

# CLIMACT

Empowering you to act  
on climate change



## Socioeconomic impacts assessment of the climate transition in Belgium

### Factsheet education and training

16/01/2025



Santé publique  
Sécurité de la Chaîne alimentaire  
Environnement

# Introduction to the factsheet

Following on from the SPF's publishing of [scenarios for a climate-neutral Belgium by 2050](#), the objective of this factsheet is to **feed discussions with the sector's stakeholders** (specifically professionals and training institutions) on the socioeconomic impacts of the climate transition on the sector's professionals, with a main focus on key skills (for the transition).

For that purpose, this factsheet aims at :

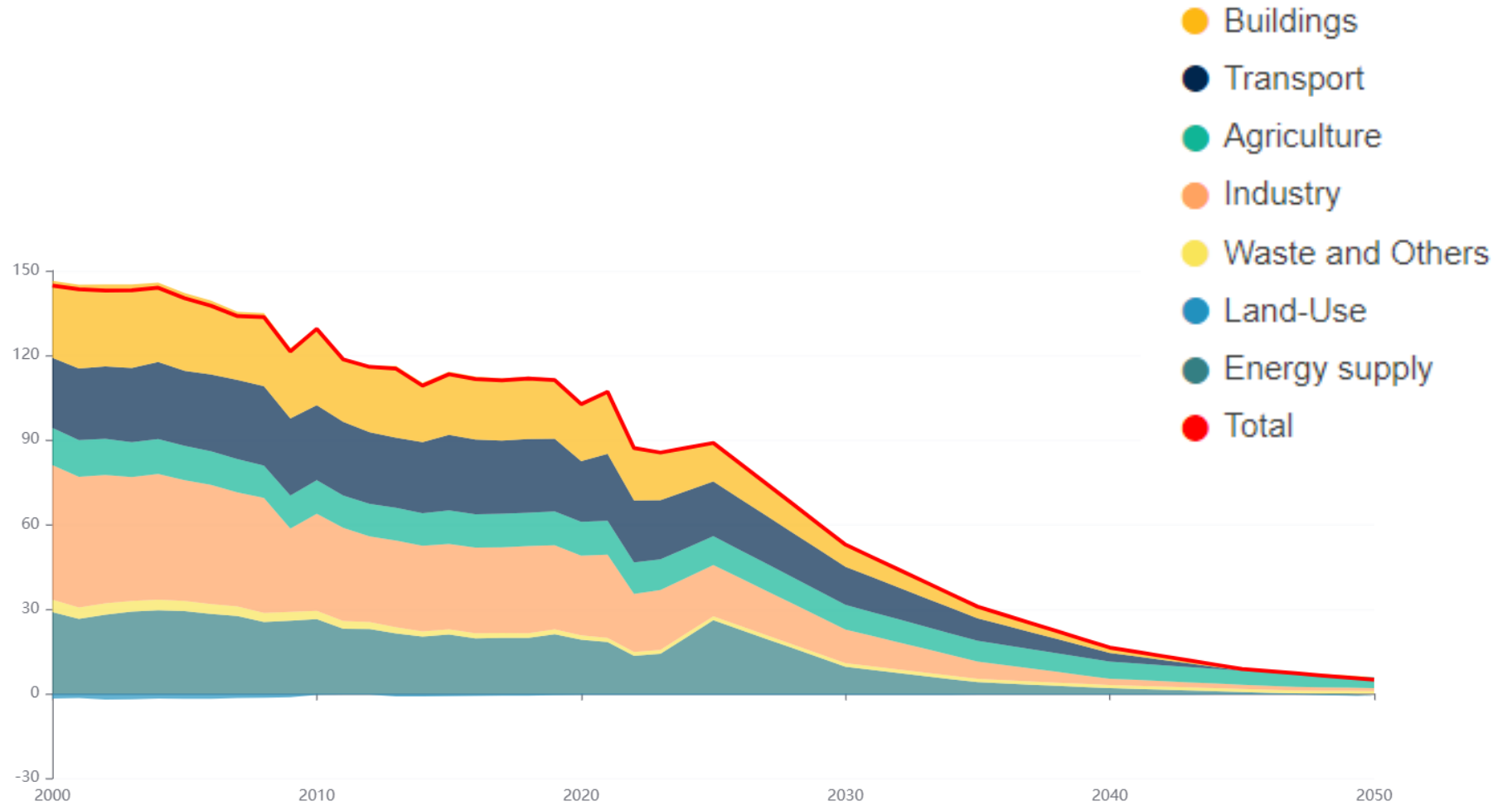
- **Giving a big picture of the different challenges and recommendations that can be activated through primary and secondary school, higher education and lifelong learning to support the transition in all sectors**
- **Identifying the practices that are the most impactful for handling the transition, and the skills that they should master to ensure a successful transition**

The 1<sup>st</sup> part of this factsheet quickly presents the methodology adopted for the factsheet. The 2<sup>nd</sup> part proceeds to a description of fundamental concepts that relate the transition with the reflexion on education and training. The 3<sup>rd</sup> part continues with an in-depth analysis of primary and secondary school. The 4<sup>th</sup> part relates what can be developed in the higher education. The 5<sup>th</sup> part of this factsheet discusses the training needs for the sector. Part 6 discusses the lifelong learning system in Belgium, its actual challenges and the recommendations that apply. The final section wraps up the main challenges that surged from the previous focus groups realized for the following sectors: health, transport (both freight and persons) agriculture and circular economy.

