

CLIMACT

Empowering **you** to act
on **climate change**

Implications of the climate transition on employment, skills, and training in Belgium

Presentation of the final report – 5/6/2023

Quentin Jossen - CLIMACT





What are the **implications** and the **requirements**
of the transition to a climate neutral Belgium
in terms of **jobs, skills, and training**?



Which **policies** should be implemented
to **ensure that these requirements be met**
and to leave no one behind?



Opportunities



Challenge



What are the **implications** and the **requirements**
of the transition to a climate neutral Belgium
in terms of **jobs, skills, and training**?



Which **policies** should be implemented
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and to **leave no one behind**?



Joint action



Upskill



Attract



Reskill

CLIMACT

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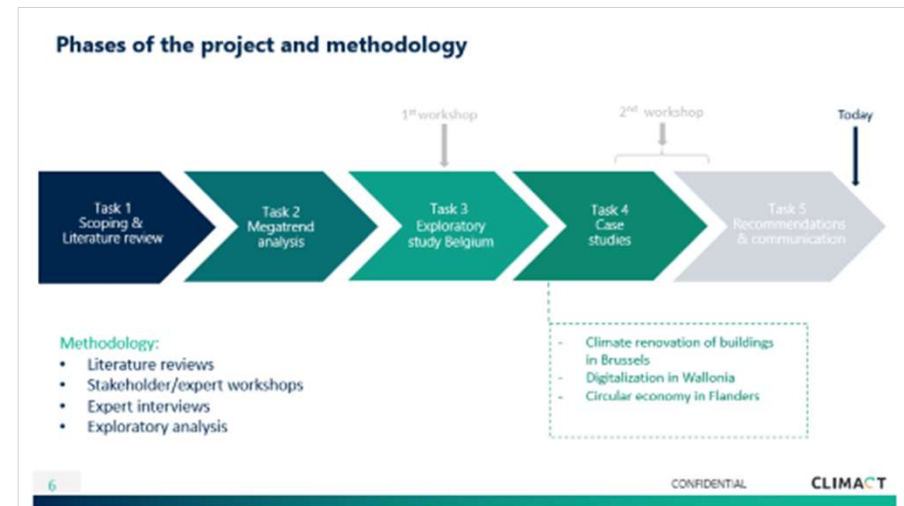


This study feeds the “2050 initiative” and the “just transition” framework

« 2050 initiative » on the transition of Belgium towards a climate-neutral society

