	14	16	25	34	32	38	35
Medium	29	25	38	21	36	38	39	41	40
High	53	53	48	63	40	28	29	21	25
Participation in informal learning									
No	39	50	33	55	24	31	13	16	18
Yes	61	50	67	45	76	69	87	84	82

Note: Only significant values are included in the table.
1. The values in the column do not add up to 100% because the middle of the distribution (i.e. 40%-60%) are not listed.
Source: Adapted from Eurostat (2021[14]), *Adult Education Survey 2016*, https://ec.europa.eu/eurostat/web/microdata/adult-education-survey.

StatLink 🔗 https://stat.link/5q3xyi

The box on the next page describes the nine profiles in more detail, including their associated motivations and obstacles, as well as other key characteristics.

Adults with this profile are relatively old, but not as old as Profile 2, and have relatively low levels of education, but higher than adults in Profile 1. The income of adults with this profile is comparatively low, partly because a comparatively large share are inactive. Looking at different job characteristics, there is a large share of adults in medium-skilled occupations (57%), with jobs in small businesses (55%) and/or with jobs that tend to have a very high risk of automation (63% – the highest share of all profiles). This profile stands out as having the lowest share of adults participating in informal learning (45%). Profile 4 represents 9% of the adult population in Flanders.

Adults participating in non-formal or formal learning activities

C. Extrinsically motivated

5. **Reluctant but required to participate:** These adults are participating in learning, but only because they are required to do so by the employer or by law.

   This is a very young profile (47% of adults under 35). While it is one the lowest educated participating profiles (only 49% of adults completed tertiary education), the profile is still more highly educated than any non-participating profile. This is also the profile with the second highest proportion of unemployed adults (9%). Working adults with this profile are typically employed in jobs requiring mid- to high-level skills, and these jobs face a relatively high risk of automation compared to those held by other participating profiles. While Profile 5 stands out with a comparatively low to medium intensity of learning (as measured by the number of hours in learning), a relatively large share participates in informal learning (76%). Profile 5 represents 16% of the adult population in Flanders.

6. **Participating in response to work pressures:** The majority of adults with this profile are extrinsically motivated learners who are participating in learning to adapt to organisational or technical changes in the workplace, or are participating to perform better in their current job.

   Compared to Profile 5, adults with this profile are older and more often employed, and their jobs have a lower risk of automation. Non-formal learning is often provided by the employer, and the participation rate in informal learning (69%) is the lowest among the participating profiles. Profile 6 represents 17% of the adult population in Flanders.

7. **Participating to strengthen career prospects:** Adults with this profile are participating to improve their career prospects, to improve their professional opportunities by gaining formal certification, or to perform their jobs better. Their motivation to learn could be characterised as "identified regulation", which is a type of extrinsic motivation characterised by the ambition to attain a personally valuable goal. This type of motivation is more self-determined and personal than the extrinsic motivations of adults with Profile 5 and 6, and not far removed from intrinsic motivation.

   Looking at their socio-demographic characteristics, adults in this profile are comparatively often female (63%), highly educated (62%) and/or very young (47% of adults are under 35 years of age). When analysing labour characteristics, many adults with this profile are employed in jobs requiring high levels of skills (66%) and/or are typically employed in medium-large enterprises (63%). This profile also has the largest proportion of part time workers (22%). Learning by adults with this profile is characterised by a comparatively high intensity (i.e. learning for many hours), as well as by participation in informal learning (87%). Profile 7 represents 5% of the adult population in Flanders.

D. Intrinsically motivated

8. **Participating for personal development:** Adults with this profile are intrinsically motivated and participating in learning for non-work related reasons, such as to gain knowledge/skills that are useful for everyday life or to explore their personal interests and passions.

   This profile has the highest share of adults employed in occupations requiring high levels of skills (74%). They are found in professional occupations, with a large share employed in health and social work and education. Working adults with this profile have the lowest risk of automation of any profile. Adults are typically highly educated and have comparatively high household incomes. Most adults with this profile participate in informal learning (84%). Profile 8 is the smallest profile, representing 3% of the adult population in Flanders.

9. **Participating for professional and personal development:** As with Profile 8, these are intrinsically motivated adults who want to participate in learning. Unlike Profile 8, their primary motivation for learning is to achieve work related objectives. For example, many adults with this profile participate to perform better in their current job or to improve career prospects.

   Looking at their socio-demographic characteristics, this profile has adults who are highly educated, work predominantly in high-skilled occupations (often managerial positions), and/or are generally employed in medium- to large-sized firms. This profile has the highest household income of all profiles. Adults with this profile have the longest tenure and the majority train with the support of their employers. A large share (82%) also participates in informal learning. Profile 9 represents 7% of the adult population in Flanders.

Motivations and obstacles to learning of the nine adult learner profiles

Categories of motivational profiles

Adults can have very diverse reasons for participating or not participating in learning activities that reflect differing motivations. In discussions with Flemish stakeholders, the importance of assessing the different types of motivation was a recurring topic of conversation.

There is an extensive body of literature on the motivational profiles of learners. Most of these studies apply self-determination theory, which distinguishes between three main learner profiles: the intrinsically motivated, the extrinsically motivated and the unmotivated (Deci and Ryan, 2000[15]). Only a few studies examine the motivational profiles of adult learners specifically, including a study in Flanders that assesses the motivations of adults in the context of online and blended learning (Vanslambrouck et al., 2015[16]). Based on a survey with 180 learners in adult education, three motivational profiles were identified: 1) an "extrinsic" profile with high identified regulation (which is a type of extrinsic motivation characterised by ambitions to attain a personally valuable goal); 2) an "autonomous" profile with high intrinsic motivation and identified regulation; and 3) a "motivated" profile with high intrinsic motivation and high identified introjected regulation (i.e. behaviour to maintain a positive view of themselves and/or to avoid feelings of shame and guilt).

In the segmentation, motivations were an input to the analysis for both participating and non-participating adult learner profiles. For adults not participating, differences in motivation can be identified based on the extent to which adults indicate that there is no need to learn, as well as to the extent to which they identify that obstacles are the main reason for not wanting to participate. For participating adults it was possible to identify their motivations based on the reasons they gave for participating in learning (e.g. out of interest in a subject, to improve job performance), as well as their self-reported attitudes towards learning more (e.g. being motivated to participate in more learning activities). The nine profiles can then be classified into four categories of motivational profiles: 1) "unmotivated"; 2) "motivated but facing obstacles"; 3) "extrinsically motivated"; and 4) "intrinsically motivated".

Those who are "unmotivated" are predominantly found in Profile 1: "Disengaged from learning" and Profile 2: "Unmotivated due to age and health obstacles". Both profiles are primarily composed of adults who indicate that they do not want to learn, and who note that this is largely due to a (self-perceived) lack of a need to learn. To some extent, this lack of interest in learning is a result of their personal circumstances. For adults with Profile 1: "Disengaged from learning", challenges related to high levels of unemployment, inactivity or employment in low-skilled occupations may mean that learning is often not perceived as a very high priority relative to other challenges. For example, some may prioritise job search over training to meet basic needs, while others may have limited expectations of returning to work. For many low-skilled workers employed in jobs that require low levels of skills, the benefits of learning may not be obvious and they may have limited understanding of what training they need and how to find it. Flanders should therefore aim to make these adults more aware of the benefits of learning, and to consider a broader range of policies (e.g. social policies such as income support and housing policies) to promote learning among these adults who often face various socio-economic challenges. Profile 2: "Unmotivated due to age and health obstacles" is characterised by many older adults who are often in early retirement, as well as many permanently disabled adults. These adults may perceive that they would benefit little from participation in learning, especially for job-related reasons.

Those who are "motivated but facing obstacles" are found in Profile 3: "Motivated but facing time-related obstacles" and Profile 4: "Motivated but facing multiple obstacles". These profiles are more motivated than Profiles 1 and 2, with only small shares indicating that they do not want to participate in learning activities. Instead, they identify several obstacles that hinder their participation, including time-related obstacles (Profile 3: "Motivated but facing time-related obstacles") and the cost of training, lack of resources and lack of suitability of the training offer (Profile 4: "Motivated but facing multiple obstacles").

Those who are "extrinsically motivated" are found in Profile 5: "Reluctant but required to participate", Profile 6: "Participating in response to work pressures" and Profile 7: "Participating to strengthen career prospects". These adults participate in learning primarily due to external factors. Within this group of extrinsically motivated learners, there are important differences in their reasons for participation. Profile 5: "Reluctant but required to participate" is composed of adults required to participate or who want to participate to perform better in their job, and comparatively often they report that they do not want to participate more. Profile 6: "Participating in response to work pressures is composed of individuals whose motivation can be described as having a "controlled" character, meaning that their decision to participate is mainly the result of external incentives. For example, this profile is characterised by participation due to organisational and technical changes in the workplace, but also to perform their job better. The motivations of adults with Profile 7: "Participating to strengthen career prospects" could be described as having "identified regulation", meaning that they are typically objective-driven adults who want to attain a personal goal, either personal or professional. For adults with this profile, the main reasons to participate are to improve career prospects, increase their professional possibilities by gaining formal certification and perform their job better. Profile 7: "Participating to strengthen career prospects" includes a large share of adults indicating that they do not want to learn more, which may be explained by the very high intensity of their existing learning activities – i.e. they may feel that they have already participated in all the learning they want and need. Some 61% of adults with this profile participate in high-intensity learning (defined as participation in learning activities of more than 36 hours in total or the top quartile of the distribution of hours participated), which is the highest share among participating profiles.

Those who are "intrinsically motivated" are found in Profile 8: "Participating for personal development" and Profile 9: "Participating for professional and personal development". People with these profiles participate in learning for its inherent pleasure and satisfaction. Both profiles are characterised by learners participating to increase knowledge/skills on a subject of interest. However, these two profiles differ from each other in terms of the aims of their learning and the sorts of subjects typically of interest. While Profile 8: "Participating for personal development" typically participates in learning to gain knowledge/skills useful in everyday life and because of their personal interests and passions (e.g. personal development),

Profile 9: "Participating for professional and personal development" typically participates to improve career prospects or to perform their job better (e.g. professional development).

Developing the intrinsic motivation of adults to learn was stressed as an important objective by stakeholders consulted in this project. In times of crisis, such as the COVID-19 pandemic, the relevance of intrinsic motivations becomes arguably even more important, with intrinsic self-motivation an important pre-condition for effective online learning. This is also reflected in the reasons people decided to learn during the pandemic – learning because of a specific interest in a topic (51% of participants) and for fun and relaxation (23%) were among the most important reasons given for participation in learning (Statistiek Vlaanderen, 2021[17]).

Obstacles to learning

To provide a holistic overview of the challenges that adults face to participation in learning, obstacles related to cost, health and age, lack of employer or public services support, time-related obstacles, and a lack of suitable education or training offers are all factored into the segmentation model.

Among non-participating profiles, adults with Profile 1: "Disengaged from learning" are less likely than adults in any other profile to claim that they face obstacles to participation. Adults with this profile do not report obstacles as the primary reason for their non-participation. As mentioned previously, their personal circumstances likely result in a relatively low priority for learning (e.g. they might prioritise trying to find a job). These circumstances could in a way be considered obstacles to their participation, but they are not directly captured by the model and are therefore not classified as such. Adults with Profile 2: "Unmotivated due to age and health obstacles" are unmotivated, but this likely stems from the obstacles that they claim to face – around 70% of adults with this profile cite problems with health and/or age as reasons for their non-participation. In this way, obstacles and lack of motivation are a self-reinforcing vicious circle.

For adults with Profile 3: "Motivated but facing time-related obstacles", participation is desired but hindered by time-related obstacles. For 37% of adults with this profile their work schedule is the main obstacle to participation, and for 29% family responsibilities prevent participation. Adults with Profile 4: "Motivated but facing multiple obstacles" face a broad range of interlinked obstacles. Compared to other profiles, adults with this profile are the only ones that cite the cost of courses as an obstacle to learning. The lack of a suitable training offer, health and/or age, a lack of support (e.g. employer support or public services support) and personal reasons (e.g. no access to a computer or Internet) are also commonly cited obstacles for adults with this profile.

Among adults in all participating profiles (i.e. Profile 5 to Profile 9), time-related obstacles linked to schedule or family responsibilities are considered the most important obstacles to continued participation in learning. However, the proportion of adults facing these obstacles remains low for each of these participating profiles. The impact of other obstacles is comparatively negligible.

Analysis of characteristics of the nine adult learner profiles

In the following section, several characteristics of the nine adult learner profiles will be analysed in more detail, including social and demographic characteristics, labour market status, the most commonly held occupations and the skills requirements of those occupations, and learning patterns and outcomes. These characteristics, unlike the motivations and obstacles to learning, are not part of the baseline model, but were entered into the model after the nine profiles were determined in order to better understand the unique characteristics of each profile (as explained in Box 2.3). This analysis examines the main differences between profiles and assesses what lessons can be learned from this variation. Key findings of the analysis are presented in the box below.

Key findings of the analysis of characteristics of the nine learner profiles

Social and demographic characteristics

- Older adults are concentrated in Profile 1: "Disengaged from learning" and especially Profile 2: "Unmotivated due to age and health obstacles". These groups are characterised by having the lowest levels of motivation.

- Low levels of education and employment in jobs requiring low levels of skill are strongly associated with low motivation and non-participation in learning. Every non-participating profile has lower levels of educational attainment than every participating profile.

- The two profiles with the highest proportion of non-native speakers are Profile 1: "Disengaged from learning" (19%) and Profile 3: "Motivated but facing time-related obstacles" (21%), demonstrating that non-native speakers not participating in learning activities face significant and complex challenges to participation. Thus, non-native speakers need a wider range of support to increase their motivation to participate in learning and overcome the different obstacles.

Labour market status

- Adults participating in learning are more often in employment, indicating that employment is one of the best policies for promoting skills development. Between 82% and 90% of each participating profile consists of employed adults, while employed adults represent just 54% of Profile 1: "Disengaged from learning" and 58% of Profile 2: "Unmotivated due to age and health obstacles".

- Employed adults who do not participate in learning are most likely to be in Profile 3: "Motivated but facing time-related obstacles". For this profile, time-related barriers, such as work schedules and family responsibilities, are the greatest obstacles to participation.

- Unemployed adults in Flanders are strongly overrepresented in two profiles – Profile 1: "Disengaged from learning" (13% unemployed) and Profile 5: "Reluctant but required to participate" (9% unemployed). It is concerning that many unemployed adults in Flanders are not willing to and do not see a need to participate.

- Inactive adults are mainly concentrated in Profile 1: "Disengaged from learning", Profile 2: "Unmotivated due to age and health obstacles" and Profile 4: "Motivated but facing multiple obstacles". However, the reasons for inactivity vary across these profiles, with Profile 2 especially standing out for having large shares of permanently disabled adults and early retirees.

- Adults employed in firms with fewer than 50 employees need greater support to participate in learning. Most of the adults who do not participate in learning opportunities are working in small firms (52% of total adults in each non-participating profile, on average).

Skills requirements in the labour market

- Several skills are in demand for all nine groups in Flanders, particularly the "ability to adapt to change" (found in 75% of all Flemish online job postings in quarter 3 2021) and "social interaction" skills, which mainly comprise the ability to work in teams (found in 64% of online job postings).

- There are large differences in the types of skills required for the jobs that workers typically have in each of the nine profiles – for profiles characterised by employment in low- to medium-skilled

occupations (e.g. Profile 1: "Disengaged from learning" and Profile 2: "Unmotivated due to age and health obstacles"), more practical skills are typically required (e.g. manufacturing and processing, and using digital tools to control machinery), while profiles characterised by employment in more high-skilled occupations (e.g. Profile 8: "Participating for personal development" and Profile 9: "Participating for professional and personal development") typically have need of more soft skills (e.g. personal skills, and using digital tools for collaboration and problem solving).

- While digital skills are among the top three skills required in many profiles, the types of digital skills required vary across the profiles – ranging from "using digital tools for machinery" in Profile 1: "Disengaged from learning" and Profile 2: "Unmotivated due to age and health obstacles", to "using digital tools for collaboration and problem solving" in Profile 8: "Participating for personal development" and Profile 9: "Participating for professional and personal development".

- The profiles with the greatest need for upskilling and/or reskilling are also those characterised by non-participation in learning. Workers in the non-participating profiles (Profiles 1 to 4) are on average at greater risk of automation than workers in participating profiles (Profiles 5 to 9).

Learning patterns and outcomes

- While participation rates in informal learning are noticeably higher for adults who also participate in non-formal and formal learning, a significant share of non-participating adults (Profiles 1 to 4) are also learning informally. Some 45% of Profile 4: "Motivated but facing multiple obstacles" and 67% of Profile 3: "Motivated but facing time-related obstacles" are learning informally.

- Those required to participate in learning are much more likely to report not receiving a positive outcome (yet) from their participation in learning. Around 37% of adults in Profile 5: "Reluctant but required to participate" indicate that they experienced no positive outcome as a result of their participation in learning, which is a larger share than found among the other participating profiles.

- Learning in Flanders leads to positive outcomes for all profiles, but more so for intrinsically motivated profiles (e.g. Profiles 8 and 9) than extrinsically motivated profiles (e.g. Profiles 5 to 7). Profile 9: "Participating for professional and personal development" in particular is more likely to report more positive outcomes, including better performance in the current job, obtaining a new job and performing new tasks.

Social and demographic characteristics

The segmentation enables the examination of the socio-demographic characteristics associated with the nine adult learner profiles. Age and education level are the two socio-demographic characteristics that vary most across the nine profiles. In Flanders, adults who are relatively young and those who have attained high levels of education are much more likely to participate in learning (OECD, 2019[18]).

Adults with Profile 1: "Disengaged from learning" and Profile 2: "Unmotivated due to age and health obstacles", who have the lowest overall motivation, are also, on average, the oldest adults in Flanders (see Figure 2.2). Moreover, the average age of Profile 4: "Motivated but facing multiple obstacles" is only slightly lower. Overall, non-participating profiles are generally older than participating profiles, with the exception of Profile 3: "Motivated but facing time-related obstacles", which includes many young adults. Despite having very different characteristics and reasons for participating, Profile 5: "Reluctant but required to participate" and Profile 7: "Participating to strengthen career prospects" are by far the youngest profiles, with almost half of adults aged between 25 and 34 years old.

Figure 2.2. Predominant age groups of the nine adult learner profiles
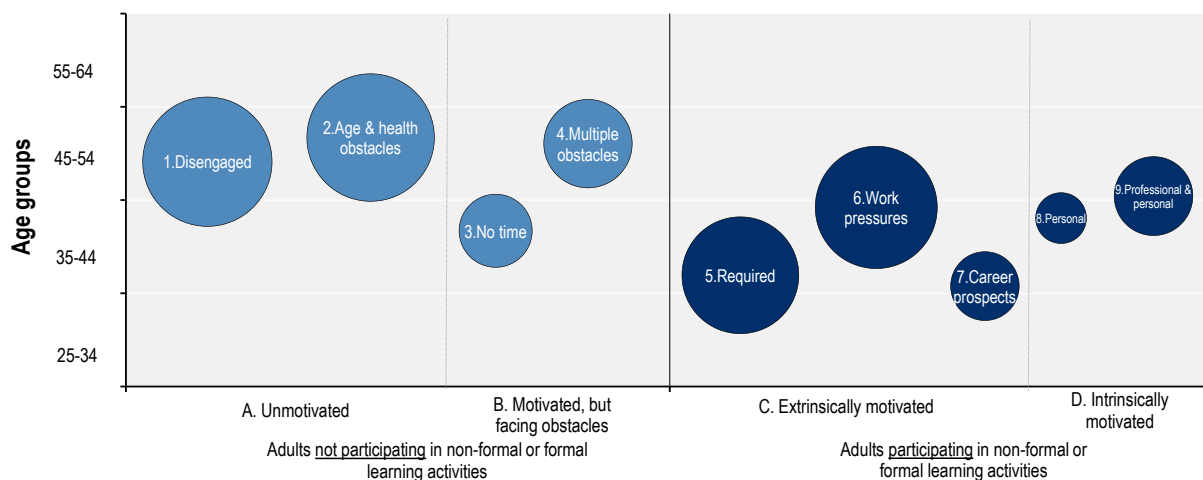
Note: The size of circles reflects the relative size of profiles, and the colour reflects participation (dark blue) or non-participation (light blue). Age groups are based on weighted score of distribution over different categories.
Source: Adapted from Eurostat (2021[14]), *Adult Education Survey 2016*, https://ec.europa.eu/eurostat/web/microdata/adult-education-survey.

StatLink ⟒⟋⟍⟊ https://stat.link/v6udmp

The education level of adults also impacts their motivation and participation. Profile 1: "Disengaged from learning" and Profile 2: "Unmotivated due to age and health obstacles" are not only characterised as being the oldest profiles, but also those with the largest shares of adults with comparatively low levels of education (see Figure 2.3). Again, these two profiles are followed by Profile 4: "Motivated but facing multiple obstacles", which also has one of the largest shares of adults with less than upper secondary education (35%). Every non-participating profile is associated with lower educational levels than every participating profile. This suggests that, as stakeholders interviewed for the project have warned, the adult education and training system may currently be reinforcing educational inequalities because it is the most highly educated who are participating the most, and the current lifelong learning system may not be effectively compensating for existing inequalities in educational outcomes. The segmentation also suggests that the higher the education level, the more likely it is that adults will be intrinsically motivated to engage in further education, which supports the argument that the best way to create lifelong learners is to give people a good start in learning in the first place (OECD, 2019[5]).

Finally, non-native speakers are an important target group for the adult learning system in Flanders, and the segmentation shows that their motivational profile is diverse. The two profiles with the highest proportion of non-native speakers are Profile 1: "Disengaged from learning" (19%) and Profile 3: "Motivated but facing time-related obstacles" (21%). This shows that non-native speakers not participating in learning activities face significant and complex challenges to participating in learning – i.e. they are either unmotivated and do not see a need to learn, often due to personal circumstances, or they are motivated but do not have the time to learn. These two profiles would likely need a wider range of support to increase their motivation to participate in learning and overcome the different obstacles.

Figure 2.3. Predominant education levels for the nine adult learner profiles
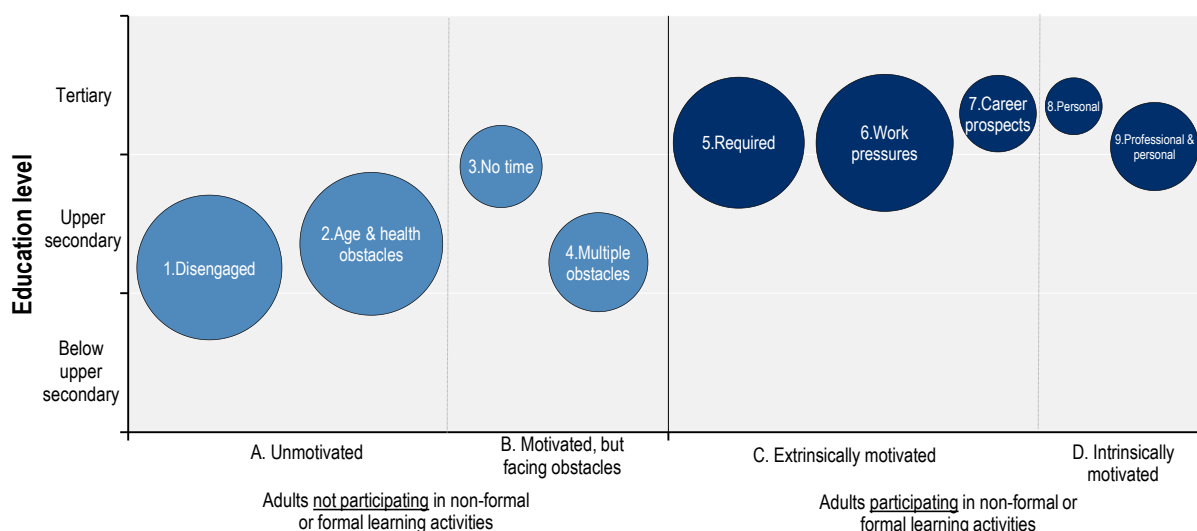
Note: The size of circles reflects the relative size of profiles, and the colour reflects participation (dark blue) or non-participation (light blue). Educational attainment level is based on weighted score of distribution over different categories.
Source: Adapted from Eurostat (2021[14]), *Adult Education Survey 2016*, https://ec.europa.eu/eurostat/web/microdata/adult-education-survey.

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Labour market status

The segmentation also provides insights into the association between labour market status (i.e. employed, unemployed and inactive) and motivations, obstacles and participation in learning (see Figure 2.4). A main finding is that adults participating in learning are more often in employment, which suggests that having a job is arguably one of the best instruments to strengthen skills development. Between 82% and 90% of each participating profile consists of employed adults, compared with 54% of Profile 1: "Disengaged from learning" and 58% of Profile 2: "Unmotivated due to age and health obstacles". Employed adults who do not participate in learning are most likely to be found in Profile 3: "Motivated but facing time-related obstacles", which suggests that time-related obstacles are the most important obstacles for working adults.

