

## T&D Europe<sup>1</sup> welcomes the launch of Horizon 2020, and particularly of the Energy Work Programme and Calls 2014-2015

Brussels, 5<sup>th</sup> March 2014

### Introduction

T&D Europe is the European Association of the Electricity Transmission & Distribution Equipment and Services Industry, representing the European manufacturers of technology and providers of service solutions for the transmission (high voltage) and distribution (medium voltage) of electricity in Europe and globally. The companies represented by T&D Europe account for a production worth over € 25 billion EUR, and employ over 200,000 people in Europe.

Our sector is actively engaged with the development of the EU energy policy and the completion of its 20/20/20 objectives for 2020 as well as the preparation of its further 2030 and 2050 goals. Our industry is particularly working in the electricity grid, providing innovative solutions to operators for the modernisation of the European network and its adaptation to the EU's energy objectives. Many of our companies have participated in FP7 and previous R&D Framework Programmes, and T&D Europe itself is directly involved with FP7 projects "Grid+" and "eHighways2050".

As expressed in previous position papers, research, technological development and innovation are essential for maintaining the worldwide technological leadership that our industry has acquired in many areas. The European research policy plays a significant role in underpinning and strengthening this position. Many companies can benefit from taking part in the European Research Framework Programmes. One of the programme's key strengths for the business community comes from the possibility to improve a company's own R&D by means of external resources, and by gaining a knowledge-based network across Europe.

This position paper builds on our earlier contributions of 25<sup>th</sup> April 2011, 25<sup>th</sup> January 2013 and 25<sup>th</sup> March 2013.

### General comments

T&D Europe particularly welcomes the following aspects of Horizon 2020 and the Work programme/Calls for Proposals 2014-2015:

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<sup>1</sup> [www.tdeurope.org](http://www.tdeurope.org)

- Overall increase of the funding from 50.5 to 77 billion between FP7 and Horizon 2020, and the doubling of funds devoted to energy, notably via nearly €6 billion granted to the energy challenge, under which funding is foreseen for a “single, smart European electricity grid”.
- Setting up of a single programme bridging R&D and Innovation by bringing together, under a single roof, the Framework Programme, the European Institute of Technology and Innovation, and the new competitiveness programme (COSME); this fundamental shift will allow for the development of industry-driven projects covering the whole innovation chain from pure research to demonstration and dissemination.
- Simplification of access to funding, notably following the adoption of the Revised Financial Regulation and the Commission Rules of Application, which entered into effect on 1<sup>st</sup> January 2013. We welcome in particular the fact that the period between calls for proposals and the conclusion of grant agreements and payment deadlines will be shortened, and the new emphasis of the grant system, which will be shifted from reimbursing cost claims to payments for the delivery of results through a greater use of lump sums, flat rates or unit costs.

## Assessment of T&D Europe’s specific requests:

In its position paper of 27<sup>th</sup> April 2011, T&D Europe had requested the following themes to be covered in Horizon 2020:

- Electricity storage (i.e. storage devices connected to the electrical system incl. storage of non-electrical energy): whilst represented at materials level, the system aspects have not yet received due attention;
- Power electronics: these have been viewed as a tool. The result has been a small number of rather incoherent developments;
- Materials for electric energy technologies: numerous recent developments show T&D application potentials and thus deserve additional targeted R&D effort (incl. nano-structured insulation materials, superconducting materials, amorphous magnetic materials, wide-band-gap semiconductors, eco-friendly dielectric fluids);
- Real-time simulation of electrical network transient states;
- Environmental performance indicators related to electricity;
- Direct Current (DC) systems

A number of these items are included in Horizon 2020 such as

- Electricity storage including integration and system aspects in “Secure, clean and efficient energy” call LCE 8, LCE9 and LCE10
- Materials for electric energy technologies in some aspects covered by “Nanotechnology and Advanced Materials for low-carbon energy technologies and Energy Efficiency”
- Direct Current Systems covered in small part by LCE-5 “Meshed HVDC Offshore Grid”

T&D Europe will carefully analyse how these themes are covered in the work programmes and come with proposals to include them as and when needed.

## Work programme 2014-2015 and first set of calls

T&D Europe particularly welcomes the fact that the work programmes cover a two year period, thus allowing for a better preparation, and that the deadline for a large number of calls will allow for companies to carefully analyse their possible involvement. However, given the fact that Horizon 2020 operates under new rules, where industry (and companies) will play a much more prominent role, the time provided to answer several specific calls of interest for our sector remains too short.

## T&D Europe proposals for Energy Work Programme and calls for 2016-2017

In the area of Smart grids, alongside with the European Technology Platform Strategic Research Agenda (SRA 2035), the SET Plan and particularly the EEGI have provided a very useful guidance to the shaping of FP7 work programmes. We therefore very much welcome the current exercise of upgrading of the SET-Plan by means of an Integrated Roadmap which will focus on the whole energy system (rather than on sectors) to improve its competitiveness and its sustainability.

Building on the draft Integrated Roadmap seen by T&D Europe as compared to the SRA 2035, we would recommend to fill a number of research gaps, for example in the next work programme and set of calls for 2016-2017:

- Cybersecurity or Microgrids as major topics
- DC distribution and its integration into AC grids
- Distributed self-organisation vs central control (to be dealt with as an issue in its own right);
- IT-related issues such as the problems of “big data”;
- Non-technological aspects
- Protection.

## Conclusion

Via its engagement in various policy bodies (EEGI and supporting tool Grid+, ETP for Smart Grids) and its participation in programmes, T&D Europe will continue to monitor developments in the implementation of Horizon 2020 and:

- Inform its members on funding opportunities
- Liaise with the Commission services, particularly DG ENER, to suggest orientations in this implementation.
- Remain at the disposal of the Commission services to contribute to the preparation of the Energy Work Programme for 2016-2017.