# Part 1: Methodology

# Transition trajectory

Buildings	1	2	<b>2.3</b>	4
Transport	1	2	<b>2.9</b>	4
Food, Agriculture, forestry and land use	1	2	<b>2.9</b>	4
Key behaviours - Diet, waste and others	1	2	<b>2.6</b>	4
Sea products consumption	1	2	3	4
Crop consumption	1	2	3	4
Meat consumption	1	2	3	4
Diet shift (less ruminants)	1	2	3	4
Diet shift (less meat)	1	2	3	4
Food waste at farm and post-farm	1	2	3	<b>3.3</b>
Agriculture practices	1	2	3	<b>3.5</b>
Land-use	1	2	3	<b>3.1</b>
Bioenergy	1	2	3	<b>3.5</b>
Imports/exports	1	2	<b>2.5</b>	4
Industry	1	2	<b>2.7</b>	4
Energy production	1	2	<b>2.5</b>	4
Demographic and long term	1	2	<b>2.3</b>	4
Costs	1	2	<b>2.4</b>	4



# Litterature Review

- *OECD, Assessing and Anticipating Skills for the Green Transition, Unlocking Talent for a Sustainable Future, Getting Skills Right*, OECD Publishing, Paris, 2023.
- *Klimaateducatie met impact. Kadertekst over doeltreffende klimaateducatie*. Departement Omgeving: Duurzaam Educatiepunt, 2023.
- Bianchi, G., Pisiotis, U., Cabrera Giraldez, M. *GreenComp – The European sustainability competence framework*. Bacigalupo, M., Punie, Y. (editors), EUR 30955 EN, Publications Office of the European Union, Luxembourg, 2022; ISBN 978-92-76-46485-3, doi:10.2760/13286, JRC128040.
- The shifters. Mobiliser l'enseignement supérieur pour la transition vers la neutralité carbone
- <https://www.vlaanderen.be/duurzaam-educatiepunt>
- <http://www.enseignement.be/index.php?page=26927>
- Rademaekers, K. & al, *Green Skills Roadmap Flanders, Final report on green skills need in Flanders*, Rotterdam, 20
- Mikkel Barslund, Wouter Gelade and Geoffrey Minne, *Will labour shortages and skills mismatches throw sand in the gears of the green transition in Belgium?* Working Paper Research, Octobre 2024.

# Part 2: Conceptual framework

## Literature review - main statements

- Skills assessment and anticipation methods for the green transition is **still somewhat novel**. Belgium could be pioneer in already defining the future pathway.
- The climate transition will **impact unevenly across sectors**. Services, the largest sector by far, will be largely unaffected, but **energy, manufacturing, construction and circular economy** will be much more impacted.
- **Skills gaps and employment shortages already exist** (certainly in Flanders). The climate transition could put even more pressure on certain sectors/skills, in the hereinbefore quoted sectors.
- There are specific technical skills needs from the climate transition, but a larger priority is given to generic **STEM skills**, lifelong learning and professional and cross-cutting skills.
- **Lifelong learning** is emphasized as an issue as most of the 2030 workforce is already part of the workforce today.

# Conceptual framework Learn ‘for’ climate/sustainability, not just ‘about’ climate/sustainability

**Sustainable competences** are an integrated set of attitudes (willingness), skills (know-how) and knowledge (knowing), aimed at promoting sustainability.

## 3 types of notions are mobilized, when addressing climate transition education

- **Willingness:** awareness that pushes in addressing and developing effective responses to climate change. Necessary to diminish consumption and incentivize to share, for example.
- **Skills (Know how):** General complex skills (STEM) and fine soft skills that are already needed in a global competitive digital driven labour market.
- **Green knowledge:** Specific green jobs and skills that add a new content to jobs or are directly linked to a specific skill.

# Willingness: Climate education as a mean to change and influence social practices

## Definition

- Climate education is defined by UNESCO<sup>(1)</sup> as education that focuses on addressing and developing effective responses to climate change. It helps students understand the causes and consequences of climate change, prepares them to cope with the effects of climate change and enables them to take appropriate measures to adopt a more sustainable lifestyle.
- Climate education is strongly **linked to global citizenship education** and rooted in **Education for Sustainable Development**. In the Wallonia-Brussels Federation, as well as in the Flemish Community, practices in schools are numerous and varied, ranging from occasional activities to school-wide projects.

(1) *Klimaateducatie met impact. Kadertekst over doeltreffende klimaateducatie.* Departement Omgeving: Duurzaam Educatiepunt, 2023.

# Know how

## Sustainable competences

- GreenComp (2022) summarizes existing frameworks, to provide a non-prescriptive, consensual definition of what sustainability as a competence entails.

## Transversal needs: STEM skills (Science, Technology, Engineering, and Mathematics): a crucial role in the context of the low-carbon transition

- STEM skills are acquired as early as primary education
- These skills are increasingly in demand due to their direct link with all the ongoing societal transformations (including the green transition). STEM competencies are highly versatile, making them applicable across various industries and sectors. This versatility is essential for addressing current challenges, such as decarbonizing the economy, which require workers to adapt to new technologies and solve complex problems.
- Moreover, diversity and inclusion in STEM foster innovation and productivity, enabling industries to develop more creative and effective solutions for climate and energy challenges.

12 competences organized into four areas

### Willingness

S →

Embodying sustainability values, including the competences

- valuing sustainability
- supporting fairness
- promoting nature

### Skill

S →

Embracing complexity in sustainability, including the competences

- systems thinking
- critical thinking
- problem framing

Envisioning sustainable futures, including the competences

- futures literacy
- adaptability
- exploratory thinking

Acting for sustainability, including the competences

- political agency
- collective action
- individual initiative

Source : GreenComp (2022)

# Knowledge

## Definition

- The green transition, or a green/greening economy, is the process of reconfiguring businesses and infrastructure to deliver **better returns on investment** or natural, human and economic capital, while at the same time reducing greenhouse gas emissions, extracting and using fewer natural resources, creating less waste and reducing social disparities<sup>(1)</sup>.
- **Green jobs are therefore jobs that reduce the environmental impact of enterprises** and the economy, ultimately to levels that are sustainable.
- Skills are few defined as such but refer to: green skills as “the knowledge, abilities, values and attitudes needed to live in, develop and support a sustainable and resource-efficient society”<sup>(2)</sup>.

(1) International Labour Organization (ILO). (2019). *Skills for a greener future : a global view*.

(2) CEDEFOP. (2012). *Research paper on green skills and environmental awareness in vocational education and training*.

