

Green skills and environmental awareness in VET: Validation workshop in London, 5th October 2011

As part of Cedefop's project on Green Skills in VET investigating the skills and training needs of employers for a selected group of key occupations affected by the development of a green economy, a Validation Workshop was held in London on 5th October 2011.

The workshop presented the preliminary findings of Cedefop's European reports (undertaken by the Institute of Employment Studies), identifying current and future skill needs and detailing the challenges and priorities for green skills and VET responses in addressing these. The objective of the workshop was to validate the results, in particular:

- to highlight current and future occupational changes and skills gaps and their implications for vocational training
- to identify how EU and national policies affect optimal skills demand and supply in the concerned occupations;
- to discuss strengths and weaknesses in national VET systems and learning providers responses to any emerging challenges;
- to consider opportunities for businesses in the selected occupations to benefit from the transition to a greener economy; and
- to make policy recommendations and propose further steps.

To this end, 18 learning providers, skills and labour market experts, and representatives of employers, workers organisations, and European institutions from across 7 different EU Member States were invited to a half-day workshop in London to discuss these issues in order to validate the study.

Employment trends

The levels and trends in employment across countries will have a large bearing on the volumes of skills and training concerned in purely quantitative terms, while current trends can also provide an indication of future needs. Data collection for the occupations of interest however is not without its difficulties – particularly where new, emerging or niche occupations are concerned. Further, recent employment statistics needed to be placed in the context of recession and rising unemployment across Europe and the particularly hard hit sectors of manufacturing and construction. Official statistics were therefore complemented by national expert opinion, which provide tentative indications that the green economy and associated policy drivers are enabling the less mature occupations of the study such to weather the crisis.

Overwhelmingly, all of the occupations under study are dominated by male workers, particularly in construction, while new technologies and occupations providing clear, direct environmental benefits have a slightly higher incidence of female workers. It was also noted that certain occupations are relatively unattractive also for younger workers, put off by practical, technical work and/or perceptions of the work being 'dirty'. With this in mind, experts pointed out that this is often a misperception highlighting the work of sheet metal workers, for example, as increasingly clean and less hands-on than before, with a re-orientation of tasks towards machine programming and design skills.

Recruitment methods

Multiple entry routes and varied levels of qualification required for the occupations were reported across Europe. Italy and Greece are in addition marked by fragmented qualification structures and/or significant regional-specific variations. These findings call into question the suitability or appropriateness of matches in learning provision and skills required across the EU and raise doubts over the potential for mobility and effective recognition, which may in future be important for location-specific occupations such as SPV installers. Several experts also highlighted difficulties in recognising or assessing practical skills, and/or informal, on-the-job learning among employees and recruits.

Broadly speaking, recruitment methods to the selected occupations vary according to employers' skill needs with stronger links to education institutes the higher the level of skill required, while more diversified recruitment practices are utilised the greater the level of skill shortages. This broad picture is more nuanced at country level, with Germany, the Netherlands and the UK typically using formal routes, while employers in Italy stand out as relying more on informal networks and word-of-mouth to fill vacancies. The practice of headhunting for niche occupations is also common practice in the UK – a practice which is likely to create disincentives for employers to train their existing staff.

Current and future skill needs

Qualitative interviews and surveys with sector experts, employers, and learning providers reported little current skill shortages, often citing the ongoing effects of the financial crisis and recession. Skill shortages were most evident and widespread in Germany and the Netherlands, while in Slovakia, Italy and Hungary no skill shortages were reported for any of the occupations of interest. It was noted in the workshop that some reported shortages may result rather from a lack of market development and national need for those skilled in the specific occupation e.g. Solar PV installers in the Netherlands and Nanotechnologists in the case of Greece.

Certain occupations in the study are experiencing changes and reorientations in their tasks as a result of and in response to environmental and technological change. The finding that sheet metal workers have skills gaps across several countries is consistent with this. Employers in the UK meanwhile, report the widest range of skill gaps. Overall, most skill gaps are practical or technical in nature while some sales, customer service skills were also notable. It was also noted that different occupations, differ in the level of exposure to changing skill needs as a result of 'greening' economies with Vehicle emissions inspectors and Refuse collectors affected relatively little.

