

# Interview on new challenges of HVAC professionals

CEN-CE Interview on new challenges, common methods and EU wide upskilling of HVAC professionals with Emeritus Professor Francis ALLARD.

**CEN-CE:** *There will be a huge financial support from the European Commission via the Green Deal. A building renovation roadmap is announced. New challenges are nearly Zero Energy Building (nZEB) and low carbon footprint. What could be in your opinion the contribution of HVAC professionals? Do you think that the HVAC professionals are sufficiently prepared for the new challenges?*



**FRANCIS ALLARD**

Emeritus Professor, La Rochelle University,  
Chair of the International Committee of  
AICVF, the French HVAC association

**Francis ALLARD:** HVAC professionals refer to a wide range of professionals, from research, design, installation and maintenance. Most of them are already focusing on introducing their best practices on low energy systems, on-site renewable energy production and promotion of low carbon footprints solutions. For new buildings, there are already plenty of very nice examples of Nearly Zero Energy Buildings, even positive energy ones, in every country and for a huge variety of climatic solutions. A huge effort has been made all over Europe in recent years. HVAC professionals have already acquired consistent experience but they have to adapt their practice to the necessary target of very low carbon foot prints buildings without any compromises on the Indoor Environment Quality (ie: comfort, health and safety). This means an evolution towards the definition of optimal solutions in the system design in terms of IEQ, installed power, energy performance and global cost. This holistic approach cannot be reached without a strong effort in formation of our professionals and an adaptation of the design tools.

However, the real challenge of the coming years is without any doubt, the renovation of the building stock with a strong reduction of the primary fossil energy use and of the carbon footprint of these renovated buildings. In this aspect, the role of HVAC professionals is even much harder. Very often the knowledge of the building to be renovated is weak, even the geometric aspects, the

envelope characteristics and the materials are not well-known. The systems have to be redesigned completely, and the technical solutions for introducing new installation for heating, cooling or ventilation are much more difficult to handle than in a new building. In order to ensure the effectiveness of the renovation to comply with long term objectives as the carbon neutrality in 2050, a real renovation road map is necessary in order to avoid any “lock in effect” when selecting a technical solution. In these aspects too, HVAC professionals certainly need more specific information or formation.

**CEN-CE:** *Energy Performance Certificates (EPC) are mandatory in all European Member States. Today there are more than 30 different EPC's all over Europe. Sometimes national subsidies are directly related to the energy classes of national EPC's.*

*Do you think that European funding should be based on national EPC's, to avoid double work, or based on a European Voluntary Certificate (EVC) mentioned in the Energy Performance of Building Directive (EPBD)? How in this case avoid double work and manage the coexistence of two EPC's, a national and a European one?*

**FA:** The problem of EPCs is a hard one and it is not easy to have a clear statement. When EPCs were implemented, the idea was to have a very quick estimate of the real energy performance of any building anywhere in Europe. We have to remember that before EPBD

2002, when we were buying or renting a building, we had absolutely no idea of its energy performance. The quick and wide implementation of EPCs in Europe was certainly a key element in order to promote energy performant buildings, and a big success. However, they have certain limits in considering the indoor quality (Comfort, IAQ) and the quality of the energy performance evaluation may vary a lot from one place to another. Thus, they certainly need to be improved.

As every country in Europe already experienced EPCs for a while, it may look reasonable today to imagine a convergence of these national experiences towards a unified European system. The proposition of a European Voluntary Certificate is certainly a very positive initiative, but it will need time and very strong political incentives. It is doubtless that we will have a double system during sometimes, a national regulation frame and a European voluntary one. However, it looks rational today to promote a unified European EPC.

***CEN-CE: The CEN-CE project provides a European Training and Certification scheme for HVAC professionals based on European Standards. This common structure could facilitate mutual recognition of the skills with existing skills if they exist.***

***Do you think that mutual recognition with existing schemes is useful and possible?***

***What are the conditions, how this common training and mutual recognition could be implemented in France?***

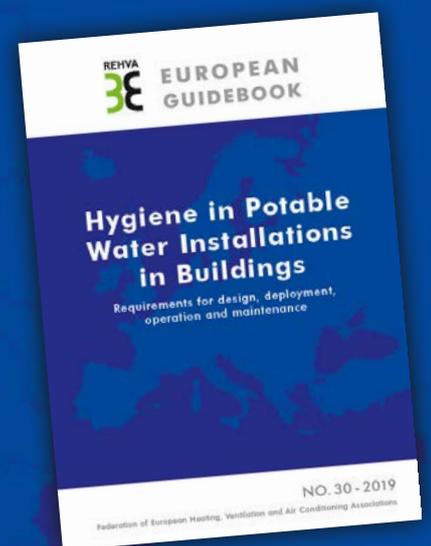
**FA:** The CEN-CE initiative is obviously very valuable and useful for the HVAC community in Europe. Training professionals on the basis of European standards and giving them a recognition of acquired skills is certainly beneficial in order to promote a more unified vision, in complement to the national regulations.

This common recognition is certainly useful and necessary. In France, as in most Member States, the building regulation frame is not completely integrating the European standardisation effort. European standards are not mandatory in our domain, and by consequence they are not well-known and used. However, besides this cultural heritage of national regulation frame, a convergence between the national frame and the European one looks necessary and certainly suitable in the future. On the one hand, this convergence is the natural way of evolution, and on the other hand, our professionals are more and more exchanging in Europe and more often they have to work on projects with other European colleagues. Developing a common training and mutual recognition of their skills could be a very valuable contribution of HVAC associations like AICVF for the benefits of their own members. ■

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