# Schema

## Health    Transport    Building    Circular Economy    Industry

### Willingness

Care with quantities

Deprescription

Incentive to share

Less space use  
Diminish t°

Second hand

### Know how

STEM  
Digital  
Resilience  
Complex problem solving

### Knowledge

Choices in  
Carbon efficient  
treatment

Complex  
logistics

Heating pump  
placement

Valoriste

Electrolyse  
mecnics

# Part 3: Primary and secondary education

# Focusing on willingness

## Less focus on knowledge, more on willingness

- Education focused on climate science, solutions, and communication through an action-oriented approach fosters lasting awareness and commitment. It influences future decisions in both their professional and personal lives, shaping their careers, daily choices, and contribution to the low-carbon transition.
- In compulsory education, teachers need to **foster “willingness”** among students to engage with the climate transition challenges.

# Challenge: increasing interdisciplinarity

## Insufficient understanding of issues by stakeholders and incomplete, unilateral climate education

Various studies have shown that **teachers do not always have a complete grasp of climate change**<sup>(1)</sup>

- There is lack of research and teaching resources available to help them integrate these topics coherently into their lessons<sup>(2)</sup>.
- Many teachers still do not perceive the importance of an interdisciplinary and horizontal approach to teaching climate change<sup>(1)</sup>.
- As a result, both primary and secondary school students have a generally **weak understanding of climate issues**, often influenced by mass media rather than structured education<sup>(3)</sup>.

## Need to increase the interdisciplinarity in environmental education.

Other studies have shown that education focuses mainly on the **scientific facts related to climate change** (e.g. causes, effects)<sup>(1)</sup>.

- To fully understand the implication of all challenges posed by climate change and promote climate action, **the social aspect also needs to be highlighted**.
- **Ethical and humanistic perspectives should also be integrated**, as the topic often evokes strong emotions (guilt, despair, helplessness, anger).

<sup>(1)</sup> Departement Omgeving: Duurzaam Educatiepunt, (2023) . Klimaateducatie met impact. Kadertekst over doeltreffende klimaateducatie.

<sup>(2)</sup> Brownlee and all. ( 2013). A review of the foundational processes that influence beliefs in climate change : Opportunities for environmental education research.

<sup>(3)</sup> UCLouvain. (2022) . Jongeren, communicatie & klimaat. Diversiteit van de uitdagingen bij 15 – 24 jarigen in België.

# Requirements in terms of skills

**To foster williness, teachers will need to acquire foundational knowledge related to climate and social transition**

- Causes, consequences and solutions to climate change
- Its multidimensional implications (environmental, economic, social)
- Practical pathways towards the transition (sufficiency, energy efficiency, renewable energy, innovation, sustainable agricultural/mobility/urban/... practices)

**They must also develop the ability to foster essential transversal competencies (know-how) among their students:**

- System thinking
- Critical thinking
- Adaptability
- Creativity
- Complex problem solving

# Requirements in terms of skills

To effectively teach these competencies, **educators will need to adopt new pedagogical skills suited to this multifaceted subject matter<sup>(1)</sup>**:

- Ensuring interdisciplinarity: through competences embedded across the curriculum. It recognizes how sustainability aspects (environmental, social, cultural and economic) are interrelated and how they are interlinked and embedded within disciplines and subjects.
- Ensuring a critical learning approach: aims to profoundly change our perspectives, beliefs and behaviour through reflecting on what we know and do not know. It encourages us to question how we interpret our surroundings and the role we play in them.
- Encouraging a whole school approach: stand-alone classroom learning activities contribute less to an action-oriented attitude. By connecting different domains (not only education, but also school policy, school design and the school environment), a more powerful approach is created.

## Examples of effective pedagogical practices

- Active learning
- Student-centred, design-based, project-based, transformative (situated) learning contexts
- Gamification
- Role plays, experimental games and simulations
- Analysis of real-world case studies taken from the local context
- Outdoor approaches
- Collaborative approaches (cooperation with external partners)
- Facilitation skills
- ...

(1) Departement Omgeving: Duurzaam Educatiepunt, (2023). Klimaateducatie met impact. Kadertekst over doeltreffende klimaateducatie.

## Embedding transition – related content into educational frameworks

- A key challenge in integrating sustainability into education is its **absence from national frameworks and minimum standards**. Without clear guidelines, teachers lack structured approaches to incorporate these topics, leading to inconsistent coverage.
- **Overcrowded curricula further limit opportunities to introduce new subjects** without displacing existing content.
- Consequently, teaching sustainability largely depends on motivated individuals, as it is neither mandatory nor systematically supported. Existing references in frameworks, such as the *socles de compétences* in Wallonia and the *eindtermen* in Flanders, are fragmented and insufficient for meaningful integration.
- Progress is underway. The Fédération Wallonie-Bruxelles is developing new reference frameworks for the *tronc commun*, explicitly incorporating climate and environmental issues across disciplines. Initiatives like the COREN program in Wallonia also support schools in implementing sustainability roadmaps, though these currently reach less than 1% of schools. **Expanding such initiatives is essential to make sustainability a core part of education.**

# Challenge

Less focus on knowledge, more on willingness through action-oriented approach.

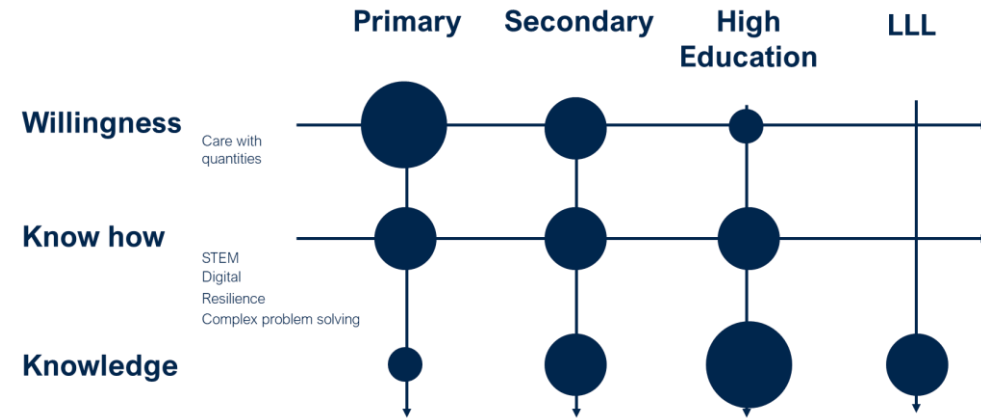
Insufficient understanding of issues by stakeholders and incomplete, unilateral climate education

