

For any organisation, an important source of continuing productivity growth is effective management of the organisation of work and ensuring that the talents of individuals are being tapped. Innovative capabilities are strengthened in work places which provide a fertile environment for innovation. Better measures are needed of the skills required and of ways in which the workplace promotes such skills.

Why do we need indicators ?

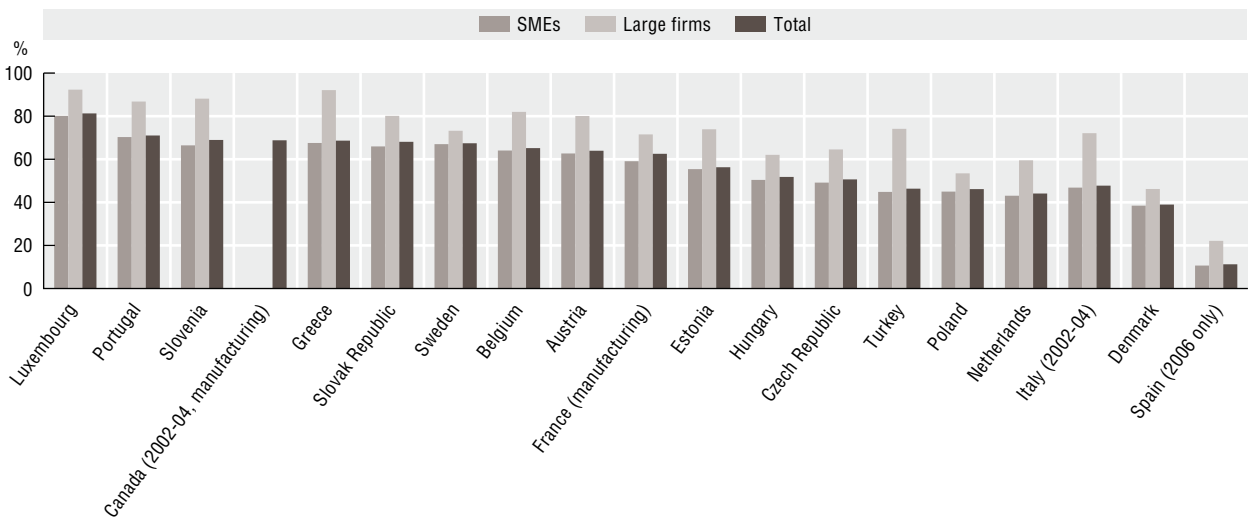
The importance of work-based learning highlights the fact that skills acquisition is a lifelong process. In addition to formal education through the primary, secondary and tertiary levels, the learning that takes place on the job is a crucial component of skilled workers’ toolkits and helps shape innovation outcomes. A recent OECD firm-level study of nine countries shows that one of the main strategies of innovative companies is to accompany spending on new machinery with training of their workforce (OECD [2009c], *Innovation in Firms: A Microeconomic Perspective*).

The skills and competencies required for innovation are broad. Incremental innovation and the improvement of organisational efficiency and routines, for example, can come from a range of workers, not just managers, researchers or external consultants, and can rely on different skills and competencies. Moreover, new organisational methods or marketing innovations require specialised skill sets well beyond traditional science and engineering training. The pace and changing nature of innovation, as well as changes in countries’ industrial structures, mean that people need to upgrade their skills throughout their adult lives.

Training is only one of several instruments a firm can use to leverage its human capital potential. Interaction and learning within firms enables employees to share information, challenge existing patterns, and experiment and collaborate to improve products and processes. The potential role of learning and interaction within organisations has been highlighted as a way to strengthen firm performance in the post-crisis environment. However, these concepts remain difficult to quantify and better measurement instruments are needed.

Firms engaged in innovation-related training activities, by size, 2004-06

As a percentage of total innovative firms



How to read this figure

There is a wide variation across countries regarding the prevalence of innovation-related training activities at the firm level. In Luxembourg and Portugal, more than 70% of innovative firms engage in such activities, but in several other countries, the share is less than 50%. In all countries, SMEs are less likely than larger firms to engage in innovation-related training activities.

