

DIGITALES ARCHIV

ZBW – Leibniz-Informationszentrum Wirtschaft
ZBW – Leibniz Information Centre for Economics

Delhez, Ph.; Nautet, M.; Saks, Yves et al.

Article

Lifelong learning for employees: investing in the future

Provided in Cooperation with:

National Bank of Belgium, Brussels

Reference: Delhez, Ph./Nautet, M. et. al. (2022). Lifelong learning for employees: investing in the future. In: NBB economic review S. 1 - 14.
https://www.nbb.be/doc/ts/publications/economicreview/2022/ecorevi2022_h0.pdf.

This Version is available at:

<http://hdl.handle.net/11159/631027>

Kontakt/Contact

ZBW – Leibniz-Informationszentrum Wirtschaft/Leibniz Information Centre for Economics
Düsternbrooker Weg 120
24105 Kiel (Germany)
E-Mail: [rights\[at\]zbw.eu](mailto:rights[at]zbw.eu)
<https://www.zbw.eu/econis-archiv/>

Standard-Nutzungsbedingungen:

Dieses Dokument darf zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden. Sie dürfen dieses Dokument nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, aufführen, vertreiben oder anderweitig nutzen. Sofern für das Dokument eine Open-Content-Lizenz verwendet wurde, so gelten abweichend von diesen Nutzungsbedingungen die in der Lizenz gewährten Nutzungsrechte.

<https://zbw.eu/econis-archiv/termsfuse>

Terms of use:

This document may be saved and copied for your personal and scholarly purposes. You are not to copy it for public or commercial purposes, to exhibit the document in public, to perform, distribute or otherwise use the document in public. If the document is made available under a Creative Commons Licence you may exercise further usage rights as specified in the licence.

Lifelong learning for employees: investing in the future

Ph. Delhez
M. Nautet
Y. Saks
H. Zimmer

Introduction

The development of new technologies and the green transition are creating challenges for the labour market and the skills it requires. Careers are becoming ever less linear, with more frequent job and socioeconomic status changes. Moreover, these movements are taking place against the backdrop of population ageing. In order to ensure the employability of workers whose careers are set to become longer, a deliberate policy of lifelong learning is needed. Despite numerous initiatives, the results so far are disappointing.

The continuing education ecosystem is complex, notably owing to the involvement of numerous players. Apart from the workers and firms who are the direct beneficiaries, various levels of government, sectoral funds and both public and private training institutions also play a decisive role. While there is a consensus on the fundamental role of lifelong learning, the multiplicity and diversity of these players make the training policies difficult to implement.

The High Council for Employment devoted its 2021 thematic report to the continuing training of employees. It recommends some ways of addressing the difficulties and improving lifelong learning outcomes. This article sets out the main findings of the report¹.

1. Participation in continuing training: an overview

1.1 Some groups are under-represented

With just over one in two workers (54 % according to the adult education survey, AES) stating that they took part in (formal or non-formal²) continuing training in recent months, Belgium is around the European average (52 %). But there is considerable scope for improvement compared to the best: in the Netherlands, 74 % of employees state that they have taken part in training.

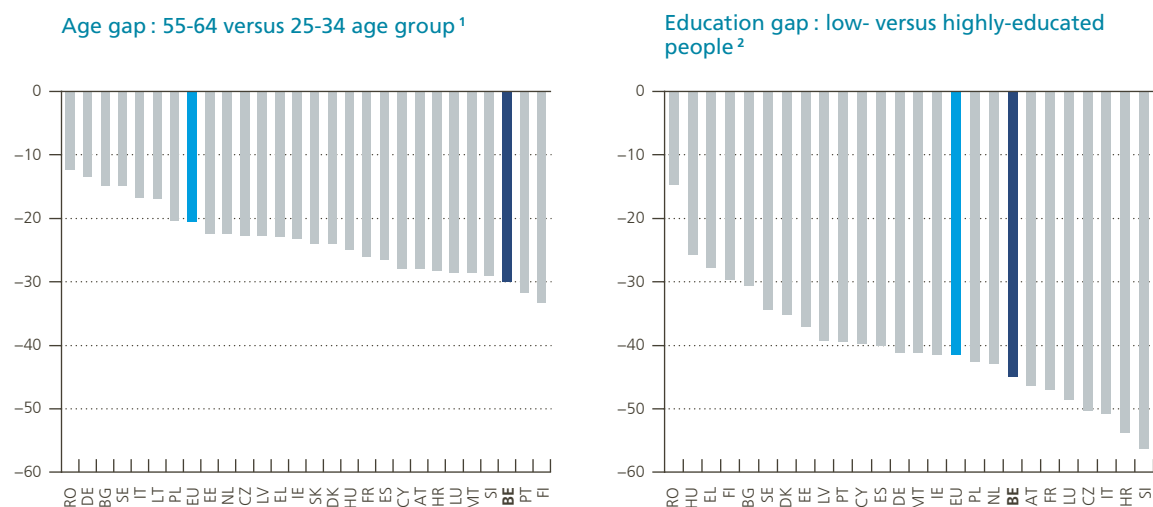
¹ La formation continue des salariés: investir dans l'avenir – November 2021 | High Council for Employment ([Belgium.be](https://www.belgium.be)).

² Formal and non-formal training means planned, deliberate, institutionalised training. Formal training leads to recognised certification while non-formal training does not. These types of training differ from informal training which concerns generally unstructured, sometimes unintentional learning activities, such as learning by doing or learning from a colleague at work.