Looking forward, electricians, sheet metal workers and insulation workers are predicted to be increasingly demanded across the widest range of countries, as economies recover and countries shift to a resource efficient, green economy. Experts found predictions of this kind more difficult to make in Italy, Greece and Hungary due to reported uncertainty about the economy, the regulatory environment and energy costs. Future changes in the type and level of skill required to perform tasks in the occupations were widely reported. Within certain occupations e.g. environmental engineers, which areas are subject to change in importance can vary widely across country depending on the how established the occupation is with relatively more commercial skills than technical skills missing in mature, more established markets. Most change in the types of skill required is

reported for Sheet metal workers, Energy auditors and SPV installers as they adapt to new processes, materials, techniques and/or markets.

Training provision

Effective training can be seen as an indicator of enterprises ability to adapt to occupational changes and is reportedly more readily available for employees in Finland, the Netherlands and the UK, while particularly low rates of participation in training across all of the selected occupations in Slovakia and Hungary point to problems in the VET systems and/or training infrastructure. Understandably, training occurs more frequently when licences or certification are important for the occupations under analysis.

Regulatory updates and standard setting as well as more general health and safety requirements are typical components of much of the training provision, while some of the more established occupations undergoing changes or high-skilled occupations may also provide more specific courses e.g. courses for electricians on renewable energy. Newer, less-recognised occupations and funding gaps are the cited explanatory factors for gaps in training provision.

The main challenges for learning providers are reported to be the uncertain specificity or heterogeneity of employer needs, while current qualifications are slow to respond to this. Moreover, while current demand for green skills is low, over half of providers anticipate strong growth from workers and employers and anticipate that training will be needed primarily for existing workers.

Discussion 1: Addressing Future Skill Needs

- Need for consistency in policy direction in order to send clear signals to industry and enterprises
- Universities and general education should also provide training and practical skills
- Materials need to be adjusted accordingly to make them accessible and appropriate to different targets and levels
- While it is necessary to build-up some qualifications, avoid overloading the VET system; try to balance new material and additional courses with the general reluctance to engage in training and employer needs
- When there are mandatory requirements, there is a case for implementation to be managed/coordinated at EU level to enable mutual recognition and thereby enable firms to more easily address any localised skills shortages
- Research on the value chain and sector-based analysis of skills needs can play an important role – there are also potential benefits in exploring occupational groups with similar career pathways e.g. every engineer (chemical, electrical, manufacturing etc.) is increasingly important for the green economy and under pressure to consider environmental/energy costs
- Inadequate succession planning in the context of an ageing workforce is a major problem
- Clean up the image of practical and manual labour in construction and manufacturing
- Important to apply academic knowledge to the labour market with practical, technical and general employability skills
- Environmental awareness and green skills should be introduced from a young age, while awareness raising measures aimed at parents and citizens should also be enhanced, while avoiding duplication of effort across Member States

- Occupation and professional profiles could be developed to enhance intra- and inter-national understanding and dialogue to enhance coordination of efforts
- A greater training culture needs to be fostered, particularly in certain countries by extolling the benefits and facilitating access with flexible training offers, appropriate incentives and heightened awareness.

Discussion 2: Benefiting from a green economy

- Phase out financial incentives gradually as markets and technologies mature and no longer require direct financial support and ensure that these are both transparent and consistent. The possibility and timing of phasing out support should be considered at project inception to avoid creating shocks or fostering dependency
- Focus in rhetoric should be on setting standards and incentives to renovate existing building and capital stocks as these are of greater importance for the achievement of environmental goals
- Greater links between industry and educations should be forged, with schemes to bring industry representatives into the classroom or students out into industry important to promote and develop e.g. success of the German dual system approach
- New models of economic development, strategic vision and fresh ideas are lacking
- Given current financial constraints, over-reliance on single sources of funding or public funding are an ever-present danger and inhibit the kind of forward-planning often necessary to address skill needs and benefit from a green economy
- SMEs and smaller industrial sectors require special attention and support, and should be systematically involved in standard setting to ensure they are not over-burdened
- Greater awareness should be raised of the environmental impact and energy costs of every activity and product and it should be stressed that 'greening' permeates across a very broad spectrum of occupations in process and product
- For some countries, a strategic industrial plan and integrated skills development strategies within this is in need of developing to promote greater consistency and coherency.