



Skills for **green** jobs



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Why do we care about green employment?





‘Green’ stimulus packages are similar...

- Promoting CO2 savings & energy efficiency:
e.g. construction (building insulation), renewable energy,
low carbon transport, automotive sector (e.g. scrappage schemes)

and climate change remains at the heart of
environmental concerns...

- Adapting to and mitigating climate change
- Context-specific challenges:
e.g. water shortages in ES,
high levels of air pollution/emissions in EE





Integrating skills responses in environmental policy is generally weak but...

- DK: strategy to reduce energy consumption in buildings
- FR: 'Mobilisation plan' for green jobs, post-Grenelle round table
- UK: 2009 National skills strategy focuses on sectoral skills needs in low-carbon industries;
2009 HE strategy to review how government and HE can support low-carbon employers
- ES: Climate change and clean energy strategy:
technical skills training for green technology





Green skills are largely based on those people need in other jobs ...

- Most of the skills required are **not new**
 - FR Ministry of Environment:
“very few jobs today are based purely on new competencies”
- Emerging occupations based on a **blend of existing skills**
- Generic skills **must not be underrated**:
e.g. leadership, management, communication,
financial and inter-disciplinary knowledge





A mix of generic and technical skills is crucial, shortages remain...

- Skills needs relate to generic and technical skills
 - Management, leadership, communication
 - Technical (esp. science, technology, engineering, mathematics)
 - General decline in take-up of training in technical areas
- Skill shortages
 - New technologies, new skills (renewables, electric vehicles)
 - Short-term demands exceed capacities (e.g. buildings/energy efficiency)
 - General labour-market weaknesses (skills imbalances, etc.)



Examples of upskilling to new occupations

	Occupation(s)	Core training	→ Upskilling	→ New occupation
DK	Industrial operator / industry electrician	VET qualifications / upper secondary qualifications	Assembly, installation of parts, use of tools	Wind turbine operator
EE	Construction worker	No professional standard	Knowledge of energy systems, data analysis, project management	Energy auditor
FR	Product Design and Services	22 initial training courses with varying specialisation	Integrating environmental criteria in design process, integrated assessment and life cycle analysis	Ecodesigner
DE	Plumber / Electric and Heating Installer	Initial vocational training	Technical training, knowledge of administrative procedures, entrepreneurial skills	Solar energy entrepreneur / Installations project designer
UK	Commodity Trader / Broker	Tertiary qualification	Practical skills on functioning of carbon market,	Carbon trader / Broker



Anticipating skills needs for **green** jobs remains a pretty ad-hoc affair for some...

Not formally identified in MS systems

- FR, ES - new initiatives: observatories on **green** skills
- UK – Skills funding agency, national strategic skills audit in 25 sectors
- EE – relies on industry, Ministry of Economic affairs & communication
- DK – responsibility of trade committees – employer surveys

Quantitative, top-down methodologies insufficient

⇒ need for qualitative data, bottom-up engagement with '**green**' sectors / companies





Regional level response more effective

- Principle mechanism to define needs: **bottom-up** processes with employers and local/regional authorities

ES: **Extremadura** Employment regional service (Sexpe):
solar energy designers; skills training for solar energy installations

DK: **Northern Jutland** assisted the municipality of Frederikshavn in identifying skills profiles and needs in the maritime sector, through interviews with representatives, conferences and business surveys

FR: **Ile de France** inter-regional initiative to exchange good practices and experience in providing training for and anticipating green jobs





Most effective response: **Joint approach**

- **Country level:** high level strategies which recognise the need to reduce CO₂ emissions and take-up of other green initiatives (incl. raising awareness and education)
- **Sector level:** training/upskilling, especially in industries with substantial carbon footprint
- **Company level:** anticipating increased demand for high-level skills, particularly to support technology research and development
- Good practice responses to needs characterised by **partnership:** local/regional administration, with company/sector and education/training providers