www.climatechange.be/2050

« Just transition » framework



Phases of the project and methodology

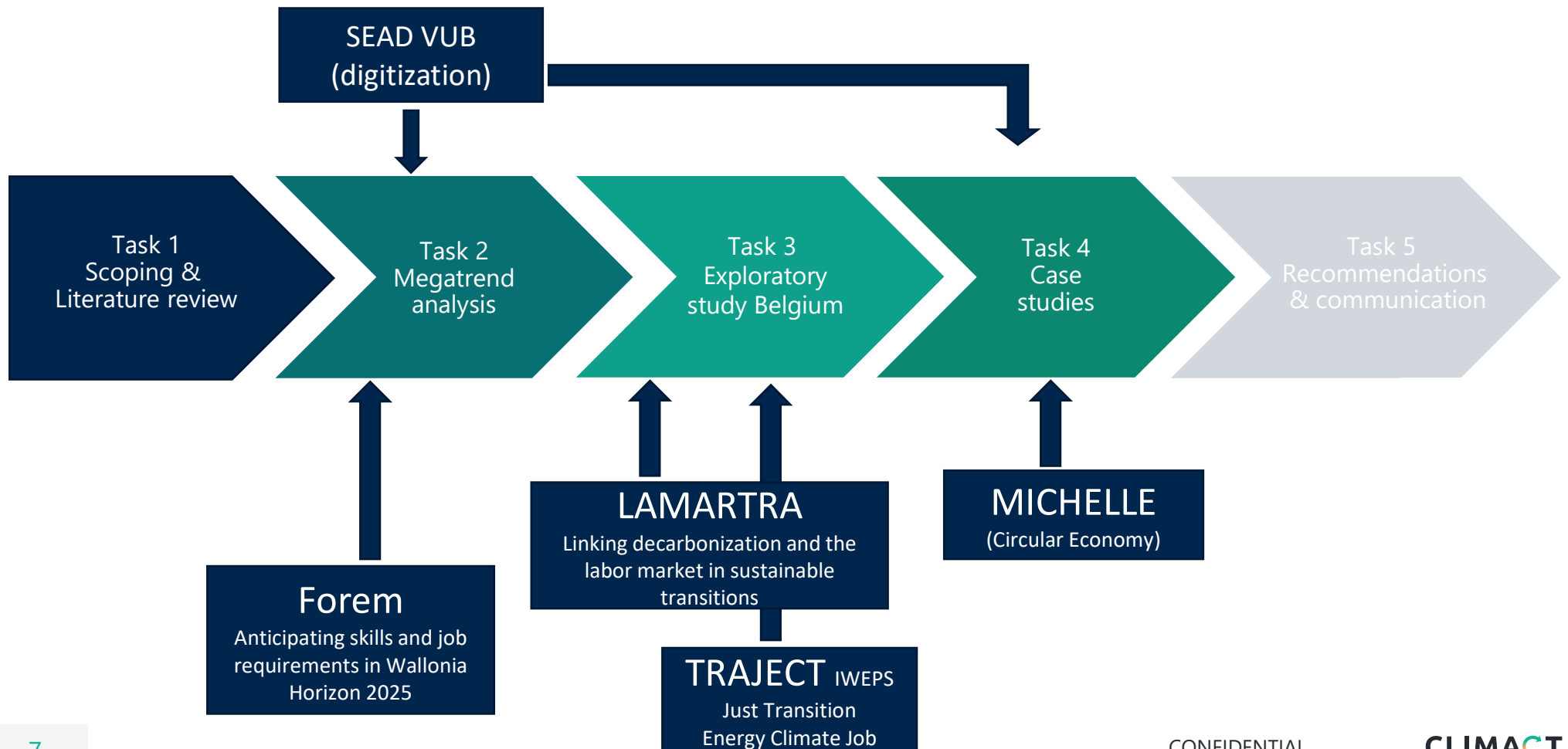


Methodology:

- Literature reviews
- Stakeholder/expert workshops
- Expert interviews
- Exploratory analysis

- Climate renovation of buildings in Brussels
- Digitalization in Wallonia
- Circular economy in Flanders

A series of (bigger) other projects deepen the analysis of this study



Implications and requirements of the transition to a climate neutral Belgium

1

Megatrends such as **digitalization** and **demographic change** interplay with the **climate transition**

2

The climate transition is expected to lead to small **net job gains** in Belgium

- Directly and indirectly impacted sectors represent about half of the jobs
- Job impacts are unevenly distributed among Belgian sectors

3

New skills are necessary in the Belgian workforce

- With appropriate support, skills may be transferable from carbon-intensive to low-carbon activities
- All skills level may benefit from the transition

The **three cases** highlight the need (1) **to reskill/upskill** existing workers through life-long learning programs
(2) **to adapt** training and education curricula so that the right skills are taught.

Policy considerations to ensure that these requirements are met and to leave no one behind

- 1 Attract current and potential workers towards jobs related to the low-carbon transition
- 2 Equip Learners and educators with the knowledge and skills needed for the climate transition
- 3 Support the climate reskilling and upskilling of workers
- 4 Ensure decent working conditions for climate transition jobs
- 5 Enhance joint action and cooperation between actors

As a **next step** to this study, co-construction of a joint action with all relevant stakeholders should be the focus to move from a report with a list of considerations to concrete and fast actions

Ongoing megatrends interplay with the climate transition

Labour needs and impacts of the climate transition

Learnings from 3 deep dives

Guiding the required policy and regulatory improvements

Towards a joint and concrete action plan?

Megatrends provide opportunities and risks for the labour market needs of the climate transition

O

- Ex 1 : **increase in life-long learning** which will be key to upskill and reskill workers for the climate transition.
- Ex 2 : **immigration** could be an important source of skills and knowledges to be mobilised which could somewhat counterbalance several job shortages in Belgium

R

- Ex 3: **population ageing** : older workers are generally harder to upskill/reskill and less economically mobile
- Ex 4: **digitalization** : digital divide, uberization, loss of middle-skill jobs

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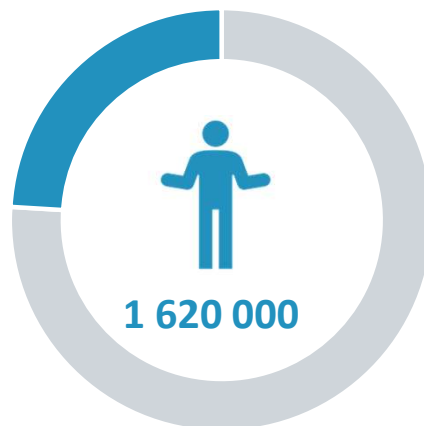
Towards a joint and concrete action plan?

Statut de l'emploi

Population à l'emploi



Population inactive



Population au chômage



OBJECTIF BELGE : 80% DE TAUX D'EMPLOI SOIT + 540 000 PERSONNES

Goals and opportunities of the climate transition are only possible with strong job/skills/training policy enforcements, joint action and cooperation

O

- Job opportunities for all
- Skills may be transferable
- Mitigate some impacts of ongoing megatrends

