

Member Newsletter

Issue 8, Dec 2011



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Word from the Secretary General

HORIZON 2020: a break from the past ?

In the previous ESTEP newsletter N° 7 – July 2011, we explained that the Commission was proposing a new approach for a Common Strategic Framework (CSF) for research, innovation and technological development, to be called **HORIZON 2020**.



Secretary General
Bertrand de Lamberterie

The content of this new funding programme has been published on 30 November 2011 for communication to the European Parliament, the European Council, the European Economic and Social Committee (EESC) and the Committee of the Regions. This programme will cover the period 2014-2020 and will bring together all the existing Union funding for research & Innovation, gathering the Framework Programme for research (FP), the Competitiveness and Innovation Programme (CIP) and the European Institute of Innovation and Technology (EIT). Horizon 2020 will focus resources on three priorities:

- **Excellence Science.** This will raise the level of excellence in science base, ensuring a world-class research to secure Europe's competitiveness, to develop talent, to support blue-sky and fundamental research, to make Europe an attractive location for the best researchers.
- **Industrial leadership.** This will build leadership in enabling and industrial technologies, and in particular, a dedicated support for advanced materials, manufacturing and processing, so well

in-line with the Strategic Research agenda of ESTEP. This will also facilitate access to risk finance and support for innovation in SMEs. The specific objective of **advanced materials** is to develop materials like steel products and steel solutions with new functionalities and improved in-service performance, for competitive products minimizing the impact on the environment and the consumption of resources. The specific objective of **advanced manufacturing and processing** is to transform today's industrial forms of production towards more sustainable, cross-sectoral manufacturing and processing technologies, resulting in more innovative products, processes and services. A specific item on "sustainable and low-carbon technologies in energy-intensive process industries" is proposed, fully in-line with our initiative for a new PPP "SPIRE" for a Sustainable Process through Resource and Energy efficiency (see the specific highlight in this newsletter).

- **Societal challenges.** This reflects the policy priorities of the EU 2020 strategy. Among these policy priorities, the following challenges are of utmost importance for the European steel industry: **Secure, clean and efficient energy; Smart, green and integrated transport; Climate action, resource efficiency and raw materials.** These challenges are also in-line with ESTEP's Strategic Research Agenda, and the on-going actions within our dedicated Working Groups.

Last but not least, HORIZON 2020 is laying down new rules for participation and dissemination, ensuring a single and more flexible regulatory framework, and simplifying the terms and procedures for submission and follow-up.

The financial envelope should be around EUR 87 billion, including EUR 28 billion for Excellent science, EUR 20 billion for Industrial leadership and EUR 36 billion for societal challenges, and then confirming the significant increase against the current level (around €55 billion for 2007-2013). This should allow a better integration of research and innovation

by providing seamless and coherent funding from idea to market, and by including more piloting, demonstration and proof-of-concepts. There is no doubt that Horizon 2020 will offer a wide range of opportunities for the European Steel Industry.

WG1 Profit

In June WG1 confirmed the action plans for the two new initiatives "Energy efficiency in processes" and "Efficient use of raw materials". Ad-hoc working groups are being setup and first members have applied. First time schedule has been defined. First view on governance to be discussed on 8 July between WG 1 & 4 chairmen.

There was an exchange of ideas on proposals for RFCS Call 2011 related to ESTEP. Request to use more intensively in the future the CIRCA site to exchange on proposals preparation.

Information on the new action plans in line with two initiatives of the European Commission: Energy efficiency in processes, efficient use of raw materials. Launching of ad-hoc working group mixing experts from WG 1, 4. A first list of the membership for these groups was already presented during the last meeting in Düsseldorf. A further meeting with JP Birat (see email 16.7.2011) to coordinate WG1 and WG4 actions has taken place in July. WG1 will continue to focus on control & reduction of the cost of production and view as well on existing or improved processes as on new ones addressing technical & economic issues. WG4 will continue to explore topics in line with environmental challenges and novel applications helping to meet new requirements. Example: Opportunity offered by biodiversity approach. The WG on "Efficient use of materials" will meet for a first meeting on 8.11. in Brussels. The members will have to work on the building of a global business plan including technical & economical aspects for selected treatment processes. During the 1st meeting, the WG needs to appoint a coordinator preferably from industry.