Chart 1

Wide variations in participation according to the learners' characteristics

(formal and non-formal training, 2016)



Source: Eurostat (AES).

1 Difference between participation rates of the 55-64 age group and the 25-34 age group in percentage points.

2 Difference between the participation rate of the low-educated and the highly-educated in percentage points. Low-educated people are those who did not obtain their higher secondary education diploma. Highly-educated people are those with higher education diplomas (short-cycle tertiary education or higher).

Some population groups have participation rates well below the average, such as persons aged 55 and over, and those with a lower education level. Whichever the country considered, the training participation rate declines with age. However, in Belgium the gap between the participation rate of young adults (25-34 years) and that of older workers (55-64 years) is one of the largest in European countries, at 30 percentage points. Yet constant upskilling throughout working life is necessary because of the rapid changes in the skills required on the labour market. The longer working life is an additional argument in favour of investment in “end-of-career” training in order to tackle skill obsolescence, particularly where digital skills are concerned.

The worker's initial level of education is also a factor. In international terms, the gap between the training participation rate of highly-educated people as opposed to the low-educated is very wide in Belgium, at 45 percentage points. Those with the best initial education and those in the most highly-skilled jobs have the highest rates of participation in training. They are generally better informed of training opportunities and the associated support, but are also more aware of the resulting benefits. Moreover, some employers concentrate their investment in training on workers performing complex tasks rather than those carrying out basic duties. Finally, people who have attended higher education tend to build up skills more easily thereafter¹.

1.2 The need for training does not always coincide with willingness to take part

In Belgium, according to the European Centre for the Development of Vocational Training (Cedefop), 40 % of workers need new skills in order to keep their jobs or for vocational retraining. Most – but not all – of them are low-educated people. Medium- or highly-educated people who have only poor cognitive² or digital skills or

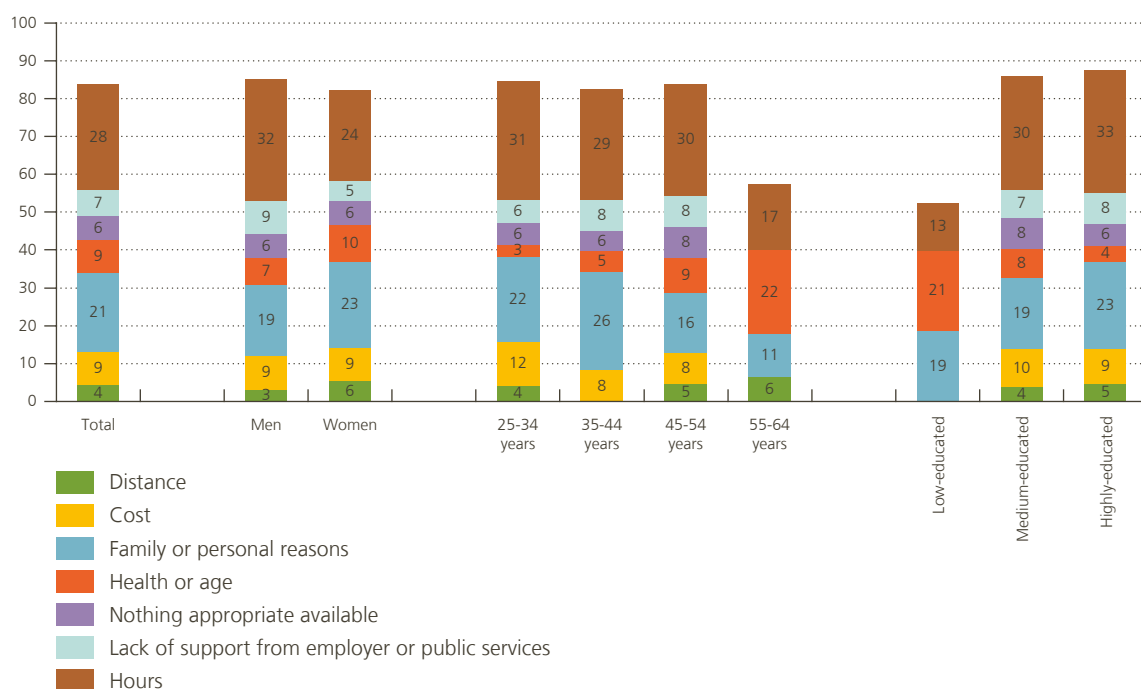
1 Cabus S., P. Ilieva-Trichkova & M. Stefanik (2020).

2 Cognitive skills refer to individuals' capabilities in terms of memory, perception, organisation, concentration, flexibility, critical faculties, etc.

Chart 2

Main reason for not participating in training¹

(in % of the corresponding population, population wishing to participate in training in the 25-64 age group unless otherwise stated; Belgium, 2016)



Source: Eurostat (AES).

¹ Other reasons for non-participation are not specified.

who are employed in basic duties are also concerned. Paradoxically, the AES indicates that 40% of adults do not wish to pursue additional training.

Some consider that they do not need it; this attitude is most commonly found among workers aged 55 years and over. Others have no appetite for learning; in particular, some low-educated workers seem to have developed a dread of learning during their initial education.