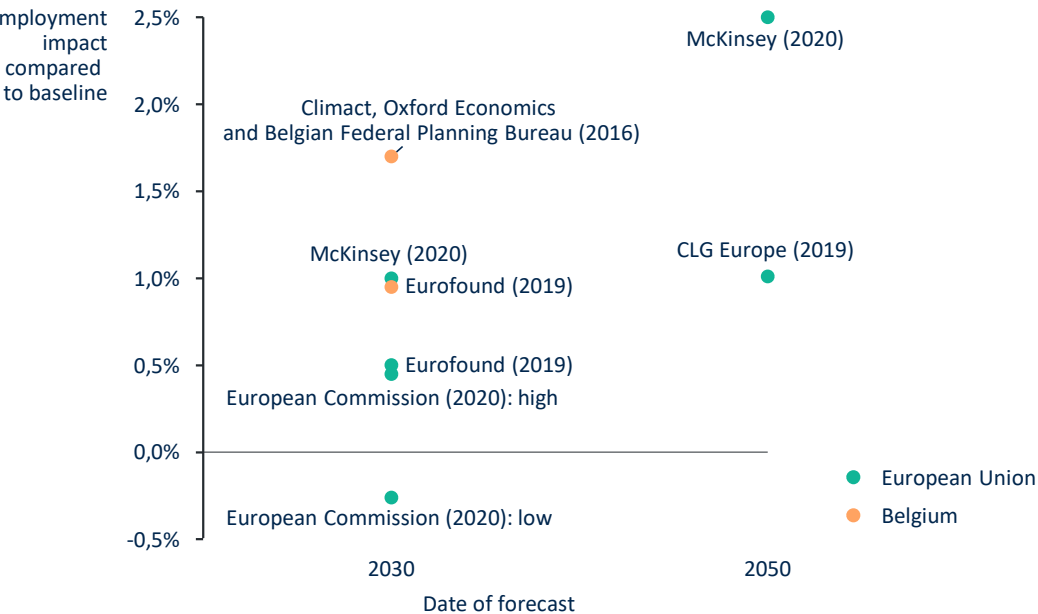
R

- Unavailable workforces
- Unavailable skills
- Unavailable teachers/trainers
- Degradation of working conditions
- Jobs lost without reconversion opportunities
- Inability to follow job transformations

The climate transition is expected to lead to small net job gains in Belgium

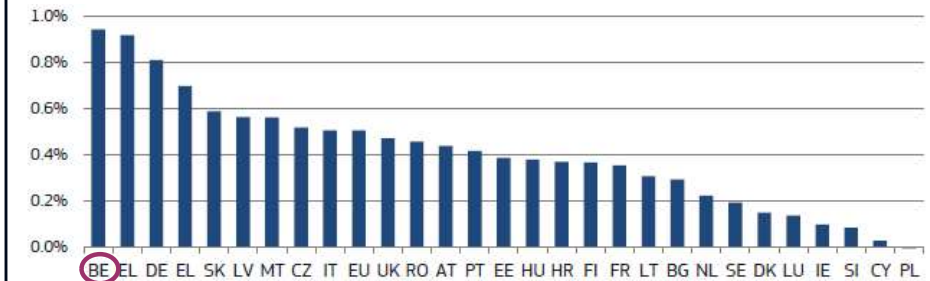
Employment impact is estimated between 1 and 2% in Belgium

Employment impact of the low carbon transition according to key studies
[In EU and Belgium, by 2030 and 2050, % difference from baseline]



Belgium is the EU country with the highest net gain potential

Employment impact of the low carbon transition in EU countries
[by 2030, % difference from baseline]

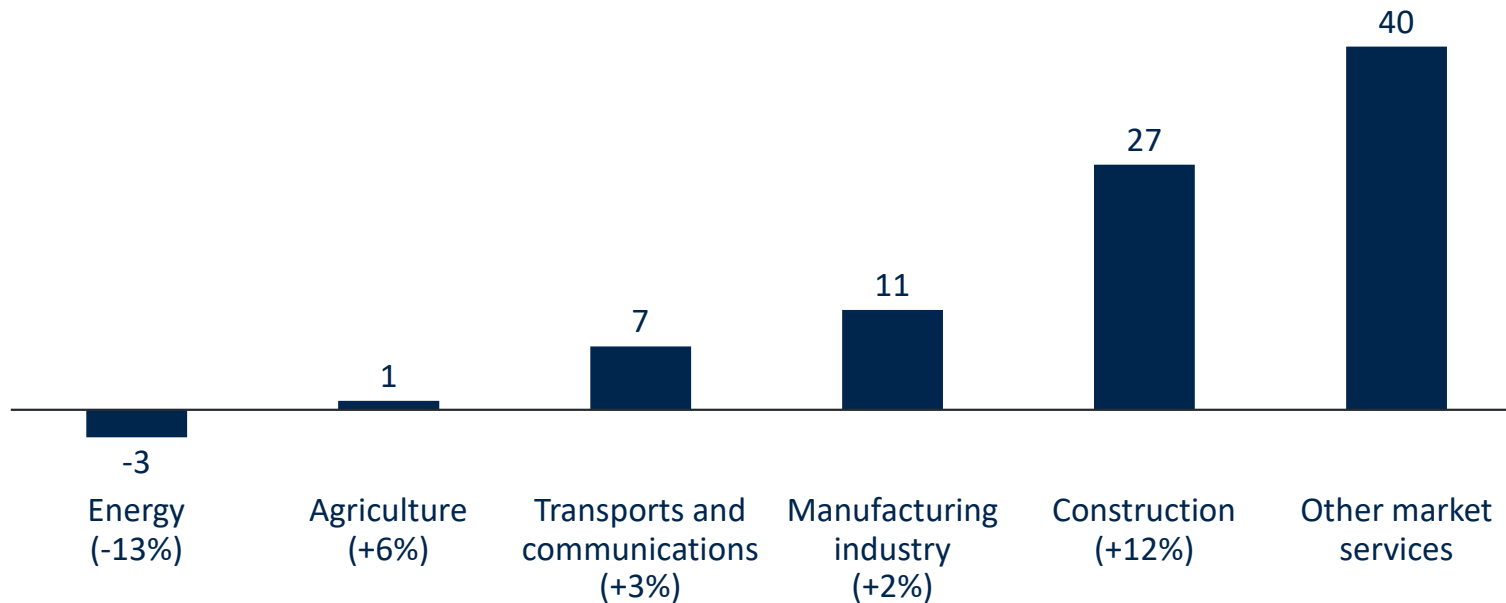


The net positive impact on jobs is only possible if the right framework, intensified coordination and accompanying measures/policies are put in place.