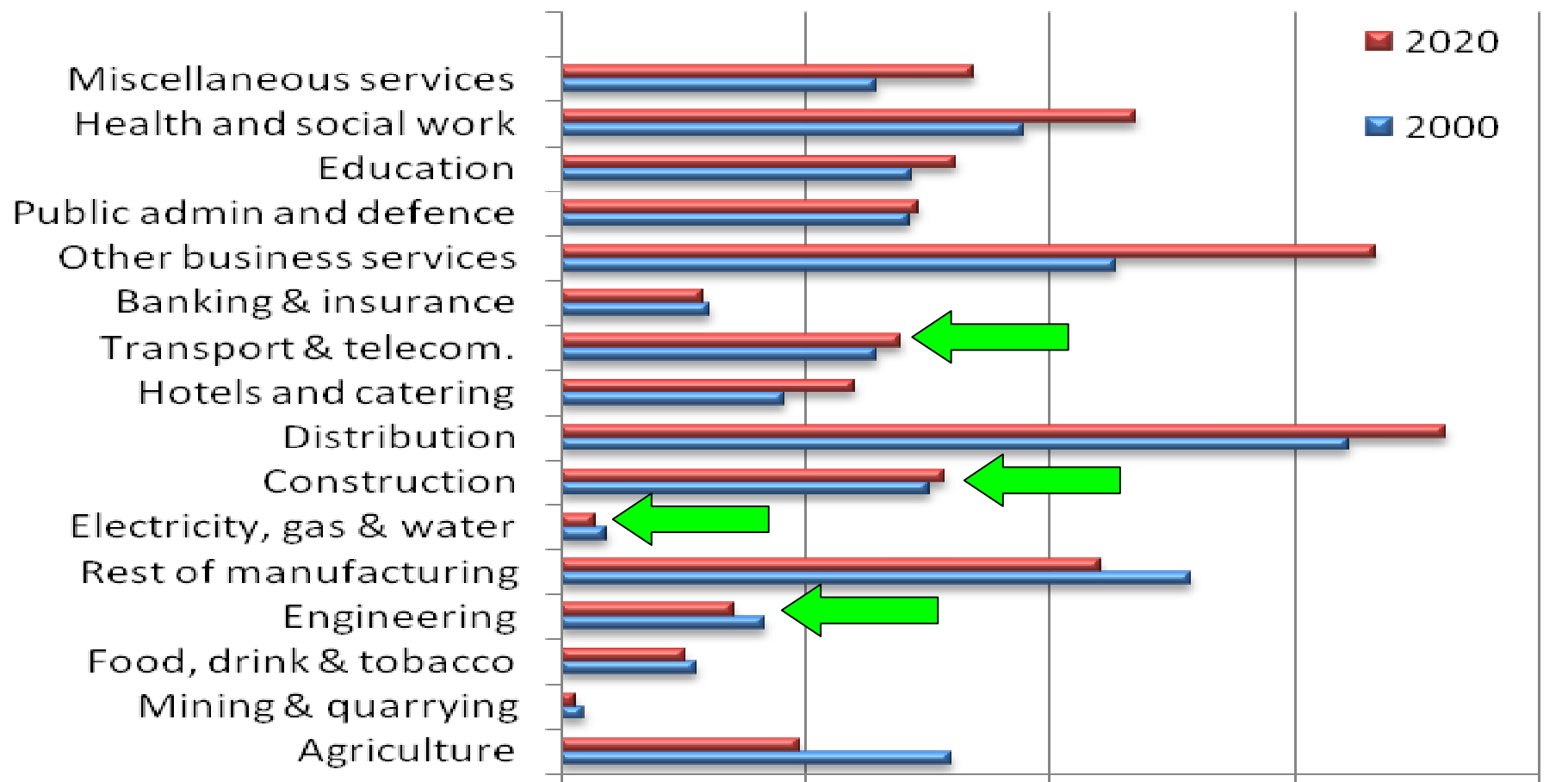


Case studies suggest key dimensions of future policy...

- Rise of 'new occupations', **but effective revision and upgrading of existing workers' skills** are more important
- **Generic skills are as important as technical skills;** insufficient technical skills reduce people's capacity to work in **green** jobs
- **The degree to which MS anticipate the demand for green-collar workers varies**
- Industry-specific responses tend to be the **most dynamic**, where demand exceeds the capacity of the existing system
- Linking up industry with education and training, at regional/local and sectoral level, is likely to make a positive difference