Finally, practical barriers may inhibit participation: cost, distance, lack of time, etc. The main obstacles mentioned include lack of time owing to working and/or family life and hours which are not flexible enough to permit attendance at training. The high frequency of health reasons is – unsurprisingly – notable among older workers but it also applies to low-educated people. The link between health and level of education was already apparent from the High Council for Employment’s research in 2020 which analysed the labour market situation of low-skilled people. Note that these two groups have training participation rates which are well below the average.

1.3 The range available is very diverse in both content and form

In principle, the main reasons for attending training concern jobs: people want to do their job better, expand their knowledge and enhance their career opportunities. That applies to 72% of respondents. In one in four cases, the training pursued is unconnected with the job but relates instead to the participant’s leisure activities or personal interests. The most popular subjects are generic: IT, languages, communication, etc. Technical training, though worthwhile, is less frequently pursued, probably because it is less widely accessible.

In the workplace, the commonest type of training corresponds to informal learning, such as learning by doing or learning from colleagues (according to the AES, 63 % of respondents in the 25-64 age group received such training in the past twelve months). Next comes structured training, generally in groups, which does not lead to any certification (41 %). Finally, training validated by a certificate is still uncommon for adult age groups (barely 7 %). Distance learning – or modular courses – offer welcome flexibility for workers. However, they still only represent a small proportion of the training available. Nevertheless, the health crisis has accelerated that trend in parallel with widespread recourse to remote working and distance learning.

2. Benefits of continuing training

2.1 The benefits vary according to the employee’s characteristics ...

Workers benefit in various ways from continuing training, gaining greater job satisfaction, enhanced employability and more career opportunities, both in their current job and in regard to potential future jobs or a change of occupation. However, the benefits vary according to the workers’ characteristics, increasing with age and level of educational attainment. They also vary according to the type of training pursued.

Chart 3

Perceived training impact “Training offers...”

(in % of respondents who entirely agree, 2015)



Source: Cedefop.

By international standards, Belgian workers seem to obtain relatively modest benefits from training. There may be various reasons for that. First, the workers are less likely to use their newly acquired skills at their place of work, yet that is where the benefits of training make themselves felt. Some studies¹ show that promoting worker autonomy and giving workers more flexibility in organising their work encourages learning and fosters the use of skills in the workplace. Management practices of this kind are relatively less developed in Belgium (Eurofound, EWCS). Next, training is briefer, with a median duration of 24 hours per participant per annum (OECD, PAL dashboard, Priorities for adult learning), limiting the scope for any real increase in skills or a career change.

2.2 ... and the characteristics of the employer

The great majority of Belgian firms, namely 84 %, organise training for their employees: that is above the EU average, and close to the best results achieved in Sweden (93 %), though still some way behind Latvia where all firms provide training.

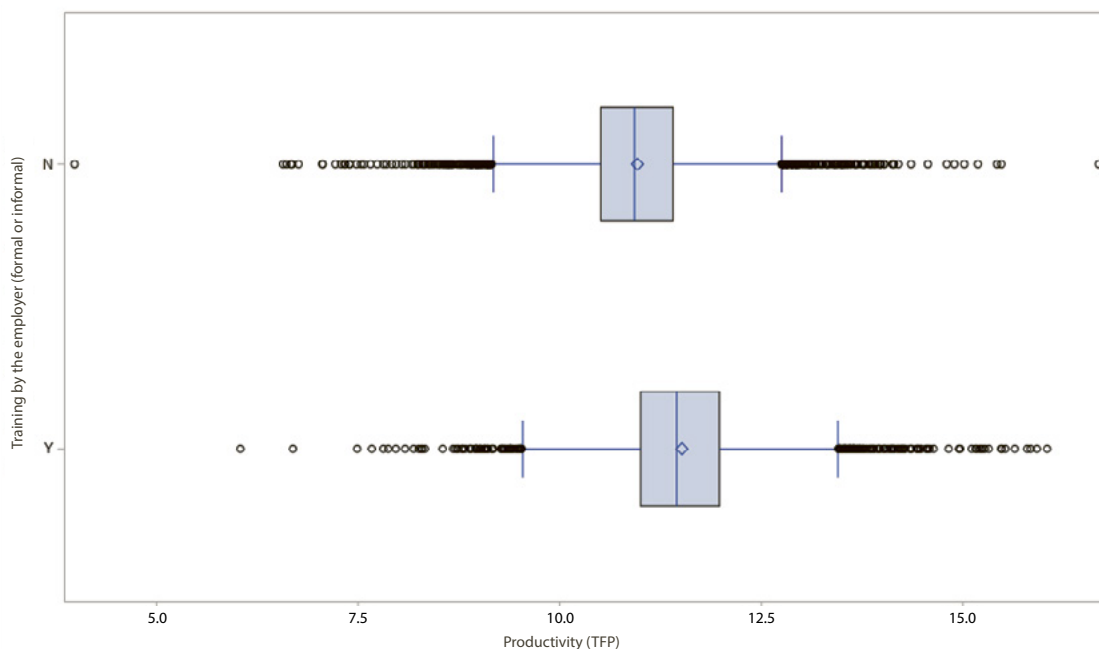
The firm's size is a key factor in the intensity of its training policy. The larger the firms, the more training they provide: work organisation and/or the financial burden associated with training are possible explanations of this stylised fact.

1 OECD (2019a), OECD (2019c), Fialho *et al.* (2019), France Strategy (2021).

Chart 4

Firms that provide training are more productive on average

(all firms)



Source: NBB (Annual accounts and social balance sheets) and De Mulder and Godefroid for TFP.

