



SKILLS FOR A LOW CARBON ECONOMY: WHAT NEXT?

Forum 27th February 2012

Summary note



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Forum aims and objectives

The aim of the *Skills for a low Carbon Economy* forum was to analyse and draw lessons from current work conducted by the OECD, Cedefop, and other research and international organisations on the implications of the green economy for skills development and training policies.

A transition to a low carbon economy is only possible by developing the skills, knowledge and competences required by resource-efficient, sustainable processes and technologies, and integrating these into our businesses and communities. While effective development strategies and activities for these skills are necessary to achieve green growth, their success relies on an integrated approach with other areas of workforce development and public policy.

On this basis, the Green Skills forum focused on:

1. Identifying current practices and policies that firms, trade unions and other organisations are already doing to foster the potential of green growth through skills development activities;
2. Identifying how strategies for green skills are integrated with other areas of policy and workforce development and;
3. Discussing necessary policy implications and directions for further research.

Summary of discussions

Session I: Gearing up education and training for green growth

This session began with the realization that globalization and the transition to a low carbon economy are building new markets and transforming existing markets; creating different demands on skills and forcing labour markets to change order to remain competitive and innovative.

This has implications for individuals, as they need to be able to demonstrate new ways of thinking (such as creativity and critical thinking), new ways of working (such as through communication and collaboration), new tools for working (such as using information and communication technologies - ICT), as well as being active and responsible citizens in society.

From the employers' perspective, it is crucial to anticipate, update and upgrade workforce skills and to match them better with current and future needs of their companies. This will foster private sector-led economic growth and employment. Therefore emphasising skills development in education and VET systems is essential for increasing the matches between students' learning outcomes and changing labour market needs. This is particularly important in the current economic and social context, where many countries suffer from systemic weaknesses in its skills base, which limit its productivity and competitiveness.

The emerging policy messages from the session include:

Encouraging closer dialogue and co-operation on green growth implications between employers, policymakers and educational institutions: This will contribute to more effective approaches towards a more skilled, innovative and flexible labour force. With their "on the ground" business experience, employers can help policymakers and educational institutions to identify where skilling, re-skilling and up-skilling would be necessary in order to improve the competitiveness of industries.

Take a life long learning approach: Lifelong learning should be a focus education systems covering all stages of formal education and training (schools, vocational education and training, higher education, etc.) as well as work-based training and, where possible, informal and non-formal learning. If education and training systems only emphasize green skills acquisition in the initial training segment of employees work life then significant skills shortages and mismatches will be long standing within the labour force, as most workers will have already past this initial training segment.



Consider incentives for individuals and companies investing in skills development for green growth:

Individuals could be encouraged through incentives to invest in acquiring new skills, as well as upgrading and maintaining their skills, for example through the tax system and making educational expenses tax deductible.

Revise school education curricula to increase adaptability of individuals targeting to key labour market needs for green growth: curricula in schools should be reviewed periodically in order to stay “up-to-date” and thus help ensure the employability of students and their adaptability to labour market implications of green growth. There was also discussion that curricula should be rebalanced in favour of science, technology, engineering and mathematics (STEM) subjects to counter current and forecast skills deficits in these areas.

Create more access points into VET systems and facilitate transfer between VET systems and other levels of education: The VET system is crucial to skills development and improving and expanding access vocational education and training (VET) needs to be a clear focus. There is growing recognition that entry into the labour market is much easier if VET is part of the formal education system, both at secondary and tertiary levels. A focus for policymakers should be to create different VET options with strong labour market orientation, and these should aim to involve more young people, and especially certain vulnerable groups (such as immigrants) who are particularly relevant for many green sectors

At the same time, the labour market also needs VET options that offer higher levels of qualifications in order to allow for movement between VET and tertiary education, so that formal VET is no longer considered as an educational “dead-end”. VET systems should be flexible and forward-looking in order to meet the current needs of the labour market while also anticipating future needs. Although currently there is no definitive evidence that green skills will require higher levels of knowledge acquisition, it is very likely that these skills sets will follow the trend of higher levels of knowledge intensive and the need for flexible skills packaging. This trend is similar to what we have witnessed in occupations across labour markets in the developed world.

Session II: Enterprise approaches for a workforce fit for a green economy

In this session the key word for enterprises approach to workforce development for the green economy was **anticipation**, in particular:

- Anticipating skill needs in green sectors and responding to them with appropriate training design;
- Delivering training at appropriate time can be crucial for the green change to happen and to benefit all rather than generating winners and losers, where losers are likely to be concentrated in specific sectors or regions

Anticipating is also crucial for fulfilling the labour mobility objectives that are prominent in many countries.