Figure 2.4. Distribution of labour status for the nine adult learner profiles
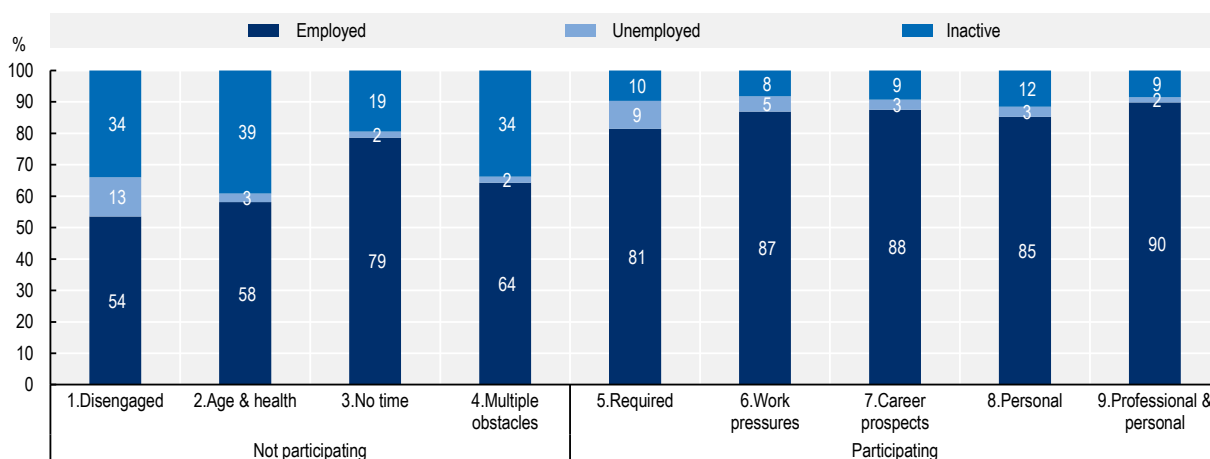
Source: Adapted from Eurostat (2021[14]), *Adult Education Survey 2016*, https://ec.europa.eu/eurostat/web/microdata/adult-education-survey.

StatLink https://stat.link/guix27

While the share of unemployed adults in Flanders is relatively small – the unemployment rate is 2.9% in March 2022 (StatBel, 2022[19]) – they are strongly overrepresented in Profile 1: "Disengaged from learning" (13% unemployed) and Profile 5: "Reluctant but required to participate" (9% unemployed). It is concerning that many unemployed adults in Flanders are not willing to and do not see a need to participate in learning. In addition, many of the unemployed adults who do participate in learning do so because they are obliged to. For example, many unemployed adults with Profile 5: "Reluctant but required to participate" are likely to be participating because of public employment service requirements.

Inactivity (defined as neither working nor looking for a job) is strongly associated with not participating in learning and not being motivated to learn. Profile 1: "Disengaged from learning", Profile 2: "Unmotivated due to age and health obstacles" and Profile 4: "Motivated but facing multiple obstacles" all have very high shares of inactivity (between 34% and 39%). As previously mentioned, the reasons for inactivity between these groups are different, and there are likely a variety of reasons why the inactive adults with these profiles show little interest in learning. For example, early retirees might not see how learning would be relevant for them, while learning might be necessary for their full participation in an increasingly digital society (i.e. by strengthening their digital skills) – almost 58% of Flemish adults aged between 55 and 74 have no or very low levels of digital skills (Statistiek Vlaaderen, 2022[20]).

For employed adults, there are also various work-related factors that affect participation in education and training. For example, the size of business where adults are employed has been found to be important, with workers in small businesses (fewer than 50 employees) participating less frequently. Around 50% of employed adults with non-participating profiles are employed in small firms, while the share for participating profiles ranges between 27% and 38%. The share of adults employed in large firms (250+ employees) is particularly large for Profile 7: "Participating to strengthen career prospects" and Profile 8: "Participating for personal development" (around 40%). This aligns with international and Flemish literature which suggests that small and medium-sized enterprises are more likely than larger firms to face time and resource constraints to providing training to their employees (Sourbron and Vansteenkiste, 2021[21]).

Finally, adults' occupations and their associated skill requirements also impacts whether they participate in training. Adults in high-skill occupations are more likely to be participating and more likely to be intrinsically motivated. Around 47% of adults with Profile 8: "Participating for personal development" are professionals, and adults with participating profiles are overwhelmingly in high-skilled occupations (between 56% and 73%). Adults in both low- and middle-skill occupations are more likely to be non-participating than participating, and the largest share of adults in low-skill occupations (e.g. elementary occupations) can be found in Profile 1: "Disengaged from learning". Overall, the pattern is comparable with the education level of adults.

The sector of employment also has an impact on participation. For example, workers with Profile 1: "Disengaged from learning" are strongly overrepresented in manufacturing (34% of working adults with this profile are in this sector), and adults with Profile 8: "Participating for personal development" often work in education or health and social work activities. These findings demonstrate the relevance of considering learners' occupations and sectors of employment when developing adult learning policies.

Skills requirements in the labour market

The segmentation also allows for an examination of the skill requirements of the occupations most commonly held by working adults in each profile. Stakeholders consulted during this project emphasised the need for Flanders to address current and future skills gaps. Countries need to ensure that adults develop the skills that address these gaps, which can involve both reskilling workers in jobs at risk of disappearing and upskilling workers in jobs where tasks are expected to change.

Big data sources provide new, up-to-date insights into the skills required in labour markets. Based on online job postings data from Burning Glass in quarter (Q)3 2021, a number of skills can be identified that are frequently mentioned for almost all occupations in Flanders (see Annex 2.B for a description of the

underlying methodology) (Burning Glass Technologies, 2022[22]). The five most important skills requested in Flemish job postings are: 1) the ability to adapt to change; 2) social interaction; 3) information and communication technologies (ICT); 4) business administration; and 5) accessing and analysing digital data and business administration. The ability to adapt to change particularly stands out as being important as it is mentioned in 75% of all Flemish job postings in Q3 2021. Social interaction skills, such as the ability to work in teams, is also very often required for jobs in Flanders (mentioned in 64% of online job postings).

There are, however, still large differences in the types of skills required for the jobs where adults in each of the nine profiles are typically employed (see Annex 2.B for a description of the methodology). Analysis of the skill requirements described in online job postings at the occupational level (International Standard Classification of Occupation – ISCO 2-digit) allows for the identification of the skills most frequently required in the nine profiles. In Figure 2.5 the top three skills (excluding the five most important skills for all profiles) are presented for each profile.

Figure 2.5. Most important skills required by the occupations in which the nine adult learner profiles are typically employed, Q3 2021
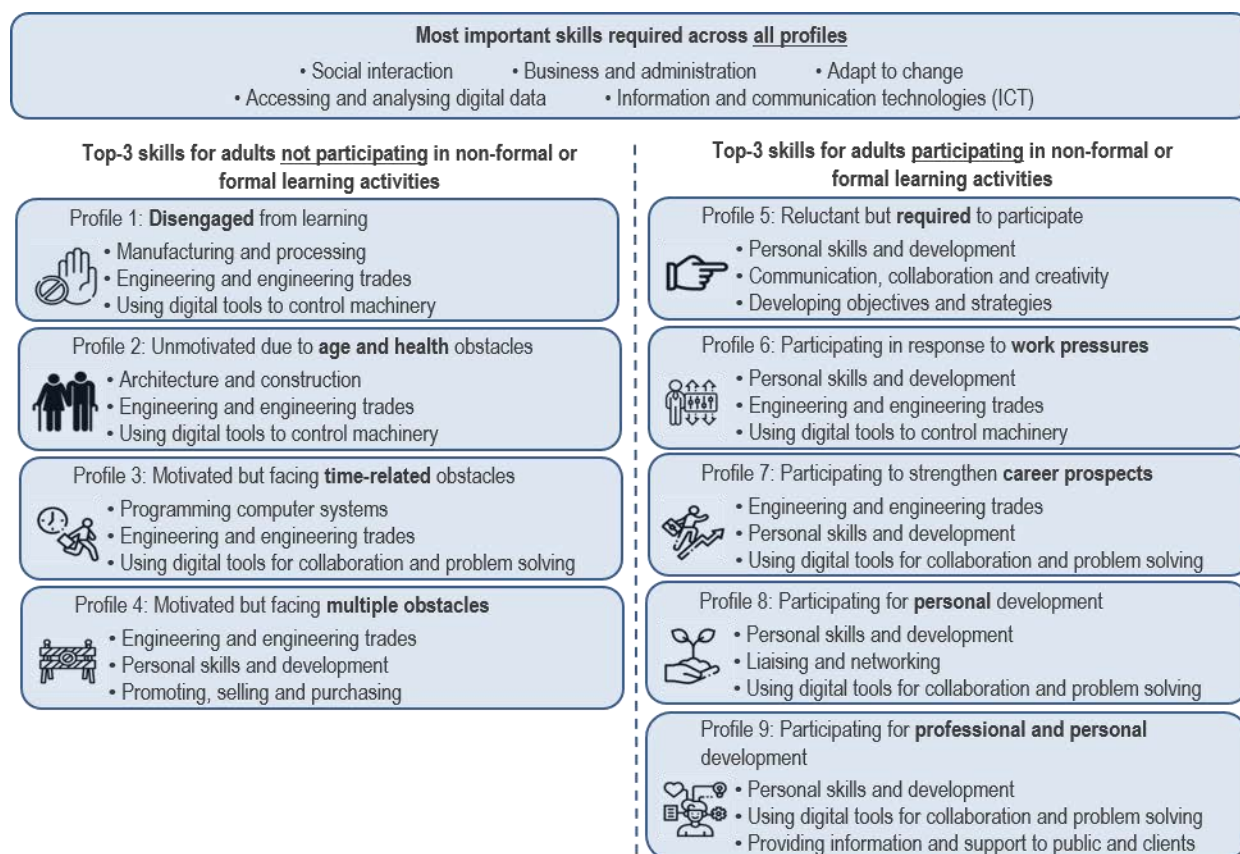
Note: The top three most important skills for each profile exclude the five most important skills identified across all profiles.
Source: Burning Glass job postings data, 2021 Q3 – Burning Glass Technologies (2022[22]), *Burning Glass database - online job postings*, https://www.burning-glass.com/.

A main finding is that for profiles comprised of adults primarily working in low- to medium-skill occupations (e.g. Profile 1: "Disengaged from learning" and Profile 2: "Unmotivated due to age and health obstacles"), more practical skills are typically required, such as architecture and construction, manufacturing and processing, and using digital tools to control machinery. Profiles comprised of adults typically employed in more high-skill occupations (e.g. Profile 8: "Participating for personal development" and Profile 9: "Participating for professional and personal development") often require more soft skills, including personal skills and development, and liaising and networking.

While digital skills are among the skills most often required for all profiles (e.g. accessing and analysing digital data, and information and communication technologies), the types of digital skills required vary. For example, for the profiles in which adults are generally employed in low- to medium-skill occupations (e.g. Profile 1: "Disengaged from learning" and Profile 2: "Unmotivated due to age and health obstacles"), one of the most important skills is the ability to use digital tools to control machinery. In contrast, for the profiles in which a large share of workers are employed in high-skill occupations (e.g. Profile 3: "Motivated but facing time-related obstacles" and Profile 7: "Participating to strengthen career prospects"), using digital tools for collaboration and problem solving are more often required.

These findings unfortunately provide only limited insight into the skills that need to be strengthened (i.e. the skills gaps), as existing data does not enable distinguishing between those with or without the skills required for their existing occupations. Overall, Flemish adults are more proficient in literacy and problem solving in technology-rich environments than adults in most OECD countries (as measured by the Programme for the International Assessment of Adult Competencies, PIAAC) (OECD, 2019[18]). In terms of numeracy skills, Flanders is even among the top-performers in the OECD – only Finland and Japan have higher average scores. However, these averages hide large differences across the population, with several groups lagging behind. When considering education levels as a proxy for skills, it can be expected that especially Profile 1: "Disengaged from learning", Profile 2: "Unmotivated due to age and health obstacles" and Profile 4: "Motivated but facing multiple obstacles" have comparatively low levels of skills. However, more analysis is needed to better understand the precise skills gaps of the nine adult learner profiles, potentially by using the next round of PIAAC data (see section 'Potential next steps' in Chapter 3).

An additional factor that complicates the analysis of skills gaps is that skills requirements are continuously evolving because of changes in labour markets – i.e. the skills required in future labour markets will likely be very different from the skills required today – and it might not be beneficial to develop the skills currently required in the profile as these jobs could actually be at risk of being automated.

COVID-19 has already had a major impact on the types of skills required for jobs. Looking at trends in the skills, knowledge and abilities identified in online job postings before and after COVID-19, there are major accelerations in the importance of certain abilities, such as the ability to adapt to change (Burning Glass Technologies, 2022[22]). In addition, various digital and soft skills have become much more important, including skills related to communication, collaboration and creativity (e.g. liaising, negotiating with other people, developing solutions to problem), as well as working with computers.

The digital transformation, which has been accelerated by COVID-19, will not only have implications for skills needs, but will likely also drive a broader shift in the economy – creating jobs in some sectors while destroying jobs in others. The risk of automation in particular will create many challenges for skills systems. As a result of these shifts, profiles characterised as already at risk of automation may find themselves under even greater pressure. Figure 2.6 shows that adults currently not participating in learning are more likely to be found in jobs facing the highest risk of automation – calculations are based on automation probability for occupations (2-digit ISCO-08) by Nedelkoska and Quintini (2018[23]). It is problematic that the adults facing the highest risk of automation are often not participating. For many of them, lifelong learning will be vital to ensure that they still have jobs in the future.

Figure 2.6. Predominant automation risk for the nine adult learner profiles
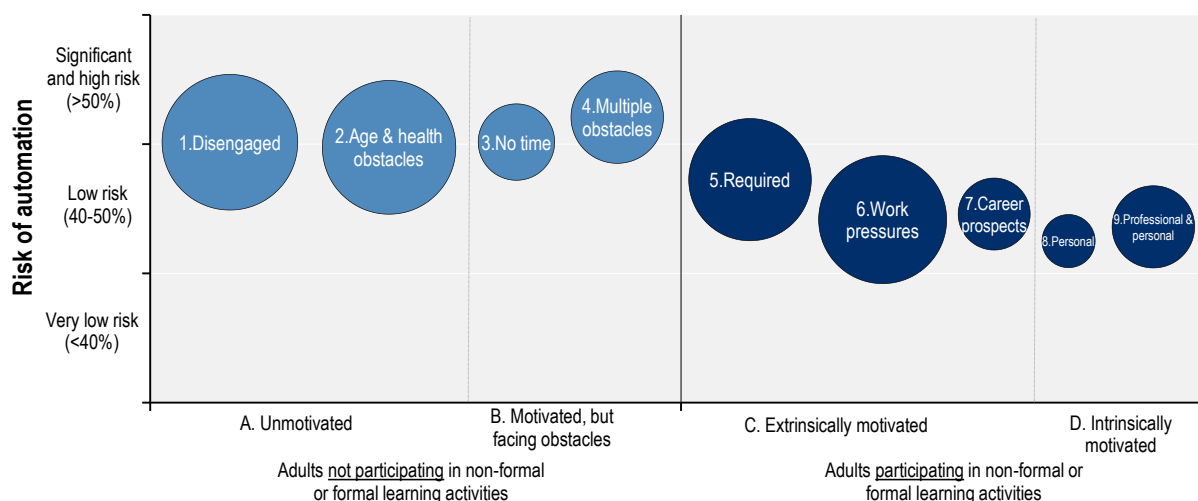
Note: The size of circles reflects the relative size of profiles, and the colour reflects participation (dark blue) or not (light blue). Automation risk is calculated based on automation probability for occupations (2-digit ISCO-08) from Nedelkoska and Quintini (2018[23]).
Source: Adapted from Eurostat (2021[14]), *Adult Education Survey 2016*, https://ec.europa.eu/eurostat/web/microdata/adult-education-survey; Nedelkoska and Quintini (2018[23]), "Automation, skills use and training", *OECD Social, Employment and Migration Working* Papers, No. 202, https://dx.doi.org/10.1787/2e2f4eea-en.

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Learning patterns and outcomes

The segmentation enables policy makers to analyse in greater detail how the type and pattern of learning varies across the different learner profiles. This section analyses the type of learning undertaken (formal, non-formal and informal), the intensity of learning (e.g. the number of hours participating in training) and the outcomes that adults gain from their participation for the nine leaner profiles.

As previously noted, participation in education and training in the model is defined as participation in formal and/or non-formal participation. However, adults can also participate in informal learning, such as learning on-the-job; interacting with a family member, friend or colleague; or visiting learning centres (e.g. libraries). This more unstructured learning, which is often unintentional, also matters. And while informal learning may be the most difficult to quantify, it should not be overlooked when analysing adult learning patterns.

It is important to note that for the profiles classified as not participating in non-formal or formal learning (Profiles 1 to 4), there are many adults who do still participate in informal learning (see Figure 2.7). While participation rates in informal learning are noticeably higher for adults who also participate in non-formal and formal learning, a significant share of adults with all four non-participating profiles are also learning informally, ranging from 45% for Profile 4: "Motivated but facing multiple obstacles" to 67% for Profile 3: "Motivated but facing time-related obstacles".

However, as is the case with formal and non-formal learning, there is a clear link between motivation to learn and informal learning – for example, the highest rates of participation in informal learning can be found in the most motivated profiles. Moreover, the lowest participation rate in informal learning among the participating profiles (69% for Profile 6: "Participating in response to work pressures") is still higher than the highest participation rate among the non-participating profiles (67%: for Profile 3 "Motivated but facing time-related obstacles"). Therefore, those who learn tend to learn in multiple ways, which lends credence to the adage that learning begets learning. On the other hand, those profiles most strongly associated with unemployment and inactivity are least likely to be engaged in informal learning, which underscores the importance of the workplace as a site of learning and that employment policies can *also* be important learning policies.

**Figure 2.7. Participation in informal learning for the nine adult learner profiles**
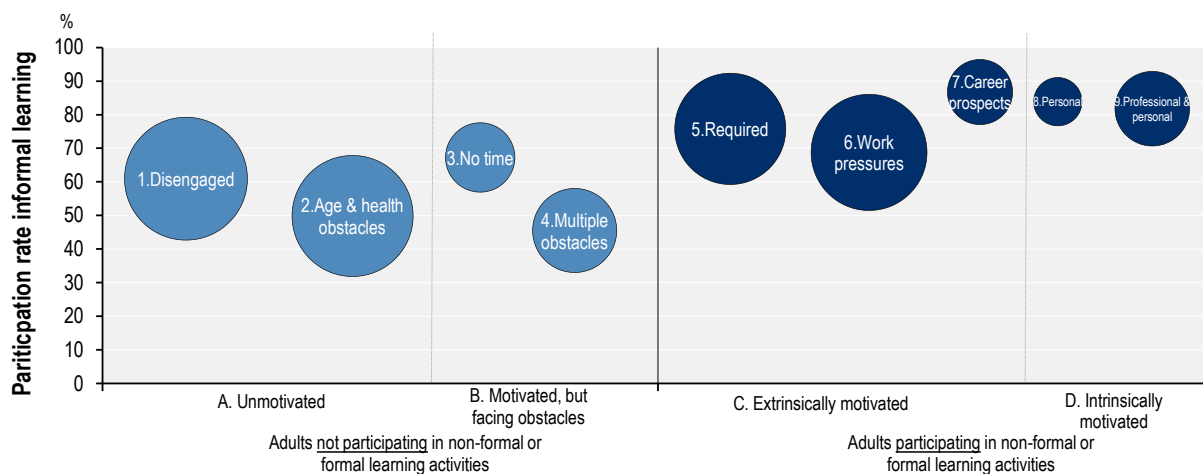
Note: The size of circles reflects the relative size of profiles, and the colour reflects participation (dark blue) or not (light blue). Informal learning is defined here as deliberately trying to improve knowledge or skills by interacting with a family member, friend or colleague; using printed material (e.g. professional magazines); using computers; learning through television/radio/video; participating in guided tours in museums, historical, natural or industrial sites; and visiting learning centres (e.g. libraries).
Source: Adapted from Eurostat (2021[14]), *Adult Education Survey 2016*, https://ec.europa.eu/eurostat/web/microdata/adult-education-survey.

StatLink 🔗 https://stat.link/xsz7my

With respect to the intensity of formal and non-formal learning as measured by the number of hours spent in training, several differences can be observed between the participating profiles. While the analysis is not entirely conclusive, there are indications of a positive association between the intensity of learning and the level (type) of motivation: adults in intrinsically motivated profiles (e.g. Profiles 8 to 9) tend to participate more in mid- and high-intense training programmes than their peers in externally motivated profiles (e.g. Profiles 5 to 7). For instance, Profile 7: "Participating to strengthen career prospects" is characterised by a comparatively high intensity of learning (defined as participation in learning activities of more than 36 hours in total or the top quartile of the distribution of hours participated), while Profile 5: "Reluctant but required to participate" stands out with a comparatively low to medium intensity of learning, defined as participation in learning activities of less than 12 hours (the bottom quartile). The result for Profile 5 likely reflects requirements to participate in short, compulsory courses. Perhaps unsurprisingly, the findings suggest that adults with greater motivation to learn are also more likely to spend a greater number of hours learning.

There is also noticeable variation in field of study choices across learner profiles. The three most popular fields of study in Flanders are "health", "business" and "services", while studies in fields such as "sciences and mathematics", "agriculture", and "social journalism" are comparatively uncommon. What stands out is the relatively large share of adults with Profile 9: "Participating for professional and personal development" taking courses in "business" and "ICT", and the large share of adults with Profile 7: "Participating to strengthen career prospects" taking courses in "health" and "arts and humanities".

There is also some variation in the types of learning providers typically used by different profiles. While education institutions are the most common provider for all profiles, they are particularly important for Profile 5: "Reluctant but required to participate" and Profile 7: "Participating to strengthen career prospects". On the other hand, employers are comparatively more often providers of learning activities for adults with Profile 9: "Participating for professional and personal development".

There are significant differences in the learning outcomes reported by the different profiles of learners (see Figure 2.8). Most adults participating in both formal and non-formal learning (Profiles 5 to 9) report that learning led to positive outcomes (Eurostat, 2021[14]). A vast majority also indicate that the skills or knowledge acquired during training are used actively, or even intensively, in their work. The most

commonly reported outcomes of learning activities are personal outcomes (e.g. meeting other people, refreshing skills on general subjects), followed by better performance at work.

A main finding is that a comparatively large share (37%) of adults with Profile 5: "Reluctant but required to participate" indicate that they have had no tangible outcome from one or more learning activities, meaning that they do not believe their learning led to any positive impact for themselves, which is a share much larger than that of other profiles. This finding is also consistent with the fact that many adults with this profile report that they have low motivation to learn more. Nonetheless, 40% of learners obliged to participate in education and training indicate having received important personal outcomes from one or more learning activity, such as refreshing skills on a particular subject, and 52% indicate better performance at work after training – the largest share of all profiles.

Adults with Profile 9: "Participating for professional and personal development" are most likely to report positive learning outcomes, such as better performance in the job, higher salaries, getting new tasks or a new job (see Figure 2.8). These findings suggest that while some profiles may be more likely than others to report a positive outcome, most people in any given profile report a positive outcome, which underscores the positive value of learning in adulthood.

Figure 2.8. Types of learning outcome for the five participating adult leaner profiles

Share of adults reporting outcomes from learning for the profiles
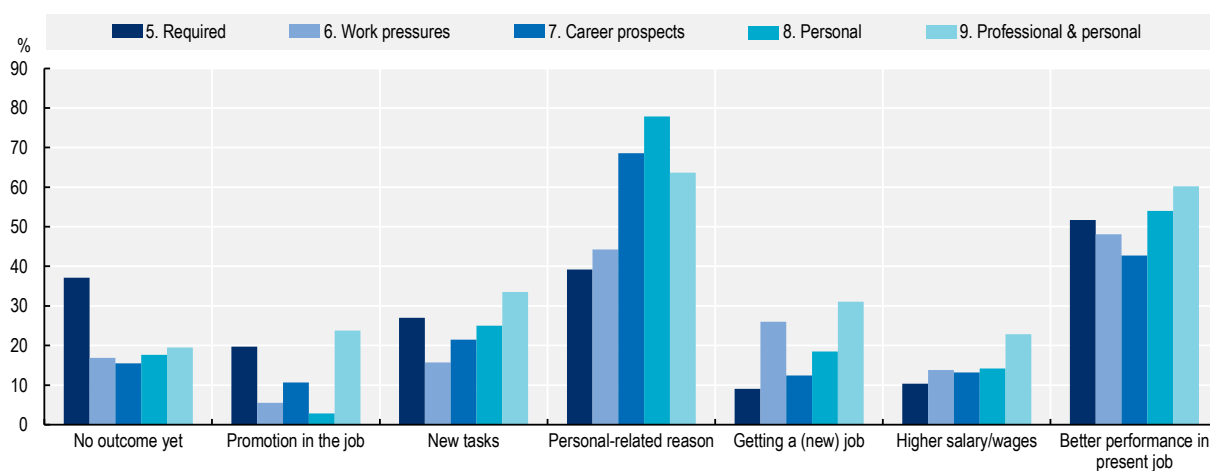
Note: Respondents can indicate multiple outcomes for different learning activities.
Source: Adapted from Eurostat (2021[14]), *Adult Education Survey 2016*, https://ec.europa.eu/eurostat/web/microdata/adult-education-survey.

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Several insights can be drawn from the analysis of the learning outcomes of different profiles. For instance, intrinsically motivated learners are generally more likely to report having positive outcomes, which is likely to be a self-reinforcing, virtuous circle. More motivated learners get more out of their learning because they are more invested in their training content, which leads to better outcomes that drives motivation to participate further. This also suggests that ensuring the quality of learning opportunities may be key to boosting motivation among participating adults by ensuring that participants are able to reap tangible benefits from learning. In addition, adults with Profile 8: "Participating for personal development" report comparatively often positive personal outcomes, which underscores the importance of intrinsic motivation for the achievement of successful learning outcomes.

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Annex 2.A. Detailed description of methodology behind the segmentation model

Latent Class Analysis (LCA) to segment the adult learning population

This study employs a Latent Class Analysis (LCA) methodology to segment the adult learning population in Flanders (see Annex Box 2.A.1 for the technical description). This method exploits the interrelation between an array of indicators through a fully specified (i.e. parametric) statistical model for organising the target population into more homogenous groups. LCA has three main advantages relative to other common segmentation (or clustering) methods: 1) formal statistical tests guide the selection of the optimal number of profiles and other models' features; 2) LCA does not allocate individuals into specific groups in a deterministic way, but provides probabilities of profile membership, thus reducing possible classification errors in any post-estimation analysis; and 3) LCA deals better with common data issues (e.g. missing data, complex surveys) (Collins and Lanza, 2009[24]).