Key to the chart: the box diagrams are shown for TFP according to whether or not the firm provides training (Yes or No). The length of the box represents the interquartile interval, the bar is the median, the lozenge is the average.

However, within any given size class the training strategy may differ greatly, notably according to the branch of activity where the firm operates. Generally speaking, some branches lag behind – that applies in particular to the hospitality sector and retailing – while others such as financial services are in the forefront. Firms have less incentive to provide training where staff turnover is high or in the case of employees who are likely to leave the firm soon, particularly those nearing retirement. Training needs also vary according to the firm’s degree of innovation. Innovative firms constantly optimise their production process and must therefore also train their staff to use these new tools. A technological shock may also radically alter the skills required and hence the need for training.

If we combine social balance sheet data with a measure of productivity¹ for firms based in Belgium we find that the most productive are the ones with high training intensity. That is true both for highly structured training and for informal training. However, this exercise does not enable us to state the direction of causality. Within each group the differences in productivity between firms are very marked, and that is not specific to Belgium. Econometric studies which have been able to control for the possible endogeneity of investment in training show that training has a positive impact on a firm’s performance (see in particular Konings and Vanormelingen (2015)). Investment in training boosts both productivity and wages, but the impact on productivity predominates. In other words, investment in training is generally cost-effective for employers.

2.3 Quantifying training costs is not easy for employers

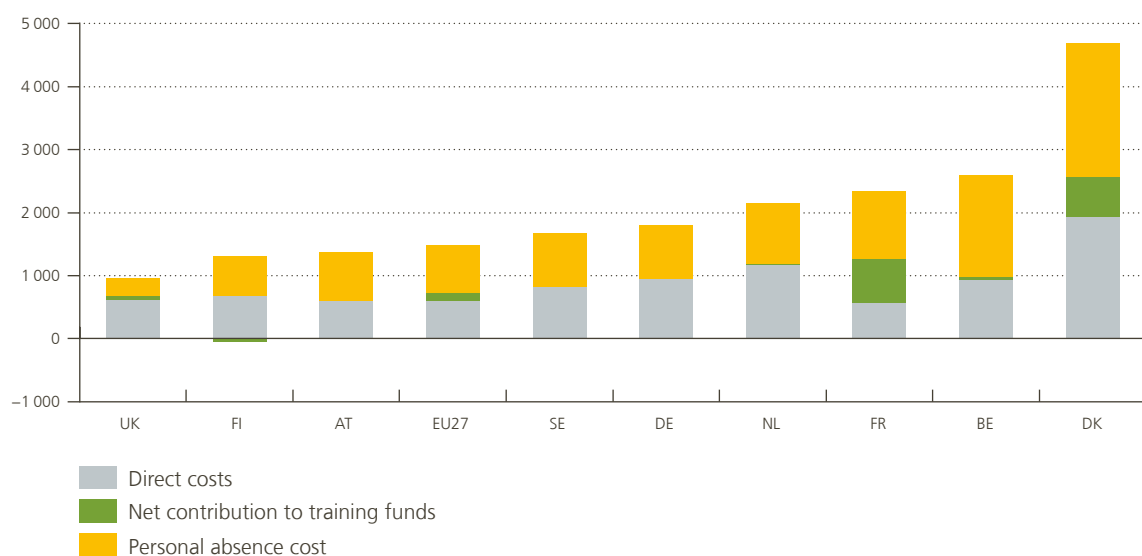
The training data obtained from firms are often incomplete, notably owing to the great diversity of training types for which it is often difficult to ascertain the exact cost and amount of time involved. In particular, informal

¹ Total factor productivity (TFP) measures the firm’s efficiency in the use of its production factors – capital and labour – for producing goods. To calculate it, we assume a specific production function (here, a Cobb-Douglas function) to determine how much of the growth is due solely to the increase in production factors. The residual growth represents the TFP. It has no units.

Chart 5

Cost of formal training according to the CVTS survey

(in €, 2015)



Source: Eurostat.

learning is clearly under-reported. In addition, the training cost must allow for the fact that, during the training period, employees are not performing their normal production duties; that makes it more difficult to estimate the cost.

In practice, the cost of training potentially comprises three elements. First, there is the direct cost of the fees paid to the bodies providing the training, plus travel and accommodation expenses (for participants and instructors). This direct cost is also calculated for in-house training (cost of producing the course itself, instructors' wages, provision of premises, etc.). Social contributions and subsidies related to training are a second aspect. In Belgium, apart from the contribution of 0.10 % of the wage bill for groups at risk, firms can contribute to a sectoral fund to share both the costs and the organisation of training programmes. Finally, the last component of the cost of training is its opportunity cost: the trainee no longer works during the training period. That cost is measured by the wage paid to the trainee during training. This component is identified as the "personal absence cost" (PAC) in surveys of training costs.

The share of this opportunity cost – around 60 % in Belgium – is only 50 % in the Nordic countries, 45 % in the three main neighbouring countries, and lower still in the United Kingdom. This follows directly from the previous findings. In Belgium to a greater extent than in neighbouring countries, continuing education is more the prerogative of the most highly educated (and hence the highest paid). The relative wage level in Belgium also influences this comparison.