Requirements in terms of skills

# Recommendations

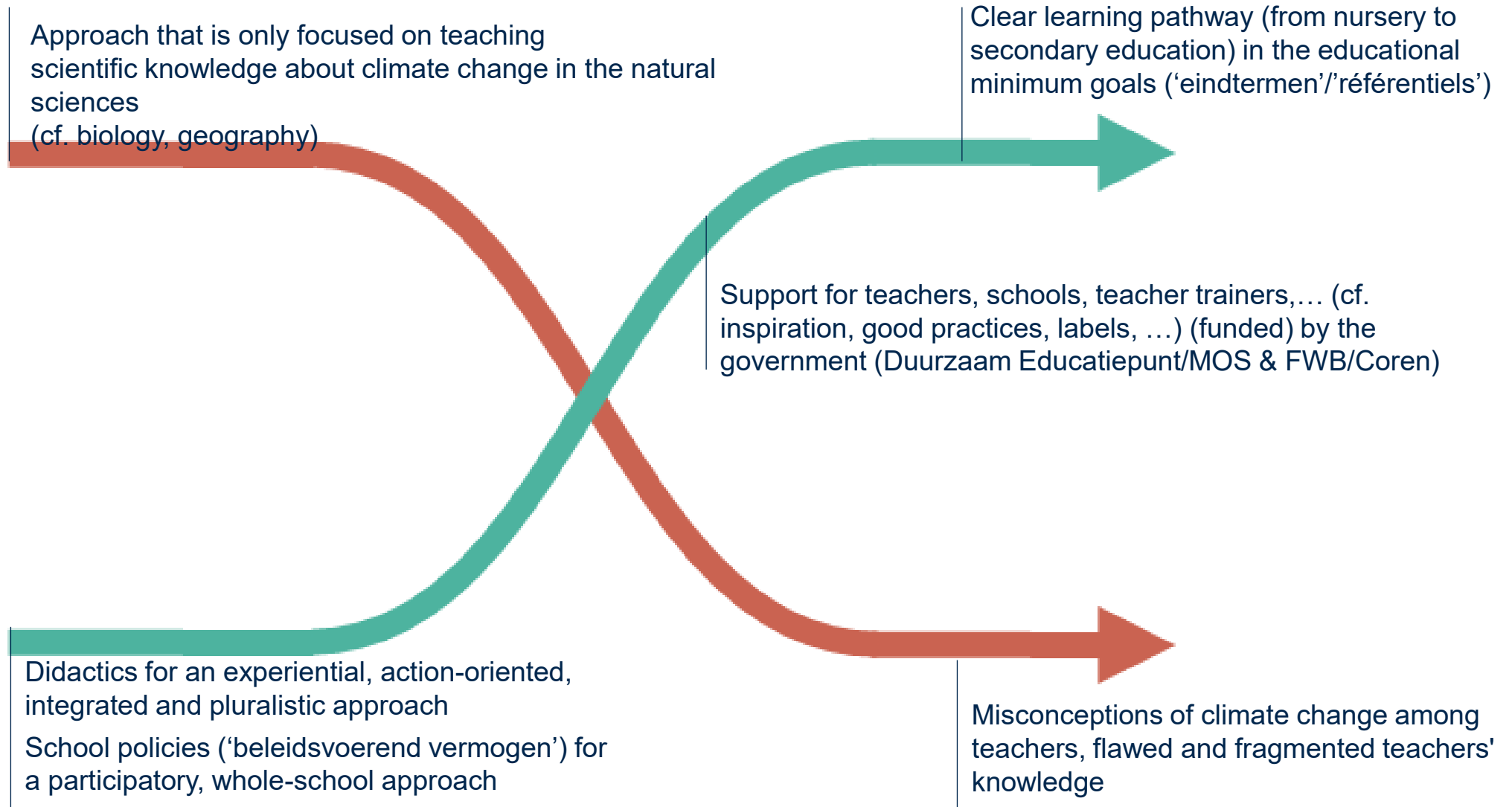
Critical learning, holistic and whole school approach

Diachronic lecture of green competence improvement



Interdisciplinary approach and integration into educational frameworks

# Schema (focus: primary & secondary education)



# Part 4: Higher education

# Higher education as a key driver of innovation and skills for a successful low-carbon transition

## Higher education, a strategic sector for the future

- **47.8% of 30–34-year-olds hold higher education degrees**, highlighting the immense responsibility and impact of this sector<sup>(1)</sup>
- Universities and colleges **educate nearly half of the Belgian population**, providing skilled workers, managers, civil servants, and elected officials across all sectors.

(1) Mobiliser l'enseignement supérieur pour la transition vers la neutralité carbone. The Shifters (2022)

# Challenge: limited trainings on climate issues in Belgian higher education

## A limited offer<sup>(1)</sup>

- **Very few courses** address climate issues: only 5% of courses in universities and 2.2% in colleges cover these topics<sup>(1)</sup>
- More than **60% of programs include no content on climate** or environmental sustainability, leaving the majority of graduates without training on these crucial issues<sup>(1)</sup>
- **12.5% of programs offer adequate coverage**, but most are very general, and only 5% are specialized (such as master's programs in sustainable development)<sup>(1)</sup>
- Based on this data, it is estimated that at most **5% of workers, managers, or leaders have received formal education** that addresses climate and environmental issues<sup>(1)</sup>

## A highly fragmented climate education

- Climate-related courses are primarily concentrated in the sciences and applied science<sup>(1)</sup>
- Other disciplines, such as medicine, humanities, social sciences, and economics, integrate very few of these topics despite their systemic importance

→ It is crucial to avoid the fragmentation of sectors and citizens to facilitate a systemic transition. Every student, regardless of their specialty, must be prepared to tackle the challenges of the low-carbon transition. At the same time, an interdisciplinary approach is essential to allow each field to bring innovative solutions to environmental challenges.