Job impacts are unevenly distributed among Belgian sectors

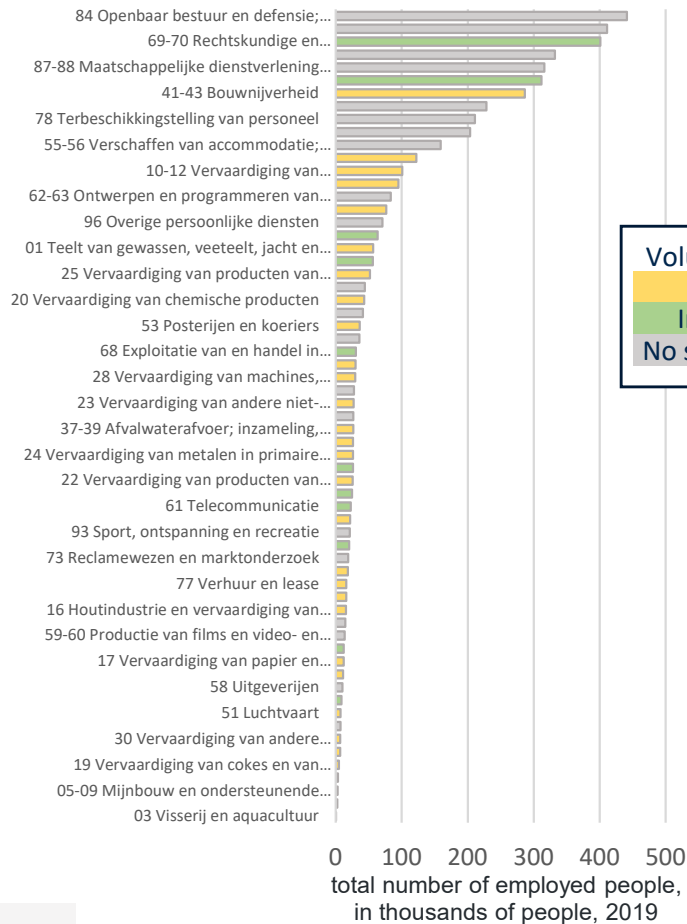
Employment impact of the low carbon transition on Belgian sectors

[By 2030, net job impact in thousands of jobs, GHG reduction of 46% by 2030 vs 1990 (in line with -80% by 2050)]

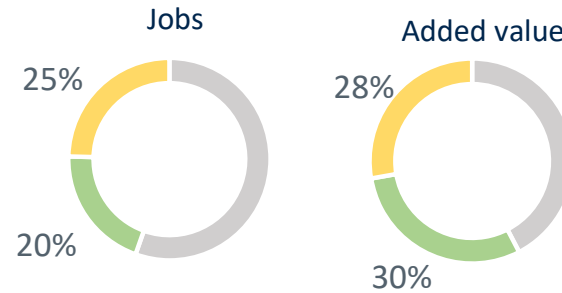


This hides contrasted impacts within sectors (ICE <> EV/biking, fossil fuels <> RES, ...)