Annex Box 2.A.1. A brief theoretical description of Latent Class Analysis

LCA is a means to uncover unobserved groupings in data. Based on a set of observed (categorical) variables (e.g. obstacles to learning and motivations to participate in training in the context of this project), a latent categorical variable can be estimated.

For the case of two independent categorical variables *A* (with j categories) and *B* (with k categories) the joint probability of being category *j* and category *k* is:

$$P_{jk} = P_j^A P_k^B$$

If X is a latent (unobserved) variable with T classes, then (under conditional independence assumption):

$$\pi_{jkt} = \pi_t^X \pi_{jt}^{AX} \pi_{kt}^{BX}$$

Where π_{jkt} is the joint probability of being in category j, category k and class t; π_t^X is the probability of being in class t; π_{jt}^{AX} is the probability of being in category j (of A) conditional on being in class t (of X); and similarly, π_{kt}^{BX} is the probability of being in category k (of B) conditional on being in class t (of X).

The class membership probability is the estimate of the proportion of the sample that belongs to a certain class. In other words, for a two class model, $\hat{\pi}_1$ would represent the proportion of cases expected to be members of the first class, where $t = 1$.

The estimation is by maximum likelihood (ML) using the expectation maximisation (EM) algorithm. It starts with a random split of observations into classes, and iteratively reclassifies them based on an improvement criterion until the best classification of observations is found. For the case of categorical variables, the logarithm of the ML function is given by:

$$\ln L = \sum_{j=1}^{R} \sum_{k=1}^{R} f(X_{jk}) \ln\{\pi_t^X \pi_{jt}^{AX} \pi_{kt}^{BX}\} = \sum_{j=1}^{R} \sum_{k=1}^{R} f(X_{jk}) \ln \pi_{jkt}$$

Where $f(X_{jk})$ is the observed frequency of response patterns and R represents the possible number of response patterns. Since all variables are dummy, R is equal to 2 in this case. This iterative estimation process ends when the difference between the ML estimate and the ML estimate of the preceding iteration reaches a minimum value.

As there are two baseline models targeting two different set of adults, the LCA aims to estimate two different ML function for participants and non-participants separately, which are represented in equation (1) and equation (2), respectively:

$$\ln L = \sum_{j=1}^{R} \sum_{k=1}^{R} f(X_k) \ln \left\{ \pi_t^X \prod_{i=1}^{15} \pi_{kt}^{X_i} \pi_{jt}^{X_i} \right\} = \sum_{j=1}^{R} \sum_{k=1}^{R} f(X_k) \ln \pi_{jkt} \ (1)$$

$$\ln L = \sum_{j=1}^{R} \sum_{k=1}^{R} f(X_k) \ln \left\{ \pi_t^X \prod_{i=1}^{8} \pi_{kt}^{X_i} \pi_{jt}^{X_i} \right\} = \sum_{j=1}^{R} \sum_{k=1}^{R} f(X_k) \ln \pi_{jkt} \ (2)$$

Where X_i are categorical variables, $X_1, \dots, X_i$. For participants and non-participants there are 15 and 8 binary indicators, respectively. Each X_i takes value on the finite set $[k_i] \equiv \{0,1\}$. Given that all indicators are binary, π_{jkt} is the joint probability of being in category k, category j and class t; , $\pi_{jt}^{X_i}$ is the joint probability of being in category j of (X_i) and class t; similarly, $\pi_{kt}^{X_i}$ is the joint probability of being in category k (of X_i) conditional on being in class t; and π_t^X is the probability of being in class t. As mentioned, R represents the possible number of response patterns (2 for this case).

In this project, the most common estimator for latent class models, maximum likelihood using an expectation maximisation algorithm, was applied (Dempster, Laird and Rubin, 1977[25]). In the EM steps of the ML process, conditional expectations and the posterior class membership probabilities are computed in the expectation step and parameter estimates are updated. The fit is then maximised through iterations in the maximisation step. This process alternates between the two steps until an optimisation criterion is reached. Estimation can be sensitive to start values, and it is wise to retest any model with different start values to be certain that convergence was reached at a global not local solution (Hipp and Bauer, 2006[26]), a testing process that may be automated within the software program. Many packages now employ random starts, and the user can specify the number of sets of random start values the computers uses. A log-likelihood value obtained upon convergence is used to compute fit indices.

Source: Collins and Lanza (2009[24]), *Latent class and latent transition analysis: With applications in the social, behavioural, and health sciences*, https://www.wiley.com/en-us/Latent+Class+and+Latent+Transition+Analysis%3A+With+Applications+in+the+Social%2C+Behavioral%2C+and+Health+Sciences-p-9780470228395; Lanza, Bray and Collins (2012[27]), *An introduction to latent class and latent transition analysis*, https://doi.org/10.1002/9781118133880.hop202024.

In this project, the statistical algorithm identifies population subgroups sharing similar factors that impact their participation in adult learning. The applied methodology is partly based on the methodology used in the OECD Faces of Joblessness reports, which apply the LCA method to identify key employment obstacles that may prevent individuals from participating fully in the labour market (Fernandez et al., 2016[12]).

The LCA was undertaken using data from the Adult Education Survey 2016, which includes variables on participation in learning and on motivations and obstacles to participate in learning. The survey also collects socio-demographic and labour market status information. The total sample for Flanders was 2 782 observations. Annex Table 2.A.1 shows the summary statistics for the main socio-demographic and labour market characteristics. For some variables, the sample is relatively small (e.g. inactivity condition), thus any statistical inference based on them is limited.

Annex Table 2.A.1. Summary of descriptive statistics for participants and non-participants

Variables	Non-participants				Participants			
	Mean	Std dev	N	N (x1000) (Weighted)	Mean	Std dev	N	N (x1000) (Weighted)
Socio-demographic characteristics								
Gender								
Male	0.54	0.49	729	924	0.5	0.5	709	802
Female	0.46	0.49	632	869	0.5	0.5	712	837
Level of education				0				0
Below upper secondary	0.29	0.45	401	598	0.08	0.27	115	162
Upper secondary	0.42	0.49	575	801	0.32	0.47	459	623
Tertiary	0.28	0.45	385	395	0.6	0.49	847	855
Migrant Characteristics								
Speaks Dutch/Flemish	0.89	0.3	1 218	1 584	0.93	0.25	1 325	1 513
Does not speak Dutch/Flemish	0.11	0.3	143	210	0.07	0.25	96	126
Migrant	0.13	0.33	176	263	0.08	0.27	116	156
Not migrant	0.87	0.33	1 167	1 503	0.92	0.28	1 288	1 461
Quintile of the household income								
Quintile 1	0.22	0.41	196	294	0.09	0.28	93	125
Quintile 2	0.24	0.42	216	303	0.14	0.35	151	191
Quintile 3	0.19	0.39	168	217	0.21	0.41	224	266
Quintile 4	0.17	0.37	154	191	0.28	0.45	299	339
Quintile 5	0.18	0.38	160	181	0.29	0.45	315	329
Labour characteristics								
Labour status								
Employed	0.65	0.48	879	1 100	0.87	0.34	1 237	1 409
Unemployed	0.05	0.21	62	58	0.04	0.2	57	55
Inactive	0.28	0.45	383	587	0.07	0.26	102	144
Inactivity condition								
Student	0	0.03	1	2	0.01	0.09	11	16
Retired	0.13	0.33	166	233	0.03	0.18	45	58
Disabled	0.06	0.24	82	127	0.01	0.1	13	17
Domestic activities	0.07	0.25	87	151	0.01	0.12	20	30
Other inactive	0.04	0.19	47	74	0.01	0.1	13	20
Occupation								
Managers	0.06	0.24	83	98	0.09	0.28	122	134
Professionals	0.1	0.31	142	151	0.33	0.47	470	495
Technicians and associate professionals	0.08	0.27	108	123	0.16	0.36	223	251
Clerical support workers	0.09	0.29	128	167	0.11	0.31	156	189
Service and sales workers	0.08	0.27	111	146	0.06	0.23	80	102
Skilled agricultural, forestry and fishery	0.01	0.1	15	18	0.01	0.1	14	17
Craft and related trades workers	0.06	0.24	81	107	0.04	0.19	53	66

Source: Adapted from Eurostat (2021[14]), *Adult Education Survey 2016*, https://ec.europa.eu/eurostat/web/microdata/adult-education-survey.

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Implementing the LCA in four steps

For this project, the LCA was undertaken in four steps. In the first step, the baseline model and indicators were defined. The baseline model uses indicators that are considered as playing an important role in defining class membership. In the second step, the statistical fit of LCA was assessed using relative fit information criteria to guide the decision on the optimal number of classes (profiles). In the third step, additional covariates (socio-demographic and labour variables) were included in the analysis to better characterise the classes generated of participating and non-participating adults. Finally, to validate the decisions made and test the results obtained from the LCA, a couple of additional robustness checks were conducted.

Step 1: Defining the baseline model and selecting the indicators

The specification of the baseline model involved the selection of an entire set of indicators that, in the context of adult learning participation, relate to the motivations and main obstacles adults face to engaging with learning opportunities. Two different models were established for identifying the profiles in groups of non-participating and participating adults. These models include the indicators (all dummy variables) that best describe the main drivers behind not participating (i.e. a lack of motivation and obstacles to participation) and participating (i.e. the different reasons for participating and motivations to participate more).

The first model for non-participants includes indicators on both motivation and obstacles to participation. In the AES, all adults who did not participate in learning activities were asked whether they would have liked to participate, thereby indicating their motivation. If they did not want to participate, they were asked if it was because they did not see a need for learning. Regardless of whether adults want to participate, they were also asked about the obstacles they face. For some cases, the obstacles were grouped to increase the statistical representativeness of the sample (e.g. time related obstacles include variables on schedule constraints and family responsibilities).

The second model for participants includes indicators of their reasons for participating in learning, including both job-related and not job-related factors. These indicators provide insights into their attitudes towards learning, which could be linked to different types of motivational profiles (e.g. extrinsic and intrinsic motivations to learn). In addition, to have a more comprehensive view of these motivational profiles, indicators of their willingness to participate more in AES – i.e. in addition to the learning activities they already participated in – were included, thereby providing insights into motivations *ex post* the learning activity (in contrast to the *ex ante* reasons to learn).

Annex Table 2.A.2 lists all the indicators (all dummy variables) included in the baseline model for non-participants and participants. Some variables included in the analysis were recomputed based on information collected in the survey. Some of the variables combine multiple categories to increase their statistical representativeness. Instead of using all possible obstacles identified in the AES, some obstacles were created by combining two or more categories. For example, the variable "time constraint" was created by combining the variables relating to both family responsibilities and schedules. Furthermore, some variables were generated to split the sample in multiple categories to explore the heterogeneity of adults' socio-demographic characteristics. For instance, household income quintiles relies on the sum of the income of all household members, and their distribution within the entire sample. Annex Table 2.A.2 provides more information on the questions used for generating all the indicators.

Annex Table 2.A.2. Indicators included in the LCA for adult learning non-participants and participants

Non-participants				Participants				
Indicator	Mean	Std dev	N	N (x1000) (weighted)	Indicator	Mean	Std dev	N	N (x1000) (weighted)
No need	0.46	0.50	632	850	No need	0.24	0.43	340	39
Unmotivated	0.80	0.40	1 083	1 439	Unmotivated	0.55	0.50	780	90
Health/age	0.32	0.47	137	193	Better job	0.42	0.49	602	67
No suitable programmes	0.18	0.38	76	96	Career prospects	0.16	0.37	230	27
Personal reasons	0.12	0.33	52	67	Certificate	0.10	0.29	136	15
Time	0.53	0.50	224	292	Changes at work	0.09	0.28	118	13
Cost	0.17	0.37	70	89	Health	0.03	0.17	38	4
Lack of support	0.09	0.29	39	47	Increasing possibilities	0.09	0.28	121	14
					Interest in subject	0.36	0.48	509	575
					Meet people for fun	0.11	0.31	153	175
					Not to lose job	0.04	0.21	63	74
					Obliged	0.01	0.10	14	18
					Required	0.28	0.45	367	425
					Skills for life	0.28	0.45	394	452
					Start business	0.03	0.16	36	41
					Voluntary work	0.02	0.14	25	28

Note: The "mean" is equivalent to the percentage of adults facing an obstacle (having a reason) to participate. The sum of all obstacles (reasons) do not add up to 100 because an adult may report facing more than one obstacle (reason to participate), thus the categories are not mutually exclusive. The question used for generating the obstacles for participating and the reasons to participate are described in more detail in Annex Box 2.A.2. Time related obstacles include schedule and family responsibilities. Personal reasons includes negative experience, no access to computer or Internet. Not suitable training or education offer includes prerequisites and distance.
Source: Adapted from Eurostat (2021[14]), *Adult Education Survey 2016*, https://ec.europa.eu/eurostat/web/microdata/adult-education-survey.

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Annex Box 2.A.2. Adult Education Survey: Questions used to generate main indicators and variables for the model

Motivations to participate (more) in education and training

In the AES, all adults who did not participate in learning activities were asked whether they would have liked to participate (the exact question is *"Previously in the questionnaire you stated that during the last 12 months you did not participate in any kind of education or training. Despite this, would you have liked to participate in such activities?"*), thereby indicating their motivation. If they did not want to participate, they were asked if it was because they did not see a need for learning (question *"You answered no to the previous question. Is it because you did not need additional education and training?"*).

For adults already participating these questions were also asked, but with an emphasis on whether they would like to participate in more training (e.g. *"Previously in the questionnaire you stated that during the last 12 months you participated in education and training. Would you have liked to participate even more in such activities?"*).

Obstacles to participating in education and training

To identify the obstacles that adults face to engaging with adult learning, the AES includes a module that collects information on the difficulties of participating in education. This information is available for those who participated and wanted to participate more, those who did not participate but wanted to, and those who report not needing to participate or learn. The obstacle categories included in the model rely on the question "*Which of the following obstacles prevented you from participating in education and training? (Mark all that apply)*". The respondent can choose more than one obstacle that prevents him/her from participating in education and training. For the segmentation model, some of these categories are aggregated given the sample size. For example, "schedule" and "family responsibilities" are grouped in "time" related obstacles. "Negative experience" and "no access to computer or Internet" are grouped in "personal" reasons for not participating. The categories "prerequisites" and "distance" are included in "not suitable training or education offer".

Reasons for participating in non-formal learning activities

AES includes a module to collect detailed information on learning activities for respondents that have participated in formal and non-formal education, including the reasons and motivation for participating. The specific question included in the questionnaire is *"What were the reasons for participating in the non-formal (formal) learning activity? (Mark all that apply)".* As for the case of the obstacles for participating in education and training, respondents are able to choose more than one reason for participating in learning activities.

Source: Eurostat (2022[28]), *Adult Education Survey 2016 questionnaire*, https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Adult_Education_Survey_(AES)_methodology#Questionnaire.

The indicators included in the estimations of the LCA are binary for several reasons. First, it greatly simplifies the statistical model for the LCA and facilitates an easier interpretation of the model outcomes. Second, the loss of information is reduced if variables are categorical and have multiple potential values.

The indicators of the baseline models are assumed to be independent, which means that they are only related to each other through an unobserved (i.e. latent) variable. There are no additional unobserved characteristics correlated with the indicators and the generated profiles. This assumption, called Local Independence Assumption (LIA), originates from the causal foundation of the LCA, which aims to ensure no residual association between the indicators.

Step 2: Assessing the statistical fit of the model

To determine the optimal number of profiles based on a statistical representative sample, two goodness-of-fit indicators were used for this project: The Bayesian Information Criterion (BIC) (Schwarz, 1978[29]) and the Akaike Information Criterion (AIC) (Akaike, 1987[30]) (see Annex Box 2.A.3). BIC and AIC capture the trade-off between how well the model fits the underlying data and the cost of complicating the structure of the model. Looking at the combination of BIC and AIC criteria helps to choose the optimal number of profiles (for participants and non-participants, separately). The model with a number of profiles that minimises in absolute terms the AIC and BIC is typically the best choice, as a smaller value of these indices indicates a more optimal balance between model fit and parsimony.

Additional indicators can provide information regarding how well the model is able to classify individuals into the profiles. The simplest classification statistic is computed as the number of individuals estimated to be misclassified as a proportion of the mode or most repetitive group assignment (Vermunt and Magidson, 2004[31]). It is natural to obtain a classification error, but studies on LCA suggest that it should not be above 30%. Values above 30% imply that the model is not able to differentiate among the groups in the allocation of individuals.

Annex Figure 2.A.1 shows the percentage variations of the BIC and AIC for an increasing number of profiles of adults not participating in learning (Panel A) and adults participating in learning (Panel B). For both samples, models with few generated classes have relatively large variations of BIC and AIC indices. This is because the model's ability to fit the data increases significantly compared to the model's parametrisation. For a higher number of classes the increment of goodness-of-fit is progressively compensated by the higher parameterisation, thus producing a smaller, and eventually positive, change in the two measures.

The selection of the optimal number of latent classes depends on the variation of the evaluated indices (from one cluster number to the other) being minimised in absolute value, or being closest to zero. For the sample of non-participating adults, the BIC and AIC index variation are closest to zero when the cluster number is four. For the sample of participating adults, the BIC and AIC is closest to zero for a model with five classes. Based on Fernandez et al. (2016[12]), the BIC normally points to a more parsimonious specification than the AIC, as the latter takes into account only the higher number of parameters, whereas the former also considers the overall sample size. Additionally, the classification error is also at its minimum for a model with four classes for non-participating adults and five classes for those participating.

Annex Box 2.A.3. Information criterion indexes and classification errors

Information criterion indexes

Part of the process of LCA involves deciding on the optimal number of classes, sometimes called class enumeration. Comparisons usually made among models with different numbers of classes provide evidence on the number of classes that best fit the sample and indicators. There are multiple information criterion (IC) to assess LCA fitness and the class solution. For this segmentation model, two information criterions are taken into account: Bayesian Information Criterion (BIC) (Schwarz, 1978[29]) and the Akaike Information Criterion (AIC) (Akaike, 1987[30]). Both IC indexes are based on the log likelihood of a fitted model, where each of the ICs apply a different penalty for the number of model parameters and/or sample size. Because of the different penalties across the ICs when using them, it is possible that each of the ICs point towards a different class solution as the best model.

BIC or adjusted BIC is the default information criteria used with LCA. It is commonly used for this purpose (lower values indicating better fit) and performs fairly well (Tofighi and Enders, 2007[32]). The BIC considers weights in two ways: first, the weights, which are modified to sum the effective sample size, are reflected in the log-likelihood; second, the effective sample size is used in the penalty when computing the BIC. The BIC is defined as:

$$BIC = -2\ln L + K\ln(n)$$

Where K is the number of independent variables used and n the sample size. L is the log-likellihood estimate (also known as the likelihood that the model could have produced the observed y-values). A variant of the BIC index, adjusted BIC defined by (Sclove, 1987[33]), replaces the sample size n in the BIC equation with $n^* = \frac{n+2}{24}$.

AIC is calculated from the number of independent variables used to build the model and the ML estimate of the model accounting for how well it reproduces the data. In other words, the AIC determines the relative information value of the model using the ML estimate and the number of parameters. The formula for AIC is:

$$AIC = -2K + 2\ln L$$

The default K is always 2. To compare models using AIC it is necessary to calculate the AIC of each model. If a model is more than 2 AIC units lower than another, it is considered significantly better than the former model. The best-fit model according to AIC is the one that explains the greatest amount of variation using the fewest possible independent variables.

Classification error

In addition to evaluating fit, reviewing classification diagnostics can be key to assessing LCA fitness (Maysing, 2013[34]). Although diagnostic statistics are not used to select the final class model, they are important for consideration. The average latent class posterior probability is the average probability of the class model accurately predicting class membership for individuals (Muthén and Muthén, 2000[35]). The average latent posterior probabilities are presented in a matrix, with diagonals representing the average probability of a person being assigned to a class given his or her scores on the indicator variables used to create the classes. Higher diagonal values (i.e. closer to 1.0) are desirable. Off-diagonal elements in the posterior probability matrix contain probabilities of cases that belong in one class being assigned to another class in the current solution. Lower values off the diagonal (i.e. closer to 0) are desirable. Some researchers use a .70 cut-off for acceptable diagonal probabilities (Weden and Zabin, 2005[36]). Others suggest a cut-off value of greater than .90 (Muthén and Muthén, 2000[35]).

Source: Nylund, Asparouhov and Muthén (2007[37]), *Deciding on the Number of Classes in Latent Class Analysis and Growth Mixture Modeling: A Monte Carlo Simulation Study*, https://www.statmodel.com/download/LCA_tech11_nylund_v83.pdf; Schwarz (1978[29]), Estimating the Dimension of a Model, https://doi.org/10.1214/aos/1176344136; Akaike (1987[30]), Factor analysis and AIC, https://doi.org/10.1007/bf02294359; Tofighi and Ender (2007[32]), Advances in Latent Variable Mixture Models; Maysing (2013[34]), The Oxford handbook of quantitative methods: Statistical analysis; Muthén and Muthén (2000[35]), Integrating person-centered and variable-centered analyses: Growth mixture modeling with latent trajectory classes, https://pubmed.ncbi.nlm.nih.gov/10888079/.

Annex Figure 2.A.1. Selection of the optimal number of latent classes
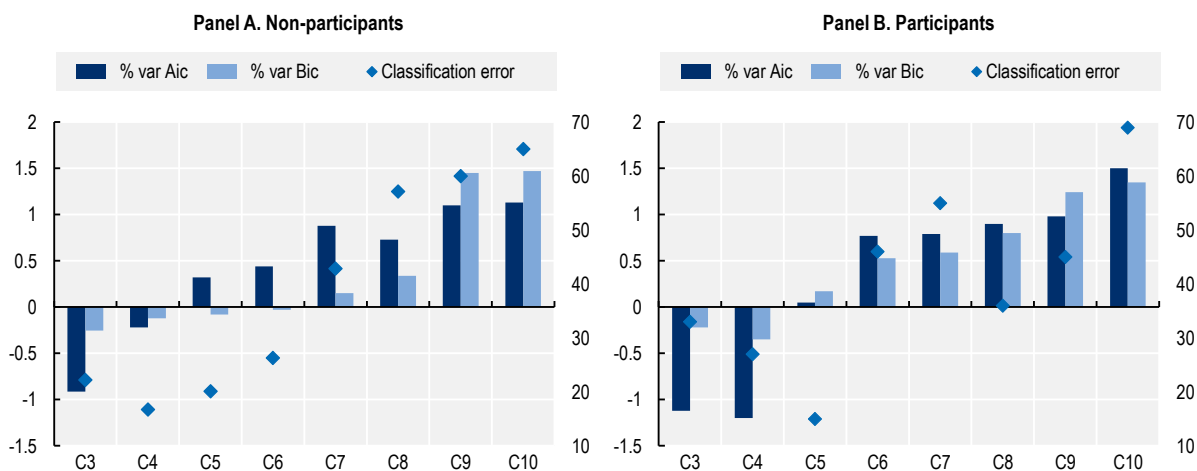
Note: The X axis corresponds a number of classes (clusters) estimated in each model.
Source: Adapted from Eurostat (2021[14]), *Adult Education Survey 2016*, https://ec.europa.eu/eurostat/web/microdata/adult-education-survey.

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Step 3: Characterising the profiles with additional indicators

An important step of the empirical application of LCA is identifying specific population subgroups of interest, such as unemployed and non-native speakers, by including individual and household characteristics into the analysis. There are two ways to include additional variables to conduct a more detailed analysis using LCA. The first is the direct approach (or one-step approach) that involves estimating the LCA model with the additional characteristics (covariates) contributing to the definition of the class-membership probabilities. The second (the one used for this project) is the indirect approach (or three-step approach) that keeps covariates out of the estimation process, only using them in the post-estimation analysis. After estimating the model without covariates and allocating individuals to the latent classes using the estimated class-membership probabilities, the covariate analysis computes two-way tables summarising the relation between class-membership and covariates. The three-step approach brings clear advantages compared to the direct approach as it is easier to interpret the outcomes and computations can take less time to be obtained.

In the present segmentation analysis, the inclusion of additional variables is primarily driven by the interest in specific population subgroups typically considered in the breakdown of adult learning participation statistics. The selection of the variables also relies on the available information for each sample and the sample size in the AES. Annex Table 2.A.3 shows the main variables included to analyse adult learning participants and non-participants. The choice of some additional variables, such as "speaks Flemish" and "received guidance or information", relies on practical considerations based on suggestions made by stakeholders and the Flanders project team during workshops and interviews. The addition of "speaks Flemish" aims to provide insights into how adults facing language obstacles are distributed among the identified profiles. "Received guidance or information" allows the role of guidance and information provision (and its different modalities and mechanisms) in the different profiles to be analysed. Annex Table 2.A.1 showed the distribution of the socio-demographic and labour characteristics respectively by the nine profiles.

Annex Table 2.A.3. Additional variables included in the LCA for characterising the profiles

Covariates included for both participants and non-participants	Covariates included only for participants
Gender	Fields of training or educational programme
Group of age	Provider
Quintile of household income	Intensity of the training (in hours)
Speaks Flemish	Learning outcomes
Household composition	
Level of education	
Labour status	
Occupation (1 digit ISCO code)	
Level of qualification-occupation	
Tenure	
Enterprise size	
Sector (Industry 2 digits ISIC code)	
Automation risk	
Received guidance or information	
Source of guidance or information	
Type of information or guidance	
Engagement with informal learning	

Source: Eurostat (2021[14]), *Adult Education Survey 2016*, https://ec.europa.eu/eurostat/web/microdata/adult-education-survey.

Step 4: Robustness checks

To validate the decisions made and test the results obtained from the LCA, two additional exercises were conducted. The first aimed to test the set of indicators included in each model (for participants and non-participants). As mentioned, some indicators were aggregated, particularly to increase the sample size and thus improve the statistical power of the estimations (e.g. time obstacles that includes schedule and family responsibilities). To validate this decision, LCA estimations were run using the indicators separately (e.g. one dummy for "schedule" and another for "family responsibilities", instead of a sole dummy to account for "time-related obstacles"). While reducing the statistical significance for some of the indicators, the LCA generated a similar profile structure with similar membership probabilities. This result shows that the indicator groupings contribute to increasing the statistical significance of indicators that, by definition, seem to be correlated, as well as to increasing the power prediction of the LCA.

