

From product to system and building performance declaration and certification.

All new buildings after 2020 in Europe Nearly Zero Energy.



JAAP HOGELING
Editor-in-Chief

One focus of this issue of the REHVA Journal is on energy efficiency of air conditioning products, particularly how certified performance data can support high performance buildings. A second focus is on contributions to reach out to the nZEB. A roadmap towards nZEB and also related important attention to Building Automation and Controls (BAC), Commission of demand controlled ventilation systems and the impact of EU legislation on HVAC installations in buildings.

The building industry and product suppliers need to operate in a very rapidly changing environment. Product complexity is going up, but a new product and a new concept need to be properly characterized technically. The amount of technical data needed to describe material or product performance according to a new set of rules or conditions is increasing manifold. A large choice of design, materials, components and equipment being part of the ultimate solution, the quantity of alternative product and performance data to design has increased tenfold due to this wide and rich market offering.

Products cannot longer be considered as just parts from the shelf. Products are more and more be considered as sub-systems, as they are including control-devices, electronics, storage element, other auxiliary functions, etc. This means that a product performance declaration should include these elements or specify these integrated elements in such a detail that the EPB-assessment procedures can handle this. The set of EPB-standards (see REHVA Journal 2015-1) currently developed in Europe

at CEN level and globally at ISO level (ISOTC163 and 205) indicate clearly which product data are required to assess the energy performance of buildings.

Energy efficiency is at the heart of the European Union's 2020 Strategy for smart, sustainable and inclusive growth and of the transition to a resource efficient economy. Improved energy efficiency is one of the most cost effective ways to enhance the security of energy supply, and to reduce emissions of greenhouse gases. In

many ways, energy efficiency can be seen as Europe's biggest energy resource. This is why the Union has set itself a target for 2020 to save 20% of its primary energy consumption.

Substantial steps have been taken towards this objective. Directives and regulations to improve the performance of products for cooling and ventilation of building are an

essential part of the EU's activities in this area. Eco-design regulations for energy related products, regulations for energy performance of buildings and the requirements for nearly zero energy buildings by 2020 and F-gas regulations are examples of the strong commitment to reduce energy consumption of buildings and GHG emissions. It is a challenge for all stakeholders, including those responsible for (national) building legislation and codes to harmonize all these actions. The ruling should allow for an flexible and transparent performance based approach giving all opportunities to product and system innovation avoiding barrier of trade within Europe and where achievable globally! ■

Continuity from the product to the system energy performance assessment