Directly and indirectly impacted sectors represent about half of the jobs



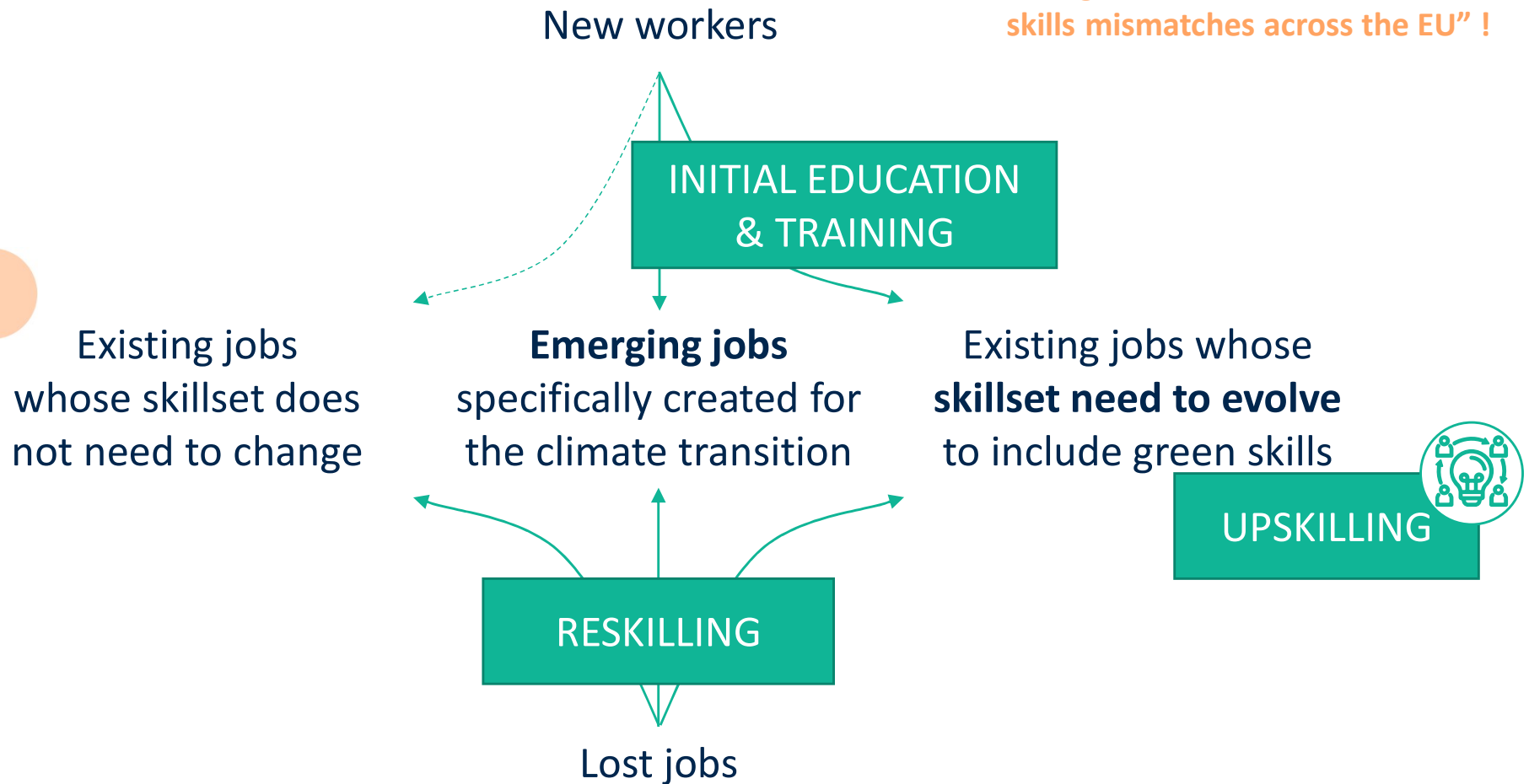
Volume/skill impact:
 Direct impact
 Indirect impact
 No significant impact



- Directly impacted sectors have higher share of **medium skilled** workers
- **Women are under-represented** in transition sectors

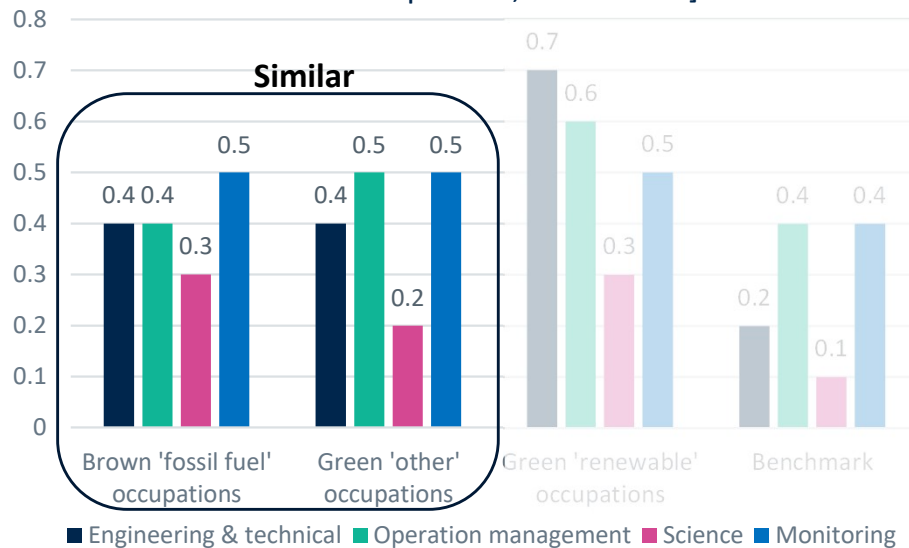
New skills are necessary in the Belgian workforce

Belgium had in 2018
“the highest level of macro-economic
skills mismatches across the EU” !



With appropriate support, skills may be transferable from carbon-intensive to low-carbon activities

Skill requirements for green and brown jobs in the US
[Importance of the macro groups of skills in brown and green occupations, from 0 to 1]



Source: adapted from Popp et al. (2021)

- **Similar skillset between brown occupations and green occupations** that are not related to wind or solar energy (defined as “green ‘other’ occupations”)
- **Transferability depends** on the sector, workers’ prior experiences and reconversion support.



- **Ensure availability and affordability of reskilling trainings**
- For each reconversion opportunity, analyse the transferable knowledge and skills and the retraining needs

For each reconversion opportunity, analyse the transferable knowledge and skills and the retraining needs

Selection of examples of reconversion programs through reskilling:

	Initial occupation	Core Training = assets transferable knowledge and skills	Retraining	New occupation
Denmark	Industry electrician / energy technologist	Vocational education and training (VET) qualifications / tertiary engineering qualifications	Knowledge of energy sources, ability to integrate energy systems, project management	Manager in renewable energy
Estonia	Construction worker	No professional standard	Knowledge of energy systems, data analysis, project management	Energy auditor
France	Product design and services	22 initial training courses with varying specialisation	Integrating environmental	Eco-designer
United Kingdom	Commodity trader / broker	Tertiary qualification	Practical skills on functioning of carbon market, understanding of trading tools	Carbon trader / broker

Source: Cedefop (2010). From OECD Green Growth Papers (2019)

All skills level may benefit from the transition, with different temporalities



Initially **high-skilled** labour may benefit more than lower-skilled labour

In the mid-term (2030), much of the employment creation is expected at the **bottom and middle skills & wage levels**

In the long term (2050), **higher skills** may also be favoured



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Learnings from 3 deep dives

- **Digitalization**
- Circular economy
- Climate renovation of buildings needs a strong upskilling strategy

Guiding the required policy and regulatory improvements

Towards a joint and concrete action plan?