Similarly, LCA estimations were conducted dropping the "unmotivated" and "no need" indicators to verify the consistency of profiles and its characteristics. The optimal number of profiles was verified and remained the same for both groups of adults (four for non-participants and five for participants). Annex Table 2.A.4 shows the variation of the two information criterions, AIC and BIC, by number of classes for the model that excludes both "unmotivated" and "no need", and the models that exclude only one of them separately. In particular for profiles where obstacles (reasons for participating) are substantially more relevant (e.g. Profile 1 and Profile 2), the profile structure and the membership probability remains relatively the same.

Annex Table 2.A.4. Verifying the optimal number of classes after changes in LCA indicators

Percentage variation of AIC and BIC by number of classes

		Non-participants			Participants		
		C3	C4	C5	C4	C5	C6
No need and unmotivated variables excluded	% variation of AIC	-0.57	0.21	0.63	-0.73	-0.12	0.45
	% variation of BIC	-0.32	-0.18	0.44	-0.38	-0.25	0.32
Only no need variable excluded	% variation of AIC	-0.38	0.22	0.50	-0.77	-0.11	0.21
	% variation of BIC	-0.41	-0.21	0.22	-0.40	-0.13	0.17
Only unmotivated variable excluded	% variation of AIC	-0.29	0.25	0.54	-0.89	-0.23	0.27
	% variation of BIC	-0.19	-0.08	0.30	-0.25	-0.18	0.31

Source: Adapted from Eurostat (2021[14]), *Adult Education Survey 2016*, https://ec.europa.eu/eurostat/web/microdata/adult-education-survey.

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Limitations and considerations

LCA is a method based on structural equation modelling that aims to classify individuals into heterogeneous groups with homogenous developmental trajectories (i.e. where those within a group are very similar to one another, but the groups are very different from each other).

Although LCA is a powerful statistical procedure, it has limitations. LCA assigns individuals to classes based on their probability of being in classes given the pattern of scores they have on indicator variables (Muthén and Muthén, 2000[35]). Class assignment is not guaranteed, meaning that individuals cannot be assigned to a specific class as assignment is based on probabilities. Thus, the exact number or percentage of sample members within each class cannot be determined. However, through LCA estimation the probabilities of belonging to a class can be predicted, which allows the three-step approach for identifying the socio-demographic and labour characteristics of profiles to be run. Furthermore, names are usually

assigned to the identified classes and, because of the complexity of the classes, there may be a risk of "naming fallacy," where the name of the class does not accurately reflect all the people in that group (Weller, Bowen and Faubert, 2020[38]).

In addition, the assumption underlying LCA is that membership in unobserved classes can cause or explain patterns of scores across assessment indicators (Muthén and Muthén, 2000[35]; Wolke et al., 2013[39]). The Conditional Independence (CI) assumption is the keystone of the classical latent class approach. The assumption states that, conditional on motivations (obstacles) for participating (non-participating), membership to a specific class is independent and the joint possible correlation does not give any additional information about the groups. This assumption is rather strong and cannot be easily tested. Additionally, the CI assumption often fails in practice to increase the risk of misleading inference for LCA of data that do not meet the independency between the indicators considered. However, its validation requires careful justification.

For this project, it is plausible that the main motivation (obstacles) to participate (not participate) in learning opportunities are uncorrelated with other reasons to participate (obstacles for participating), by definition. However, there are unobservable factors correlated with both indicators. For instance, "cost" and "time" obstacles are highly dependent on each other. Especially for adults with income depending directly on the numbers of working hours, the time assigned for training competes with the time assigned for working, thus with the ability to cover training expenses. Based on the statistical theory, individuals' values on a set of indicator variables are driven by their class membership. This concept is similar to the notion of a latent construct driving scores on scale items in factor analysis procedures (Kline, 2016[40]).

Estimations are conducted based on two models (adults participating and not participating) that rely for the most part on different sets of indicators. Outcomes of the models complement each other and related characteristics of profiles (socio-demographic and labour market) can be compared. The three-step approach resulted in the distribution of characteristics within each of the profiles, which helped to ensure this comparison. However, any comparison between profiles and their distribution of characteristics should take into account the underlying population used. Ideally, more common indicators would be added to strengthen the direct comparability of outcomes.

Consideration should also be given to the particularities of the survey data (AES) used in the analysis undertaken for this project. Definitions of key concepts used in this study such as "motivations to learn", "obstacles to participation" and "reasons to learn" were determined by how questions in the survey are phrased. For example, when asking adults for their reason to participate, a number of options are given to them (e.g. "to do my job better", "to improve my career prospects", "to be less likely to lose my job"), but it could very well be that other reasons might also have been relevant.

Annex 2.B. Methodology for measuring skills requirements in the labour market

Skills required in the labour market

The purpose of this exercise is to identify the skills required for the most commonly held occupations for each profile. While these outcomes should be interpreted with care, this information could, for instance, provide insights into the content of the training supply in order to better respond to labour market needs.

For this analysis, online job postings data from Burning Glass Technologies (BGT) were used, which covers the 27 European Union countries, as well as Australia, Canada, New Zealand the United Kingdom and the United States. The information can also be disaggregated by region, which enabled the dataset for Flanders to be selected

Based on the descriptions of job postings, BGT extracts information on the skills, abilities and knowledge required for the job using ESCO (the European Skills, Competences, Qualification and Occupations framework). For the sake of simplicity, this report uses "skills" when referring to these different dimensions. The dataset also has information on occupations (using ISCO-08), advertised salary, job location, contract duration and many other aspects related to the working environment.

Annex Table 2.B.1 shows that there are approximately 2.4 million unique jobs postings in Flanders from the first quarter of 2018 to the third quarter of 2021 (period of study). According to Annex Table 2.B.2 the demand is concentrated among professionals, and technician and associate professionals, which together account for 54% of total postings each quarter in Flanders. Because of the nature of the source of information, high-skilled occupations are overrepresented in job postings.

Annex Table 2.B.1. Number of unique job postings for Flanders per quarter, 2018 to 2021

Year	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total
2018	NA	NA	151 512	180 312	331 824
2019	224 656	177 196	142 195	122 757	666 804
2020	227 841	150 000	250 950	323 843	952 634
2021	135 247	89 040	196 509	NA	420 796
Total	587 744	416 236	741 166	626 912	2 372 058

Note: Around 710 000 unique job postings do not indicate information on month and year. This is 6% of total observations.
Source: OECD calculations based on Burning Glass Technologies data, March 2022, Burning Glass Technologies (2022[22]), *Burning Glass database - online job postings*, https://www.burning-glass.com/.

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Annex Table 2.B.2.Number of unique job postings in Flanders by occupation and quarter-year of interest

Occupations at one digit level (ISCO-08)	Q3 2018	Q3 2019	Diff(1) = Q3 2019 - Q3 2018	Q3 2020	Q3 2021	Diff(2) = Q3 2021 - Q3 2020
Managers	16 521	12 510	-4 011	18 709	18 570	-139
Professionals	34 143	32 607	-1 536	50 953	47 425	-3 528
Technicians and associate professionals	25 548	25 077	-471	38 098	30 622	-7 476
Clerical support workers	18 328	15 706	-2 622	21 267	21 055	-212
Service and sales workers	14 743	11 902	-2 841	24 385	18 265	-6 120
Skilled agricultural, forestry and fishery workers	412	207	-205	455	229	-226
Craft and related trades workers	21 297	15 791	-5 506	36 587	17 059	-19 528
Plant and machine operators, and assemblers	15 271	13 494	-1 777	29 563	18 969	-10 594
Elementary occupations	14 492	11 323	-3 169	24 145	20 405	-3 740

Source: OECD calculations based on Burning Glass Technologies data, March 2022, Burning Glass Technologies (2022[22]), *Burning Glass database - online job postings*, https://www.burning-glass.com/.

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For the analysis in this report, skills information (ESCO) from job postings was aggregated for occupations (ISCO-08) at the two-digit level. This skills information at the level of occupation was then linked to the information on occupations in AES. Subsequently, the three-step approach was applied to identify what skills are most important for each of the nine profiles. Trends in job postings and required skills were also analysed to review what skills have become more important in the Flemish labour market.

Only data on "unique" job postings were used for analysis in this report, meaning that duplicate job postings have been deleted (e.g. jobs published on multiple web and career portals), and any changes in sources were corrected for (e.g. job postings from newly added sources that raised coverage, but that distorted trends in job postings).

There are caveats and limitations to the use of job posting information that are important to highlight. For example, Burning Glass data only cover jobs posted online and may therefore not be representative of all vacancies. In addition, online vacancies can be somewhat skewed towards certain areas of the economy, although most differences are small in magnitude (Hershbein and Kahn, 2018[41]). Recent evidence shows that most countries display adequate representativeness overall, when considering only those years for which no break in time series was observed (Cammeraat and Squicciarini, 2021[42]). However, the study shows that occupational categories such as managers, professionals, and technicians and associated professionals are relatively overrepresented in Burning Glass data compared to other occupational categories, which underscores the importance of taking caution in interpreting the results and comparing occupational categories and their skills content. This implies that potential bias is more pronounced for low-skilled jobs, and less of concern for high-skilled occupations and sectors (Carnevale, Jayasundera and Repnikov, 2014[43]; Hershbein and Kahn, 2018[41]; Forsythe et al., 2020[44]).

Regarding linking skill needs information with the classes generated by the segmentation model, there are some important considerations. First, as the information is computed and merged by occupation, it relies on the proportion of workers in each profile, and thereby ignores the inactive and unemployed parts of profiles. Nevertheless, the analysis conducted for this section is based on the assumption that the identified skills needs can be extrapolated for all adults within the same group, regardless of labour market status. Second, due to a lack of information on the labour force supply and the skills adults possess, the analysis does not provide insights on the actual skills gaps.

3 Policy implications of the nine adult learner profiles in Flanders, Belgium

This chapter provides advice on how to apply the nine adult learner profiles – as described in Chapter 2 – to improve the targeting and tailoring of adult learning policies. Insights from the nine learner profiles can be used to better evaluate, design and implement policies that effectively respond to the needs of people (i.e. that address their motivations for learning and the obstacles they face). In this chapter, specific policy insights for each of the nine profiles are presented, and general policy implications of the adult learner profiles are described.

Introduction

Raising awareness about the different needs and motivations of adult learners

The insights generated from the nine adult learner profiles can help make policy makers and stakeholders more aware of both the different motivations of learners and the different obstacles they face, as well as the means to boost their motivation and overcome obstacles. Government representatives and stakeholders consulted in this project noted that the segmentation allows for a more nuanced understanding of the different types of learners and the multiplicity of reasons why adults are participating or not in learning activities. Stakeholders also confirmed that the profiles identified in this project are recognisable in the population of adult learners in Flanders.

This more nuanced understanding of the different types of learners could help to strengthen the design of future adult learning policies and practices at various levels. For example, organisations with an important role in the adult learning system, such as training providers and research institutes, could use insights from the model to improve their own initiatives, such as outreach campaigns, their training offers, and more. Many stakeholders consulted during this project noted that the profiles would help them assess whether they are currently targeting the right groups of learners with the right initiatives.

Using the profiles to develop policies more targeted and tailored to the needs of learners

The insights these profiles provide into how differing motivations, obstacles and other factors combine to influence decisions to participate or not in learning can help Flanders (Belgium) to develop policies that are better targeted and tailored (see Box 3.1 for definitions) to the needs of learners. Policies that are targeted and tailored to the specific needs of learners are more capable of raising the participation of underrepresented groups than more universal approaches (OECD, 2020[1]). While universal instruments may have the benefit of low administration costs and ease of implementation, this can come at the expense of under-investment in key target groups. Indeed, adult learning measures that are less targeted tend to disproportionately benefit the high-skilled and, therefore, can result in high deadweight losses – i.e. the financing of learning activities that would have occurred even without public support.

Box 3.1. The distinction between targeting and tailoring initiatives

Making a clear distinction between targeting and tailoring can facilitate the development of more effective policies. In marketing and communication, these concepts are often used interchangeably, or used to distinguish between whether something is directed at a group (targeting) or an individual (tailoring). In this chapter, the following definitions are applied:

- **Targeting:** *Directing* initiatives at specific groups, e.g. the profiles are used to identify specific groups that require specific support, and initiatives are then steered directly towards them.
- **Tailoring:** *Adapting* initiatives to the characteristics of specific profiles, e.g. measures could take into consideration the specific characteristics of the nine learner profiles.

Source: Bostrom, Böhm and O'Connor (2013[2]),*Targeting and tailoring climate change communications*, https://doi.org/10.1002/wcc.234; Schmid et al. (2008[3]), *Targeting or tailoring? Maximizing Resources to Create* Effective *Health Communications*.

In Flanders, adult learning initiatives are already targeted and tailored to a range of specific priority learner groups. However, these initiatives offered by different organisations are often not well co-ordinated, and as discussed in Chapter 1, have not yet led to a significant increase in participation among targeted groups. For example, while several incentives target adults with low levels of education, there is still a

comparatively large 47 percentage point gap in participation rates between adults with low and high levels of education (Eurostat, 2021[4]). Moreover, reaching adults most in need of upskilling or reskilling has remained challenging for Flanders, with the various incentives not always being used by the adults who could benefit the most (OECD, 2019[5]). The nine profiles provide new insights into how multiple factors combine to influence the decisions of people in existing target groups to participate, which can support more targeted and tailored policies.

Government representatives and stakeholders consulted during this project shared many ideas about how the nine adult learner profiles could be used to inform policy making. This chapter will summarise and expand on these discussions by reflecting on the use of the nine profiles from two perspectives. First, it will examine policy insights for each adult learner profile, including what policies could be most helpful to them, how current policies could be further improved, and what important policies are currently insufficient or lacking. Second, it will assess the general policy implications of the adult learner profiles, including how they could be applied to support the evaluation and monitoring of policy, and how they could be used for the design and implementation of adult learning policies.

Specific policy insights for each adult learner profile

Insights from the nine profiles can help Flanders make its adult learning policies even more targeted and tailored, including by helping to identify groups not well served by existing skills policies, and by demonstrating the need for additional or different policies to bolster the motivation to learn and overcome the obstacles faced by specific profiles. In this section, relevant insights for policy making will be discussed for each of the four categories of motivational profiles ("unmotivated", "motivated but facing obstacles", "extrinsically motivated" and "intrinsically motivated") and their underlying nine profiles (see Figure 3.1).

Figure 3.1. The four categories of motivational profiles

Adults not participating in non-formal or formal learning activities

A. Unmotivated
- Do not want to learn, and perceiving no need to learn
- Lack of motivation often related to personal circumstances

Profile 1: **Disengaged** from learning

Profile 2: Unmotivated due to **age and health** obstacles

B. Motivated, but facing obstacles
- Want to learn, but unable due to various obstacles they face

Profile 3: Motivated but facing **time-related** obstacles

Profile 4: Motivated but facing **multiple obstacles**

Adults participating in non-formal or formal learning activities

C. Extrinsically motivated
- Learn primarily in response to external factors

Profile 5: Reluctant but **required** to participate

Profile 6: Participating in response to **work pressures**

Profile 7: Participating to strengthen **career prospects**

D. Intrinsically motivated
- Learn primarily for its inherent pleasure and satisfaction

Profile 8: Participating for **personal** development

Profile 9: Participating for **professional and personal** development

A. Unmotivated

The first category of motivational profile, "unmotivated", represents those least motivated to learn. This category of motivational profile can be further divided into Profile 1: "Disengaged from learning" and Profile 2: "Unmotivated due to age and health obstacles". Together, these unmotivated adults represent 37% of the Flemish adult population. For both profiles, most adults indicate that they are unmotivated to learn, and this is largely driven by their sense that there is no need to learn.

To a great extent, the lack of motivation of these profiles is related to socio-economic and demographic characteristics. Profile 1: "Disengaged from learning" in particular is characterised as facing a variety of socio-economic challenges stemming from high-levels of unemployment and inactivity, which likely makes learning a relatively low priority. For example, adults with this profile may prioritise finding a job or overcoming challenges linked to poverty and inadequate housing over participation in learning. Profile 2: "Unmotivated due to age and health obstacles", on the other hand, is characterised as being older, often in early retirement or having a permanent disability, which may again make participation in upskilling or reskilling a relatively low priority (e.g. adults feeling too old to learn new things).

Both profiles are also characterised as having low levels of education and are estimated to have comparatively low levels of skills, especially Profile 1: "Disengaged from learning". Working adults with these profiles tend to be employed in jobs that require comparatively low- to medium-level skills (e.g. manufacturing is a common occupation for adults with Profile 1: "Disengaged from learning") and that face a high risk of automation. These profiles are also characterised as having relatively low levels of income. Furthermore, within Profile 1: "Disengaged from learning", non-native speakers are a significant minority. Participation in informal learning is also comparatively low for both profiles, but in particular for Profile 2: "Unmotivated due to age and health obstacles".

Arguably, "unmotivated" profiles are in greater need than other profiles to upskill to address their low levels of skills, or reskill to support a return to the labour market or facilitate a transition to jobs with a lower risk of automation. It is therefore particularly concerning that not only are they not participating, but they are also unmotivated to learn.

Stakeholders consulted for this project considered adult learning information and guidance the most important policy lever for raising motivation to learn and for strengthening participation in learning by disadvantaged groups (e.g. adults with low levels of education, non-native speakers, adults with disabilities), which are highly concentrated in these "unmotivated" profiles. Improving the provision of adult learning information and guidance was considered even more important than financial and non-financial incentives for stimulating learning by these adults. However, stakeholders also noted that further study is needed to better understand which measures would work best to stimulate learning by "unmotivated" adults to support their career goals, personal growth, social participation and integration, and more.

The segmentation could help to strengthen adult learning policies to more effectively reach these "unmotivated" adults by providing detailed insights into their diverse characteristics. Some key policy insights for "unmotivated" adults are described in more detail below.

Existing information and guidance services often do not respond effectively to the diverse and multiple needs of "unmotivated" adults

Adult learning information, including information on the benefits of learning and availability of learning opportunities and incentives, as well as guidance services, are considered some of the most effective policy levers for raising adult participation in learning (European Commission, 2015[6]). Analysis of Adult Education Survey (AES) data for Flanders shows that even when controlling for various socio-demographic variables, information and guidance is strongly associated with higher motivation and participation in learning.

High-quality information and guidance services are particularly important for engaging those adults who are least motivated to participate, i.e. adults with "unmotivated" profiles. These profiles are characterised by having low levels of education; those with low levels of education are generally less likely to seek out information. Guidance systems are therefore essential to help the least motivated adults identify their training needs, learn about available learning opportunities and incentives, and understand the skills needs of an evolving labour market (OECD, 2021[7]). However, a recent OECD survey of six countries found that many groups not participating in learning, and which are most vulnerable to changes in labour markets and societies, are not using career guidance as often as other groups of adults (OECD, 2021[7]).

As noted in the *OECD Skills Strategy Assessment and Recommendations* report for Flanders (OECD, 2019[5]), adults in Flanders have relatively good access to information and guidance about learning opportunities (see Box 3.2). However, stakeholders consulted in this project mentioned a range of challenges, including fragmentation in the overall provision of information and guidance, which makes it difficult for some groups of adults to navigate their options; limited links between learning and career development support; and a strong emphasis on learning for the purposes of work, which may not always be the best means for encouraging a culture of learning throughout life. A key challenge is that certain socio-demographic profiles are much less likely to make use of information and guidance than others. For example, 55% of Flemish adults with tertiary education received free information or guidance on learning opportunities, compared with only 19% of adults with less than upper secondary education (Eurostat, 2021[4]).

Box 3.2. Information and guidance on adult learning in Flanders

Online information and guidance

The Government of Flanders offers a website that provides general information about adult education that is accessible to all adults in Flanders (https://data-onderwijs.vlaanderen.be/onderwijsaanbod/vwo). In addition, the Training Database Flemish Training Incentives (*Opleidingsdatabank Vlaamse Opleidingsincentives*) lists courses eligible for Flemish training incentives (www.vlaanderen.be/opleidingsdatabank). Adults also have access to the Education Chooser (www.onderwijskiezer.be), which is a website providing an overview of education options, available financial incentives for training and bottleneck occupations, as well as offering career guidance tools.

For online career guidance, Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding (VDAB), the Flemish public employment service, plays the role of career planner (*loopbaanregisseur*). It operates the website My Career (*Mijn Loopbaan*), which provides tips on how to look for a job and how to take stock of skills, information on occupations with good labour market prospects, and information on how to train for these occupations via VDAB programmes and partners. On the VDAB website, people can also find information about jobs and take tests that enable them to see which jobs they might like (https://orientatie.vdab.be/) and which are most aligned with their skills (https://jobbereik.vdab.be/).

Face-to-face information and guidance

Flanders also has several initiatives to support face-to-face guidance on learning opportunities and careers. For example, subsidies are available to working adults for career guidance services to support adult learning, and employed and self-employed workers with at least seven years of work experience can apply to VDAB for career guidance vouchers (*loopbaancheques*). These vouchers offer a total of seven hours of subsidised career guidance every six years with a mandated career coaching centre (VDAB, 2019[8]). Users pay only EUR 40 of the total cost of EUR 550, and the guidance consultation results in a personal development plan (*persoonlijk ontwikkelingsplan*).

There are various other initiatives that provide information and guidance to potential learners, including those offered by employers, labour unions and sectoral organisations, which also play an important role in boosting learning in workplaces. Adult education centres also provide access to learning supervisors who provide students with support and guidance on learning pathways as part of their training programme. While not structurally supported by the Flemish Government, adults in parts of Flanders can also access "Learning Shops" (*Leerwinkels*). These are local initiatives that provide a one-stop-shop in four Flemish regions (Antwerp, West Flanders, East Flanders and Limburg) to allow potential learners to explore which educational options and financial incentives are available to them, and to receive assistance in navigating the system (Flemish Government, 2022[9]).

Source: VDAB (2019[8]), *Ga fluitend naar je werk: Monitoring van de loopbaancheque 6 jaar na lancering*, https://partners.vdab.be/sites/web/files/doc/partners/loopbaanbegeleiding/Monitoringsrapport_Loopbaanbegeleiding_2019.pdf; Flemish Government (2022[9]), *Learning Shops [Leerwinkels]*, https://onderwijs.vlaanderen.be/nl/cursisten/waar-kan-ik-studeren/leerwinkels.

The current offer of information and guidance is not yet effectively reaching adults with Profile 1: "Disengaged from learning" and Profile 2: "Unmotivated due to age and health obstacles" (see Figure 3.2). Overall, a significant information gap can be observed between participating (Profiles 5-9) and non-participating (Profiles 1-4) learner profiles, with all non-participating learner profiles receiving less information or guidance free of charge than all participating learner profiles. Particularly striking is that among non-participating learner profiles, especially Profile 2: "Unmotivated due to age and health obstacles" and Profile 4: "Motivated but facing multiple obstacles", few receive free information and guidance (20% and 16%, respectively).

Figure 3.2. Share of adults receiving free information and guidance for each group adult learners
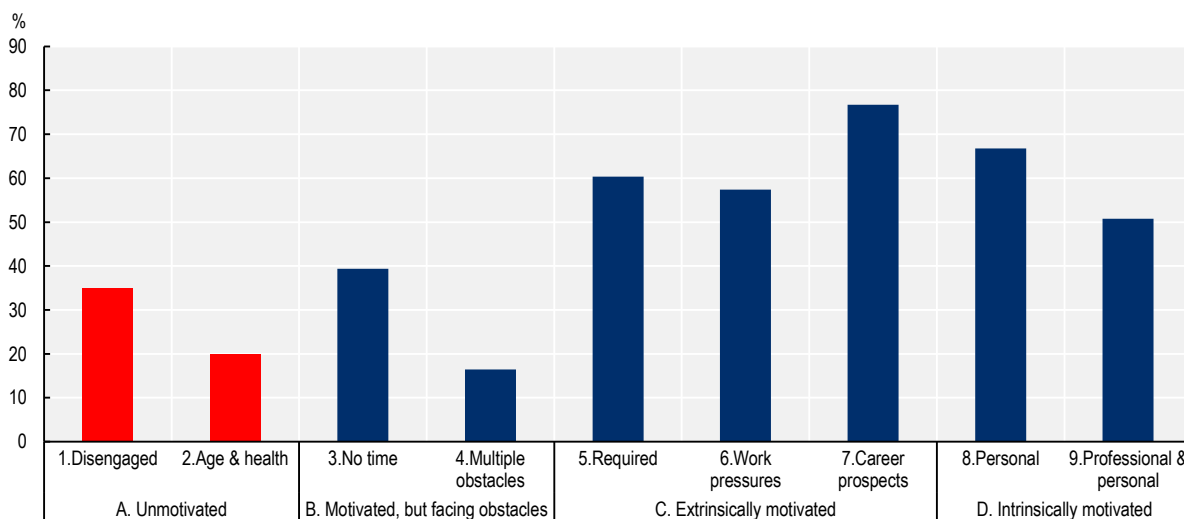
Source: Adapted from Eurostat (2021[4]), *Adult Education Survey 2016*, https://ec.europa.eu/eurostat/web/microdata/adult-education-survey.

StatLink ⟨⟩ https://stat.link/p6u8vo

Profile 1: "Disengaged from learning" and Profile 2: "Unmotivated due to age and health obstacles" are characterised as having large shares of inactive adults – a group often beyond the reach of information provided by employers. The small shares of "unmotivated" adults receiving information and guidance may therefore be partly explained by the large share who are unemployed. This is supported by the fact that a comparatively large share of adults (29%) with Profile 1: "Disengaged from learning" receives information and guidance services from (VDAB), which targets those unemployed and other jobseekers.