(1) Mobiliser l'enseignement supérieur pour la transition vers la neutralité carbone. The Shifters (2022)

# Requirements in terms of skills

- Higher education provides a unique opportunity to delve into the **knowledge** required for the transition. This includes understanding how the low-carbon shift will give rise to new jobs and competencies, often referred to as "green jobs."
- Teacher-researchers, as experts in their fields, will need to **adapt their expertise to incorporate these emerging demands, ensuring that their teaching remains relevant and forward-looking.**
- Another critical aspect of higher education is addressing the inherent uncertainties and complexities of the knowledge being taught, particularly in evolving areas. This requires a strong **foundation in epistemology, enabling educators to reflect on how knowledge is produced, validated, and shared.**

# Requirements in terms of skills

To make these complex topics accessible, **educators will need to diversify their pedagogical approaches**. This includes:

- employing innovative teaching methods such as experiential learning, collaborative projects, debates, and interactive lectures, etc.

# Requirements in terms of skills

They will also need to determine the most effective methods for teaching these new skills and knowledge<sup>(1)</sup>

**Through dedicated modules**

- Advantage: Provides a common mandatory foundation on climate issues (e.g., carbon footprint, climate dynamics)..
- Constraints: Requires logistical needs (time, staff, additional resources) to integrate these modules into all programs.

**or**

**cross-disciplinary teaching?**

- Advantage: Integrates climate-energy issues into each discipline, aligned with the students' specific knowledge.
- Constraints: Necessity to train faculty and researchers first so they can include these topics in their courses according to their specialties.

**Ways to integrate these topics into curricula**

- Academic Module: Offer mandatory or optional modules on environmental issues for all students.
- Case Studies: Implement case studies and seminars on these topics.

**When to address the subject?**

- Start of the program: To ensure a structured integration throughout the curriculum.
- End of the program: To prepare students for their entry into professional life.

(1) Comment les systèmes d'enseignement scolaire d'enseignement supérieur, et de recherche peuvent-ils être face au changement climatique, à la fois transformés et transformants. Ministère de l'éducation nationale (2023)

# Wrap up

## Lack of “green competences” through the learning journey

- only 5% of courses in universities and 2.2% in colleges cover these topics
- 12.5% of programs offer adequate coverage, but most are very general, and only 5% are specialized (such as master's programs insustainable development)

## A highly fragmented climate education

## Skills requirement to teach “green competences”

## Key decision

- Through dedicated modules or cross-disciplinary teaching?
- Through case studies or academic modules?
- When? At the beginning? All the long, at the end?

# Part 5: Training needs

## Training needs

- To equip educators—across primary, secondary, higher education, and lifelong learning contexts—with the skills and knowledge required for the ecological transition, substantial support is essential.
- This includes providing both initial training and lifelong learning to help them adopt new content and innovative teaching methods.
- These training programs should be mandatory for all educators, regardless of their discipline, the type of courses they teach, or the level of education they are involved in.

## Training needs – initial training

- The initial training of teachers, whether for primary, secondary, or higher education, plays a pivotal role in shaping their teaching approach.
- However, these programs often **prioritize pedagogical methods tailored to specific disciplines** over in-depth exploration of the subject matter itself.
- To address this gap, it is essential to incorporate topics related to the net-zero transition into the teacher's initial education program. This integration should go beyond standalone lessons, embedding these topics within interdisciplinary pedagogical strategies.

## Training needs – lifelong learning

- Lifelong learning is essential to equip educators (and trainers) with the new skills and knowledge required. This includes fostering awareness (willingness), practical skills (know-how), and (green) knowledge.
- In the *Federation Wallonie-Bruxelles*, teachers and school staff are required to complete six half-days of professional training annually. Additional voluntary courses are available for those seeking further development. In the Flemish Community, each school must create an annual training plan, specifying objectives and budgets for professional development. These plans often prioritize key competencies based on the institution's goals.
- To address current challenges, these training hours should include modules focused on *willingness*, *know-how*, and *knowledge* specific to sustainability. **Policymakers must provide clear directives to institutions such as the *Institut de la Formation en cours de Carrière (IFCS)*, school networks, and school administrations to integrate these themes into lifelong learning.**

# Challenge: integrate constraints inherent to its system

## Taking academic freedom into account<sup>(1)</sup>

- Essential for universities and colleges to fulfill their teaching and research mission.
  - Maintaining independence: Institutions must define their own approaches and content regarding climate and environmental issues.
- no strict guidelines should be imposed

## Overcoming time constraints

- **Short professional development courses:** Targeted workshops to address specific sustainability-related topics
- **Online platforms and MOOCs:** Digital tools that enable self-paced learning on climate and sustainability issues
- **External experts:** Inviting specialists to deliver courses and provide reusable teaching materials for future use in classrooms

(1) Mobiliser l'enseignement supérieur pour la transition vers la neutralité carbone. The Shifters (2022)

## Training needs – collaboration and peer learning

- Centralizing and sharing educational resources, teaching methods, and best practices are essential to enhance effectiveness. Collaborative opportunities for dialogue, experience-sharing, and mutual support among educators build collective expertise and confidence in tackling new challenges.
- In higher education, academic calendars should be structured to allow professors and researchers to engage in such exchanges, recognized as part of their professional responsibilities.
- Examples of effective collaborative strategies include:
  - **pedagogical seminars:** Regular meetings for educators within the same discipline or institution to discuss teaching methods and course development.
  - **Expert-led conferences:** National events featuring specialists who provide insights into sustainability topics (*willingness*) and emerging skills/jobs (*knowledge*).
  - **Research-based initiatives:** Programs encouraging collaborative projects between educators and researchers to develop innovative teaching methods through a combination of theory and practice.

## Training needs – centralised resources

- Finally, the content taught in schools must align with the official educational frameworks (*référentiels*) established by the Fédération Wallonie-Bruxelles and the Flemish Community.
- While teachers retain some flexibility in how they structure their lessons, having access to pre-established teaching materials and manuals is essential.
- These resources ensure that educators can deepen their understanding of complex issues and seamlessly integrate them into their existing disciplines. Therefore, it is critical to identify, develop, and share pedagogical resources. **A centralized platform should be created to house a wide range of materials, including lesson plans, teaching tools, and examples of best practices.**

## Policy considerations

- Incorporate topics related to the net-zero transition into teacher initial education program.
- Policymakers must provide clear directives to institutions such as the Institut de la Formation en cours de Carrière (IFCS), school networks, and school administrations to integrate these topics into lifelong learning.
- To enhance effectiveness, centralizing and sharing educational resources, teaching methods, and best practices are essential. Collaborative opportunities for dialogue, experience-sharing, and mutual support among educators build collective expertise and confidence in tackling new challenges.
- **A centralized platform should be created** to house a wide range of materials, including lesson plans, teaching tools, and examples of best practices.