Expected potential and consequences of digitalization was analysed in two areas related to the climate transition



New work practices due to digitalization

- **Hybrid work arrangements** (home, headquarters and hubs), generate an **in-depth transformation of the ways of working**
- **Risk : new digital divides** due to hybridization (blue/white collars, employed/unemployed, urban space/countryside)
- Need appropriate social policies and land use planning



Digitalization in the transport and logistics sector

- TODAY : low level of digitalization and workforce shortage
- Need of more R&D on IT-based solutions likely to improve data quality and inter-modality
- **Few job creations and mainly job transformations**

Few quantitative impacts of digitalization in the transport and logistics sector, but qualitative effects on the ways of working

Job creation

- **MAAS** (Mobility As A Service) actors and **LAAS** (Logistics As A Service) actors
- **Integration** of different modes of transport through **multimodal digital infrastructures**
- **New combination of skills** needed (digital/mobility & transport/soft skills)



Policy recommendations



- **Support new poles of technical expertise** on the integration of different modes of transport through multimodal digital infrastructures
- **Develop new curricula in partnership with field actors** (Logistic in Wallonia, sectorial funds, etc.)

Job transformation (standardization, simplification)

- **Increased job performances and less labour intensity**
- **Digitalization offers levers to increase productivity** in existing jobs, filling a part of the workforce shortages



Policy recommendations



- Accompany job transformations and job reconversions to **avoid the emergence of new forms of taylorism**
- Launch experimental initiatives to **maintain decent work employment conditions**

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Circular economy is an engine for GHG emission reductions and job growth

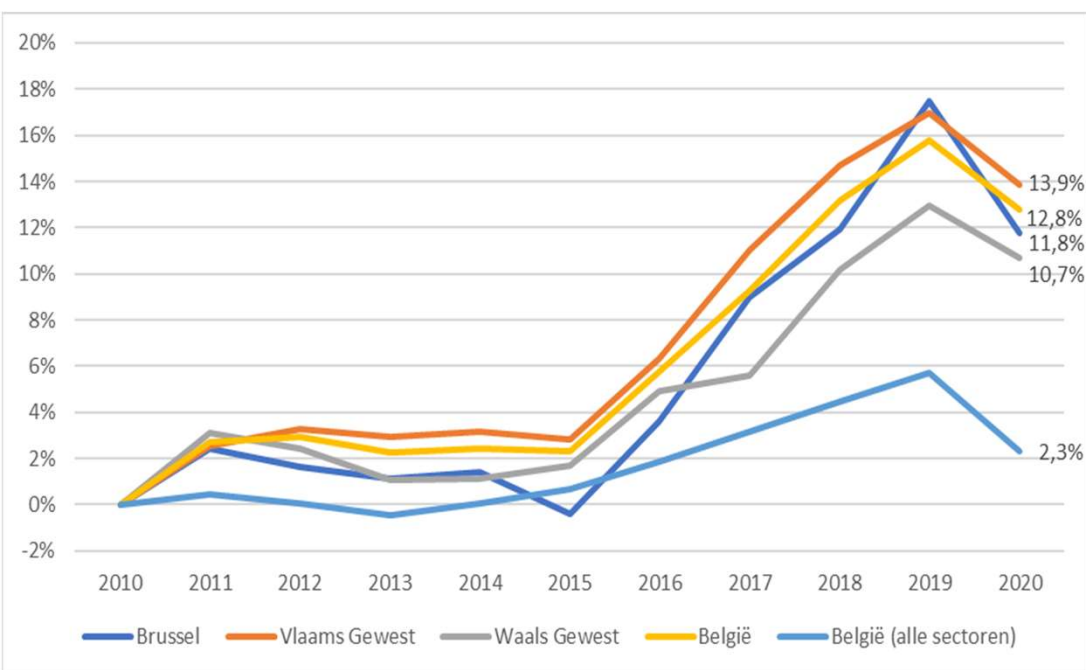
Climate

- **Material-related activities stand for 2/3 of Belgium GHG emissions** (manufacturing, freight transport and building activities)
- **CE could contribute up to 32% of GHG emissions reductions by 2050**

Employment

- Circular economy is regarded as an **engine for economic and job growth**
- Flanders : +30,000 jobs by 2030
- Shift to **more labour-intensive** sectors
- **Only minor changes in skills** are needed, but add up to **existing shortages**

Circular economy is an engine for GHG emission reductions and job growth



Employment

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Evolution of the number of employees in the circular sectors (Belgium, three regions), compared to employment in the whole economy (Belgium all sectors). Source: Multani, & Bachus (2022), based on data of the Crossroads Bank for Social Security

TRAINING: More coordination, collaboration and exchange between industry and education is needed

Mono-discipline-oriented programs ↔ transversal and value chain-oriented profiles