The fact that "unmotivated" profiles are often not yet receiving information and guidance is somewhat surprising given that several initiatives target specific groups of adults that are overrepresented in these profiles (see Table 3.1). These target groups include adults with low levels of education (in both profiles), unemployed adults and non-native speakers (highly represented in Profile 1: "Disengaged from learning"), as well as older people and people with disabilities (highly represented in Profile 2: "Unmotivated due to age and health obstacles"). However, some targeted initiatives are relatively small in scope and appear to not always succeed in reaching their target groups. For instance, the four disadvantaged groups (the so-called *kansengroepen*, adults with low levels of education; those with an immigrant background; those with a work disability; and older adults) indirectly targeted by the career guidance vouchers (*loopbaancheques*) account for only 21.6% of total users, even though they represent 51.6% of the working population. A recent survey in Flanders also shows that older generations in particular are much less aware of the existence of these vouchers than younger generations (Meylemans and Verhoeven, 2021[10]).

Table 3.1. Information and guidance services targeted to specific groups of adults

Name of initiative	Targeted group	Description
Career guidance vouchers (*loopbaancheques*)	Adults with low education levels, immigration background, work disability, older adults (55+)	To reach these four disadvantaged groups (*kansengroepen*), incentive financing is provided. Any centre that wishes to make use of this must demonstrate at least two years of professional experience in working with disadvantaged groups, which involves at least 30% of services delivered to these groups, accounting for at least 20 services.
My Career (*Mijn Loopbaan*) website	Jobseekers and/or unemployed	VDAB provides jobseekers and/or unemployed adults with tailored Information, including on how to look for a job, how to take stock of skills, descriptions of occupations with good labour market prospects, and how to train for these occupations via programmes offered by VDAB and partners.
Integration programmes	Non-native speakers	All non-native speakers who want to learn Dutch are provided with appropriate training by the Flemish agency of integration and integration (*Agentschap integratie en inburgering*), with individual support and guidance towards Dutch language courses. Agreements with VDAB also allow for the referral of newcomers to their career guidance and job search programmes, as well as professional training.
The Learning Shop (*Leerwinkel*)	Adults without upper secondary education, prisoners and immigrants	Any adult can receive help from Learning Shops (*Leerwinkels*), but the programme specifically targets adults without upper secondary education, prisoners and immigrants. Many participants come through referrals from public employment offices and immigration agencies, with whom Learning Shops have strong partnerships. Learning Shops have no structural funding and only limited project funding from the Flemish Government.
Learning Opportunities (*Leerkansen*) project	Adults from low socio-economic backgrounds	This project tries to overcome socio-economic obstacles by providing adults living in poverty with learning opportunities in an accessible way. Centres for Adult Basic Education (*Ligo – Centra voor Basiseducatie*) collaborate with non-governmental organisations (NGOs) with a focus on adults from low socio-economic backgrounds. Through coaching and participant observation, the teacher adapts learning to the individual needs of the participants, and integrates learning into the activities of the association.

Source: Questionnaire for the OECD Skills Strategy Implementation Guidance project; OECD (2019[5]), *OECD Skills Strategy Flanders: Assessment and Recommendations*, https://dx.doi.org/10.1787/9789264309791-en.

Based on the assessment above, it can be concluded that Flanders could better target Profile 1: "Disengaged from learning" and Profile 2: "Unmotivated due to age and health obstacles" when disseminating information and providing guidance on adult learning. This finding is also supported by various reports in Flanders. For example, recent expert advice focusing on learning and career guidance indicated the presence of the "Matthew" effect, with high-educated adults reaping the benefits of current policies (De Vos et al., 2021[11]).

To better ensure that initiatives reach their intended target groups, more could also be done to design initiatives to better reflect the heterogeneity of these target groups. For example, the segmentation demonstrates that four target groups of career guidance vouchers (the *kansengroepen*) are in fact highly diverse, with different motivational profiles and very different obstacles (see Figure 3.3).

Adults with low levels of education, and who are generally most in need of learning, are highly concentrated in the "unmotivated" profiles, and are almost equally spread over Profile 1: "Disengaged from learning" and Profile 2: "Unmotivated due to age and health obstacles". However, as will be explained in the next sections, these two profiles would require different types of information and guidance services, as well as different types of providers of these services, for optimal impact. These insights highlight the importance of understanding that each of the existing broadly defined target groups (e.g. low-educated adults) are actually diverse, and that encouraging their participation in learning will require offering a package of incentives and support that responds to their multiple needs.

Flanders could, for instance, consider further refining these target groups by making a clearer distinction between Profile 1: "Disengaged from learning" and Profile 2: "Unmotivated due to age and health obstacles" when reaching out to these adults with information and guidance. In practice, this could be achieved by considering age as an additional factor. As Profile 2 has a large share of older adults, using age as an additional criterion for target groups (i.e. targeting adults not only with low levels of education but also between the ages of 55 and 65) could help to more effectively reach these adults. Implementing such an approach could, for example, involve reaching out to the types of businesses and organisations where adults with these characteristics are overrepresented.

Figure 3.3. Target groups of career guidance vouchers and the nine profiles

The four disadvantaged groups (*kansengroepen*) as a share of the total population across the nine profiles
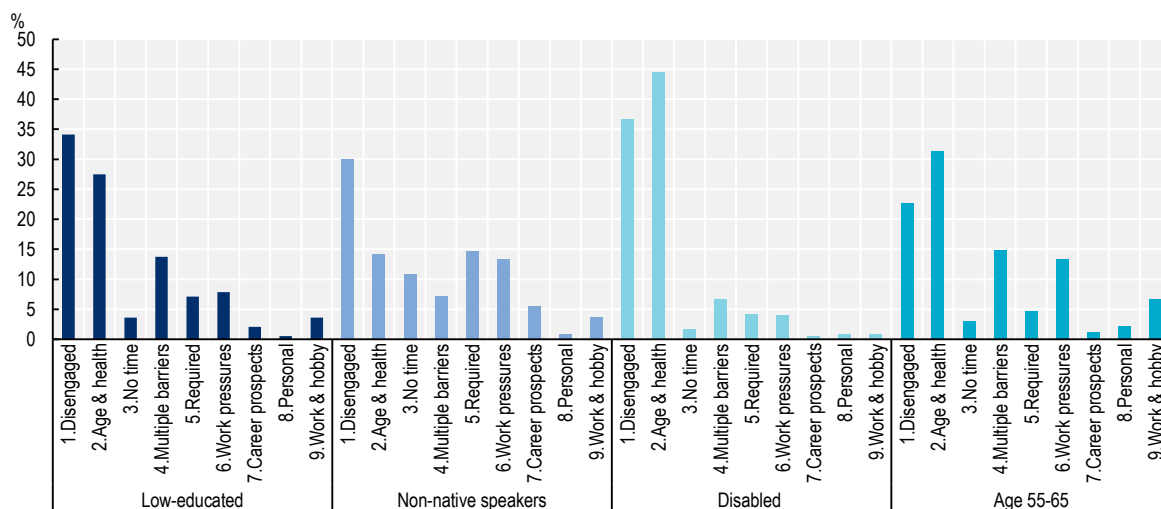
Source: Adapted from Eurostat (2021[4]), *Adult Education Survey 2016*, https://ec.europa.eu/eurostat/web/microdata/adult-education-survey.

StatLink https://stat.link/mk0h32

Active outreach by stakeholders in most direct contact with "unmotivated" adults can help to increase their participation in learning

A large share of the adult learning information and guidance services in Flanders is available online (as described in Box 3.2). However, several stakeholders consulted for this project noted the limitations of online tools, especially with respect to some of the groups most in need of learning, such as the "unmotivated" profiles. These concerns are supported by analysis of the current use of online information and guidance based on the segmentation, which shows that "unmotivated" profiles are using online information and guidance services less frequently than other profiles, especially the most motivated participating profiles.

Using online information and guidance requires a certain level of digital skills, self-motivation and autonomy, as well as the required digital infrastructure (OECD, 2021[12]). However, 37% of Flemish adults have low levels of basic digital skills, and some groups in particular risk digital exclusion, including older generations, adults with low levels of education and adults with low incomes – all characteristics highly represented in "unmotivated" profiles (Statistiek Vlaanderen, 2020[13]).

To raise motivation and to encourage the participation of "unmotivated" profiles, more active outreach and the provision of in-person guidance will be important. This point was emphasised by various consulted stakeholders. Flanders has a number of options to reach out more actively and directly to these adults.

Access to in-person guidance could be expanded for "unmotivated" profiles. Given the characteristics of these profiles (e.g. low basic skills and education), in-person support to access and understand information and opportunities is likely necessary. For the relatively small share of adults with "unmotivated" profiles that receive information and guidance, a comparatively large share is already receiving it in-person. For example, 26% of adults with Profile 1: "Disengaged from learning" receives information and guidance via face-to-face interaction, which is the highest share of all profiles.

More active outreach can also involve encouraging the greater use of existing career support measures, such as career guidance vouchers, by "unmotivated" profiles (OECD, 2019[5]). Despite efforts to target these vouchers at underrepresented groups, they are not yet effectively reaching the groups most in need. For example, people with low education levels and older adults (both characteristics strongly associated with "unmotivated" profiles) are currently underrepresented among those applying for career guidance vouchers – only 5.4% of career guidance voucher users in 2019 were adults with low levels of education, while 70.1% were highly educated (VDAB, 2019[8]).

The low uptake of learning and career guidance vouchers by unmotivated adults could be related to certain strict eligibility criteria, such as the requirement of having worked for seven years – which means that most inactive workers are ineligible – and the required personal contribution (e.g. EUR 40 for career guidance vouchers). To make these services more accessible, Flanders could potentially relax some of these criteria. Flanders could consider improving access to the vouchers for adults with "unmotivated" profiles by, for example, increasing the number of eligible hours of career guidance covered by the voucher or increasing the frequency with which these career guidance vouchers can be used – i.e. more than twice every six years.

Stakeholders consulted for this project noted that career guidance vouchers are only one type of support measure, and that consideration should also be given to offering other measures potentially even more important for encouraging the participation of "unmotivated" learner profiles. It was noted that while expanding access to learning and career guidance might be sufficient to facilitate the participation of some adults in learning, it is not likely enough for "unmotivated" profiles, as taking advantage of these services generally implies that individuals take some initiative on their own. The current demand-driven provision of information and guidance therefore does not respond well to the characteristics of "unmotivated" profiles, who may not actively seek out these incentives and services on their own.

Consequently, a recent advisory document prepared by Flemish labour market experts (De Vos et al., 2021[11]) proposes a more proactive approach is taken to reach out to adults to encourage their greater use of learning and career guidance services (e.g. active outreach to specific groups). In addition, an action plan developed by the Partnership for Lifelong Learning (*Partnerschap Levenslang Leren*), "Set a course for a learning Flanders" (*Actieplan levenslang leren: koers zetten naar een lerend Vlaanderen*), has also noted the need for a targeted strategy (*een gesegmenteerde mobiliseringsstrategie*) for engaging hard-to-reach groups (Partnership for Lifelong Learning, 2021[14]). It was recommended that this strategy be built on this OECD segmentation study and the Flemish "customer journeys" study (see Box 3.6).

As mentioned previously, the overall lack of interest in learning for "unmotivated profiles" – and consequently their limited interest in information and guidance on this matter – are often the result of personal circumstances (e.g. socio-economic challenges, disabilities). To raise their motivation and overcome these obstacles, the Flemish Government could explore ways to mobilise the help and resources of the organisations and institutions already working closely with adults with these profiles, such as employers, trade unions, social partners and charities, and VDAB. For example, organisations and charities that work with the most vulnerable groups could become more involved in promoting learning for these adults. They are better positioned to know the individuals and their specific challenges, build some level of trust with them, and play a role in encouraging and guiding their participation in learning.

The segmentation provides insights into which stakeholders could be best placed to reach out to "unmotivated" profiles by indicating which socio-demographic and labour market characteristics are linked to low motivation to learn. For example, organisations with a mission to support the labour market and social participation of immigrants and non-native speakers – both overrepresented in Profile 1: "Disengaged from learning" – could be mobilised to encourage learning among these adults. Moreover, as Profile 1: "Disengaged from learning" is characterised by high rates of unemployment, VDAB could play an active role in reaching out to this profile. In addition, for Profile 2: "Unmotivated due to age and health obstacles", Flanders could mobilise the help of organisations in direct contact with adults with permanent disabilities and older workers.

Consulted stakeholders noted that for the most vulnerable groups, who are most highly concentrated in Profile 1: "Disengaged from learning", it could be beneficial to better integrate skills development and skills awareness initiatives in various social services, possibly at the local level (e.g. local centres for public welfare that support adults in poverty, health issues, and more). An example of such an initiative is the Learning Opportunities (*Leerkansen*) project, where Centres for Basic Education work with NGOs focusing on adults from low socio-economic backgrounds to integrate learning into the activities of these associations. Stakeholders also mentioned the potential to expand the role of Learning Shops (*Leerwinkels*) to promote learning among the most vulnerable groups. These one-stop-shops for potential learners specifically target adults without upper secondary education, prisoners and immigrants. However, they are not yet present in all Flemish regions, and do not have structural funding from the Flemish Government.

Employers could also play a more important role in encouraging participation in learning among employees with low motivation. Currently, "intrinsically motivated" learner profiles – such as Profile 8: "Participating for personal development" and Profile 9: "Participating for professional and personal development" – are most likely to be the recipients of information and guidance from their employers. The importance of involving employers was stressed by stakeholders, and analysis conducted for this project supports this, showing that information and guidance provided by employers and employer organisations is strongly associated with participation in learning. This is of particular importance for "unmotivated" learners, given that many will likely only learn if required to for their jobs. Promoting on-the-job learning by employers will therefore be key to boost their participation.

Given that for "unmotivated" profiles a majority are employed in small businesses (fewer than 50 employees), it would be helpful to mobilise the support of these small businesses in promoting awareness of the benefits of adult learning. However, small and medium-sized enterprises (SMEs) currently do not often take on such a role as they typically lack sufficient human resource management capacity (De Vos et al., 2021[11]). Networks of small businesses and organisations working with small enterprises could be encouraged to work together to promote better understanding of the benefits of upskilling workers. Furthermore, sectoral organisations could play an important role in promoting learning among adults and employers in sectors hard hit by the pandemic and/or where there are large shares of jobs at high risk of automation (e.g. specific manufacturing sectors).

Insights into the motivations and obstacles faced by "unmotivated" profiles can be used to better tailor information and guidance services

Tailoring information in Flanders to the specific and diverse needs of different learners could help to raise the impact of information and guidance (OECD, 2019[5]). There is no one-size-fits-all information and guidance service that will meet the needs of all learners. As the nine adult learner profiles demonstrate, adults have diverse reasons for not participating in learning and it is therefore unlikely that general messaging will resonate with any particular group of adults.

Insights into the motivations and obstacles, and related socio-demographic and labour market characteristics, of the learner profiles can be used to better tailor information and guidance services. While tailored services are important for all learners, they are particularly important for "unmotivated" profiles, who are most in need of assistance to understand the benefits of learning and the incentives, support and learning opportunities available and how they might be accessed. In addition, for many "unmotivated" profiles it is very likely that their low motivation is the result of past negative learning experiences that influenced their self-confidence and attitudes towards learning. Therefore, sharing testimonials of learners with similar profiles and being informed about the many personal and professional benefits could help adults gain the confidence required to participate in learning.

Table 3.2 provides examples of the sorts of messages that might be most effective in increasing participation in learning among the two "unmotivated" profiles. These messages are directly linked to the unique characteristics of the profiles in terms of their motivations and obstacles, as well as their socio-demographic and labour market characteristics.

Table 3.2. Messages tailored to the needs of "unmotivated" profiles

	Messages tailored to **motivation/obstacles** profile	Messages tailored to **socio-demographic characteristics/ labour market status**
1. Disengaged from learning (19%)	• Emphasise the benefits of learning for work and life. • Share testimonials of disengaged learners with positive learning experiences. • Highlight the availability of different options for learning and career guidance (e.g. career guidance vouchers *[loopbaancheques]*, support by VDAB, employers, unions). • Share examples of accessible learning opportunities.	• Highlight the risk of automation and how adults can reskill to transition to occupations with lower risks of automation. • Highlight how reskilling and upskilling can facilitate a move from inactivity to employment. • Indicate how unemployed adults can take advantage of learning opportunities and support measures offered by VDAB. • Provide information on training and incentives in languages other than Flemish. • Share information on learning opportunities to strengthen digital skills.
2. Unmotivated due to age and health obstacles (18%)	• Emphasise how learning benefits all people, including older individuals and those with disabilities. • Highlight availability of different options for learning and career guidance (e.g. career guidance vouchers *[loopbaancheques]*, support by VDAB, employers, unions). • Share examples of accessible learning opportunities.	• Highlight the risk of automation and how adults can reskill to transition to occupations with lower risks of automation. • Share information about the learning opportunities available to older people and people with disabilities, as well as testimonials about how these types of learners have benefited from learning. • Share information on learning opportunities to strengthen digital skills.

Note: The messages aim to address the group-specific motivations, obstacles, socio-demographic characteristics and labour market status, as described in more detail in Chapter 2. The percentages next to the profile names indicate the share of the Flemish adult population.

To increase the motivation of Profile 1: "Disengaged from learning", messages should highlight the overall benefits of learning for both work and life, and share testimonials from disengaged learners who have had positive learning experiences. Moreover, as this profile is characterised by high levels of unemployment and inactivity, messages should emphasise how reskilling or upskilling can facilitate employability, and highlight the learning opportunities and support measures offered by VDAB. Given that many with this profile are also non-native speakers, messages could be made available in languages other than Flemish.

For Profile 2: "Unmotivated due to age and health obstacles", messages should emphasise how participation in learning can benefit older individuals (e.g. learning basic digital skills, meeting new people)

and those with disabilities. Messages should also aim to raise awareness of the incentives and support measures available to help overcome the obstacles faced by older people and people with health problems or disabilities, as well as highlight relevant learning opportunities.

Given that "unmotivated" working adults are often employed in jobs with a high risk of automation, they should also be made aware of these risks and how upskilling and reskilling opportunities could help them to transition to sectors and jobs with lower risk. They should also be informed about the availability of career guidance vouchers – which few "unmotivated" adults are currently making full use of (VDAB, 2019[8]) – as well as other guidance services that could help them better navigate their upskilling and reskilling options (e.g. as provided by VDAB, employers, unions and others). In addition, as these profiles have characteristics associated with weak digital skills (e.g. older generations, people with lower levels of education and people with low incomes), information could also highlight learning opportunities to develop these skills (Statistiek Vlaanderen, 2020[13]).

> *Information and guidance alone is insufficient to boost learning among "unmotivated" adults – they also require access to relevant adult learning opportunities and incentives*

While information and guidance services are arguably the most important policy lever for promoting learning among "unmotivated" learning profiles, other measures should still be considered. The reason for this is that measures designed primarily to boost motivation, such as information and guidance, will not likely be sufficient to raise participation in learning. For "unmotivated" profiles, information and guidance services will be most effective when included as a package of support to raise participation and improve employability (OECD, 2019[15]).

Although adults with "unmotivated" profiles often do not report many obstacles to participation – apart from the age and health obstacles faced by adults with Profile 2: "Unmotivated due to age and health obstacles" – this is likely a reflection of their general lack of motivation and their perception that they have no need to learn, rather than the absence of any obstacles to learning. In other words, if they were motivated and saw the need to learn, they most likely would report facing obstacles to learning. Therefore, it would be important that these obstacles are addressed by ensuring that "unmotivated" adults have access to relevant learning opportunities and financial and non-financial incentives.

The Centres for Adult Education (*Centre voor Volwassenonderwijs*) and Centres for Adult Basic Education (*Ligo – Centra voor Basiseducatie*) are the main public providers of learning opportunities for adults with low motivation to learn (Department of Education and Training, 2021[16]). The Centres for Adult Education support the development of a wide range of skills, such as technical skills and languages, in modular and flexible formats (e.g. evening courses). Through these centres, adults can also obtain a secondary education degree through "second chance education" (*Tweedekansonderwijs*). Centres for Adult Basic Education provide courses in basic skills (e.g. numeracy, digital skills) and Dutch as a second language, which is the most popular course by a large margin.

As of 2019, Centres for Adult Basic Education and Centres for Adult Education have received a portion of their funding based on the profile of enrolled students, with a larger share of funding available when targets are met for the share of enrolled unemployed adults, jobseekers or those without an upper secondary education diploma. However, the impact of this legislative change is difficult to assess due to the COVID-19 pandemic, which resulted in a significant drop in enrolment. The programmes offered by the centres also offer registration fee exemptions for specific groups of adults. For instance, fees are waived for some vulnerable learners who would like to participate in Centre for Adult Basic Education courses, and for those without a secondary diploma who enrol in courses at a Centre for Adult Education.

There are also various other programmes for which specific groups of adults do not have to pay any fees. For example, non-native speakers are a key target group for Flanders and, as a result, language courses are compulsory and often free for many adults without a basic knowledge of Flemish. Adults learning

Flemish are assigned to a Centre for Adult Basic Education, Centre for Adult Education or a University Language Centre, depending on their existing level of Flemish.

Based on this overview it appears that especially for adults with Profile 1: "Disengaged from learning", there are already many accessible learning opportunities, as all the target groups of these education and training providers (adults with low levels of education, unemployed adults, non-native speakers and those with a low socio-economic backgrounds) are highly concentrated in this profile. However, there appear to be fewer providers that specifically target adults with Profile 2: "Unmotivated due to age and health obstacles" (e.g. older adults and those with health problems or disabilities).

Insights into the characteristics of "unmotivated" profiles can also provide valuable input into how to improve the design of programmes. For example, employed "unmotivated" adults are often found in occupations related to manufacturing and engineering (e.g. manufacturing and processing, engineering, using digital tools to control machinery). This insight could provide an indication of the sorts of skills they might need to develop.

However, many of these "unmotivated" adults are working in occupations facing a high risk of automation. Therefore, the identification of potential pathways between occupations in decline and those experiencing growth will be important, as will be assessments of the skills that will need to be developed to facilitate these transitions. Stakeholders consulted in this project indicated that current adult learning incentives in Flanders do not always effectively support these broader transitions. For example, as will be discussed in the next section, Flemish training incentives are currently available only for specific courses (i.e. listed in the training database for Flemish training incentives), and are limited in terms of course duration and funding, which may restrict adults in developing the sorts of skills they need to transition to new jobs.

Key insights: "Unmotivated" profiles

"Unmotivated" profiles represent the least motivated learners, and include Profile 1: "Disengaged from learning" and Profile 2: "Unmotivated due to age and health obstacles". Together, these "unmotivated" adults represent 37% of the adult population. These profiles are still far from being lifelong learners. Profile 1: "Disengaged from learning" is a particular concern since they are not learning, and either are not working or are at risk of losing their jobs. For Profile 2: "Unmotivated due to age and health obstacles" it will be even more difficult to convince them of the merits of becoming lifelong learners.

Adults with these profiles are arguably most in need of both upskilling and reskilling opportunities, and a broad package of policies is needed to raise their participation, including information and guidance services, accessible learning opportunities, and incentives to participate in learning. The following are key insights for policy making that have emerged from the analysis of "unmotivated" profiles:

- **Existing information and guidance services often do not respond effectively to the diverse and multiple needs of "unmotivated" adults**. High-quality learning information and guidance services are particularly important for engaging "unmotivated" adults. However, the current offer of information and guidance is not yet effectively reaching theses adults. A more targeted approach is needed that considers the diversity of these two profiles. For example, Profile 1: "Disengaged from learning" should receive information and guidance that considers the socio-economic challenges stemming from high levels of unemployment and inactivity, while Profile 2: "Unmotivated due to age and health obstacles" should receive information and guidance tailored to a context of early, or close to, retirement, or having permanently disabilities. The segmentation demonstrates that the existing broadly defined target groups (e.g. adults with low levels of education) are quite diverse in terms of motivations, obstacles and characteristics,

and that encouraging their participation in learning will require a package of incentives and support measures that responds to these diverse and multiple needs.

- **Active outreach by stakeholders in most direct contact with "unmotivated" adults could help to increase their participation in learning.** The take up of in-person information and guidance services by "unmotivated" profiles could be increased by encouraging the greater use of existing support measures, such as career guidance vouchers (*loopbaancheques*). Stakeholders in closest contact with these profiles could also play a more important role in raising awareness of the importance and availability of learning incentives and support services. For example, local organisations and charities that work closely with vulnerable groups could play a part in promoting learning among adults with Profile 1: "Disengaged from learning". For Profile 2: "Unmotivated due to age and health obstacles", Flanders could mobilise the help of organisations in direct contact with adults with permanent disabilities and older workers. For employed "unmotivated" adults, the involvement of employers, trade unions and sectoral organisations is vital for promoting and facilitating their participation in learning. Small businesses in particular could play an important role given that they are comparatively often the employers of workers with "unmotivated" profiles, and as on-the-job learning will be especially important for these adults. Finally, one-stop learning resources, such as Learning Shops (*Leerwinkels*), could be expanded to provide relevant advice to "unmotivated" adults.

- **Insights into the motivations and obstacles faced by "unmotivated" adults can be used to better tailor information and guidance services**. For the two "unmotivated" profiles, these tailored messages should be substantially different. To encourage and support participation by Profile 1: "Disengaged from learning" it would be important that information is provided about the benefits of learning, as well as what incentives, support services and learning opportunities are available and how they might be accessed. For Profile 2: "Unmotivated due to age and health obstacles", it would be particularly important that information is made available on the benefits of learning and opportunities to learn for older learners or adults with health problems or disabilities. In addition, sharing testimonials of learners with similar profiles and being informed about the many personal and professional benefits could help adults gain the confidence required to participate in learning. Information targeted at "unmotivated" profiles could also highlight the availability of upskilling and reskilling opportunities that can help them transition to sectors and jobs with a lower risk of automation, as well as the availability of career guidance vouchers.