The ability for SMEs the anticipate skill need: This session discussed the main challenges for Small and Medium-Sized Enterprises (SMEs) is being able to adequately anticipate skills needs. For SMEs to anticipating demand requires a good understanding of the economic and institutional environment as well as a strong idea about the positioning of the enterprise within the current and future environment. In other terms, it demands a *strategic vision*.

SMEs and strategic management: Developing a vision and building a consistent strategy can be more difficult for SMEs as it requires the combination of multiple skills sets across the organisations. For the majority of small businesses strategic management functions often require a change in their business culture, which is all the more important also for SMEs to retain talents that are often diverted to large firms.

SMEs involvement in environmental practices: There is broad evidence that SMEs are less engaged in environmental practices and VET. In Europe, the most recent CIS surveys show that even in some of the



most advanced manufacturing regions, only a minor share of SMEs access formal training. Criteria for increasing SMEs ability to anticipate skills need in the green economy will be raising both awareness and participation in formal training activities in these areas. However this is a longstanding policy challenge, so new and innovative approaches will be necessary to engage these firms. The challenge of training institutions will be one of outreach. How do they reach the SME population for a real engagement, change in culture and opportunities? Who are the players that are best suited for this? Can the urgency of the green change also help to bring more SMEs to adopt training strategies and develop a training culture? Can informal training – which is more diffused among SMEs and entrepreneurs - be leveraged to create a better link to formal training?

Session III: Integrating skills into local development strategies for green job creation

This session identified three cross-cutting themes emerging from the discussions in this session:

1. One challenge in developing the skills required for a low-carbon economy is how best that challenge can be met given the extreme diversity of needs in different industries, localities and countries at different levels of economic development. While it is useful to think of the broad challenge to develop green skills, effective solutions will need to be very diverse.
2. The importance of effective coordination between different levels of government, as well as between different areas of policy including environmental policy, employment and education and VET policy.
3. The reality that that the public authorities, learning providers and the social partners will all need to anticipate green skill needs and take proactive actions to meeting them. A major challenge for this aspiration is the high levels of uncertainty about how environmental policies and technologies will evolve and how they will reshape labour markets.

The following challenges for local development strategies were identified:

Demand versus supply driven: In creating green skills strategies there are advantages and deficiencies to demand and supply responses. Supply side responses need to accurately forecast training needs in terms of both quality and quantity on the one hand, sectors and regions on the other; provide solutions in a sector where “off-the-shelf” training services are rarely seen as adequate; and anticipate change in a rapidly evolving market. From a demand side approach, the main challenges include how to identify current and future skills needs; how to develop a critical mass of re-skilling when there are only small number of participants and it is difficult for these participants to be taken out of their day-to-day working environments for training activities.

Top-Down-Approach (locally implemented) vs. Coordination only (locally designed): What is the role of local customisation of skills and training? Should training activities be centrally designed but locally implemented or both designed and implemented locally? Both approaches have advantages and drawbacks. If training is centrally designed there are challenges of local ownership, particularly if it is not particularly suitable to local conditions, while securing some degree of devolution including the ability for locally adjusted variations can build local ownership. On the other hand locally designed training can be limited if there is not a common understanding of purpose and a willingness to share learning. A further challenge is generating even participation and making sure the right people are involved in the design.



Conclusions from OECD and CEDEFOP from the green skills forum

1. The papers discussed at the forum highlight that green skills development must be integrated into wider training and skills development policy rather than being seen as additional or separate to other forms of skills development.
2. The requirements for greening of skills will have ramifications at multiple levels - at the individual level, the level of the firm and at a societal level.
3. Encouraging the development of green skills will also require the shared dialogue and activities of multiple organisations including unions, industry associations, educational institutions and governments at local, regional and national levels.
4. If all employees are to be equipped with green skills then a 'lifelong learning' approach will need to be adopted. This highlights the potential role that organisations, which operate in workplaces, such as vocational learning providers, social partners, and local institutions, can play in greening skills.
5. Developing green skills is part of a broader challenge to increase the strategic management capabilities of SMEs. For SMEs to identify their skills needs and gaps requires a well-developed business strategy. Strategic management is often a challenge for SMEs as it requires skills from a range of skills sets (including finance, marketing, research, regulatory affairs), which all may not be present in the individual/s that manage the firm.
6. This is further compounded by SMEs limited awareness and engagement with environmental practices; gaining SMEs engagement in these practices is important for them to recognise the value of green skills and the need to resource the obtaining of the skills.
7. Solutions to all of these issues will need to be multifaceted to be able to deal with the diversity of responses required across industries and regions.
8. The primary role of public stakeholders will be to ensure coordination and policy integration; this does not necessarily mean providing coordination directly, but to make sure that coordination is being provided either by the market, social partners or public actors. This will require the availability of the necessary tools and information resources, as well as clarity around definitions and the parameters of green skills need and provision, measures and indicators to demonstrate progress and recalibrate policy responses when conditions change.