Mono-**CE skills** mostly provided by on-the-job training or in-company training



Vocational education and training will be the crucial element



Upscaling of CE skills will depend on the possibility, willingness and capacity of employers to train their employees (and employees to engage)

More coordination, collaboration and exchange between industry and education

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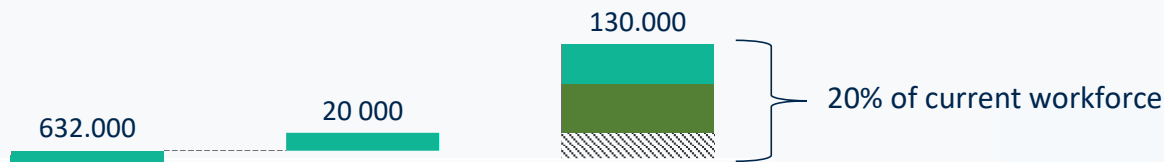
- Digitalization
- Circular economy
- **Climate renovation of buildings needs a strong upskilling strategy**

Guiding the required policy and regulatory improvements

Towards a joint and concrete action plan?

The Belgian construction sector is expected to be one of the most directly impacted sectors by the climate transition

Comparing the current workforce in construction and its supply chain with the required workforce for climate renovation [Belgium, 2020-2050, jobs per year]



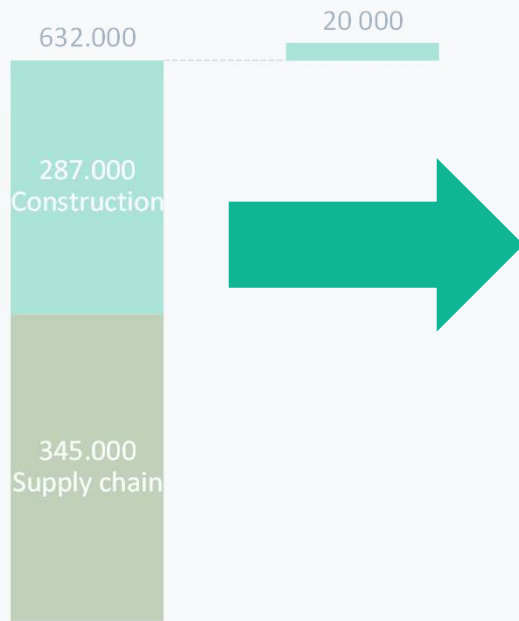
Current construction & supply chain workforce

Current shortage in construction jobs

Required construction & supply chain jobs per year for climate renovation

The Belgian construction sector is expected to be one of the most directly impacted sectors by the climate transition

Comparing the current workforce in construction and its supply chain with the required workforce for climate renovation [Belgium]



- **More and deeper renovations,** with fastened decarbonization of energy
- **Practices to upscale :** circularity, standardization & industrialization and digitalization
- => **Attract!**, facilitate integration of different profiles, train, support
- **Peak effect** on the type of needs