- **Information and guidance alone is insufficient to boost learning among "unmotivated" adults – they also require access to relevant adult learning opportunities and incentives to learn**. While information and guidance services are arguably the most important policy levers for promoting learning among "unmotivated" profiles, access to relevant learning opportunities and incentives to learn are also important. There are already large numbers of learning providers and incentives that specifically target those "unmotivated" to learn, especially for Profile 1: "Disengaged from learning". These include registration fee exemptions and targeted courses in adult education centres. The profiles can also provide valuable input into how to improve the design of programmes, including the type of courses to offer to different profiles of learners and their content. For example, employed "unmotivated" adults are often found in occupations related to manufacturing and engineering, which could provide an indication of the sorts of skills they might need. However, many of these adults work in occupations facing a high risk of automation, and potential pathways between occupations in decline and those experiencing growth should be identified, as should the skills that will need to be developed to facilitate these transitions. Stakeholders indicated that current adult learning incentives in Flanders do not always effectively support these broader transitions in Flanders.

B. Motivated, but facing obstacles

The second category of motivational profile, "motivated, but facing obstacles", represents adults not participating in learning because of the obstacles they face. This category of motivation profile can be further divided into Profile 3: "Motivated but facing time-related obstacles" and Profile 4: "Motivated but facing multiple obstacles". Profile 3: "Motivated but facing time-related obstacles" represents adults who are not participating because they do not have enough time for learning due to either a busy schedule, family responsibilities, or both. Profile 4: "Motivated but facing multiple obstacles" represents adults who do not participate because they face of a range of obstacles, including the cost of participation, the absence of a suitable learning offer, and obstacles relating to their health and/or age.

Compared with "unmotivated" profiles, there are comparatively larger differences between the characteristics of the two "motivated, but facing obstacles" profiles. While Profile 3: "Motivated but facing time-related obstacles" is characterised by young adults, often women, with children, and those with high levels of education, Profile 4: "Motivated but facing multiple obstacles" is characterised by a comparatively large share of adults who are older, have low levels of education, and/or are working in jobs at high risk of automation. Together, these two profiles represent 15% of the adult population in Flanders.

For both profiles, reducing the obstacles to participation in learning activities is crucial to boost their participation. While obstacles to participation (especially time-related obstacles) are experienced by all profiles, they are the primary reason that these two profiles are not participating in learning. These profiles confront different obstacles related to their distinct characteristics and would, as a result, require very different policy responses to boost their participation.

Different types of financial and non-financial incentives are the most important policy levers for boosting the engagement in learning of these profiles. While incentives can play an important role in raising extrinsic motivations to learn, they primarily help by reducing the obstacles for both individuals and employers (OECD, 2017[17]). Financial and non-financial incentives could target individuals and employers, and aim to reduce both the direct costs (e.g. course registration fees, transportation costs) and indirect costs (e.g. lost wages, time off from work) associated with training.

The two "motivated, but facing obstacles" profiles should be priority target groups for the Flemish Government as they are already willing to learn and there are some clear policy actions that could be taken to translate this motivation into active engagement.

Raising awareness of training leave and encouraging firms to provide more on-the-job learning opportunities would help raise participation in learning by adults facing time-related obstacles

Time-related obstacles are the most frequently mentioned obstacles to participation in surveys of Flemish adults. Overall, depending on the survey, 22-26% of the Flemish adult population indicates that schedules (e.g. time constraints due to work) and competing family responsibilities are obstacles to their participation in learning activities (Eurostat, 2021[4]). Consulted stakeholders often mentioned the importance of addressing these obstacles in Flanders.

While time-related obstacles are relevant for most profiles, for Profile 3: "Motivated but facing time-related obstacles" it is their defining characteristic. Profile 3 can be characterised as being young, employed, having children and high educated. These adults are also comparatively often employed in jobs requiring computer programming skills and/or jobs that require the use of digital tools for collaboration and problem solving, which suggests that they are comparatively often working in high-skill occupations where training is often important to ensure that skillsets remain up to date.

To reduce time-related obstacles to learning there are already several measures in place (see Box 3.3). The Flemish Government introduced the incentive Flemish training leave (*Vlaams opleidingsverlof*), which allows employees to take paid leave from their employment for learning. At the federal level there is time

credit for training (*Tijdskrediet met motief opleiding*), which allows employees in the private sector to take leave from work under certain conditions to pursue training. This measure is supplemented by Flemish training credit, which provides an extra financial benefit for employees who want to reskill or upskill. There are also several measures in place in the public sector, including the equivalent of the time credit for training. Finally, a law on Workable and Flexible Work (W*erkbaar en Wendbaar Werk*) requires employers in Belgium to provide full-time employees with five days of paid training each year.

Insights from the segmentation could help ensure that existing time-related measures reach the groups most in need, such as Profile 3: "Motivated but facing time-related obstacles". For instance, to raise awareness of the incentives among adults with Profile 3, more active outreach to young adults with children could be considered. This would help to inform them about available incentives and support measures, including Flemish training leave and time credit for training. As Flemish training leave is the only Flemish training incentive not targeted at a specific group, Flanders could consider targeting it at adults with Profile 3, for example by increasing the number the eligible of hours of training leave to make it more attractive to those facing time-related obstacles.

Given that these time-related obstacles are a significant impediment to greater adult participation in learning for all profiles, there is a potential opportunity to expand and/or further promote the use of Flemish training leave and time credits for training.

A number of consulted stakeholders suggested that these incentives could be made more attractive, including by expanding the range of programmes for which individuals are eligible to take training leave and by increasing the number of hours of eligible leave per year. This suggestion contrasts sharply with elements of the 2019 reform of Flemish training incentives, which decreased the number of programmes for which Flemish training leave can be used, as well as the maximum number of hours of leave per year for which learners are eligible (from 180 hours to 125 hours). It should be noted, however, that in the academic year 2021/2022 an experiment was launched named "common right of initiative" (*gemeenschappelijk initiatiefrecht*), which doubles the maximum hours of Flemish training leave to 250 hours per year on the condition that the training is proposed by employers to strengthen their employees' future opportunities in the sector or in the Flemish labour market (Vlaanderen, 2021[18]). Flanders could also examine whether the amount of financial compensation provided by the various measures (e.g. Flemish training leave, Flemish training credit) is sufficient to overcome the financial obstacles that learners also often face – for example, it may not be possible for some learners to work fewer hours to train if the financial compensation that adults receive is insufficient to cover basic needs.

Consulted stakeholders mentioned that the burden for employers should also be considered when discussing training leave and other measures that help adults participate in learning activities during working hours. Many of the young parents with Profile 3: "Motivated but facing time-related obstacles" already work reduced hours due to family responsibilities. Therefore promoting leave for training for these people could create challenges for employers, especially in smaller firms.

Other policies that Flanders could consider to overcome time-related obstacles include expanding on-the-job learning, as well as other initiatives that combine learning and work (e.g. dual learning, which has been extended to adult education). In addition, further promoting flexibility in adult learning provision could promote participation by adults with busy schedules. International evidence suggests that flexibility in the format (e.g. part-time, online) and design (e.g. modular, credit-based courses) of training helps to overcome time-related obstacles, especially for medium- to high-skilled workers (OECD, 2019[19]). Finally, Flanders should adopt policies that mitigate other types of time-related obstacles, such as family responsibilities. This would imply a different set of policies, such as affordable and accessible childcare.

Box 3.3. Overview of incentives available to Flemish adults that address time-related obstacles

- **Flemish training leave (*Vlaams opleidingsverlof*):** Flemish training leave provides employees in the private sector with a right to (limited) paid leave from their employment to pursue officially recognised training and education programmes (i.e. from the training database for Flemish training incentives or a programme recommended in a personal development plan [*persoonlijk ontwikkelingsplan*]). Training should be at least 32 hours per year and a maximum of 125 hours per year. The number of eligible hours is based on the time taken off from employment for education, provided that employees work at least part time (>50%) and based on the number of hours that they are actually in class. Flemish training leave replaces paid education leave (*Betaald Educatief Verlof*), which has been phased out since academic year 2018/2019. Compared with paid education leave, Flemish training leave has a lower maximum number of hours (now 125 instead of 180 hours). In 2020/2021, Flemish training leave was approved for 39 736 employees.

- **Federal time credit for training (*Tijdskrediet met motief opleiding*):** The time credit offered by the National Employment Office (*Rijksdienst voor Arbeidsvoorziening*, RVA) allows employees to take leave from work under certain conditions to perform care duties (e.g. to take care of children or elderly relatives) or to pursue training. Employees can take time credit for officially recognised courses that last at least 360 hours, or 27 credits per year. For basic education or training to obtain a certificate of secondary education, 300 hours per year are sufficient for eligibility. There are various restrictions depending on the specific characteristics of the training (e.g. if it can be taken full-time, half-time or 1/5th-time), and the employee should show proof of participating to their employer every quarter. A maximum of 51 months of time credit (both for care or training) can be taken over the course of a career.

- **Flemish training credit (*Vlaams Opleidingskrediet*):** The Flemish training credit supplements the federal time credit for training by providing an extra financial benefit for employees who want to reskill or upskill. On top of the federal time credit, the employee will receive a gross incentive premium every month of up to EUR 577.95. In 2020/2021, 992 requests for 404 employees were approved. As with training vouchers, tertiary educated individuals can now only access credit for career-oriented education deemed necessary as part of a personal development plan drawn up with the help of a career counsellor. Employees without tertiary education can use the credit for any course in the education database for Flemish training incentives.

- **Flemish Care Credit – for training (*Vlaams zorgkrediet – motief opleiding*):** Flemish civil servants can take time off for training with compensation for interrupting working hours. It is a parallel measure for time credit for training and can be used for a minimum of 120 hours and 9 study points per year for courses organised, subsidised or recognised by the government.

- **Other measures for civil servants:** There are various other measures in the public sector where civil servants can take time off from work for training, including Learning leave (*Vormingsverlof*), Leave for courses and exams GO! (*Verlof cursus & examens GO!)* and Leave for training activities (*Verlof opleidingsactiviteiten*), which is a federal measure.

- **Workable and Flexible Work (W*erkbaar en Wendbaar Werk*):** This Federal law obliges business to provide five days of paid training per full-time employee each year.

Source: Department for Work and Social Economy (2021[20]), *Annual report Flemish training incentives [Jaarrapport Vlaamse opleidingsincentives]*, https://www.vlaanderen.be/publicaties/jaarrapport-vlaamse-opleidingsincentives; IDEA Consult (2021[21]), *Towards a learning and career account for Flanders [Naar een leer- en loopbaanrekening voor Vlaanderen]*; Questionnaire for the OECD Skills Strategy Implementation Guidance project.

Financial incentives for individuals and employers could be better designed to encourage participation in learning by adults facing a lack of support and cost obstacles

While time-related obstacles are the most common reason why motivated adults do not participate in learning, there are various other obstacles that could prevent participation. Profile 4: "Motivated but facing multiple obstacles" represents this group of adults who are facing a more diverse range of obstacles, including the cost of participation, lack suitable courses, health/age-related obstacles, and, to a lesser extent, a lack of support by employers and public services, as well as other personal reasons (e.g. having had a negative learning experience in the past).

This profile has characteristics relatively comparable with those of the first two "unmotivated'' profiles. But despite their comparable characteristics, Profile 4: "Motivated but facing multiple obstacles" is characterised by a willingness to participate. Therefore, their lack of participation is very unfortunate.

While cost is relatively often cited as an obstacle to participation in OECD countries overall, it is less commonly cited as an obstacle in Flanders (OECD, 2019[22]). This is likely largely the result of comparatively good access in Flanders to a range of financial incentives directed at both individuals and employers (see Box 3.4), and the generally very low registration fees for education and training in Flanders, compared to other OECD countries. However, despite these incentives, there are still many adults who report that cost and a lack of support by both employers and/or public services are a reason for not participating, and these adults are highly concentrated in Profile 4: "Motivated but facing multiple obstacles". This highlights the potential to better direct these incentives to this group of adults.

To reduce financial obstacles, Flanders is already targeting some of these incentives at certain underrepresented groups of adults, many of which have characteristics similar to Profile 4: "Motivated but facing multiple obstacles" (e.g. low levels of education). For example, the training vouchers (*Opleidingscheques*) have been reformed in recent years to encourage their greater uptake by employees without tertiary education. Highly educated adults are now only able to use the vouchers for career-oriented education that is deemed necessary as part of a personal development plan (*persoonlijk ontwikkelingsplan*) drawn up with a career counsellor. Employees without tertiary education can use these vouchers for any course in the education database for Flemish training incentives. Moreover, as mentioned before, there are various registration fee exemptions in place for vulnerable learners, non-native speakers, and others.

Despite these efforts to target financial incentives at specific groups, there is evidence that they are not yet effectively reaching those most in need, with highly educated adults still representing a significant share of users (Department for Work and Social Economy, 2021[23]). Moreover, while the relative share of training vouchers used by underrepresented groups has been increasing, this has been largely offset by an overall decrease in the use of the vouchers. The share of training voucher requests made by highly educated employees decreased from 47% in 2003-2020 to only 6% in 2020/2021, with the number of requests in 2020/2021 at its lowest level since the introduction of the vouchers in 2003 (Department for Work and Social Economy, 2021[23]). Targeted adults, such as those with low levels of education, are also less aware than adults with higher levels of education of the available incentives, such as training vouchers (Meylemans and Verhoeven, 2021[10]).

These are indications that Flanders could do more to support Profile 4: "Motivated but facing multiple obstacles", in particular to overcome financial obstacles. To start, Flanders could aim to expand the overall use of these financial incentives, including by countering the decreasing trend in the number of training voucher applications. To put the current levels of utilisation of the training vouchers in perspective, 11 358 employees benefited from the measure in 2020/2021, while Profile 4: "Motivated but facing multiple obstacles" alone represents around 200 000 employed adults.

Box 3.4. Overview of incentives to address financial obstacles for Flemish adults and employers

Incentives for individuals

- **Training vouchers *(Opleidingscheques)*:** Employees (in public and private sectors), interim employees and those temporary unemployed (i.e. those still under contract) are eligible for training vouchers to cover the direct costs (e.g. registration fee, course material or books) of recognised training programmes included in the training database of Flemish training incentives. The vouchers are eligible for purchase from the Department for Work and Social Economy. The Flemish Government covers 50% of the cost of this voucher, with a maximum subsidy of EUR 125 per year. Employees without tertiary education can use the vouchers to pay for any course in the training database, while employees with a tertiary degree can only use it to pay for career-oriented training deemed necessary in a personal development plan. Moreover, adults with low levels of education are eligible for a voucher for the full EUR 250 (i.e. without their own contribution) for certain courses (e.g. basic literacy, numeracy or ICT skills, or courses in priority sectors), and employees without a higher education degree who are participating in training leading to a graduate or bachelor's degree can purchase a training voucher with a value of up to EUR 500. In 2020/2021, 11 358 training voucher requests were approved.

- **Registration fee exemptions for adult learning courses:** Various groups are exempted from fees for adult learning courses. Registration fees are waived for some vulnerable learners who would like to participate in courses at Centres for Adult Basic Education, and for those without a secondary diploma who enrol in courses at Centres for Adult Education. Non-native speakers are a key target group for Flanders, and language courses are compulsory for many adults without a basic knowledge of Flemish. Adults learning Flemish are assigned to a Centre for Adult Basic Education, Centre for Adult Education or a University Language Centre, depending on their learning capacity. For adults seeking work, VDAB provides tailored support that allows jobseekers to access free pre-approved courses for upskilling and reskilling.

- **Tax deductions for those self-employed:** In Belgium, those self-employed are eligible for tax deductions for eligible professional expenses (*beroepskosten*), including office rent, business travel expenses and training.

Incentives for employers

- **SME Wallet (*KMO-portefeuille*):** This incentive is targeted exclusively at SMEs and the self-employed and is designed to help them grow and become more competitive through skills investments. The SME Wallet covers 30-40% of training costs, depending on the size of the enterprise. SMEs can apply for subsidies online to receive a direct transfer. Employers determine their own training needs and there is no targeting element.

- **Sectoral training funds:** In Belgium, employers pay a levy on the wage bill, which goes towards a sectoral training fund. The levy amount varies by sector, from 0.10% to as much as 0.60% of the gross wage. Sectoral groups use these funds to develop training policies for their sector.

- **Strategic Transition Support (*Strategische transformatiesteun*):** This covers 20% of employers' training costs for strategic transformation projects in the Flemish region (up to EUR 1 million per year and per firm), provided that at least three firms participate in the training.

Source: Department for Work and Social Economy (2021[20]), *Annual report Flemish training incentives [Jaarrapport Vlaamse opleidingsincentives]*, https://www.vlaanderen.be/publicaties/jaarrapport-vlaamse-opleidingsincentives; IDEA Consult (2021[21]), *Towards a learning and career account for Flanders [Naar een leer- en loopbaanrekening voor Vlaanderen]*; Questionnaire for the OECD Skills Strategy Implementation Guidance project.

Flanders could also possibly further improve the effectiveness of existing financial incentives by targeting measures not only based on education level, but also on other characteristics associated with low take up. For example, Flanders could combine the "no tertiary education" criteria for more benefits of training vouchers with additional indicators associated with Profile 4: "Motivated but facing multiple obstacles" (e.g. mid-skill level occupations). Alternatively, Flanders could explore the use of other criteria for incentives to reach these profiles. For example, financial incentives could potentially be targeted at adults with low incomes who are most likely to face cost barriers to participation. Flanders could also increase the value of the incentives for adults with Profile 4: "Motivated but facing multiple obstacles".

Financial incentives for employers to invest in the skills development of their employees could also be better targeted to increase their impact. These incentives could help to increase their provision of on-the-job and other sorts of training. Given that employment in small businesses is associated with low participation in education and training, Flanders might consider introducing or expanding incentives that target SMEs (Eurostat, 2021[4]). Adults with Profile 4 "Motivated but facing multiple obstacles" are also predominantly employed in these small businesses. In Flanders, some incentives are in place that specifically target SMEs, such as the SME Wallet [*KMO-portefeuille*]), which potentially could be expanded.

Incentives should be complemented with tailored and targeted information and guidance on the availability of incentives and learning opportunities

The many obstacles to learning faced by otherwise motivated adults highlights the need for a diverse policy mix to support their participation. Financial incentives, non-financial incentives and a comprehensive and accessible education and training offer are all elements of an effective policy response for increasing the participation of motivated adults facing obstacles to learning. However, these policies need to be complemented with information and guidance to raise awareness of the availability of learning opportunities, as well as incentives and support measures to facilitate access.

Flanders could do more to improve access to information and guidance for "motivated, but facing obstacles" profiles. Figure 3.2 showed that these profiles are not often receiving adult learning information and guidance. In particular, only 16% of Profile 4: "Motivated but facing multiple obstacles" receives information and guidance, the lowest share of all profiles.

Targeted information and guidance could help to raise awareness and improve the accessibility of learning incentives. In Flanders, the broad range of incentives makes it difficult for some types of learners to navigate their options, thereby creating a need for clear information and guidance on these incentives (OECD, 2019[5]). To a large extent, the learning and career account in Flanders (*leer- en loopbaanrekening*) already has the objective to make information and guidance on learning incentives more accessible (see discussion later in this chapter and Box 3.7) (Department for Work and Social Economy, 2022[24]). A first phase of the development of the learning and career account involved the introduction of the Wizard Flemish training incentives (*Wegwijzer Vlaamse Opleidingsincentives*), which is a tool designed to help adults access information on the incentives available to them, with users responding to eight background questions resulting in a personalised overview of available training incentives (Flemish Government, 2021[25]). In a planned second phase, Flanders aims to develop a personal digital wallet with tailored information on training incentives and financial support (see Box 3.7). This digital wallet will be offered on the central citizen portal of the Flemish Government, *Mijn Burgerprofiel*. The wallet will be gradually linked to a personalised career platform from VDAB, where digital tools for career advice and career orientation are offered.

Targeted information and guidance could also help adults to identify the most suitable learning opportunities in Flanders. The *OECD Skills Strategy Assessment and Recommendations* report for Flanders (OECD, 2019[5]) noted that there are a wide range of providers of adult education and training in Flanders, and that the offer is therefore somewhat fragmented. As in the case of the two "unmotivated profiles" (Profile 1: "Disengaged from learning" and Profile 2: "Unmotivated due to age and health

obstacles"), the "motivated, but facing obstacles" profiles require access to high-quality information to help them navigate the range of learning options available.

Information about incentives and the availability of learning opportunities should be tailored to the unique needs and characteristics of "motivated, but facing obstacles" profiles (see Table 3.3). For instance, to encourage the participation of Profile 3: "Motivated but facing time-related obstacles", information on the availability of flexible courses (e.g. part-time, modular and online) would be important to help them overcome time-related obstacles. In addition, given that Profile 4: "Motivated but facing multiple obstacles" is characterised by employment in jobs with a high risk of automation, information could aim to raise awareness of these risks and demonstrate how upskilling and reskilling opportunities could support the transition to sectors and jobs with lower risks.

Table 3.3. Messages tailored to the needs of "motivated, but facing obstacles" profiles

	Messages tailored to **motivation/obstacles** profile	Messages tailored to **socio-demographic characteristics/labour market status**
3. Motivated but facing time-related obstacles (6%)	• Highlight available measures in place to address time-related obstacles (e.g. Flemish training leave [*Vlaams opleidingsverlof*]). • Share examples of flexible and online learning opportunities.	• Share examples of learning opportunities linked to professional occupations. • Provide information on training and incentives in languages other than Flemish.
4. Motivated but facing multiple obstacles (9%)	• Highlight availability of financial incentives in Flanders (e.g. training vouchers [*opleidingscheques*], training credit [*opleidingskrediet*]). • Highlight availability of centralised websites with information on the training offer.	• Share examples of flexible and online learning opportunities. • Highlight the risk of automation and how adults can reskill to transition to occupations with lower risks of automation.

Note: The messages aim to address the group-specific motivations, obstacles, socio-demographic characteristics and labour market status, as described in more detail in Chapter 2. The percentages next to the profile names indicate the share of the Flemish adult population.

Key insights: "Motivated, but facing obstacles" profiles

The "motivated, but facing obstacles" profiles represent those willing to learn but impeded from doing so. They include Profile 3: "Motivated but facing time-related obstacles" and Profile 4: "Motivated but facing multiple obstacles". Together, these two profiles represent 15% of the adult population in Flanders. Since these profiles are already motivated to learn, if their barriers could be overcome, they could more easily become lifelong learners than the "unmotivated" learners.

Both financial and non-financial incentives are considered important policy levers for boosting the participation of these profiles. Incentives can both raise extrinsic motivations to learn and respond to specific obstacles faced by adults and employers. The following are key insights for policy making that emerged from the analysis of "motivated, but facing obstacles" profiles:

• **Raising awareness of training leave and encouraging firms to provide more on-the-job learning opportunities would help to raise participation in learning of adults facing time-related obstacles.** Time-related obstacles, such as being too busy at work and family responsibilities, are the most frequently mentioned obstacles to participation in learning in Flanders, and are the defining characteristic of Profile 3: "Motivated but facing time-related obstacles". Flanders could increase the take up of existing initiatives designed to overcome time-related obstacles by more actively reaching out to adults with this profile, who are comparatively often young adults with children, to inform them about available incentives and support measures. In addition, given that time-related obstacles are an important impediment to greater participation in learning for all profiles, Flemish training leave and the time credit for

training could be better promoted or even expanded. However, care should be taken to ensure that the expanded use of leave arrangements does not create a significant additional burden for employers. Additionally, to overcome time-related obstacles, Flanders could encourage the expansion of on-the-job learning and other initiatives that combine learning and work (e.g. dual learning), improve access to training with flexible formats (e.g. part-time, online) and designs (modular, credit-based courses), as well as provide affordable and accessible childcare.

- **Financial incentives for individuals and employers could be better designed to encourage the participation in learning of adults facing a lack of support and cost obstacles**. Despite the wide range of financial incentives directed at both individuals and employers, there are still many adults who report cost and a lack of support (by both employers and public services) as their main reason for not participating in learning, especially in Profile 4: "Motivated but facing multiple obstacles". This highlights the potential to improve the design of these incentives. Flanders could encourage greater take up of existing financial incentives by individuals for whom cost is an important consideration, such as those with low levels income. This could entail reducing the amount of required personal contribution to training vouchers (which is currently set at 50% of the total voucher). In addition, Flanders could encourage small businesses, where workers facing cost-related obstacles are highly concentrated, to increase their provision of on-the-job and other sorts of training, with financial incentives targeting SMEs.

- **Incentives should be complemented with tailored and targeted information and guidance on the availability of incentives and learning opportunities.** The many obstacles to learning faced by otherwise motivated adults highlights the need for a diverse policy mix to support their participation. Financial incentives, non-financial incentives and a comprehensive and accessible education and training offer are all elements of an effective policy response for these adults. However, these policies need be complemented with information and guidance to raise awareness of available learning opportunities, incentives and support measures to facilitate access. This information and guidance should be tailored to the unique needs and characteristics of adults. For example, to encourage the participation of Profile 3: "Motivated but facing time-related obstacles", Flanders should raise awareness of training leave, flexible course offerings (e.g. part-time, modular, online courses) and other initiatives designed to overcome time-related obstacles. Similarly, to encourage the participation of Profile 4: "Motivated but facing multiple obstacles", Flanders should raise awareness of the existing wide range of financial incentives currently available and how they might be accessed.

C. Extrinsically motivated

The third category of motivational profile represents those already learning and whose participation in learning is extrinsically motivated. The "extrinsically motivated" motivational profile can be further divided into Profile 5: "Reluctant but required to participate", Profile 6: "Participating in response to work pressures" and Profile 7: "Participating to strengthen career prospects". Together these profiles represent 37% of the Flemish adult population.

There are important differences in the reasons for participation and in the characteristics of the three "extrinsically motivated" motivational learner profiles. Profile 5: "Reluctant but required to participate" represents adults participating in learning, but only because they are required to do so by their employer or by law. This profile consists of adults who are relatively young, a large share of unemployed, as well as those with lower levels of education than the other extrinsically motivated profiles (although they are relatively better educated than any of the non-participating profiles – i.e. profiles 1 to 4). Profile 6: "Participating in response to work pressures" represents those participating in learning to adapt to organisational or technical changes in the workplace or to perform better in their current job. This profile

is characterised by having better educational and employment outcomes than Profile 5: "Reluctant but required to participate", but worse than Profile 7: "Participating to strengthen career prospects". Profile 7 represents adults participating in learning to obtain a personal goal. This profile stands out the most among the extrinsically motivated profiles for being predominantly female, having comparatively higher levels of education and being relatively young.

