

## Factsheet on Training

*Other factsheets in toolkit: Cost-Optimality, Nearly Zero-Energy Buildings, Finance, Energy Performance Certificates*

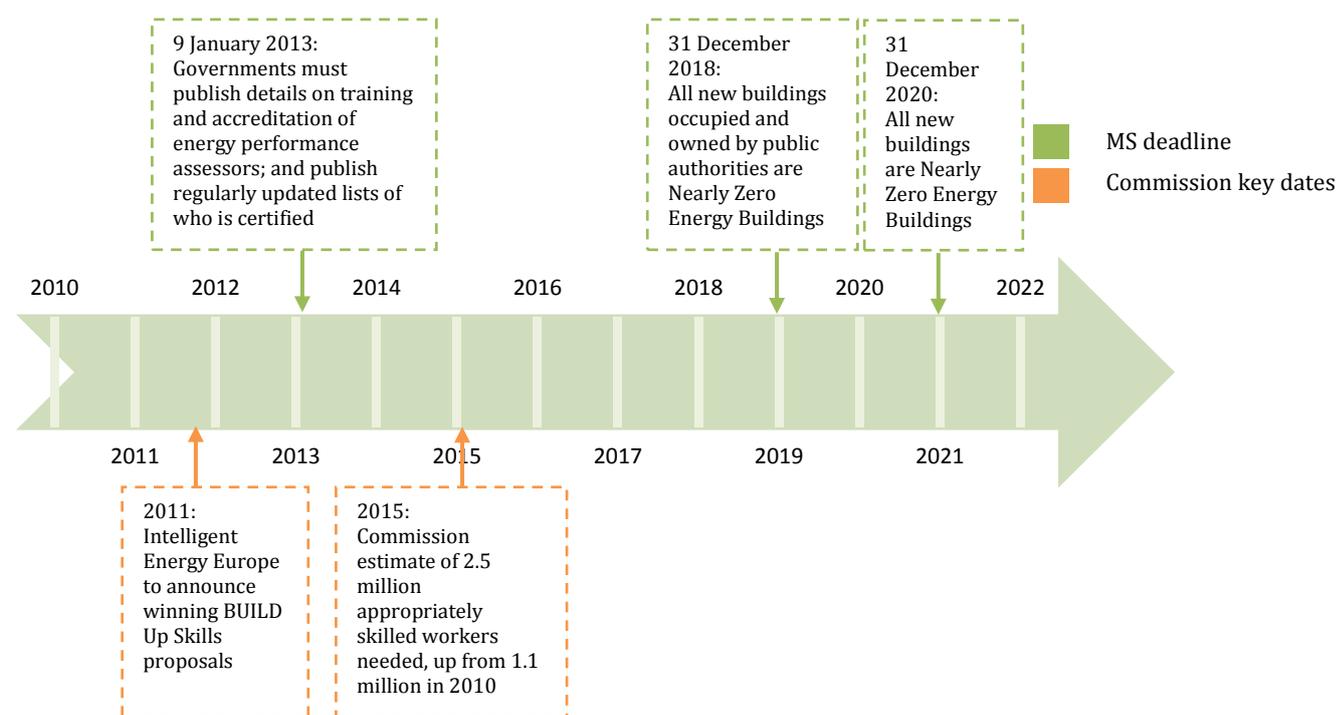
### Why training?

The right training and accreditation across the professions is necessary to deliver the Recast, but will also:

- Lay the foundation for 450,000 potential new jobs by 2020;
- Provide the basis on which European companies can create new opportunities for exporting construction technologies and know-how;
- Form the cornerstone for delivering Europe's energy and climate change goals.

The central importance of a sufficient and balanced distribution of skills in the workforce makes it a key policy concern.

### Description



When first introduced in 2002 the Energy Performance in Buildings Directive (EPBD) recognised that new approaches to buildings performance were going to be needed. The recast of the EPBD, approved in 2010, increased the need for new approaches that would require improving the capacity of a wide range of people. For new buildings, architects and designers would need to learn to integrate latest thinking to maximise performance. This is particularly true for the nearly zero energy buildings that will be required by December 31, 2018 for public buildings and December 31, 2020 for all buildings – residential and non-residential. Strategies need to be developed by Member States and these have to be submitted to the Commission in early 2012. The recast Directive makes several references to the importance of training.