Source: Eurostat CIS-2006 (CIS-4 for Italy) and for Canada: Statistics Canada, 2005 Survey of Innovation.

StatLink <http://dx.doi.org/10.1787/835552812202>

Definitions

Training for innovation is defined as internal or external training specifically for the development and/or introduction of new or significantly improved products or processes. SMEs are firms with less than 250 employees.

What are the challenges?

Developing a harmonised set of indicators to measure organisational change and innovative workplaces

Organisational studies have long analysed the interaction between work organisation, skills and technology (Toner, 2009). Concepts such as job rotation, incentives to participate actively in innovation, and measures to monitor, evaluate, capture and diffuse improvements across work teams, are often used to describe new organisational practices and have been tested in a number of surveys (e.g. the European Working Conditions Survey, EWCS). Studies that have looked at the relation between new organisational practices and innovation have usually found it to be positive (Greenan and Lorenz, 2009). To improve understanding of these relations it is necessary to harmonise definitions and collect comparable indicators of organisational changes and innovative workplaces. Better measures of workplace skills are required, and there is scope to more fully exploit available matched firm-worker data to analyse the relation between skills, innovation and performance (Nås and Ekeland, 2009).

Define and measure skills for innovation

The skills and competencies required for innovation are broad. What measures can be used to capture the range of skills innovators need? Can such skills be in fact defined? A first challenge is to develop a conceptual framework to better guide and prioritise the measurement of skills for innovation. This entails distinguishing and defining the relations among concepts of creativity, entrepreneurship and innovation and linking measurement to clearly defined policy objectives. Once the target of measurement is defined, the appropriate survey vehicle must be chosen (see below).

Options for international action

The MEADOW Guidelines on organisational change and its economic and social impacts (2010)

www.meadow-project.eu/

The MEADOW (MEAsuring the Dynamics of Organisations and Work) Guidelines propose a measurement framework for collecting and interpreting internationally harmonised data on organisational change and its economic and social impacts for both private- and public-sector organisations. The objective is to provide evidence for European policy initiatives aimed at increasing the flexibility and adaptability of organisations and employees while simultaneously improving the quality of jobs during economic booms as well as downturns. The MEADOW Guidelines propose a survey that links the interview of an employer with interviews of his or her employees. This is the richest survey setting for measuring organisational change and its impacts on the workplace. Some aspects, such as the way existing organisational arrangements or processes of change are experienced and felt by employees, can only be captured with accuracy by interviewing the employees concerned. Other aspects, including general information about the organisation's choice of policies and practices affecting the internal division of labour or relations with external suppliers or subcontractors are best measured at the employer level. Linked surveys can also provide different and complementary information on the same organisational characteristics or processes. The MEADOW Guidelines are the result of a Co-ordinating Action funded by the European Commission which brought together a multidisciplinary consortium of 14 partners from 9 European countries.

A way forward would be to explore the potential of this survey to study organisational change linked to the introduction of new processes and organisational and management practices.

The OECD PIAAC (Programme for the International Assessment for Adult Competencies) Survey

www.oecd.org/els/employment/piaac/

Certain forms of work organisation demand particular skills of employees, but they are not always easy to measure. According to results from the OECD's PIAAC pilot study, workers who participated in quality-improvement circles appeared to need higher reading and numeracy skills and stronger communication skills, while team-working was associated with greater internal communication skills. The full PIAAC survey, to be carried out in 2011, will cover Canada, Chile, Japan, Korea, the Russian Federation and United States, in addition to EU countries. It will allow for investigating the links between key cognitive skills and a range of variables, with a particular focus on skills of individuals and their actual use at work place. A way forward to measure skills for innovation at the workplace would be to explore the possibility of adding a "PIAAC-type" component/module to innovation surveys and thus link skills at the workplace to innovation outcomes.

The Eurostat Community Innovation Survey (CIS)

The next CIS-2010 will contain a short *ad hoc* module (about four questions) on "Creativity and Skills for Innovation". The questions are currently under development.