



Skills for the green transition – realising VET's potential

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Farming's got talent! Vocational education and training
for agriculture in transition – DG AGRI

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Cedefop looks into labour markets' changing skill needs and the development of vocational education and training policies across the EU Member States

With its research and policy analyses, it supports the European Commission in designing and promoting EU VET policy



Supporting the green transition: Cedefop's approach

- Cedefop explores environmental policies for over a decade:
e.g.
2019 Skills for green jobs;
2015 Green skills and innovation for inclusive growth;
2013 Skills for a low-carbon Europe
- Focus on EGD implications on jobs, skills and VET since 2020
- New paradigm for economic and social activities
- Impact on all sectors, occupations, learners
⇒ implications for all VET-relevant policies and activities (design, provision, validation, guidance, adult learning, apprenticeship etc.)

Using skills intelligence to build up Cedefop Green Observatory ([Cedefop GO](#))

Green
Observatory



- **Identify long-term trends in EU, sectors, occupations and skill-levels**
[The green employment and skills transformation Insights from a European Green Deal skills forecast scenario](#)
- **Developments and trends in key sectors**
Skills foresight exercises on *smart and green cities, waste management, agri-food, circular economy,*
- **Identify skills trends through OJAs**
 - Green occupations and skills for green transition
 - Taxonomy of 'green' occupations

The green employment and skills transformation sectoral shifts

- EGD to offer **about 2.5 million additional jobs** in the EU by 2030
- Employment benefits **for most sectors**, but some will be negatively affected
- **Indirect employment benefits** mainly for service-based sectors (e.g. inf. & communication, real estate)

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- Up-/reskilling for all workers
 - VET for workers' transitions in 'brown' sectors (e.g. coal mining)
 - IVET to prepare future workers for green(er) jobs

TRANSITIONS

+ *numbers in thousands*

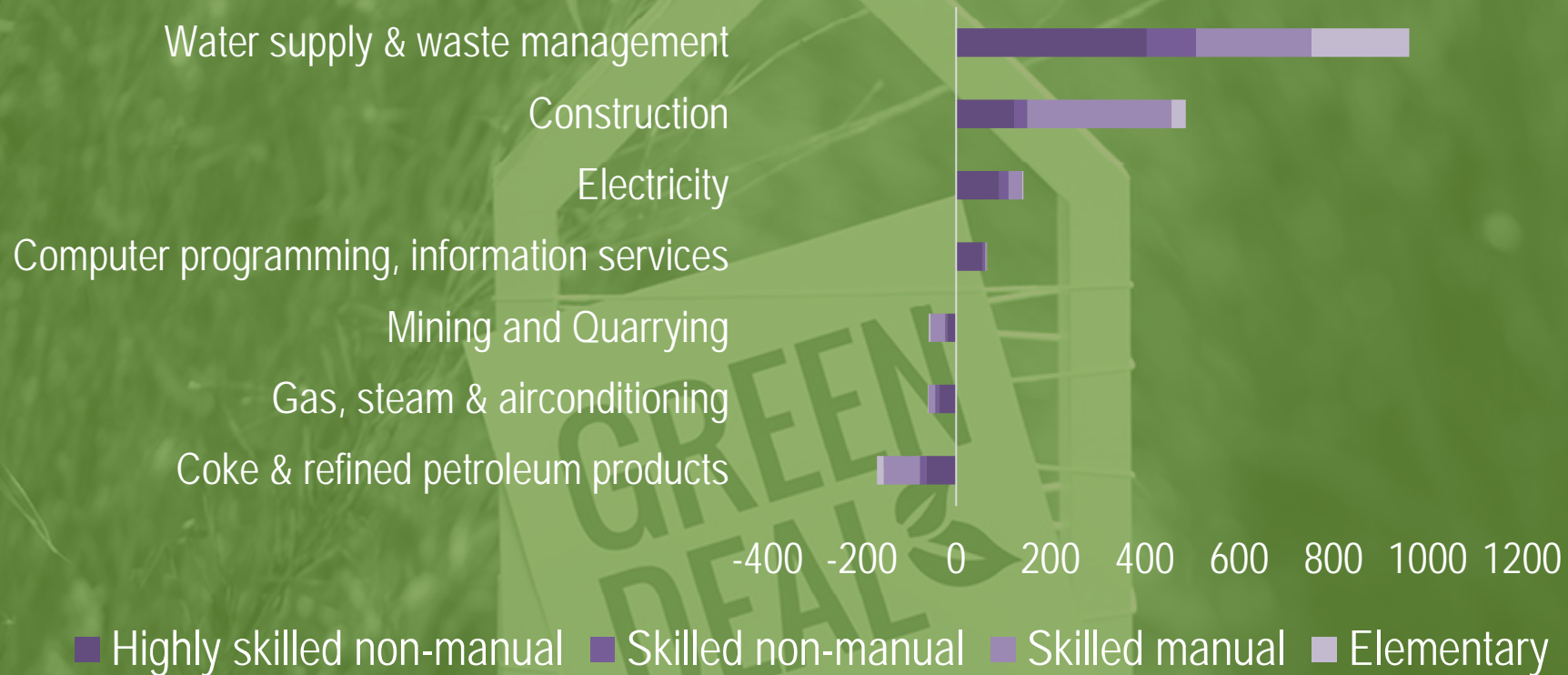
Water supply & waste management	961
Construction	487
Wholesale & retail trade	193
Administrative & support services	153
Electricity	142
Basic metals & metal products	97
Health	94
Accommodation & catering	80
Legal, accounting & consulting	79
Architecture & engineering	74
Computer programming/info services	65