Agenda from the Forum

Monday, 27 February 2012

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| 09:00 - 09:30 | <i>Registration</i> |
| 09:30 - 09:45 | Welcome <i>Yves Leterme</i> , Deputy Secretary-General, OECD <i>Pascaline Descy</i> , Head of Area Research and Policy Analysis, Cedefop |
| 09:45 - 10:15 | Introductory Panel <i>Facilitator: Cristina Martinez-Fernandez</i> , OECD CFE LEED Skills for a low carbon economy Presentation OECD LEED <i>Chris Barrett</i> , Ambassador and Permanent Representative, Australian Delegation to the OECD <i>Luc Willems</i> , Deputy Secretary General, Benelux Secretariat Presentation Cedefop <i>Antonio Ranieri</i> , Cedefop Q&A |
| 10:15 - 11:30 | Session I: Gearing up education and training for green growth <i>Facilitator: Paul Ekins</i> , University College of London, United Kingdom <ul style="list-style-type: none"> How best can we enable education and training systems to adjust to emerging areas of green growth and stimulate diverse pathways to green jobs? What measures can be taken to make pathways to green jobs more attractive, particularly to women and young people, and to stimulate entrepreneurship in this field? Knowledge sharing in early identification of skill needs <i>Christine Hofmann</i> , ILO The Austrian Masterplan human resources for renewable energies <i>Gerhard Geiger</i> , 3S Unternehmensberatung GmbH, Austria and <i>Regina Steiner</i> , FORUM Umweltbildung, Austria Think global, act local: the case for a global green skills training action plan <i>Joel Marsden</i> , GHK, United Kingdom <i>Discussants: Ray Pinto</i> , Microsoft Europe, Middle East and Africa (BIAC) Open Discussion |
| 11.30-12:00 | <i>Tea/Coffee break</i> |
| 12:00 - 13:15 | Session II: Enterprise approaches for a workforce fit for a green economy <i>Facilitator: Petra Schwager</i> , UNIDO and DCED GGWG <ul style="list-style-type: none"> What good practices are there to enhance the skills of the existing workforce to adapt to and benefit from a greener economy? How SMEs are equipping their workforce and talent? Which tools and activities do businesses use to anticipate and monitor market development in the green sector for their occupational requirements and skill needs? |



Greening technical vocational education and training in the European steel industry

Antonius Schröder, Technische Universität Dortmund – Sozialforschungsstelle, Germany

Anticipating and managing the effects of greening of industries in the EU: skills development in the overall context of job quality

Simonas Gaušas, PPMI, Lithuania and *Radoslaw Owczarzak*, Eurofound

Licensing and certification to increase skills provision amongst low carbon SMEs in the UK

Nick Jagger, Centre for Climate Change Economics and Policies, United Kingdom

Discussants: *Roland Schneider*, TUAC and *Lucia Cusmano*, OECD CFE SME

Open Discussion

13:15 - 14:30 | Lunch

14:30 - 15:45 | Session III: Integrating skills into local development strategies for green job creation

Facilitator: *Robert Strauss*, DG Employment, Social Affairs & Inclusion, European Commission

- What best practices exist for integrating skills development strategies with other areas of public policy to promote green growth, particularly at local level?
- Which measures can be used to monitor and evaluate how local labour markets are making the transition to greener activities?

Greening local economies through stakeholders' mobilisation. Lessons from the project 'Employment houses and sustainable development in France'

Marie-Pierre Establie d'Argencé, Alliance Villes Emploi, France

Identification of skill shortages, achieving policy coherence: the case of India

Sunita Shanghi, Planning Commission, Government of India

Climate change adaptation and local development. The new imperatives for green skills development

Rao Pinninti, Rutgers University, USA

Discussant: *Paul Swaim*, OECD ELS and *Wolfgang Mueller*, German Federal Employment Agency

Open Discussion

15:45 - 16:00 | Tea/Coffee break

16:00 - 17:15 | Panel Session: Lessons learnt and the way forward

Facilitator: *Sergio Arzeni*, OECD CFE

Cristina Martinez-Fernandez, OECD CFE LEED

Paul Ekins, University College of London, United Kingdom

Petra Schwager, UNIDO and DCED GGWG

Robert Strauss, DG Employment, Social Affairs & Inclusion, European Commission

Antonio Ranieri, Cedefop

Open Discussion

17.15 - 17.30 | Closure

Pascaline Descy, Head of Area Research and Policy Analysis, Cedefop

Sylvain Giguere, Head of the OECD CFE LEED Division

17.30 | End of conference