3. Current and future skill needs

3.1 Mismatched skills lead to labour shortages

Belgium has seen a steady rise in the average level of education of its population. It has a large proportion of higher education graduates (38 % in 2020, compared to 24 % in 2000) contributing to sustainable inclusion in employment. However, the career choices made do not necessarily meet the current needs of the labour market. For example, only 2 % of graduates have studied information technology. Efforts to communicate the importance of the chosen course of study are beginning to produce results, but there are still insufficient new graduates to meet demand from employers.

The shortage of talent is more serious in certain sectors and occupations. This concerns a wide variety of jobs which do not always require tertiary education qualifications. According to research by the public employment services, particular examples include technical trades in construction and industry, accounting, financial and administrative personnel, sales staff, hospitality staff, engineers and IT specialists – but these are certainly not the only bottleneck occupations. Apart from the public employment services, the sectoral funds (see below) help to identify the needs in their respective sectors.

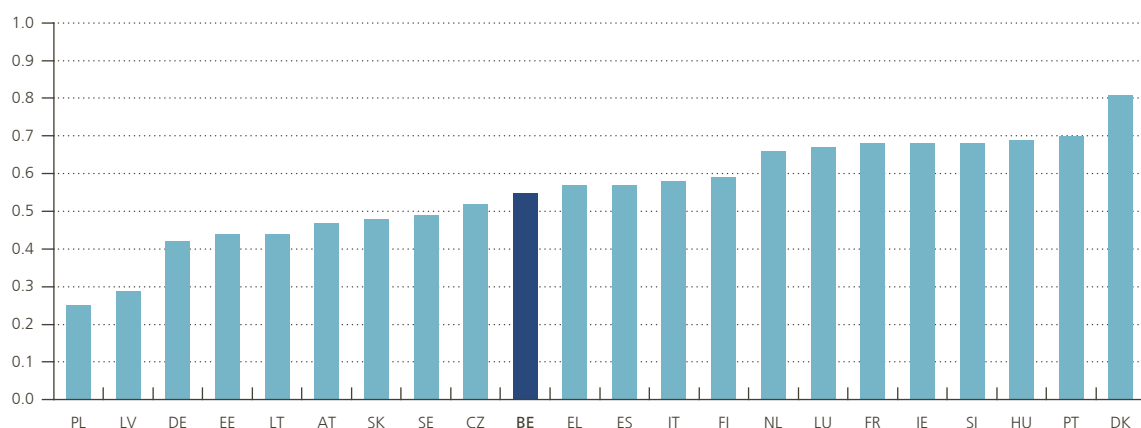
The OECD has devised a composite indicator measuring the extent to which continuing training matches the needs of the labour market, i.e. its ability to absorb the imbalances between supply and demand for skills. Belgium is in the lower half of the ranking. There are several reasons for this weak performance. First, while Belgian firms often assess their future skill requirements, few offer their workers the corresponding training. Next, Belgium features very wide discrepancies in rates of participation in training between the persons most at risk of losing their jobs and others. The OECD also considers that there are not enough workers trained in critical functions¹. To address this major challenge, the "bottleneck occupations" section of the federal budget aims to support the policies introduced by the Regions in favour of job-seekers and calls on the social partners to endorse them.

¹ Critical functions correspond to vacancies which are harder to fill and entail a longer recruitment process.

Chart 6

Aligning continuing education with market needs

(index: 0 = no match, 1 = perfect match; 2015)



Source: OECD PAL Dashboard.

3.2 Constantly changing skill requirements

It is vital to pursue training with a view to future market needs, because the skills that will be in demand tomorrow are not always the same as those today.

Ageing of the population in work is increasing the pressure on the labour market, particularly for certain sectors. In health care, a sector whose vital importance became obvious during the health crisis, one worker in five is over the age of 55 years. The retail sector and public authorities are also particularly affected by waves of retirement.

The growing automation of numerous jobs engenders a process of job destruction/creation and changes the skills needed for most workers. In Belgium, 14 % of jobs are liable to disappear, while the content of 29 % of jobs is likely to change radically¹. In some sectors, such as industry, agriculture and transport, the impact will be particularly marked. Workers in low-skilled jobs will be the hardest hit, in contrast to those in highly-skilled jobs or work which involves direct contact with customers and cannot be done remotely.

The green transition will also trigger such a process. That is why the design of an environmental policy must include a strategy on the development of new skills. For example, the construction sector, where environmental standards are becoming increasingly strict, already faces a shortage of applicants properly trained to meet the sustainable building requirements.

Cedefop, which forecasts employment per occupation for the year 2030, does not expect a revolution but a continuation of the existing trends. The occupations in demand today are set to continue growing, with talent shortages that could hamper the successful operation of businesses. Declining occupations are set to continue their downward trend. Without retraining, some workers could be side-lined.

Finally, the health crisis has affected the labour market and ways of working. It has exacerbated firms' problems in recruiting certain specific profiles. It has also highlighted the increasingly significant consequences of the digital divide at a time when remote working and distance learning have become widespread.

¹ Nedelkoska and Quintini (2018).