- *numbers in thousands*

Coke & refined petroleum	168
Gas, steam & air conditioning	60
Mining & quarrying	58

Forecast employment impact of the EGD
(difference between EGD skills forecast scenario and baseline in 000s) in **selected sectors, EU-27**

Mapping trends to uncover up & reskilling potential



- Employment benefits at all skill levels **countering job polarisation**
- Digital transformation as green transition driver: **twin skills demand transition**
- Possible recruitment bottlenecks

All occupations
more sustainable
practices and attitudes

Key occupations (e.g. EV technicians, SP installers)

“Thyroid” occupations (e.g. hydrogen researcher)

VET's enabling role and responsibility

Short-term (*sprint*)



Accompany change

Long-term (*marathon*)



Trigger change



PROVISION OF PROFESSIONAL DEVELOPMENT

THREE MAIN AREAS COVERED:

EARLY LEAVING FROM VET

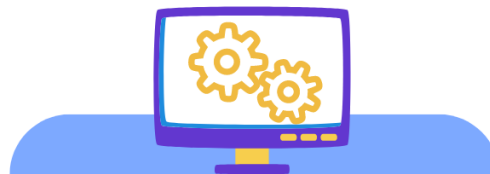
- Focus on **VET teachers' role in tackling early leaving** and supporting learners at risk with development of related teacher training component
- **Projects and initiatives addressing inclusiveness** and supporting learners at risk with focus on: guidance/counselling, teacher training, young people with disabilities/SEN, refugees and migrants, second chance measures, mental health support



DIGITAL SKILLS AND BLENDED TEACHING AND LEARNING

- **Technical part:** tools and resources (SELFIE tool for VET and for work-based learning)
- **Theoretical part:** framework, strategies, guidelines (DigComp 2.2)
- **Support measures:** research, funding, networks, professional development programmes for teachers, workshops, adaptation of VET programmes

- MORE FOCUSES:**
- Psychosocial support
 - Reintegration of NEETs
 - Community involvement



GREEN SKILLS AND SUSTAINABILITY

- **Adaptation of VET programmes and curricula** to include green skills
- Creation of specific VET schools which **focus on UN's sustainable development goals (SDGs)**
- Cooperation between VET schools and ecological education centres and other NGOs
- New professional development **programmes targeting teachers' competences to teach green skills** and train them to support in-company trainers' green skills development