Article 17 states that Member States shall make available to the public information on training and accreditations. Member States must ensure that either regularly updated lists of qualified and/or accredited experts or regularly updated lists of accredited companies which offer the services of such experts are made available to the public. Article 20 states that Member States shall ensure that guidance and training are made available for those responsible for implementing this Directive. Such guidance and training shall address the importance of improving energy performance.

The introduction to the Directive refers to the role of local and regional governments, to the importance of training for installers and builders and to other Directives that discuss accreditation and mutual recognition. It also states that the Commission should continue to use its Intelligent Energy Europe (IEE) programme for guidelines and standards on training. (This role should be transferred to any future programme that replaces IEE).

The Energy Efficiency Plan published by the Commission in March 2011 provides a good indication of the challenge. It states:

There is a clear lack of appropriate training (e.g. for architects, engineers, auditors, craftsmen, technicians and installers). Energy efficient building solutions are often technically demanding and put high knowledge requirements on the parties involved. Today, about 1.1 million qualified workers are available, while 2.5 million will be needed by 2015 in order to improve the energy efficiency of buildings and better integrate renewable energy technologies. The lack of a qualified workforce leads to sub-optimal renovation or installation of appliances – hence it is essential that the right skills are available; major training and qualification efforts will be required.

In 2011, through the Intelligent Energy Europe programme, the Commission launched a '*Building Workforce Training and Qualification Initiative in the field of energy efficiency and renewable energy*' to support Member States in assessing training needs for the construction sector, developing strategies to meet them, and fostering the setting up of effective training schemes. This initiative, known as *Build-Up Skills*, is leading to the development of recommendations for the certification of craftsmen, extending the provisions already in place for renewable energy. The Commission will also work with the Member States to adapt their professional and university training curricula to reflect the new qualification needs (in line with the European Qualification Framework).

The training initiative announced in the Energy Efficiency Plan was called *BUILD UP Skills*. It focuses on the continuing or further education and training of craftsmen and other on-site construction workers and systems installers in buildings, after their initial education and training or after they have entered working life. Overall objectives of *BUILD UP Skills* include:

1. Initiation of national processes that bring together all relevant stakeholders in training and qualification of the building workforce on energy-efficiency and renewable energy;
2. Identification and quantification of all relevant professions and skills levels needed for the creation of a workforce qualified in energy efficiency and renewable energy in each Member State by 2020 (and beyond) and discussion of the necessary changes to the current system as well as concrete training measures to meet the identified need;

3. Setting up and agreeing national qualification roadmaps to achieve the sustainable energy policy objectives for 2020;
4. Supporting concrete qualification schemes on the basis of roadmaps to 2020 with identified needs and priorities.

Following a series of calls for proposals for funding by the Build-Up Skills programme since 2011, all EU Member States have now signed up to the objectives of the programme and are working to prepare and implement their roadmaps.

However, it is not only craftsmen who need training. Designers, architects, inspectors and other professions all need to be considered for skills upgrading and certification. Member States need to send their strategies for moving towards the full implementation of nearly zero energy buildings to the Commission in 2012, to be evaluated by the EC before the end of that year. These strategies should include what training and certification schemes are needed.

### Key issues

The key issue for Member States is to assess their needs, with the products and installations industries offering key insights for this assessment. The buildings industry is fragmented with many types of work opportunities and skill sets. Also, there are often institutional issues within administrations, where different ministries – each with different priorities – are involved. However, improved skills are needed soon, if the deadlines for the full implementation of nearly zero energy buildings under the recast of the EPBD are to be met.

At the same time, training for the renovation of existing buildings is needed. For major renovations, there is a need for designers and architects to take a much more holistic approach than has been the case in the past. It is during major renovations that ‘deep’ retrofits can take place. Those opportunities cannot be lost because of lack of skills and knowledge. Some initiatives promoting successful examples of renovation, e.g. with young architects exist, but these remain rare, isolated and rely on private initiatives.