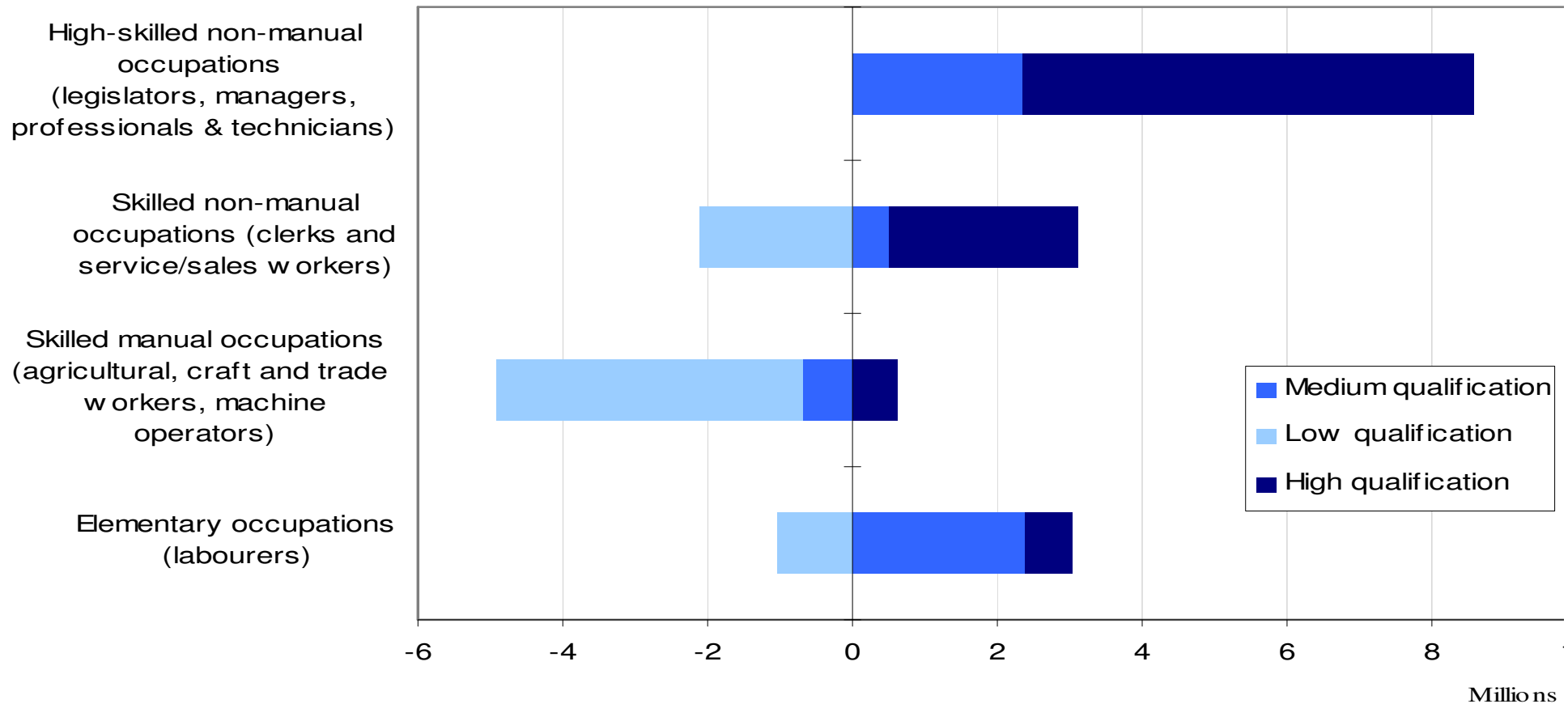
Sectoral employment trends, (EU-27+)



	2000	2020
LF	217	234

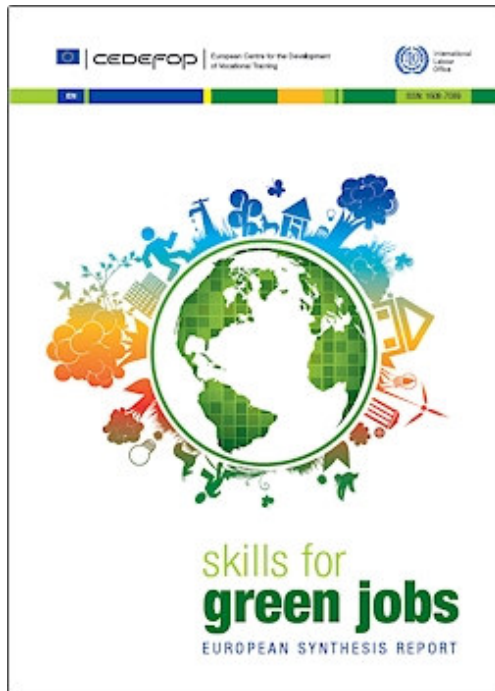
Millions

Net employment change by occupation and qualification, 2010-20, EU-27+





Thank you for your attention!



LEARNING TO BE GREEN
future skills for
green jobs

Brussels, 29 September 2010, 15h-18h
European Parliament, room ASP 5G2
Followed by a cocktail reception



<http://www.cedefop.europa.eu/EN/publications/16439.aspx>

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