4. The institutional framework and the levers relating to lifelong learning

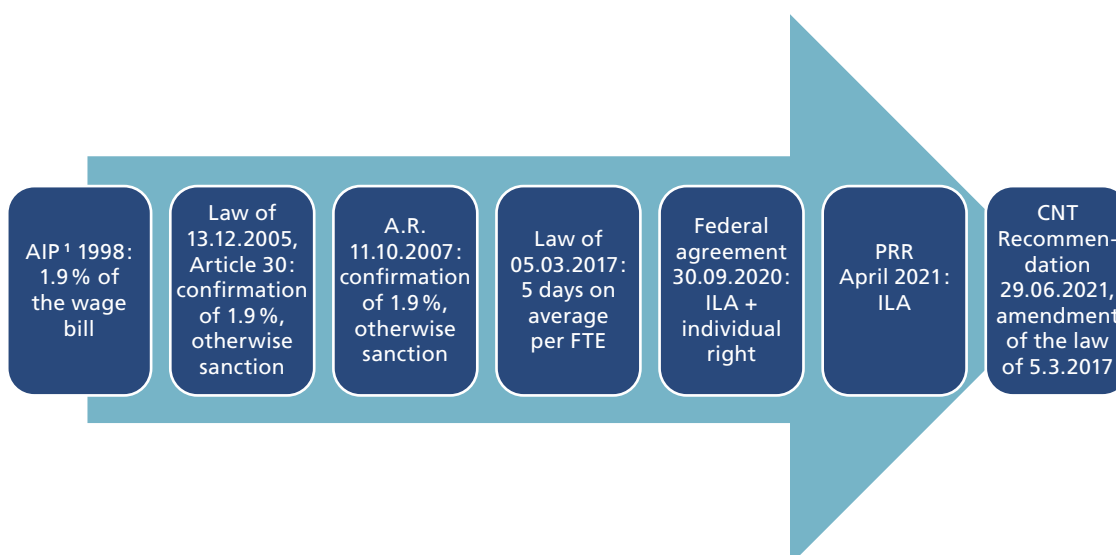
4.1 A complex institutional landscape

Belgium's federal structure and the associated sharing of responsibilities hamper the activation potential of the many existing levers relating to lifelong learning.

The legal framework governing continuing training has changed, from a financial target of 1.9% of the wage bill (with effect from 1998) to a target of 5 days' training, on average, per full-time equivalent, to be achieved by 2024 (2017 Law on feasible and manageable work). A proposed amendment to the law was submitted to the social partners. It concerns the roadmap for achieving this target, but also the creation of an individual right to training.

Chart 7

Changes in continuing training targets



¹ AIP: interprofessional agreement, A.R.: Royal Decree, ILA: individual learning account, CNT: National Labour Board.

More than ever before, worker training is an essential element of employment policy, reflected in the creation of complementary projects such as the individual learning account (ILA) in consultation between the federal government and the federated entities. Lifelong learning policies are in the forefront of the Regions' key strategic priorities. Together with the public employment services, the Regions are central players in their implementation. They have each developed their own schemes, but they all provide direct financial aid for firms and workers.

Numerous lifelong learning initiatives – such as the schemes concerning training and careers in Flanders, reinforcement of the advanced skills training infrastructures in Wallonia, and the employment market revival strategy in Brussels – are also included in the Belgian recovery and resilience plan (2021), approved by the European Commission (EC), which will receive EU funding. In fact, the European framework and agenda support the training policy of the Member States. The new European skills strategy (2020) and the European education area (2021 resolution) thus set the targets to be achieved by 2025: on average in the EU, almost half of adults will have to take part in learning. In line with this policy, at the May 2021 EU Social Summit in Porto the target was increased to a minimum of 60% by 2030.

4.2 Numerous instruments

Lifelong learning support schemes are diverse. But whether they involve training vouchers or paid education leave, and whether they concern the worker or the employer, they tend to be short term. These forms of aid do not safeguard career paths. There may be a limit on the number of hours or the number of recipients, thus restricting their use in the context of career transition plans.

The social partners are central players in the design and implementation of worker training programmes. Most sectors have set up organisations which structure and support training activities for all firms in the sector, notably by managing the funds collected under interprofessional agreements for the training of risk groups and workers. The mission of these sectoral funds has been extended. They increasingly develop not only training activities but also awareness-raising measures, assistance and advice for firms on training. In particular, their collaboration with the public employment services aims to align training more closely with the identified employment needs.

To overcome some of the limits on training subsidies mentioned earlier, a number of countries are starting to introduce an individual learning account which is to comprise a skills assessment, training rights and a training credit, all of which are readily accessible. The federal government, the Regions and the social partners are called upon to cooperate in this, together with the training providers. In Belgium, the first phase is already under way so that the scheme can become operational in 2023 or 2024. The individual learning and career account announced in 2019 in the Flemish government agreement is in line with this idea and was mentioned in Flanders' contribution to the Belgian recovery and resilience plan.

Employee training also involves private or public operators. Among the private operators, the ADG, Bruxelles Formation, FOREM, VDAB and their partners play a leading role. These entities offer hundreds of technical and general courses, some of which may lead to official certification. However, the number of certifiable skills is limited. The training may be pursued in the workplace, in a public employment service training centre, in a skills centre or via distance learning, which has become increasingly common during the health crisis. The other training providers are many and varied. They come under both the private and the non-profit sector, and also include ordinary educational establishments. They work directly with firms and employees or in partnership with the public employment services and the sectoral funds.

In the French Community, "social advancement" education enables people to combine study and employment. In the Flemish Community, "second chance" education offers adults the opportunity to obtain a secondary education diploma and to pursue courses of study (via adult education centres / Centra voor Volwassenenonderwijs). The same applies in the German-speaking Community. In these cases, the modular structure and the chance to attend evening classes mean that learners are free to define their personal learning pathways.