# Part 6: Lifelong learning

# Lifelong learning – a key driver for the low carbon transition

In this factsheet, we explore lifelong learning as a vital lever for acquiring the skills needed to address the challenges posed by the low-carbon transition. We examine it from three perspectives.

## **Part 1: Introduction to general issues in lifelong learning**

This section provides an overview of lifelong learning in Belgium: who participates, who offers the training, and what is the participation rate? This analysis is essential for understanding the current state of lifelong learning in the country.

## **Part 2: Aligning training offerings with skills demand**

This section explains the mechanism behind the development and integration of new skills in training offerings. Alignment between training offerings and market needs is crucial. Without it, skills shortages arise, particularly in key sectors for the low-carbon transition. Continuing education plays a critical role by enabling workers to quickly acquire the skills needed to meet new demands, particularly in fields such as the circular economy and green technologies.

## **Part 3: Barriers and solutions to improve participation to lifelong learning**

This section identifies the obstacles to accessing lifelong learning and explore a few solutions to better align training offerings with labour market needs.

# PART 1 Challenge: insufficient participation in lifelong learning

Two key indicators measure lifelong learning among individuals aged 25-64<sup>(1)</sup>.

## 1<sup>st</sup> indicator: participation in last 12 months

- In 2023, **25.6%** of Belgians aged 25-64 participated in training (up from 21.5% in 2022).
- Participation rates vary by region: **34,4 %** for Brussels capital Region, **29,8 %** for Flanders and **24,9 %** for Wallonia.

## 2<sup>nd</sup> indicator: participation in the month prior to the survey

- Only **11.1%** of individuals participated in a training activity in the month prior to the survey (compared to 10.3% in 2022).
- We are still below the European target, which aims **for 47% of adults** to have participated in a learning activity in the **past 12 months by 2025**. We are also falling short of the sustainable development goals, **which aim for 15% of the population to have completed training within the last four weeks by 2030**.
- This first result highlights **the importance of fostering a learning culture**, particularly in the workplace, as a way to strengthen and enhance skills within the company.

(1) Statbel, based on data from the Labour Force Survey; (2023)

# PART 1 Challenge: unequal training efforts based on company characteristics

## By company size: larger companies are more likely to invest in training

- Larger companies tend to invest more in training due to their stronger financial resources and organizational structures that support workforce development. According to the 2019 Social Balance, only 7.5% of small businesses in Belgium provided training, compared to 91.7% of large companies.
- This is concerning as SMEs make up the vast majority of companies in Belgium. In 2022, 99.3% of all VAT-registered businesses in Belgium were SMEs, representing 57.8% of total employment.

## By sector: some sectors offer more training opportunities than others

- Training participation is higher in sectors like finance, education, and scientific or technical fields, where 25% of employees receive training. In contrast, industries such as construction, administrative support services, and hospitality show lower participation rates, (with fewer than one in five employees engaging in training).

(1) Actieplan levenlang leren Koers zetten naar een lerend Vlaanderen, Vlaamse Regering (2021)

# PART 1 Challenge: Insufficient participation among certain target groups

## By education level: individuals with lower education levels participate less frequent in LLL

- Only 9.5% of individuals with a primary education diploma or lower participate in training, compared to 18.9% of those with a secondary education diploma and 35.8% of those with a higher education degree.

## By age group: older age groups participate less in LLL

- Young adults aged 25-34 are more than twice as likely to participate in training as those aged 55-64 (32.7% vs. 16.1%).

## By employment status: employed individuals participate more in LLL

- 29.4% of employed individuals participate in training, compared to 20.7% of the unemployed and 13% of the inactive.

## By type of training: more informal training

- In 2023, 13.6% of the population participated in formal training (recognized education leading to a diploma or certificate), while 34.3% participated in non-formal training (private courses, workplace training, which can be very brief).
- **Participation in training seems to increase as the formality of the training decrease**

(1) Actieplan levenlang leren Koers zetten naar een lerend Vlaanderen, Vlaamse Regering (2021)

# PART 1 Challenge: Reasons for low participation in lifelong learning

## Practical and psychological barriers to participation<sup>(1)</sup>

- **Practical barriers:** Lack of time (balancing work, training, and family life), cost of training, lack of suitable education or training activities, lack of support from employer, distance to training center,..
- **Psychological barriers:** Fear or apprehension of learning, especially among low-skilled workers, often linked to negative prior school experiences.

## But mainly an absence of lifelong learning culture

- The weak position of Belgium in lifelong learning is often attributed more to the **absence of a learning culture** than to practical barriers such as time constraints or costs<sup>(2)</sup>.
- In 2022, 40% of Belgians aged 25-64 reported no involvement in learning activities over the past year. Among these **58% of workers in Flanders indicated they felt no need for further education**<sup>(3)</sup>. Looking at the overall population, it is estimated that nearly a quarter (24.8%) of adults do not engage in lifelong learning simply because they do not feel it is necessary.
- This perception is even more important among **low-skilled workers**, individuals over 55, and the inactive. For this group of adults, the AES shows that barriers such as time or financial constraints play a relatively minor role, with the main issue being a lack of interest or perceived need for further training.

**→Yet, low-skilled workers are particularly vulnerable to job loss due to automation and digitalisation. At the same time, they are becoming increasingly important in sectors like transport, logistics, and the circular economy, where reskilling and upskilling will be crucial.**

(1) Statbel (office belge de statistique) - AES, 2022

(2) Actieplan levenlang leren Koers zetten naar een lerend Vlaanderen, Vlaamse Regering (2021)

(3) Such numbers weren't found for the Walloon or Brussels Region but it can be assumed that the trend is similar

# PART 1 Recommendation: Overcome practical and psychological barriers

## Targeted flexibility and organizational support

- Proposal: Implement tailored measures to address the need for flexibility and organisational constraints faced by workers.
- Objective: Establish a public support system that accommodates workers' schedules and provides flexibility for participation in training programs without disrupting their work-life balance.