The challenge is for both governments and energy efficiency industries to identify where skills upgrades are needed and then to assess when the skills upgrades should take place. Much of the buildings sector depends on relatively unskilled workers and this may need to change. Exhibits A and B show training that leads to qualifications for designers working on energy performance labels. What is needed is a blueprint from governments to begin to put in place the full range of training and certification programmes that are required to meet the objectives of the recast of the EPBD. This includes new curricula for professional education.

#### Exhibit A – European pilot course for Certified European Passive House Designer

In May 2009, some of the best-known centres for Passivhaus standard houses in Europe: eza! (Energie & Umweltzentrum Allgäu GmbH) in Kempten (Germany), PHD (Passivhaus Dienstleistung GmbH) in Darmstadt (Germany) and EIV (Energieinstitut Vorarlberg) in Dornbirn (Austria) organised the first German language pilot training course for passivehuis designers at a European level. ‘CEPH’ is now delivering courses in eight languages, as well as offering courses to ‘train the trainers’. In order to spread the necessary knowledge among architects and designers, the IEE supported the course’s development and dissemination. The course is designed as a full 80 hours intensive programme to cover all relevant issues for Passivhaus standard design. The course is completed with an exam and certification as a ‘European Passive House Designer’, issued by the Passive House Institute in Darmstadt, Germany.

#### Exhibit B – CasaClima, Bolzano, Italy

In the province of Bolzano in northern Italy, the Provincial Office in charge of the voluntary labelling scheme CasaClima runs basic and advanced courses for architects and traders for which certificates can be obtained. Participants in the advanced course also obtain the right to apply the CasaClima label. Both experts and specialist companies are listed on a website.

Many hundreds of companies and designers have completed specialist training and nearly half of the participants come from regions outside Bolzano. The Free University of Bolzano built on this and started offering a Master’s degree in 2006. See [www.agenziacasaclima.it](http://www.agenziacasaclima.it)

## Resources

### *European resources for skills and training*

1. **BUILD UP portal** (2011) *Information Session on the BUILD UP Skills initiative*; [www.buildup.eu/news/14954](http://www.buildup.eu/news/14954)
2. **BUILD UP portal** (2011) *Theme on training and certification*; [www.buildup.eu/taxonomy/term/4253](http://www.buildup.eu/taxonomy/term/4253)
3. **CEDEFOP** (2010) *Skills for green jobs*; [www.cedefop.europa.eu/EN/publications/16439.aspx](http://www.cedefop.europa.eu/EN/publications/16439.aspx)
4. **EPBD Concerted Action** (2010) *Report on the Core Theme of Training*; [www.epbd-ca.org/Medias/Pdf/CT\\_Reports\\_14-04-2011/CT3\\_Training.pdf](http://www.epbd-ca.org/Medias/Pdf/CT_Reports_14-04-2011/CT3_Training.pdf)
5. **TRAINENERGY** (2011) *Continuous, practice-oriented implementation and dissemination of the EPBD 2002 and ESD 2006 by training craftsmen and trainers in the construction trade*; [www.trainenergy-iee.eu](http://www.trainenergy-iee.eu)
6. **EPBD Concerted Action: Building Energy Performance under the EPBD – Taking Stock and Looking Forward** <http://www.epbd-ca.eu/archives/610>
7. **Build-Up Skills initiative**: <http://www.buildupskills.eu/>

### *Basic guides to the EPBD recast*

Accessible, short and direct guides to the new EPBD and some of the key questions around the recast:

- **ECEEE** (2010) *Steering through the Maze 1 Your guide to the EPBD recast*; [www.eceee.org/buildings/Mazeguide1\\_EPBDrecastRev090310.pdf](http://www.eceee.org/buildings/Mazeguide1_EPBDrecastRev090310.pdf)
- **ECEEE** (2010) *Steering through the Maze 3 Your guide to FAQs on the EPBD recast*; [www.eceee.org/buildings/Mazeguide3-FAQ-EPBD.pdf](http://www.eceee.org/buildings/Mazeguide3-FAQ-EPBD.pdf)