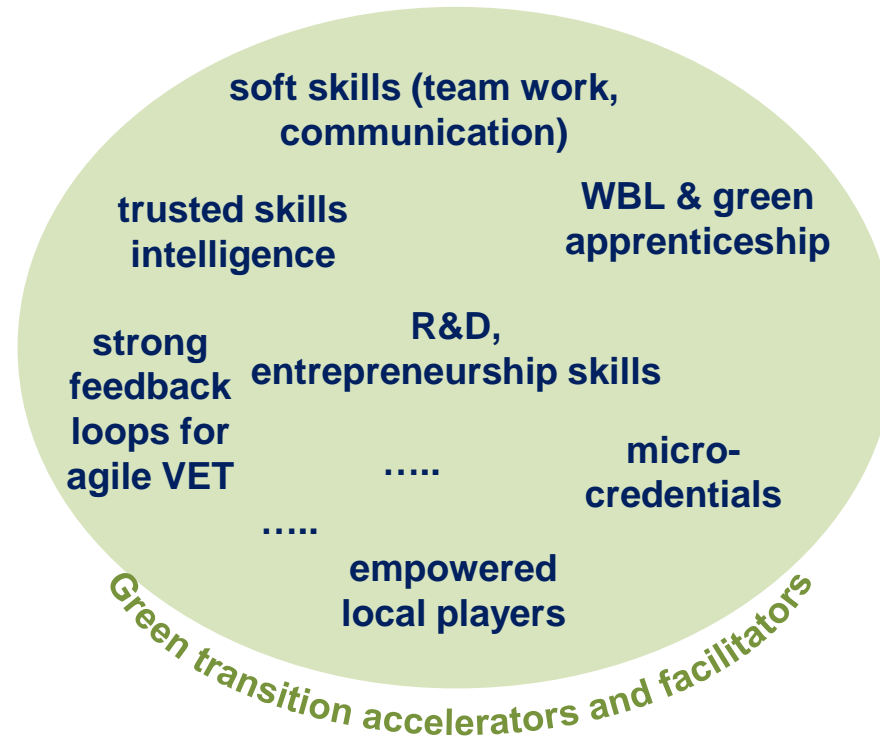
GREEN SKILLS INITIATIVES

AREAS OF INITIATIVES	COUNTRY EXAMPLES	NUMBER OF COUNTRIES
Projects	Greenovet - Skills for a green Europe. More than 100 teachers are trained to provide excellence in teaching environment-related professional and key competences (AT, FI, PT)	12
VET programmes and qualifications	Adaptation of diplomas and qualifications to the challenges of green transition (FR)	9
Teachers' professional development	Courses on sustainable development, green skills, environmental education, climate protection (CY, HU, LU, LV, PL)	7
Tools	Website to help VET teachers in their work with sustainability in the classroom (SE)	5
Education plans	Environmental education action plan (ES)	5
Institutes, networks and cooperations	Network of Environmental Education Centers (CY)	3

Skills and jobs driving the green transition in cities, waste management, circular economy & agri-food

Smart/green city occupations

green/smart city manager
 ICT professional
 urban space specialist
 energy professional
 transport and mobility specialist
 environmental protection specialist
 citizen engagement specialist
 construction professional



Waste management occupations

logistic manager, data analyst
 (strategic) waste manager
 waste valorisation professional
 quality assurance manager
 energy expert
 waste sorting optimisation professional
 circular economy plant designer
 technical engineer (recyclable products)
 material extraction/recycling/reuse expert
 waste management trainer
 repair specialist

Cedefop skills foresight exercise: agri-food

Key messages

Future skills

- ✓ R&D
- ✓ entrepreneurial
- ✓ digital
- ✓ technical
- ✓ soft
- ✓ transversal

Important role of VET

- ✓ young workers about to enter the labour market
- ✓ up- and re-skilling of adults
- ✓ Adjust provision to agriculture and food sector needs

To dos

- ✓ become more attractive to the young
- ✓ stakeholder collaboration
- ✓ reflect local or regional needs

Looking ahead

Cedefop's future work on the green transition



APPRENTICESHIP AND THE GREEN TRANSITION

- Cedefop Community of apprenticeship experts



DEVELOPMENTS IN SECTORS, OCCUPATIONS, SKILLS

- Qualitative work and analyses on sectors and occupations
- Sectoral skills foresights
- Understanding skills for the green transition (Skills OVATE)



STATE OF PLAY/GOOD PRACTICES IN MEMBER STATES

Understand developments in:

- VET (policies, curricula, programmes, modes of delivery, etc.) by shaping new 'green' skills anticipation methods

Thank you

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