## Addressing psychological and emotional barriers to learning

- Proposal: Psychological or emotional barriers to learning, developed by some individuals during their initial education, should be removed by offering specific support and adapting learning methods. Informing workers of employment opportunities and career advancement possibilities that additional skills can offer could also strengthen their motivation and curiosity towards learning.
- Objective: Counter the bias against low-qualified workers, who often developed negative attitudes towards learning during their initial education. Providing supportive learning environments can help these individuals overcome their apprehensions and engage in continuous training.

## Improving initial education outcomes

- Proposal: Improving initial education results, particularly by reducing dropout rates and repetition, and ensuring the provision of a solid foundational curriculum for all students, can also help reduce inequalities that persist into adulthood.
- Objective: By addressing these early educational challenges, adults will be better equipped and more motivated to engage in lifelong learning, thus breaking the cycle of inequality that affects workers with lower qualification.

# PART 1 Recommendation: Implementing LLL culture in Belgium<sup>(1)</sup>

**The green transition is hampered by the green skills challenge:** there are green skills gaps in specific sectors and generally across the economy and society. At the same time, the lifelong learning culture could be strengthened to stimulate people to invest in green skills development.

- As highlighted in the previous slide, many employees are not sufficiently motivated internally or incentivised externally to engage in LLL to either enhance their current skills (upskill) or redirect their careers (reskill).
  - To address this, it is critical to extend access to lifelong learning opportunities to the entire workforce, ensuring that everyone builds resilience in response to the challenges posed by the green transition.
  - Companies must also enhance their awareness and understanding of the green transition's impacts on both their operations and their employees. By doing so, they can better prepare their workforce for the changes ahead.
- Belgium urgently needs to implement a robust lifelong learning culture. This will empower existing workers to adapt to the green transition and acquire new, emerging green skills that will be increasingly necessary in the future.

(1) Proposal of a high – level strategy in support of the Flemish green skill transition, Trinomics, (2023)

# PART 2 Challenge: Match between supply and demand

## Continuous training as a key to adaptability

- In a rapidly changing world, LLL is increasingly important as workers need to acquire new skills constantly.
- Continuous training must support the acquisition of skills throughout the professional journeys of Belgian workers, whether through formal, informal, or non-formal education.

## Aligning training with labour market needs

- It is crucial to align training offerings with labor market requirements. A mismatch between the skills offered and those demanded leads to the underutilization of many talents, resulting in skill shortages for various roles and missed opportunities for engaging in the low-carbon transition.
- Belgium faces particularly acute mismatches between supply and demand for labour, as indicated by its structurally high job vacancy rate<sup>(1)</sup>. The adult training system is not sufficiently aligned with market needs. Workers are not undertaking enough training related to future demands identified through prospective analyses<sup>(1)</sup>.

## Identifying future needs

- In addition to analyzing current needs and shortages, it is important to adopt a forward-looking perspective on skill requirements to prepare for the disruptions associated with the low-carbon transition (alongside major ongoing trends like demographic aging and digitalization).

**→ Adult training systems must anticipate these needs and be responsive and flexible by adapting courses, content and learning methods.**

(1) La formation continue des salariés : investir dans l'avenir. Conseil supérieur de l'emploi, (2022)

# PART 2 Recommendation: constant feedback loop

## Demand side:

What are the future skills needs?

- **1.** To answer this, the government encourages sectoral funds to create **competence forecasts**, ensuring that training programs align with future needs. This alignment guarantees a match between workforce skills and industry demands
- **2. Sectoral social partners developed occupational standards:** it serves as a reference framework for education and training. These standards are formalized as professional qualifications ("beroepskwalificaties"), which **describe the skills needed to perform a job** or societal role.

## Supply side

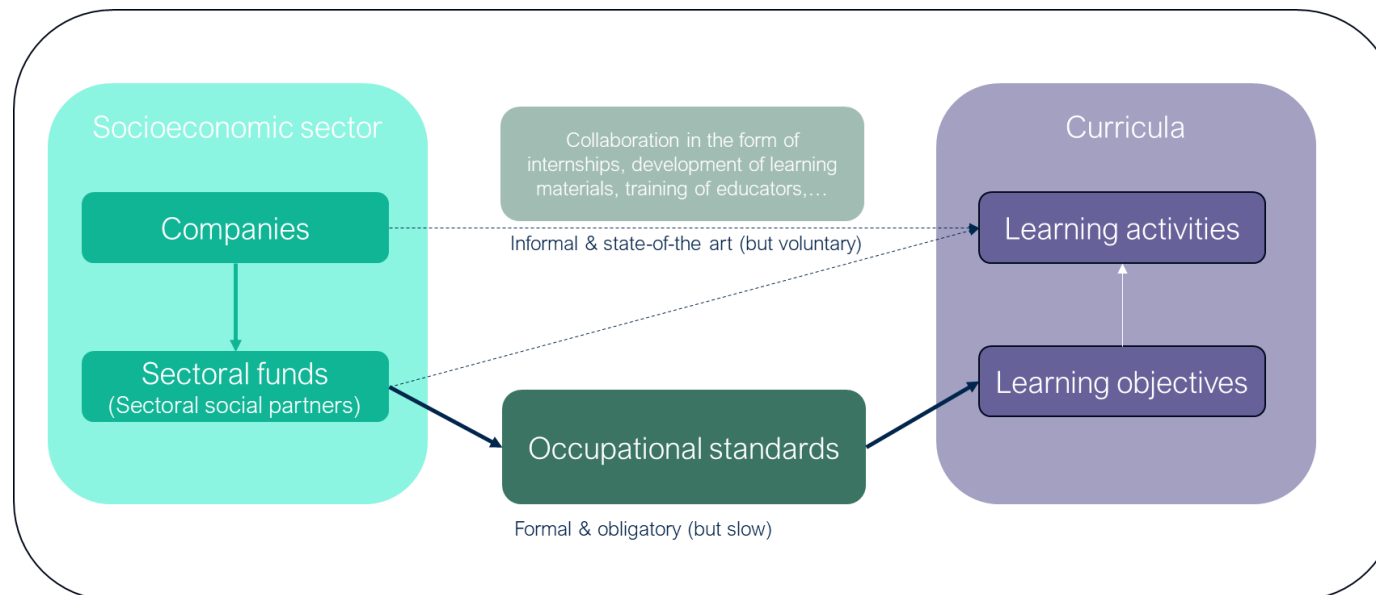
How are innovations integrated into vocational education and upskilling programs?