4.3 Recognition of acquired skills is crucial

Certification is a crucial aspect of skills acquisition since it gives a clearer view of training and career pathways. The EU has set up the European Qualifications Framework (EQF) as a tool for transposing certification between different national frameworks. In Belgium, the Communities use this framework to describe the level of skills acquired.

Launched at European level, the Europass is a set of online tools intended to help people to manage their career. The information on skills that this passport contains can be linked to the levels defined in the EQF. The EC is to propose a new initiative aimed at fostering transparency and the spread of micro-qualifications throughout the EU, in response to the finding that workers are increasingly often pursuing brief, specific training courses. Cumulatively, these lead to higher qualifications.

For a number of skills which are not acquired in formal education or which are not evidenced by a diploma or certificate, there are some – as yet limited – validation options. The purpose of the Skills Validation Consortium in Wallonia and Brussels is to organise procedures for verifying the acquisition of professional knowledge, skills and aptitudes in order to obtain certification. This helps to increase the employability and career mobility of the workers concerned. In Flanders it is also possible to secure recognition of uncertified skills by following a procedure known as “Erkennen van Verworven Competenties” (recognition of acquired skills).

5. High Council for Employment recommendations

In accordance with its mission, the High Council for Employment used its analyses as the basis for a number of specific recommendations for the federal, regional and Community authorities and for the social partners and training providers. These recommendations also concern the workers and firms directly involved. They centre on four key elements.

5.1 Improving coordination and rationalising the lifelong learning system

Behind the complexity of the Belgian institutional landscape and the multiplicity of training types lies considerable scope for rationalisation. The large number of support schemes makes the training policy unclear for both firms and employees. The idea of a single platform combining all the information relating to continuing training (availability, instruments, resources, etc.) would make these schemes more accessible and easier to use. The development of synergies between all the partners is one of the keys to success.

Introduction of the individual learning account offers the chance to put this approach into practice. This is an instrument, not a training policy, but the accumulation and transferability of the rights facilitates commitment to thorough training, which is essential for genuine upskilling or retraining. Firms, individuals and public authorities will be able to make contributions to this account.

5.2 Matching the available training more closely to the needs of the labour market

It is vital to develop a future-oriented view of the skills needed. Regularly updated, that will permit adjustments to the range and content of the available training schemes and the methods of learning. Information on this already exists. At international level, Cedefop plays a leading role. In Belgium, the public employment services and sectoral funds also conduct such research. But these initiatives are scattered. The High Council for Employment recommends establishing a “Skills Council” which would take account of that work and decide the main lines of the overall training strategy.

Within firms, “training ambassadors” would have the task of informing their colleagues of the training opportunities available to them. Employers would have to ensure that the organisation of the work within their firm permits the practical, speedy use of the newly acquired skills, with a positive return in terms of wages or promotion for workers. The High Council for Employment wants to promote the creation of a “training firm” label as a component of corporate social responsibility. It would reflect employers’ long-term commitment to ensure the employability of their staff.

The Council has ascertained that the higher education system is not really geared to adults’ continuing education and training. Availability is confined to certain fields of study (management, education, law, IT, etc.). It could be expanded to address labour market shortages and future challenges, and organised so as to facilitate access

for people already pursuing an occupation. E-learning or modular courses are avenues to be pursued, as are schemes that combine study with work experience (dual training system).

5.3 Encourage participation, particularly for under-represented groups

There is every justification for facilitating access to lifelong learning for currently under-represented groups, such as low-educated people or those nearing retirement. That entails devising appropriate learning methods and developing career guidance services. Financial incentives for firms that make a particular effort in favour of these groups could also be introduced.

More should be done to develop the validation of skills acquired outside the traditional education system in order to value field learning. That will benefit both workers and firms in their talent sourcing.

The difficulties that smaller firms face in organising training must be taken into account in tailoring the support to suit their size. Training mediators could take stock of the upskilling needed and propose suitable training schemes/instructors. Part of the cost of managing human resources would thus be externalised, using external structures organised and funded at sectoral level.

5.4 Strengthen the statistical system to assess training policy

In order to steer policies, it is necessary to have good quality statistical data. At present, the sources are fragmented and incomplete, as is the case for players as crucial as the sectoral funds. Standardised reporting, with data already available to the authorities being entered in advance, would reduce the administrative burden on firms (for instance for the ones filling social balance sheets).

Use of the individual learning accounts will automatically generate a large quantity of data, which must be available for statistical purposes. To that end, provision for collecting the data must be made from the start.

As in the case of most of its work, the High Council for Employment repeats the pressing need to develop an assessment culture. We must ensure that the allocation of public resources enables us to achieve the set targets. That certainly applies to the individual learning account, which will have to be assessed and adjusted as necessary. The existing schemes which the reform would render redundant could be abolished.

In conclusion, the High Council for Employment stresses the need to develop a far-sighted and inclusive lifelong learning strategy. That is particularly important because the integration of new technologies and globalisation has certainly not yet had its full impact in transforming activities and employment in their current form, as we stand on the threshold of the greening of the economy.

Bibliography

Bassanini A., A. L. Booth, G. Brunello, M. De Paola and E. Leuven (2007), "Workplace Training in Europe" in: Brunello, Garibaldi and Wasmer (eds.), *Education and Training in Europe*, Oxford University Press, 2007, Ch. 8-13.

Cabus S., P. Ilieva-Trichkova and M. Stefanik (2020), *Barriers to adult participation in lifelong learning in a European policy context*, European Policy Brief, ENLIVEN Policy Brief n° 1, February.