Unlike the first two non-participating categories of motivational profiles ("unmotivated" and "motivated, but facing obstacles" profiles), policy interventions aimed at "extrinsically motivated" learners will not aim to nudge them towards participation, but rather to ensure that they continue to be motivated to participate. Many of these adults benefit from existing incentives and information and guidance services that encourage and enable their participation. Therefore, Flanders needs to ensure that in targeting more resources towards encouraging and supporting learning by those not already participating, it does not reduce the incentives for participation by those already learning due to external pressures.

The motivation to continue learning can be boosted through the provision of high-quality and relevant learning opportunities

The fact that participation by "extrinsically motivated" profiles is motivated by external factors makes their participation more vulnerable to changing circumstances. For example, the participation in learning of adults with Profile 5: "Reluctant but required to participate" is partly driven by their employers' ambitions to upskill their workforce, which might weaken when skills shortages ease or economic conditions deteriorate.

To strengthen the commitment of extrinsically motivated adults to continuous learning, Flanders could take steps to bolster "intrinsic" motivation. Developing the intrinsic motivation of adults to learn was stressed as an important objective by stakeholders consulted in this project. In times of crisis, such as the COVID-19 pandemic, intrinsic motivation is becoming even more relevant, with intrinsic self-motivation important for engagement in online learning, for example. As described in Chapter 2, intrinsically motivated profiles (e.g. Profiles 8 to 9) are more likely than extrinsically motivated profiles to report positive outcomes from learning. However, some stakeholders consulted in this project warned against viewing intrinsically motivated learners as somehow superior to those extrinsically motivated. Indeed, it should be noted that a vast majority of those with Profile 5: "Reluctant but required to participate" reported positive outcomes from learning and, in particular, better performance in their current job and the achievement of personal objectives.

Strengthening intrinsic motivations to learn will likely be easiest for Profile 7: "Learners participating to strengthen career prospects", which represents adults learning to obtain a personal goal but who are very much driven by the desire to improve career prospects rather than by an intrinsic interest in a given learning topic. The difference between these extrinsically motivated learners and intrinsically motivated learners is already quite subtle, and they share similar socio-demographic and labour market characteristics. They also participate intensively in learning activities (as measured by the number of hours in learning), even more so than adults with intrinsic profiles.

Improving the overall learning experience for extrinsically motivated learners is arguably the most effective way to strengthen their motivations to continue learning. This can be achieved by, for example, creating learning experiences that make people want to learn more and by raising awareness of the inherent benefits of learning for personal and professional development.

There are several factors involved with creating positive learning experiences. To start, it entails tailoring programmes to the specific needs of different types of learners. A flexible and responsive adult education and training system is needed to respond to the diverse needs of a broad spectrum of adult learners with different backgrounds, as well as to the continuously evolving skill needs of the labour market (OECD, 2019[5]). More specifically, this means ensuring that curriculum design is informed by current and future skills needs; offering training in flexible formats (e.g. part-time, online) and designs (modular, credit-based courses); creating education and training systems that can rapidly approve and introduce new courses in

response to changing demands; and strengthening systems of skills recognition and validation to support the efficient acquisition of credentials and improve the visibility of skills acquired outside of formal education and training. While a flexible and responsive adult education and training system is important for all profiles, it is particularly important for extrinsically motivated adults as they are already participating in learning, and the quality and success of that experience could nudge them towards becoming intrinsically motivated learners.

As described above, the three extrinsically motivated profiles are very different, not only in their attitudes towards learning, but also in terms of their broader socio-demographic and labour market characteristics. These profile-specific characteristics should be considered when promoting or offering specific courses. For example, Profile 6: "Participating in response to work pressures" is associated with employment in the health and social work sectors and, therefore, raising awareness of courses in these sectors could encourage continued participation in learning.

Expanding the range of contexts in which learning opportunities are made available could help to foster an ongoing commitment to learning (OECD, 2019[5]). The provision of learning opportunities in workplaces in particular helps to ensure that learning activities are relevant, and provides opportunities to apply skills in practical situations, all of which should increase motivation to learn, support the successful acquisition of knowledge and skills, and, by extension, strengthen commitment to continuous learning. Informal learning in workplaces, communities and homes is also a key component of a culture of lifelong learning. Informal learning is unstructured and often unintentional, and includes activities such as learning by doing or learning by observing others. Promoting this type of learning would be particularly important for Profile 6: "Participating in response to work pressures", which is characterised by comparatively low participation in informal learning. One way to increase engagement in informal learning is to promote the adoption of high-performance workplace practices (HPWP) and other management practices that emphasise the need for employees to learn and take on new responsibilities (OECD, 2019[5]).

Information and guidance is important to build a culture of lifelong learning, even among those who already have a strong motivation to learn

"Extrinsically motivated" profiles are less likely than other profiles to report facing obstacles to participation in learning. This is not surprising given that they are already participating in learning – i.e. even if they did face obstacles, they managed to overcome them. To some extent their participation in learning could suggest the effectiveness of various incentives already in place to overcome obstacles relating to time, cost and other factors. However, some "extrinsically motivated" learners do report time-related obstacles (e.g. busy schedules, family responsibilities), suggesting that there is still room to improve awareness of existing incentives and support measures to overcome these obstacles.

Stakeholders consulted during this project warned against assuming that those currently participating in learning due to external pressures will continue to be motivated to learn if their access to incentives and support measures is withdrawn. At the same time, to free up resources to support learning by those currently not participating it is important for countries to minimise deadweight loss effects. One potential way to balance these pressures is to appeal further to both the extrinsic and intrinsic motivations to learn. In addition to providing high-quality and relevant learning opportunities (as discussed above), this would entail the development of information and guidance services that emphasise how people can benefit from continued participation. Table 3.4 presents an overview of possible messages tailored to the different learner profiles.

To encourage the continuous learning of Profile 5: "Reluctant but required to participate", efforts could be taken to raise awareness of the benefits of continuous learning and upskilling throughout life, including in young adulthood (given the low average age of Profile 5). This could help to address this profile's comparatively low motivation to participate further once having already participated. Given that Profile 5 is more likely than other participating profiles to be employed in occupations facing a high risk of automation, information could also emphasise opportunities to reskill to transition to more secure occupations.

Table 3.4. Messages tailored to the needs of "extrinsically motivated" profiles

	Messages tailored to **motivation/obstacles** profile	Messages tailored to **socio-demographic characteristics/labour market status**
5. Reluctant but required to participate (15%)	• Highlight benefits of continuous learning and upskilling throughout life. • Provide information on learning for personal development to appeal to and increase intrinsic motivation.	• Highlight that learning throughout life also matters for young adults. • Highlight the risk of automation and how adults can reskill to transition to more secure occupations.
6. Participating in response to work pressures (17%)	• Provide information on suitable learning options to increase career prospects. • Share benefits of learning in terms of work outcomes and changing career paths. • Provide information on learning for personal development to appeal to and increase intrinsic motivation.	
7. Participating to strengthen career prospects (5%)	• Provide information on suitable learning options to increase career prospects. • Provide information on learning for personal development to appeal to and increase intrinsic motivation.	• Highlight how learning opportunities can accommodate the schedules of part-time workers. • Highlight that learning throughout life also matters for young adults.

Note: The messages aim to address the group-specific motivations, obstacles, socio-demographic characteristics and labour market status, as described in more detail in Chapter 2. The percentages next to the profile names indicate the share of the Flemish adult population.

To encourage the continuous learning of Profile 6: "Participating in response to work pressures", information could highlight suitable learning options to increase career prospects, as well as the benefits of learning in terms of achieving certain desirable work outcomes or changing career paths. This could help make adults with this profile internalise the external factors that made them want to participate, and make them more aware of the long-term benefits of skills development.

To encourage the continuous learning of Profile 7: "Participating to strengthen career prospects", information could emphasise what courses are available to strengthen their career prospects and, given the low average age of this profile, the benefits of learning for young adults. While Profile 7: "Participating to strengthen career prospects" is comparatively strongly associated with not wanting to learn more, this might be explained by the very high intensity of their existing learning activities – i.e. they may feel that they are already participating in all the learning they want or need.

Key insights: "Extrinsically motivated" profiles

"Extrinsically motivated" profiles represent those already learning and whose participation in learning is driven by external factors, such as being required to learn by an employer or by law, the need to adapt to organisational or technical changes in the workplace, etc. This category of motivational profile can be further divided into Profile 5: "Reluctant but required to participate", Profile 6: "Participating in response to work pressures" and Profile 7 "Participating to strengthen career prospects". Together these profiles represent 37% of the adult population in Flanders.

Since these profiles are young and, therefore, will be in the workforce for many years to come, they are important profiles to consider in policy-making. In particular Profile 5: "Reluctant but required to participate" is an important target for policy as they lack commitment to further learning. Profile 6: "Participating in response to work pressures" underscores that new technologies and other workplace innovations that demand the greater use of skills or, indeed, new skills, play an important role in encouraging lifelong learning. Adults with Profile 7: "Participating to strengthen career prospects" exhibit a stronger commitment to learning and can be considered borderline with respect to whether their motivation is extrinsic or intrinsic.

Many with these profiles are already benefitting from existing incentives and from information and guidance services. Flanders needs to ensure that in targeting more resources at encouraging and supporting learning by those not already participating (e.g. "unmotivated" and "motivated but facing obstacles" profiles), it does not reduce incentives for participation by those already learning. The following are key insights for policy making that emerged from the analysis of "extrinsically motivated" profiles:

- **The motivation to continue learning can be boosted through the provision of high-quality and relevant learning opportunities.** The fact that participation by extrinsically motivated adults is motivated by external factors makes their participation more vulnerable to changing circumstances. To strengthen their commitment to learning, Flanders could aim to improve the learning experience. First and foremost, this entails ensuring access to a high-quality and relevant education and training offer. Ensuring that course offerings and programmes are responsive to the specific needs of different types of learners could also help to improve learning experiences. For example, Profile 6: *"Participating in response to work pressures"* is associated with employment in the health and social work sectors and, therefore, raising awareness of courses in these sectors could encourage continued participation in learning. In addition, making learning opportunities available in a wide range of contexts, but especially in the workplace where people apply their skills, should increase motivation to learn, support the successful acquisition of knowledge and skills, and, by extension, strengthen commitment to continuous learning.

- **Information and guidance is important to build a culture of lifelong learning, even among those who already have a strong motivation to learn.** Stakeholders consulted during this project warned against assuming that those currently participating in learning due to external pressures will continue to be motivated to learn if their access to incentives and support measures is redirected to adults not yet participating. At the same time, to free up resources to support learning by those currently not participating it is important for countries to minimise deadweight loss effects – i.e. the financing of learning activities that would have occurred even without public support. One potential way to balance these pressures is to appeal further to extrinsic and intrinsic motivations to learn. This would entail the development of information and guidance services that emphasise how adults benefit from continued participation. For example, Profile 5: "Reluctant but required to participate" should be informed about the benefits of continuous learning and upskilling throughout life to overcome this profile's comparatively low motivation to participate further once having already participated. Profile 6: "Participating in response to work pressures" and Profile 7: "Participating to strengthen career prospects" should be informed about learning options that could increase career prospects or facilitate new career paths.

D. Intrinsically motivated

The fourth category of motivational profile represents those already learning and whose participation in learning is intrinsically motivated – i.e. they participate in learning for its inherent pleasure and satisfaction. This motivational category can be further divided into Profile 8: "Participating for personal development" and Profile 9: "Participating for professional and personal development". Both profiles are characterised by learning to increase knowledge and skills on a subject of interest. However, while Profile 8: "Participating for personal development" typically participates in learning to gain knowledge and skills useful in everyday life and/or for personal interests (e.g. personal development), Profile 9: "Participating for professional and personal development" typically participates to improve career prospects or to perform better in their job (e.g. professional development). The intrinsically motivated profiles represent 10% of the adult population.

These profiles more than others are characterised by high levels of education and employment in high-skilled occupations. Profile 8: "Participating for personal development" stands out for its large share of employment in occupations related to health, social work and education, as well as the lowest risk of automation of any profile. Profile 9: "Participating for professional and personal development" is characterised by the highest household income of all profiles and the large share in managerial positions.

For intrinsically motivated learners, incentives and information and guidance services are less crucial for ensuring their participation in learning than they are for extrinsically motivated learners. Their intrinsic drive to learn is often enough to ensure their continued participation.

Even the most motivated learners may need incentives and support to maintain their strong engagement in learning

Arguably, intrinsically motivated learners will participate in learning even without any incentives and support. However, there are indications that they are making use of these measures. Indeed, "intrinsically motivated" profiles share many socio-demographic and labour market characteristics (e.g. high-educated, professional occupations) known to be most strongly associated with the take up of incentives, including career guidance vouchers and Flemish training credit (VDAB, 2019[8]; Department for Work and Social Economy, 2021[20]).

This might suggest potential deadweight loss effects, with incentives and other support being provided to individuals who would have participated in learning even without this assistance. However, several stakeholders consulted in this project noted that the availability of this assistance might be a key factor driving motivation, and cautioned against assuming that these adults would continue to be committed to continuous learning if such assistance were restricted to only those profiles not currently participating in learning. Indeed, many motivated adults indicated that they still face obstacles to learning, especially time-related obstacles. Therefore, as noted in the section on "extrinsically motivated" profiles, Flanders will need to strike a balance between universal approaches on the one hand, which can improve administrative efficiency and support the objective of access for all, and more targeted and tailored approaches on the other hand, which can help ensure that more public support is available to those most in need.

Despite these considerations, it would seem that no additional measures need to be targeted at these learners. However, insights from the segmentation could help to make existing interventions more tailored to their needs, thereby further encouraging and perhaps increasing their ongoing participation. For example, given that many still face time-related obstacles, the flexible course and programme offerings discussed in the context of "extrinsically motivated" profiles would also be relevant for "intrinsically motivated" profiles.

Key insights: "Intrinsically motivated" profiles

"Intrinsically motivated" profiles represent those already learning and whose participation in learning is driven by its inherent pleasure and rewards. This category of motivational profile can be further divided into Profile 8: "Participating for personal development" and Profile 9: "Participating for professional and personal development". Together these profiles represent 10% of the Flemish adult population.

For intrinsically motivated learners, incentives and information and guidance services are less crucial for ensuring participation than they are for extrinsically motivated learners, as their intrinsic drive to learn is often enough. Still, many learners with these profiles are benefitting from existing incentives and support, and continued access to this assistance may be important for their continued engagement. A key insight for policy making that emerged from the analysis of "intrinsically motivated" profiles is provided below:

- **Even the most motivated learners may need access to incentives and support measures to maintain their strong engagement in learning.** There are various indications that intrinsically motivated adults are actively using available incentives and support measures for learning. While Flanders may wish to prioritise more resources for those not currently engaged in learning, it will be important not to undermine the motivation of those already engaged in learning by withdrawing certain existing financial and non-financial benefits that may underpin that motivation. Flanders will need to strike a balance between universal approaches on the one hand, which can improve administrative efficiency and support the objective of access for all, and more targeted and tailored approaches on the other hand, which can help ensure that more public support is available to those most in need.

General policy implications of the adult learner profiles

The findings of this study also have more general policy implications beyond specific adult learner profiles, and affect the practical application of the nine profiles in policy making. These implications could involve the use of the nine profiles to strengthen the evaluation and monitoring of policies, and to support the design and implementation of adult learning policies.

Using the nine profiles to strengthen the evaluation and monitoring of policies

Few countries use impact evaluations in relation to adult learning. Studies assessing the causal impact of participation in adult education and training on individual outcomes are typically limited to training programmes provided in the context of active labour market policy (ALMP). To the extent that evaluations of adult learning do take place in Flanders, there remains room for improvement (see Box 3.5 for examples of monitoring and evaluation of Flemish adult learning initiatives). The *OECD Skills Strategy Assessment and Recommendations* report for Flanders (OECD, 2019[5]) concluded that the impact and effectiveness of adult learning policy measures should be assessed more systematically through monitoring and evaluation practices. Insights from learner profiles could help to strengthen existing evaluation practices by highlighting what groups are reached by existing initiatives, and how new initiatives can be better targeted and tailored to the motivations and obstacles of different adult learner profiles.

Box 3.5. Examples of the monitoring and evaluation of adult learning initiatives in Flanders

Monitoring and evaluation of Flemish training incentives (Vlaamse opleidingsincentives)

Flemish training incentives comprise of Flemish training leave (*Vlaams opleidingsverlof*), training vouchers (*Opleidingscheques*) and Flemish training credit (*Vlaams Opleidingskrediet*). These incentives are built around a common set of principles, including the use of a single recognised training database (the education database for Flemish training incentives).

Flanders publishes the annual report, Flemish training incentives (*Jaarrapport Vlaamse opleidingsincentives)*, that monitors the different Flemish training incentives, including their use and the characteristics of users and programmes. It also assesses how incentives reach their target groups. A more comprehensive three-yearly policy evaluation of the incentives will start in 2022.

Evaluation of the Guidance and Orientation of Adult Learning (GOAL) project in Flanders

Project GOAL was an Erasmus+ funded project that sought to develop or expand existing models of guidance and orientation for adults with low levels of education in six countries, including Flanders. It was a three-year project, running from February 2015 to January 2018, and was co-ordinated by

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the Flemish Government's Department of Education and Training. The evaluation of the GOAL project in 2018 sought to achieve three objectives: 1) measure the effects of GOAL with regard to client outcomes; 2) understand how, why, for whom and in what contexts outcomes are (or are not) achieved; and 3) contribute to joint learning and knowledge accumulation both within the GOAL programme itself and in terms of the broader field of adult guidance and counselling.

In working towards these objectives, evaluation evidence was gathered from a variety of sources. These included client monitoring data (to establish baseline, ongoing and exit data), client satisfaction and outcome data (user survey and qualitative interviews), programme and policy data (literature review, needs and strengths analysis), case studies of programme sites (qualitative interviews, analysis of quantitative data) and qualitative interviews with policy actors. The evaluation included ongoing data collection throughout the life of the project, as well as wave-specific data collection.

Source: Department for Work and Social Economy (2021[20]), *Annual report Flemish training incentives [Jaarrapport Vlaamse opleidingsincentives]*, https://www.vlaanderen.be/publicaties/jaarrapport-vlaamse-opleidingsincentives; El Yahyaoui, A. et al. (2018[26]), *GOAL National Evaluation Report Flanders*, https://adultguidance.eu/images/Reports/GOAL_National_Evaluation_Report_Flanders.pdf.

Current practices for *ex ante* policy evaluation in Flanders are unlikely to ensure that adult learning policies are targeted and tailored to the distinct motivations and obstacles of the nine profiles. While evidence on the state of policy evaluation in Flanders specifically is limited, at the federal level in Belgium, regulatory impact assessment (RIA) is mandatory for all primary and for some subordinate legislation submitted to the Cabinet of Ministers, and is usually shared with social partners for consultation. RIAs for subordinate regulations, however, are no longer published, and Belgium currently does not systematically require the identification and assessment of alternatives to the preferred policy option (OECD, 2022[27]). One recent assessment of evidence-based policy making found that while RIAs are compulsory, they are generally treated only as a formality (Bertelsmann Stiftung, 2020[28]). Furthermore, general RIA procedures and processes do not appear to require evidence that adult learning policies are targeted and tailored to the distinct motivations and obstacles of different groups of adults.

The profiles could be used to strengthen these *ex ante* policy evaluation practices in Flanders to help ensure that adult learning policies are appropriately targeted and tailored to the distinct needs of different learners at the design phase. Some stakeholders consulted in this project suggested that when policy makers design new adult learning measures they should always assess the likely impacts on the nine learner profiles identified in this project. This could be achieved by introducing new guidelines and requirements into Flanders' existing procedures for *ex ante* policy evaluation. Formal RIA requirements could be expanded to require that departments designing adult learning policies and programmes explicitly evaluate expected impacts on the different adult learner profiles. The departments involved in adult learning could also co-develop guidelines on how to utilise adult learner profiles in adult learning policy design. For example, such guidelines could define how eligibility/exclusions, types and levels of service provision, rates of funding, and expected outcomes will differ for the nine adult learner profiles.

In addition, current practices for the *ex post* evaluation of adult learning programmes in Flanders could be strengthened to ensure that policies are targeted and tailored to the distinct motivations and obstacles of different profiles. Currently, evaluation seems to be ad hoc and focused on participation and satisfaction measures, rather than outcomes for specific target groups. One assessment of *ex post* evaluation at the national level concluded that while such evaluations exist, they are often undertaken on the initiative of individual line ministries and not given serious consideration by ministerial cabinets making policy decisions (Bertelsmann Stiftung, 2020[28]). The comprehensiveness of evaluations and depth of insights for specific target groups appear to differ across programmes and time, and some consulted stakeholders cited a general lack of evidenced-based evaluation and insight into policy impacts in Flanders' adult learning system. The profiles could be used to strengthen *ex post* evaluation in Flanders to reveal the extent to which targeted and tailored adult learning policies improve learning motivation and participation for different learner profiles. Targeting and tailoring policies in Flanders to consider adult learner profiles

will require more detailed programme evaluations that are supported by new guidelines and requirements, which could require that departments responsible for adult learning policies and programmes explicitly evaluate the outcomes of policies for the different adult learner profiles. These more comprehensive programme evaluations could reveal whether certain adult learner profiles are not making use of the incentives, or whether there are others in less need who are receiving the support.

To strengthen both *ex ante* and *ex post* evaluation, Flanders could consider insights about learner profiles from other studies, especially the "customer journeys" study (see Box 3.6). Given that the studies highlighted in this box complement each other, Flanders should compare the results. By reviewing the findings from both studies, policy makers can obtain an even more comprehensive view of the different types of learners, thereby providing further insight into how to target and tailor information and guidance services and learning incentives.

Box 3.6. Customer journeys for adult learners

The 2021 study, *Customer journey of non-participating and participating adults in lifelong learning*, builds on customer journey research and aims to provide insights into learning needs, motivations and obstacles to adult learning. Based on in-depth interviews with 34 interested, but non-participating, and 49 participating learners, a total of eight personas are identified – four participating and four non-participating – based on their motivation (extrinsic vs. intrinsic), ambition (i.e. their goal), and obstacles and levers. The study then looks at the respective possible journeys of each persona, from the identification of the learning need and orientation of learning possibilities to enrolment and participation. These customer journeys provide a structured view of the journeys of learners, identifying in which phase of the journey concrete obstacles occur, and in which phase levers can be used. Based on these findings, the report also formulates several policy recommendations.

Findings from the study complement those of the segmentation conducted in this report, *OECD Skills Strategy Implementation Guidance for Flanders, Belgium – The Faces of Learners in Flanders*. This study applies a qualitative approach (based on interviews) to identify different groups of adult learners, instead of quantitative approach. Whereas the policy implications of the segmentation are considered from the perspective of the policy maker (i.e. looking at types of policy, phases of the policy cycle), the customer journeys study examines in more detail the different stages that lead to participation in learning for each of the nine profiles. There is considerable alignment between the profiles generated by the segmentation and the personas generated by the qualitative study. While adults not participating and not interested were not part of the customer journey study, all personas have a relatively direct link to one (or more) of the nine learner profiles, particularly for participating adults. This alignment provides some mutual validation.

Source: Van Cauwenberghe et al (2021[29]), *Customer journey of non-participating and participating adults in lifelong learning: A study into the personas, barriers and levers of adults with a learning need [Customer journey van niet-participerende en participerende burgers aan levenslang leren: Een onderzoek naar de persona's, drempels en hefbomen van burgers met een leernood].*

Using the nine profiles for the design and implementation of adult learning policies

Insights from the learner profiles could also inform the design and implementation of information, guidance and incentives more broadly. This could involve considering how to use the profiles to improve the provision of information and guidance services and to support the design of the Flemish individual learning account (ILA). This section will also consider how additional data and tools could support operationalising the profiles for policy making and implementation.

Using the nine profiles to strengthen the provision of information and guidance services

The specific policy insights gleaned from the adult learner profiles, as described above, demonstrate that the nine profiles can support strengthening the provision of information and guidance services. To ensure that the nine profiles are used to support the provision of information and guidance, Flanders could consider taking a number of actions, described below.

To start, those providing information and guidance to adults about learning should be made aware of the adult learner profiles identified through this study, and their implications for policy. This will likely require relevant departments developing a communications strategy to guide awareness-raising efforts among providers. The implicated departments could agree on key messages and audiences for these communications to ensure that all key stakeholders are well informed on the rationale and implementation modalities for targeting and tailoring information and guidance services to the needs of different adult learner profiles. Once familiar with the adult learner profiles, providers of information and guidance could tailor their communications to the different profiles. It is promising that the Partnership for Lifelong Learning's action plan mentions that the profiles developed in this study, along with those identified in the Flemish "customer journeys" study, should be used to inform a strategy (*een gesegmenteerde mobiliseringsstrategie*) proposed to engage hard-to-reach groups in learning (Partnership for Lifelong Learning, 2021[14]).

The nine profiles could also be used to target tailored information at different learner profiles using digital advertising tools. The introduction of digital advertising on social media platforms has changed what is possible with regards to targeting and tailoring information and guidance. Content can be personalised to each user based on criteria such as location, age, gender, interests, relationship status, languages spoken, education, company size, skills, job seniority and device used. The socio-demographic characteristics and labour market status of each of the nine learner profiles could be used to identify and reach these adults on social media. Higher education institutions already use targeted advertising to a certain degree to appeal to different profiles of students – for example, the needs of mature students and younger students differ substantially, and universities tailor their messages accordingly (Hemsley-Brown, 2017[30]).

