21 March 2013

Concept Outline

SCIENTIFIC SUPPORT TO KEY ENABLING TECHNOLOGIES AND INNOVATIVE SMES

25th April 2013, Berlaymont Building, Rue de la Loi 200, Schuman Room

Rationale

Europe 2020 strategy focuses on the capacity of the European economy to foster growth and create jobs, notably through the Innovation Union Flagship initiative. In addition since 2009 the EU has emphasised the importance of the development and industrial deployment of Key Enabling Technologies (KETs), in particular the six KETs: micro/nano electronics, nanotechnology, photonics, advanced materials, industrial biotechnology, advanced manufacturing technologies.

It is also to be noted that progress in quantum science will influence the development of KETs and the work of various industries using KETs such as for example microelectronics and photonics.

Against this backdrop, innovative Small and Medium size Enterprises (SMEs) can play an important role in the development of KETs in various industrial sectors, like for instance the three sectors of Health, Energy and Industrial Equipment.

Objectives

A first objective of the event will be to identify how Key Enabling Technologies can best contribute to the competitiveness of three specific sectors of Health, Energy and Industrial Equipment. In addition the event will also aim to identify the scientific support that SMEs need to integrate KETs in their innovation and business strategy.

Participants from academia, business (including SMEs), innovation intermediaries (like Science Parks) and policy-making bodies will discuss and debate how collaboration between science and business, academia and industry can strengthen the role of KETs in the development of the EU industry, especially SMEs.

DRAFT PROGRAMME

09.00 – 09.30 Registration

09.30 – 10.30 OPENING SESSION

- Dominique Ristori, Director General, Joint Research Centre, European Commission
- Malcolm Harbour, Chairman of the Committee on Internal Market and Consumer Protection, European Parliament
- Jean Therme, Chairman of the High-Level Group on KETs, Director of the French Atomic Energy Commission (CEA) in Grenoble

10.30 – 10.40 Signing of Letter of Intent between the JRC and the IASP (International Association of Science Parks and Areas of Innovation)

Three thematic sessions on the "Industrial equipment", "Energy", and "Health" sectors will address "Key Enabling Technologies and Innovative SMEs" and will be structured around the following rationale / possible points of discussion:

- *State of the art stock-taking from both the research and industry sides, (universities, science parks, companies)*
- *Profile and evolution of KETs in the respective sector*
- *How can SMEs fully participate to the KETs value chain?*
- *Mechanisms to support innovative SMEs through legislative, funding and networking instruments*
- *Role of standardisation as leverage for SME participation and growth?*

10.40 – 12.30 SESSION I: INDUSTRIAL EQUIPMENT Sector - Scientific Support to KETs and Innovative SMEs

Moderator:

- Vladimir Šucha, Deputy Director General, Joint Research Centre, European Commission

Contributors:

- Guido Hillebrands, CEO of inno AG
- Peter Post, Head of Research and Programme Strategy, FESTO
- Gregoire Ribordy, CEO idQuantique

- Rainer Blatt, Institute for Quantum Optics and Quantum Information, Innsbruck Austria
- Leonard Hobbs, Director of Research and New Business Development, INTEL Ireland

12.30 – 14.00 Networking lunch

14.00 – 14.10 INTRODUCTION TO AFTERNOON SESSIONS:

- Jean-Pierre Audy, Member of the European Parliament and President of the JRC-EP interface group

14.10 – 15.40 SESSION II: ENERGY Sector - Scientific Support to KETs and Innovative SMEs

Moderator:

- David Wilkinson, Director, Scientific Policy and Stakeholders Relations, Joint Research Centre

Key Contributors:

- Ian Forsyth, Product Manager ARM Solar Smart Phone
- Marion Weissenberger-Eibl, Director, Fraunhofer Institute for Systems and Innovation Research ISI
- Jean Noël Durvy, Director General, Sophia Antipolis Foundation
- Hans Huber, Chairman of the Supervisory Board, Huber SE
- Pekka Soini, Director General of Tekes

15 40 – 17.00 SESSION III: HEALTH Sector - Scientific Support to KETs and Innovative SMEs

Moderator:

- Brian Heap, President of the European Academies Science Advisory Council (EASAC)

Key Contributors:

- Maria Pilar Aguar Fernandez, Head of Unit at the Institute for Health and Consumer Protection, Joint Research Centre, European Commission
- Support to Innovation organisation (representative from IASP International Association of Science Parks)

- Björn Nilsson, President of the Royal Swedisch Academy of Engineering Sciences – Board member of EURO-CASE, European Council of Academies of Applied Sciences, Technologies and Engineering

17.00-17.30 **CONCLUSIONS:**

- Vittorio Prodi, Member of the European Parliament, Member of the Committee on Industry, Research and Energy
- Dominique Ristori, Director General, Joint Research Centre, European Commission

Background

The Commission produced a first KETs Communication in 2009 ‘Preparing for our future: 'Developing a common strategy for key enabling technologies in the EU' where it underlines the six strategic sectors for investment in the EU, namely nanotechnology, micro- and nanoelectronics, advanced materials, photonics, industrial biotechnology and advanced manufacturing systems. On 26 June 2012 the Commission Communication ‘A European strategy for Key Enabling Technologies – A bridge to growth and jobs’ outlined a single strategy for KETs to allow maximum exploitation of the EU’s potential in competitive markets. This Communication built on the first KETs Communication in 2009 and the recommendations of the High-Level Expert Group on Key Enabling Technologies (HLG KETs) delivered in June 2011. The communication mentions the systemic relevance of KETs to the EU's and encourages the Commission to provide for regular follow-up, evaluation and adaptation of its policies, including regular discussions with Member States and stakeholders.

Europe has performed relatively low in generating high-growth innovative SMEs. More than 99% of all European businesses are Small and Medium-sized Enterprises (SMEs). They provide two out of three of the private sector jobs and contribute to more than half of the total value-added created by businesses in the EU. Moreover, SMEs are the true back-bone of the European economy, being primarily responsible for wealth and economic growth. Any European Policy must, however, reckon that nine out of ten SMEs are actually micro enterprises with less than 10 employees, each providing work for two persons, in average. In such scenario innovation becomes a prerogative for the less numerous mid-sized enterprises that would have the minimal critical size to embrace and exploit technology for its growth.

The diffusion of ICT technologies has made information more accessible to a wider public of SMEs, thus creating situations in SMEs related to their capacity to profit from opportunities offered by new technologies. This is particularly true for small businesses where there often is a lack of in house technology skills. On the other hand, non-technology issues have become as important for successful innovating as technology itself. Some of the main issues are taxation, regulation, legal requirements, as well as the provision of appropriate consulting, coaching and training.

A clear element to be addressed will be standardisation. Standardisation can provide an essential contribution towards SME innovation; it facilitates access to markets and enables interoperability

between new and existing products and services. Standards also bring significant positive economic effects by stimulating the development of new and improved products, open new markets and create more trustworthy supply chains. Studies show the impact of standards on GDP growth. For France this is estimated at 0.8%, for the UK at 0.3% and for Germany at 1% of GDP. The German Institute for Standardisation, or DIN, estimates that in Germany alone, standards generate up to € 17 billion a year.