CCE [Belgian Central Economic Council] (2008), *Formation professionnelle continue: les efforts des branches et des secteurs*, November.

CCFEE (2001), Etat des lieux des fonds sectoriels en Belgique <https://ccfee.be/fr/publications/secteurs/contribution-fonds-sectoriels-formation-professionnelle>.

CNT [National Labour Board] (2021a), *Opinion 2 225 Training target – Draft amendment to chapter 2, title 2 of the Law of 5 March 2017 on feasible and manageable work*, session on Tuesday 29 June 2021.

Colombo E. and L. Stanca (2008), "The Impact of Training on Productivity: Evidence from a Large Panel of Firms", *International Journal of Manpower*, 35(8), February.

CSE [High Council for Employment] (2021), *La formation continue des salariés: investir dans l'avenir – Novembre 2021 | Conseil supérieur de l'emploi (belgique.be)*.

Delhez Ph., P. Heuse and Y. Saks (2009), "The social balance sheet 2008", *NBB Economic Review*, June, 83-132.

De Mulder J. and H. Godefroid (2018), "Productivity slowdown: findings and tentative explanations", *NBB Economic Review*, December, 53-70.

EC (2016), *A new skills agenda for Europe: Working together to strengthen human capital, employability and competitiveness*, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions; 10 June.

EC (2020), *European Skills Agenda for sustainable competitiveness, social fairness and resilience*.

European Council (2011), *Council resolution on a renewed European agenda for adult learning*, Official Journal of the European Union, 20 December.

European Council (2021), *Council Resolution on a strategic framework for European cooperation in education and training towards the European Education Area and beyond (2021-2030) (2021-2030)*, Official Journal of the European Union, 26 February.

Fernandes S. and K. Kerneis (2020), *Towards an individual right to adult learning for all Europeans*, December.

Fialho P., G. Quintini and M. Vandeweyer (2019), *Returns to different forms of job related training: Factoring in informal learning*, OECD Social, Employment and Migration Working Papers 231.

Forrier A. and L. Sels (2003), "Temporary Employment and Employability: Training Opportunities and Efforts of Temporary and Permanent Employees in Belgium", *Work Employment & Society* 17(4), December, 641-666.

France Stratégie (2021), *Quelle place pour les compétences dans l'entreprise? Renouveler les approches pour refonder les pratiques*, Rapport du Réseau Emplois Compétences, April.

GECE (2015), *Rapport du Groupe d'experts "Compétitivité et Emploi": Commission 5 "Efforts de formation des entreprises"*, November.

Heuse P., Y. Saks and H. Zimmer (2008), "The social balance sheet 2007", *NBB Economic Review*, December, 101-140.

Konings J. and S. Vanormelingen (2015), "The Impact of Training on Productivity and Wages: Firm Level Evidence", *The Review of Economics and Statistics*, 97(2), 485-497.

Lavrijsen J. and I. Nicaise (2017), *Systemic obstacles to lifelong learning: the influence of the educational system design on learning attitudes*, *Studies in Continuing Education*, <http://dx.doi.org/10.1080/0158037X.2016.1275540>, January.

Manpower (2018), *Talent shortage survey*.

Nedelkoska L. and G. Quintini (2018), *Automation, skills use and training*, OECD Social, Employment and Migration Working Papers 202.

OECD (2019a), *Getting Skills Right: Future-Ready Adult Learning Systems*, February.

OECD (2019b), *Individual Learning Accounts Panacea or pandora's box?*, November.

OECD (2019c), *OECD Skills Strategy Flanders: assessment and recommendations*, January.

OECD (2021a), *Career Guidance for Adults in a Changing World of Work, Getting Skills Right*, January.

OECD (2021b), *Improving the Quality of Non-Formal Adult Learning: Learning from European Best Practices on Quality Assurance*, *Getting Skills Right*, OECD Publishing, Paris, <https://doi.org/10.1787/f1b450e1-en>, February.

OECD Skills For Jobs (oecdskillsforjobsdatabase.org)

Office of the Secretary of State for Recovery and Strategic Investment, in charge of Scientific Policy (2021), *National Recovery and Resilience Plan*.

Perez C. and A. Vourc'h (2020), "Individualising training access schemes: France – the Compte Personnel de Formation (Personal Training Account – CPF)", *OECD Social, Employment and Migration Working Papers*, No. 245, <https://dx.doi.org/10.1787/d222364a-fr>, July.

Sourbron M. and S. Vansteenkiste (2020), "Opleidingsdeelname en ongelijkheden op de opleidingsmarkt in Vlaanderen. Een analyse op basis van de Enquête naar de Arbeidskrachten", *Over.Werk, Tijdschrift van het Steunpunt Werk*, 30(1), June, 21-29.

Sourbron M. (2021), *Opleidingsparticipatie (formele en informele opleiding) in alle bedrijven naar ondernemingsgrootte en activiteitssector (WSE28-sectorindeling) in het Vlaams Gewest en België (2010-2019)*, <https://www.steunpuntwerk.be/cijfers>, June.

Van Langenhove H. and S. Vansteenkiste (2020), "Drempels en motivatie bij het volgen van opleiding in Vlaanderen. Een analyse op basis van de Adult Education Survey", *Over.Werk, Tijdschrift van het Steunpunt Werk*, 30(1), June, 30-38.