The learner profiles could also be used to help make information on online portals more targeted and tailored to the needs of different learners. Information on adult learning could be more centralised, which would make it easier to target and tailor information currently spread across multiple platforms to the needs of different adult learner profiles (OECD, 2019[5]). Stakeholders consulted in this project noted that a lot of information is available, but highly fragmented across various portals, for example the training database Flemish Training Incentives (*Opleidingsdatabank Vlaamse Opleidingsincentives*), Education Chooser (www.onderwijskiezer.be), and more. Several stakeholders referred to the need for a single portal that provides a one-stop-shop for information on skills needs assessments, education and training programmes, available incentives, as well as information on training quality, costs, and more. The learner profiles could help make such a portal more targeted and tailored to the needs of different learners. For example, visitors could respond to questions on their motivations, obstacles and characteristics, and then be assigned one of the nine learner profiles with information and messages tailored to their needs. Screening questions are already being used on the Wizard Flemish training incentives (*Wegwijzer Vlaamse Opleidingsincentives*) website (Flemish Government, 2021[25]).

The nine profiles could also be used directly by learning and career guidance services. Counsellors could potentially use the profiles when meeting an individual to provide insight into which learner profile they are closest to, and to gain a general insight into other characteristics this person might possess. This could then be used to probe the applicant for more information and make the intervention potentially more efficient. The counsellor could also find out what sorts of interventions might work for someone with this profile, which could also be a starting point for a more in-depth assessment.

Using the nine profiles to support the design of the Flemish ILA

Since the latest reform of Flemish training incentives in 2019, there has been significant emphasis on the development of a learning and career account (*Leer- en loopbaanrekening*) in Flanders (Flemish Government, 2021[31]; Vlaamse Regering and SERV, 2017[32]; IDEA Consult, 2021[21]; Department for Work and Social Economy, 2022[24]) (see Box 3.7). This type of individual learning account (ILA) should to some degree be targeted and/or tailored to those most in need of support.

Box 3.7. Vision note: Towards a learning and career account (*leer- en loopbaanrekening*) in Flanders

In 2022, the Flemish Government approved the *Vision note: Towards a learning and career account in Flanders,* which identifies the different development steps of a learning and career account (*leer- en loopbaanrekening).* The learning and career account is considered to be an important instrument for providing people with the tools to shape and strengthen their careers themselves by pursuing training that will strengthen their competencies. The account will be introduced in a number of phases.

In the first – preparatory – phase, the Wizard Flemish training incentives ("*Wegwijzer Vlaamse Opleidingsincentives*") was developed in 2021. This tool helps adults access information on the incentives available to them, based on their responses to eight background questions.

In the second phase (2022-2023), Flanders aims to develop a personal digital wallet that will provide adults with tailored information on training incentives and financial support to which individuals are entitled. This tool will help centralise and personalise information on incentives. The resulting digital overview of incentives and support will be offered on the central citizen portal of the Flemish Government, *Mijn Burgerprofiel*, that adults can easily access with their electronic ID (e-ID). The wallet will be gradually linked to a personalised career platform run by VDAB that provides digital tools for career advice and career orientation.

In the third phase (2024), an optimisation exercise will be undertaken to investigate the harmonisation of the eligibility criteria of the available incentives, to analyse the possibilities of transferability of incentives over time, and more. The aim of the final learning and career account is to give citizens more flexibility and ownership over their rights to education throughout their career. In this phase, incentives will be reviewed to ensure that there is a logical, transparent and clear package of support for citizens throughout their careers.

Source: Department for Work and Social Economy (2022[24]), *Vision note: Towards a learning and career account in Flanders [Visienota: Naar een leer- en loopbaanrekening in Vlaanderen]*, https://publicaties.vlaanderen.be/view-file/48881.

ILAs are a type of individual learning scheme (ILS) that seek to provide universal access to training for all groups of individuals. As a result, their success at increasing training among underrepresented groups specifically is mixed. Highly skilled individuals make more use of ILS than lower-skilled individuals who are in greater need of training. For this reason, countries with ILS typically still seek to offer relatively more support to those in greatest need of learning, such as the least skilled, individuals with low-income, and employees in small and medium-sized enterprises (OECD, 2019[33]). The 2019 *OECD Skills Strategy Assessment and Recommendations* report recommended providing more training rights to low-skilled than high-skilled workers, and that the learning account should be accompanied by programmes to reach out to vulnerable groups with information, advice and guidance (OECD, 2019[5]).

Insights from the learner profiles could support the design of an ILA that is targeted and tailored to those most in need of training support. The recently published *Vision note: Towards a learning and career account in Flanders"*(see Box 3.7) also indicated how insights from the OECD study, as well as the customer journey study (see Box 3.6), could help to gain even better insight into barriers and levers for

stimulating training participation, and what role an ILA can play in this (Department for Work and Social Economy, 2022[24]). Moreover, the vision mentions specifically the role segmentation could play in communication and support to specific target groups. The various policy insights for the nine profiles, as presented in the first half of the chapter, could be taken into consideration. For example, the tailored messages for "unmotivated" profiles (see Table 3.2), "motivated, but facing obstacles" (see Table 3.3) and "extrinsically motivated" profiles (see Table 3.4) could be used to support targeted and tailored communication linked to the learning and career account. In addition, the profiles could also potentially be used for evaluating and monitoring the learning and career account by providing insights on the reach of instruments.

Providing insights into how better data and tools could support operationalising the profiles as tools for assessing and referring learners

Discussions with stakeholders on the policy implications of the nine profiles often focused on two different types of applications: 1) using them to inform policies by providing broad insights that could help policy makers reflect on existing and new policies; and 2) using them more directly as a tool to assess what profiles adults most resemble, and, by extension, to decide which learning opportunities and policy measures could be most helpful. Most of the analysis in this chapter has focused on the first type of application, primarily due to questions raised about how to operationalise the profiles in practice for the second type of application. The following section explores how better data and tools could support the use of the profiles as tools to support the assessment and referral of adults to appropriate learning opportunities and support services.

Stakeholders consulted in this project noted that it could be difficult in practice to identify which profile an individual most closely resembles. The capacity to assign individuals to profiles in this way would be very important for enabling the profiles to be used to better target and tailor services offered by public service providers to the needs (including motivations and obstacles) of different adult learners. Operationalising the profiles in this way would require service providers to have sufficient background data on their clients, as well as a tool that can identify an individuals' likely learner profile based upon this data.

Adult learning service providers in Flanders appear to be supportive of collecting and using client data in general, but data limitations prevent them from understanding adults' learner profiles. For example, in the context of the GOAL educational guidance project, providers used registration systems that they deemed important for saving background information about the client and their previous guidance sessions and follow-up activities. However, an evaluation found that the registration system required a large investment of time, was not user-friendly and did not support the easy extraction of data. This made it difficult to analyse data at an organisational level for the purpose of improving guidance processes (El Yahyaoui et al., 2018[26]). Service providers' data collections would need to be made more comprehensive and user friendly to support providers in understanding and adjusting services according to clients' learning profiles.

While some data required for understanding adults' learner profiles – such as demographic and labour market data – are already collected and held by public adult learning service providers, there are some data gaps. For example, public adult learning service providers such as Centres for Adult Education (*Centra voor Volwassenonderwijs*) and the Flemish public employment service (VDAB) often hold the demographic, labour market and education history of their clients; however, they typically lack data on clients' motivations to train, obstacles to training, the adult learning activities clients have participated in and the guidance services they have received.

Furthermore, there is limited scope for these different agencies to share data with each other, even when serving the same individuals, which means that each agency has only a partial view of adults' training motivations and obstacles. For example, an evaluation of the GOAL educational guidance project found that GOAL counsellors are very dependent on the information in their registration system as there is currently no exchange of data between their own registration system and other systems (Ministry of

Education, VDAB, Integration Service, etc.) due to privacy regulations and the lack of structural embedment. The evaluation found that the development of a professional back office for service providers could have several benefits for service provision and policy making (El Yahyaoui et al., 2018[26]).

Ideally, public adult learning service providers would have a tool to translate the data held on an individual into an assessment of that adult's likely learner profile. VDAB comes closest to having these analytical capacities, for example with its digital matching tool that translates information about qualifications and work experience in CVs and job advertisements into skills requirements for jobs. Of course, assessing likely learner profiles of individuals would only be beneficial when service providers do not already have a clear picture of their clients' learning motivations, obstacles and needs. Some providers of adult learning services in Flanders do lack this clear picture currently, for example because there is no data on these characteristics or because client data are difficult and time consuming to collect, extract, analyse and share, as in the case of the GOAL educational guidance project (El Yahyaoui et al., 2018[26]).

The data collections of adult learning service providers could be expanded to target and tailor services to different adult learner profiles in two ways. First, individual providers could collect missing data directly from clients. This could be done at the point of registration for new clients, but may require more proactive outreach and information requests to existing clients. Additionally, those agencies holding relatively more data on clients, such as VDAB, could share this with other public service providers. This would be of value when two providers serve the same client, but would be subject to privacy constraints and require consent from clients. Second, a simplified tool could be developed based on the segmentation model that enables providers to assess adults' likely learner profile based on readily observable characteristics (such as age, gender, educational attainment, labour market status and other variables included in the model (see Chapter 2).

Adult learner profiles should be updated over time to ensure that they continue to help Flanders target and tailor policies and services. The profiles should be identified based on the most comprehensive data available about adults' learning motivations, obstacles, needs and socio-economic backgrounds. While the segmentation model developed for this study is based on the best available data today, it does come with limitations (see Chapter 2), such as the fact that it is static (i.e. based on data about adults at a specific point in time and does not capture adults' movements between profiles).

The segmentation model is also limited in its inability to assess skills gaps (i.e. the difference between the skills required for jobs and the skills adults actually possess). The topic of skills gaps was a recurring theme in conversations with Flemish stakeholders, and while the segmentation model presents insights into the skills required for the jobs where adults in each of the nine profiles are typically employed, it lacks information on the skills that adults already possess. This is one of the main areas for potential follow up research (see discussion in "Potential next steps" section).

To address these various data and information challenges, Flanders could identify opportunities for policy makers to collect and share more data on adults' motivations and reasons for (not) training, guidance received, and learning needs, for example through the Labour Market & Social Protection Datawarehouse (AM&SB Datawarehouse) or other sources. In the future, Flanders could consider re-running the segmentation model using data from the 2022-2023 AES or the Survey of Adult Skills (PIAAC) 2022-2023 to explore how adults' proficiency levels in literacy, numeracy and problem solving interact with training participation, motivations and obstacles (see also "Potential next steps").

General policy implications of the adult learner profiles

The findings of this study also have more general policy implications beyond any specific adult learner profile. These implications could involve the use of the nine profiles to strengthen the evaluation and monitoring of policies, and to support the design and implementation of adult learning measures.

Using the nine profiles to strengthen the evaluation and monitoring of policies

The learner profiles could help strengthen existing evaluation practices by providing insights into what groups are reached by existing initiatives and how new initiatives can be better targeted and tailored to the motivations and obstacles of different adult learner profiles.

The profiles could be used to strengthen ex ante policy evaluation practices in Flanders. Flanders could introduce new guidelines and requirements, including the requirement that departments designing adult learning policies and programmes explicitly evaluate the expected impacts on the different adult learner profiles. The departments involved in adult learning could also co-develop guidelines on how to utilise adult learner profiles in adult learning policy design.

The profiles could also be used to strengthen ex post evaluation in Flanders to reveal the extent to which existing adult learning policies improve learning motivation and participation for different learner profiles. Evaluation seems to be ad hoc and focused on participation and satisfaction measures rather than outcomes for target groups. More comprehensive programme evaluations could be applied that also seek to uncover whether certain adult learner profiles are not making use of the incentives, or whether there are others in less need who are receiving the support. This could be achieved through new guidelines and requirements for evaluations that could require departments responsible for adult learning policies and programmes to explicitly evaluate the outcomes of those policies for the adult learner profiles.

To strengthen both ex ante and ex post evaluation, Flanders could also consider insights into learner profiles generated in other studies, especially Flanders' "customer journeys" study. By doing so, policy makers can obtain an even more comprehensive view of the different types of learners, thereby providing further insight into how to target and tailor information and guidance services and learning incentives.

Using the nine profiles for the design and implementation of adult learning of policies

Insights from learner profiles could also inform the design and implementation of information, guidance and incentives more broadly. This could involve considering how to use the profiles to improve the provision of information and guidance services and to support the design of the Flemish individual learning account (ILA). Consideration should also be given to additional data and tools that could support operationalising the profiles for policy making and implementation.

- **Using the nine profiles to strengthen the provision of information and guidance services.** The adult learner profiles identified in this project can be used to better target and tailor information and guidance services to adults in various ways. Flanders could develop a communications strategy to raise awareness of these profiles and their potential uses. Insights from the profiles are also expected to inform the Partnership for Lifelong Learning's strategy (*een gesegmenteerde mobiliseringsstrategie*) for engaging hard-to-reach groups in learning. The profiles can also be used as input for digital marketing tools on social media that provide tailored information to different learner profiles. They could also be used to make information provided on centralised online portals more targeted and tailored to the needs of different learners, for instance with several questions for visitors to direct them to tailored information.

Insights from the nine learner profiles could also support learning and career guidance. For example, by comparing the characteristics of clients against the learner profiles, career and learning counsellors can obtain valuable insights into the sorts of learning opportunities, incentives and support measures that might be most suitable.

- **Using the nine profiles to support the design of the Flemish ILA.** The development of the ILA – the *Leer- en loopbaanrekening* – is a priority for the Government of Flanders. ILAs provide universal access to training for all groups of individuals, but evidence of their success in increasing training among underrepresented groups is limited. A more targeted and tailored scheme would help to better reach those most in need of training. Insights from the learner profiles could support the design of an ILA that is targeted and tailored to those most in need of training support. The recently published *Vision note: Towards a learning and career account in Flanders* noted that this OECD study, as well as the Flemish "customer journey" study, provide important insights into barriers faced by learners, as well as effective policies for overcoming them, which could be helpful in the design of the ILA and complementary support measures. In addition, the nine profiles could be used to tailor communications about the learning and career account to different learners, and as a tool to evaluate whether this account is meeting the needs of different types of learners.

- **Providing insights into how better data and tools could support operationalising the profiles as tools for assessing and referring learners.** Most of the analysis in this chapter has focused on using the profiles to inform policies by providing broad insights; however, they could also be used more directly as a tool to assess what profiles adults most resemble, and, by extension, to decide which learning opportunities and policy measures could be most helpful. The latter type of application has not been extensively discussed, primarily due to questions raised about how to operationalise the profiles in practice. Operationalising the profiles as a tool for assessment and referral would require service providers to have sufficient background data on their clients, as well as a tool that can identify individuals' likely learner profiles based upon this data, which would require addressing gaps in data and improving data sharing between the various actors that collect information on adult learners (e.g. through new protocols to facilitate information sharing). Alternatively, Flanders could develop a tool that enables providers to assess adults' likely learner profiles based on a more limited range of readily observable characteristics (e.g. age, education level and occupation). However, the outcomes of such an exercise should be interpreted with caution as the characteristics of profiles are based on probabilities. Learner profiles could also be updated over time based on newly available or updated sources (e.g. the next round of AES) to ensure that they continue to accurately represent the main types of learners in Flanders.

Potential next steps

There are a number of studies and initiatives in Flanders whose findings can complement the insights provided by the nine learner profiles. To gain a better understanding of how adult learning policies could be better targeted and tailored to the needs of learners, the findings of these studies should be examined in tandem with those of this report. One recent study on the customer journeys of adult learners in Flanders stands out in this regard (Van Cauwenberghe et al., 2021[29]) (see description in Box 3.6). Like the segmentation model, this study aims to provide insights into learning needs, motivations and obstacles to adult learning, with eight personas identified. By reviewing the findings from both studies, policy makers can obtain an even more comprehensive view of the different types of learners.

A next step for Flanders could be to use findings from the profiles and these other studies to inform a more in-depth evaluation of how current information and guidance services and learning incentives reach adults

with different profiles. The outcomes of this evaluation could help to further refine the design of initiatives by ensuring that they better reach the groups most in need of support. In particular, insights from the profiles and other studies on learner motivations and obstacles could inform ongoing discussions on the design and implementation of the learning and career account (*leer- en loopbaanrekening*) in Flanders, as already mentioned in the recently approved *Vision note: Towards a learning and career account in Flanders,* as well as the suggested strategy (*een gesegmenteerde mobiliseringsstrategie*) to engage hard-to-reach groups, which was proposed in the action plan of the Flemish Partnership for Lifelong Learning (Department for Work and Social Economy, 2022[24]; Partnership for Lifelong Learning, 2021[14]).

One particular area that requires further analysis is the skills profiles associated with each learner profile. By better understanding the skills profile of each learner profile, and comparing these profiles against assessments of the skills demands of the labour market, policy makers can obtain a better understanding of what types of training to support for adults with different profiles. In addition, these skills gaps also provide relevant insights on how to support learners transition to high-demand occupations, thereby reducing skills shortages and improving the labour market outcomes of learners (OECD, 2021[12]). To this end, the analysis in this report could also be rerun using data from the Programme for the International Assessment of Adult Competencies (PIAAC), which has data for Flanders, with new data available in 2024. Given that PIAAC includes indicators comparable to those used in AES on the motivations to learn, obstacles to participation in learning and reasons for learning, it would be possible to replicate the segmentation model with more recent PIAAC data once available. Using PIAAC data would allow for the consideration of proficiency and the use of foundational skills (i.e. literacy, numeracy and problem-solving), and by assessing these indicators for the nine profiles, it would be possible to better understand how motivation to learn and obstacles to learning are associated with skills.

Relying more on administrative data for carrying out further analysis should be also considered, which not only will increase the accuracy of characterisation of adult learners and thereby improve the identification of learners profiles, but which could also facilitate the operationalisation of the profiles as tools for assessing and referring learners thereby supporting better targeted and customised public policies and adult learning services. Using administrative data will allow to assess, evaluate and adjust in real time the adult learner profiles. This will require an important effort to integrate information systems already available in Flanders (e.g. VDBA administrave information).

Finally, it could be beneficial to update the segmentation model periodically in response to changes in the data source(s) used and to the availability of new data sources. To validate the current results, conducting related analysis using similar sources of information may be helpful. For example, a new round of the Adult Education Survey will take place in 2022-2023. The analysis contained in this report could be rerun with this updated AES data to see if it yields different profiles. However, considerations on the comparability of the outcomes between AES 2016 and AES 2022-2023 need to be taken into account, as changes may be explained by sampling differences between the two rounds (Eurostat, 2022[34]; Widany et al., 2019[35]).

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Annex A. The OECD Skills Strategy Flanders: Assessment and Recommendation project

The National Skills Strategy (NSS) Flanders project was published in 2019 and launched during the high-level Skills Strategy Seminar in Brussels in January 2018 with the Flemish Minister and representatives from the Department of Work, Economy, Innovation and Sports; the Department of Education; the Social Economic Council; and the European Commission.

Throughout the project, two workshops were held in May and September 2018 to provide input and shape the recommendations featured in this report. The workshops convened a wide range of stakeholders, including unions, employers, sectoral training providers, education institutions, academics and government representatives. Bilateral meetings with stakeholders and experts, as well as site visits, also took place.

Five priorities were selected by the OECD and the Flemish Government, with analysis and recommendations for each area (see overview in Table A A.1).

Table A A.1. Overview of priority areas and recommendations

Priority area	Recommendations
1) Developing a learning culture	1. Raise awareness of the importance of adult learning. 2. Embed adult learning within a lifelong development approach. 3. Make adult education more accessible and relevant. 4. Transform adult learning providers into learning organisations. 5. Enlarge the accessible course offerings for adult learners in higher education. 6. Expand work-based learning in university colleges, universities and adult education. 7. Establish a co-operation network to identify and disseminate best practices in stimulating a learning culture in the workplace.
2) Reducing skills imbalances	8. Provide individuals with a balanced portfolio of skills. 9. Make the education system more responsive to changing skills demand. 10. Support assessments of skills needs and skills forecast exercises. 11. Create bridges between learning and career development support. 12. Raise awareness about skills validation (*Erkennen Van Competenties*, EVC) among employers and potential users. 13. Mobilise sectoral training funds to address skills shortages. 14. Prioritise training in skills in high demand for jobseekers, particularly those at risk of long-term unemployment.
3) Strengthening skills use in workplaces	15. Raise awareness of the importance of skills use in the workplace. 16. Examine incentives to employers to re-shape their workplace and encourage more management training, especially among SMEs. 17. Promote flexible career mobility opportunities (e.g. upward, sideward and downward) within sectors and firms. 18. Examine company working conditions and human resource practices to help fill job vacancies and address potential skills shortages.
4) Strengthening the governance of adult learning	19. Establish a comprehensive and concrete vision for adult learning. 20. Promote coherence and complementarity between levels of government in adult learning. 21. Support local community organisations to foster, host and co-ordinate local networks of stakeholders that work to improve adult learning. 22. Establish a common knowledge and evidence base.
5) Improving the financing of adult learning	23. Group all existing training incentives into a single learning account. 24. Expand programmes to reach out to marginalised groups with information, advice and guidance about training. 25. Explore options for financially supporting transitions from job to job or from one employment status to another. 26. Ensure that training incentives support flexible modes of training delivery.

Source: OECD (2019[1]), *OECD Skills Strategy Flanders: Assessment and Recommendations*, https://dx.doi.org/10.1787/9789264309791-en.

Reference

OECD (2019), *OECD Skills Strategy Flanders: Assessment and Recommendations*, OECD Skills Studies, OECD Publishing, Paris, https://doi.org/10.1787/9789264309791-en. [1]

Annex B. Engagement activities

The project team

At the start of the project, Flanders established a project team with representation from key departments and organisations in Flanders. The project team functioned as steering committee for the project, including by providing comments on the report and several extensive discussions at different stages of the project. Because of the specific focus on the profiling and segmentation of the adult learning population, a multidisciplinary composition was established, with representation from the following organisations:

- Department for Work and Social Economy (Departement Werk en Sociale Economie)
- Department for Education and Training (Departement Onderwijs en Vorming)
- Agency for Higher Education, Adult Education, Qualifications and Scholarships (Agentschap voor Hoger Onderwijs, Volwassenenonderwijs, Kwalificaties en Studietoelagen – AHOVOKS)
- Flemish Service for Employment and Vocational Training (Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding – VDAB)
- Centre of Expertise for Labour market Monitoring (CELM – Steunpunt Werk)
- LinkedIn
- Social and Economic Council of Flanders (Sociaal-Economische Raad van Vlaanderen – SERV)
- Flemish Statistical Authority (Vlaamse Statistische Autoriteit – Statistiek Vlaanderen)
- General Christian Trade Union (Algemeen Christelijk Vakverbond/Confédération des Syndicats chrétiens – ACV-CSC)
- Catholic Education Flanders (Katholiek Onderwijs Vlaanderen)
- Team behavioural insights, Department of Chancellery and Foreign Affairs (Team gedragsinzichten, Departement Kanselarij en buitenlandse zaken)
- Flemish Education Council (Vlaamse Onderwijsraad – VLOR)
- Partnership of Lifelong Learning (Partnerschap Levenslang Leren)

The consultations

Two consultations helped to: 1) raise awareness and visibility of the project and its objectives; 2) facilitate constructive dialogue between government actors and stakeholder; 3) provide insights to inform the analysis; and 4) help to build a shared commitment to the implementation of recommended actions.

Consultations on segmenting the adult learning population – April-May 2021

On 30 April 2021, a workshop was organised for the project to discuss a first draft of the segmentation of the Flemish adult learning population – comprising 12 groups based on participation, motivation, obstacles to learn and other characteristics – and to evaluate the implications of this segmentation for lifelong learning policies. The workshop was attended by 65 representatives from a broad range of Flemish institutions, as well as the European Commission, with over 30 participants actively engaging in discussions.

The workshop included speeches by several high-level officials, including Wim Adriaens (Managing Director, VDAB) and Ans De Vos (Chair of the Lifelong Learning Partnership). In the main OECD presentation, the OECD introduced the project and presented the segmentation and other initial findings from the analysis. The workshop discussions took place in two main breakout room sessions, one on "segmenting the adult learning population" and one on "policy implications and additional opportunities". The OECD received broad consensus for its approach, and received many relevant suggestions on how to further improve the segmentation and ideas on how to bring the project forward. In addition to the workshop, the OECD organised a project team meeting on 7 May 2021 to discuss the findings from the workshop and to build consensus on how to incorporate feedback into the project moving forwards.

Consultations on the policy implications of the segmentation – October-November 2021

On 29 October 2021, the OECD Centre for Skills organised a workshop for the Implementation Guidance project on *"Strengthening lifelong learning policies through segmentation"* with the Flemish Government. The event was attended by 60 representatives from a broad range of Flemish institutions, as well as the European Commission. The aim of this workshop was to discuss how insights from the segmentation could be used to improve adult learning.

In the workshop, opening remarks were provided by Ans De Vos (Chair of the Flemish Lifelong Learning Partnership) and Carlo Scatoli from the European Commission. In the main OECD presentation, the project was introduced and the nine adult learner profiles and their characteristics were presented. The workshop discussions took place in three breakout room sessions on "the segmentation and relevant types of policy", "information/guidance and the segmentation", and "learning incentives and the segmentation". These discussions were stimulated by lists of potential policy actions and the outcomes of a pre-workshop survey. This resulted in discussions on how the segmentation could help to inform Flemish adult learning policies and initiatives, and provided relevant suggestions on how to move the project forward.

OECD Skills Studies

OECD Skills Strategy Implementation Guidance for Flanders, Belgium

THE FACES OF LEARNERS IN FLANDERS

This OECD Skills Strategy Implementation Guidance report presents a model for the segmentation of the adult learning population in Flanders, which resulted in the identification of nine representative learner profiles. These profiles provide unique insights into the diversity of factors that affect decisions to participate in learning, including motivation, obstacles to learning, socio-demographic characteristics, and labour market characteristics. These profiles will assist Flanders' reflections on how to target and tailor existing and new lifelong learning policies to the needs of learners.