New EU research programme Horizon 2020
– an opportunity for HVAC industry

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Horizon 2020 is the biggest EU Research and Innovation programme ever, with nearly €80 billion of funding available over 7 years (2014 to 2020) – in addition to the private investment that this money will attract. It is expected to generate more breakthroughs, discoveries and world-firsts by taking great ideas from the lab to the market. The programme offers opportunities in several sub-areas for REHVA and its affiliates. The programme is important not only for research units but also for business, as it provides the guidance and the need for technical development till the year 2020.

The Horizon 2020 programme is open to participation by researchers from across the world. In addition, targeted international cooperation activities are included across the societal challenges, enabling and industrial technologies and other relevant parts of the programme.

A number of areas have been identified for special focus in the first Horizon 2020 Work Programme published in December 2013. The programme is well written and gives both background information and objectives for future research. More information on Horizon 2020 Programme is available at: http://ec.europa.eu/programmes/horizon2020/

At least the following four focus areas are relevant to readers of the REHVA Journal:
- Competitive low-carbon energy (2014 budget: €359 million)
- Energy efficiency (€98 million)
- Smart cities and communities (€92 million)
- Water innovation: boosting its value for Europe (€67 million)

The EU aims to reduce greenhouse gas emissions by 20% below 1990 levels by 2020, with a further reduction of 80–95% by 2050. The aim of the 'Competitive low-carbon energy' call is to support this transition by tackling the entire innovation process, covering a wide range of technology readiness levels, combining R&D with market uptake and addressing non-technological issues (standardisation, social sciences and humanities, impact analysis, etc).

About 40% of EU final energy consumption is by buildings and around 25% by industry. Activities under the 'Energy efficiency' focus area will deliver energy savings in these two sectors. The first calls invite proposals to carry out research and demonstration of more energy-efficient solutions – e.g. building components or highly energy-efficient heating and cooling systems.

Two thirds of the EU population lives in urban areas, using 70% of the energy. Research carried out under 'Smart cities and communities' will aim at finding solutions with high market potential in fields such as energy efficiency in neighborhoods, providing digital services and information for citizens or smart mobility services. For example, EU funding could help develop nearly-zero energy districts.

Water is fundamental to human health, food security, sustainable development and the environment. For example, activities could include bringing innovative water solutions to the market, harnessing water research and innovation results for the benefit of industry, policy makers and citizens in Europe and worldwide as well as integrated approaches to water management and climate change.

The 2014–15 working programme for focus area 10, 'Secure, clean and efficient energy', was published in December 2013. The first deadline for proposals is 20.3.2014. It covers some areas to improve the energy efficiency of existing buildings, specifically
- Manufacturing of prefabricated modules for renovation of buildings
- Energy strategies and solutions for deep renovation of historic buildings

The second deadline is 5.6.2014, and includes area of heating and cooling, specifically
- Technology for district heating and cooling
- Removing market barriers to the uptake of efficient heating and cooling

The third deadline of 9.12.2014 covers almost all the remaining energy efficiency related topics.

The most convenient access to the calls and working programmes is through BUILD UP portal news section: http://www.buildup.eu/news/39087 ∎