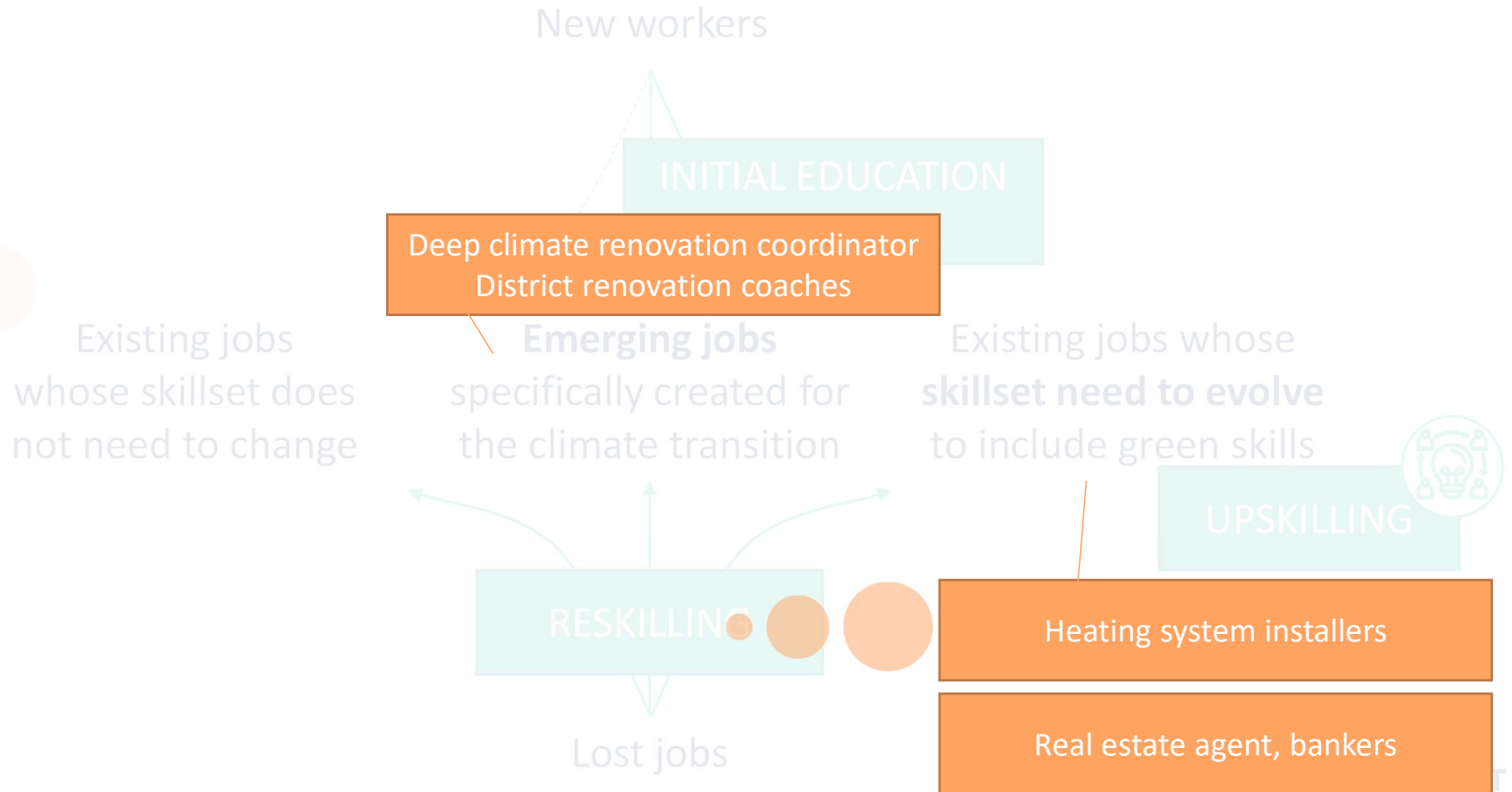


Current construction & supply chain workforce

Current shortage in construction jobs

Required construction & supply chain jobs per year for climate renovation

Many existing construction jobs will require additional skills while simultaneously being in higher demand



Many existing construction jobs will require additional skills while simultaneously being in higher demand



Upskilling current workforce is the priority #1

- **Affordable, short, and practical training**
- Affordable **on-site** training
- **Incentivizing** upskilling
e.g., with a “**climate renovation**” certificate or **training subsidies** modulated according to company size
- Combining **temporary unemployment with climate renovation reskilling/upskilling training.**

Quality of initial trainings of future workers

- For existing jobs: **adapt existing curriculum!**
- For new jobs: **mainstream niche trainings and develop new ones**
- **Create a special trainer status for end-of-career workers,** to tackle the shortage of construction trainers

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Guiding the required policy and regulatory improvements

Towards a joint and concrete action plan?

Policy action should be strengthened around 5 key objectives

Significant changes to policies and to regulations are necessary to

- (1) **accompany the transformation of the labour market** required for the climate transition
- (2) **reach a fair distribution of the impacts** of the transition across individuals and economic actors



Five key objectives:

- 1** **Attract current and potential workers** towards jobs related to the low-carbon transition
- 2** **Equip Learners and educators** with the knowledge and skills needed for the climate transition
- 3** **Support the climate reskilling and upskilling** of workers
- 4** **Ensure decent working conditions** for climate transition jobs
- 5** **Enhance joint action and cooperation** between actors

→ This study suggests 23 areas for policy actions:

- **Not limited to federal levers**
- **With varying levels of maturity**

→ Needed next steps:

- Connect with ongoing initiatives
- Turn them into a **concrete joint action plan together with a clear implementation plan**

1 Attract current and potential workers towards jobs related to the low-carbon transition



Centralize and broadcast information on education, training, and job opportunities related to the low-carbon transition



Boost women employment in transition sectors, as women are under-represented in these sectors



Improve the integration of foreign workers to help fill shortages in transition activities



An online platform, providing descriptions of foreign vocational training systems and professional qualifications, eases the assessment and the recognition of foreign qualification



2 Equip learners and educators with the knowledge and skills needed for the climate transition



Add a climate change and sustainability module in all educational programmes, at all levels.



Revise educational programs and offering new ones to **ensure the skills required** for the climate transition are taught.



Mandatory "Climate Crisis" module to all students in the University of Barcelona



3 Support the climate reskilling and upskilling of workers

 **Ensure relevant reskilling and upskilling trainings are available to workers**

 **Develop a culture of life-long learning**

 **Ease training access, through**

- **fiscal incentives** pinpointed to training initiatives for companies (especially SMEs)
- **centralizing on a single platform information** on training opportunities and financial support



One-year training in deep climate renovation coordinator



4 Ensure decent working conditions for climate transition jobs



Map transition jobs most at risk
of inadequate working conditions



Design/reinforce policies to safeguard decent working conditions, such as controls, social inspections, and strict social criteria in public tenders



To avoid the precarization of firstline workers in cyclo-logistics, set strict social criteria for eligibility to subsidies, public contracts, accessibility to certain logistics infrastructures intended for sustainable distribution players



5 Enhance joint action and cooperation between actors



Increase collaboration between all governmental levels
to design & implement a climate transition education & training strategy



Increase collaboration between private and public entities

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Next steps



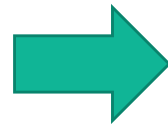
Map all existing initiatives in BE and EU and further clarify the needs



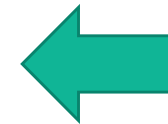
For each reconversion opportunity, analyse the transferable knowledge and skills and the retraining needs



Co-construct a joint action plan with all relevant stakeholders to move from a report to **concrete and fast actions, together with a clear implementation plan**



The study is available on
www.climat.be





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