- The creation of professional qualifications is generally based on **occupational competence profiles (OCP)**. They are developed by sectorial social partners and Synerjob and are approved at the Belgian level. These guide the content provided by education and training institutions.
- The OCP's describe professions, behavioural indicators, as well as the underlying knowledge and attitudes required, including key competencies.



## PART 3 Challenge: lengthy in creating occupational competence profiles

- General principle: Occupational competence profiles are created by the sectoral social partners and Synerjob (VDAB, Actiris, Bruxelles-Formation, Le Forem and ADG) as a reference framework for education and training.
- Challenge: The procedure for creating these standards is lengthy due to the involvement of many actors, and these profiles do not always translate directly into education.
- Solution: Informal collaboration (such as internships, development of learning materials, training of educators,...) is essential between schools, training providers, sectoral funds and companies.
- Recommendation: Updating competency profiles is important, together with effective collaboration to develop and implement state-of-the-art training programs.



For each job (and in each sector), these principles remain the same!

Only the actors that need to be involved (sectoral organisations on the one hand – education and training providers on the other), are different.

# **PART 3 Challenge: insufficient cooperation between training systems & labour**

## **Low integration of identified skills into competence profile**

- We analyzed and sought to identify the demand for new skills and knowledge across various Belgian sectors to support the low-carbon transition. The aim was to determine to what extent these skills are already (or not yet) incorporated within the sector's, we analyzed the current competence profiles. Upon analyzing these profiles, we found that in most cases, the identified skills are not yet fully integrated.
- As mentioned earlier, this may be due to several factors, including the slow pace of systemic processes and, among other factors, due to insufficient collaboration between the relevant stakeholders.

## **Collaborative revision of professional qualifications and curricula:**

- Proposal: Engage all stakeholders (industry, education, training providers and government) in a joint effort to revise professional qualifications and curricula.
- Ensure a proactive role for industry sectors in evaluating future skill needs and translating them into specific learning outcomes within education and training programs.
- Provide financial support for education and training providers and sectoral representatives to collaborate.

# PART 3 Challenge: recognition of new professions and skills is very slow in BE

## Recognition of skills acquired outside the formal education system

- Skills acquired outside the formal education system, whether through formal, non-formal, or informal learning, must be recognized and certified. Workplace learning, in particular, should be valued to harmonize workers' qualifications and meet companies' talent needs. Social partners play a key role in this process.

## Slow recognition of new professions

- For new professions and skills to be taught, they must first be officially recognized with a certification.
- The process of defining and establishing detailed frameworks (occupational standards, qualifications) is time-consuming and bureaucratic.
- Interviews with sectoral stakeholders reveal that recognizing new professions is a major issue, delaying the launch of relevant training programs.

## Reasons behind the delay

- Professional organizations often prioritize risk control and cost management, resulting in a reactive approach to recognizing new skills.
- New professions are only recognized once they are well-established and there is clear evidence of demand, which leads to delayed action and reactive training programs instead of proactive anticipation of market needs.

## Certification process can be difficult

- Current certification processes can create a barrier as they often require **both a demonstration of skill** and a **theoretical exam**.

**→ A key priority for lifelong learning is the continued formal recognition and validation of skills throughout a worker's career. The integrated validation of prior learning (EVC) must be a central component of education and workforce development policies to ensure that future skills gaps are anticipated and addressed efficiently.**

# **PART 3 Recommendation: faster recognition of future competencies and jobs**

## **Develop alternative assessments (for technical skills)**

- Create alternative evaluation methods for specific, particularly technical skills, that validate competencies beyond traditional exams. This could include practical demonstrations, on-the-job assessments, or portfolio reviews, making it easier for workers to prove their abilities and for organizations to recognize new talents faster.

## **Streamline administrative processes**

- Simplify and accelerate the processes involved in recognizing new professions by cutting through bureaucratic red tape. This means improving coordination between government bodies, reducing duplicative procedures, and promoting a more agile and responsive system that embraces innovation rather than clinging to outdated standards.

## **Proactively recognize emerging needs**

- Shift from a reactive to a proactive approach. Anticipate future workforce needs based on emerging trends and begin the recognition process before those professions become critical. This includes using predictive data and future-oriented analyses to stay ahead of labor market demands.

## **Political support and policy alignment**

- Political leadership is crucial in driving faster recognition of new professions. Governments should align policies with market needs and give a clear mandate to economic actors and professional federations to accelerate the approval of new professions. This could involve incentives for early adopters of training programs and policy frameworks that encourage innovation in workforce development.

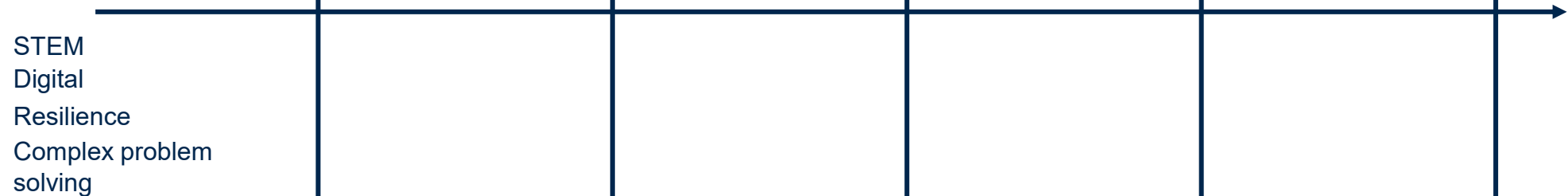
# Synthesis

**Health      Transport      Building      Circular Economy      Industry**

**Willingness**



**Know how**



**Knowledge**