Information on the 2011 RFCS call: Submitted proposals are exchanged between the participants. Intelligent manufacturing: News from the ad-hoc working group. To efficiently continue, the WG needs more support from the industrial companies. Therefore it is proposed to launch a dissemination project aiming to share the results from different past or running projects in the field as no real new action can be defined without a more active involvement of the members.



WG1-Chairman
Christian Marique

WG2 Transport

The last of three meetings of workgroup 2 this year was held end of September. One of the main topics was the discussion about the participation of the steel industry in multi material projects concerning transportation. The approaches are different. Some members are still in discussion about the intensity of the involvement, some are strongly supporting also customer-related multi material requirements (e.g. solutions for joining different materials).



WG2-Chairman
Oliver Hoffmann

It is generally clear that the steel industry is more and more willing and sometimes also forced to take part to ensure that steel-related affordable and ecological contents are considered in the projects.

The contributions to new calls like "NMP.2012.2.1-1: Joining dissimilar materials" or "GC.NMP.2012-2 Innovative advanced lightweight materials for the next generation of environmentally-friendly electric vehicles" are in the focus of the discussion. Beside that involvement all members stated the necessity and importance of showing the potential of steel through only steel-related projects like "FutureSteelVehicle" of WorldAutoSteel. Please use the website "www.worldautosteel.org" to see the excellent results of this project.

We would appreciate to get your comment on how you see the role of the steel industry in future multi material projects. Please don't hesitate to write an email to secretariat@steelresearch-estep.eu using the reference "WG 2 multi material" on top of your email.

The next WG 2 meeting will take place in Brussels on 10th January 2012.

WG3 Construction

Under the out-going chairman, Tim Hurd, WG3 Construction met on 14 October 2011 to discuss ERFCS submissions and priority topics for 2011/2012. 25 ERFCS proposals including 4 in Sustainability, 2 in Bridges, 3 in Earthquake, 3 in Fire, 9 in Design Codes and 4 in Structures & Products were discussed. The group also discussed the



WG3-Chairman
Samir Boudjabeur

priority topic which is around the need for research to address the evolution and extensions to fill the gaps in EuroCodes.

WG3 Construction is actively reviewing and providing feedback to a number of documents including the SET-Plan Materials Roadmap Review and refine SRA document. The group is also playing an active role in the Building UP CSA Project. WG3 Construction was represented by Tata Steel at the last workshop meeting that took place in early October and is now reviewing the roadmap.

WG4 Environment

WG4, Planet, held a joint seminar with the Water Platform on 25 May 2011, with 32 people in attendance. The two sectors presented the status of water use and quality in the steel sector and the technology offer from the water industry to deal with these issues in a renewed and creative way. A further meeting, planned for 11 January 2012, should lead to the definition of areas where inter-platform, cross-sectoral proposals for future RTD&D programs will be formulated.

This kind of collaboration is part of the new strategy of ESTEP and of WG4.

Among the RFCS proposals filed in September 2011, 17 had a strong environmental content.

Regarding FP7, two projects were refused (ULTIMATECO2 and the participation to the Innovation Convention 2011) while two more proposals are under construction (CO2QUEST and A4M, an inter-platform activity related to materials). Moreover, suggestions were made to the Commission to launch a call around the concepts of the SOVAMAT initiative for the end of FP7.

The next meeting of WG4 will take place on 12/01/2012. New themes will be explored in 2012, particularly regarding resources and, later, biodiversity.

WG5 People

Working Group "People" project „Greening Technical Vocational Education and Training – Sustainable Training Module for the European Steel Industry” had a project meeting in Gliwice Poland in July 2011 and in Cardiff in November 2011. European and



WG4-Chairman
Jean-Pierre Birat



WG5-Chairman
Rudolf-Carl Meiler

national legislations and company specific guidelines on environmental issues were discussed as well as an analysis on environmental issues in the vocational education system and in learning processes in each participated member state. On this basis a training module will be developed in the first half of 2012. The organization of ESTEP and human resources challenges in the European steel industry were presented at the Steelmaster course in Italy in October 2011. The WG5 meeting in autumn 2011 was postponed to January 2012.



GT-VET Logo

WG 6 Energy

In the frame of WG6 various activities have been carried out in the last six months as below indicated in order of importance:

1) strong support of the preparation of the EMIRI PPP that will have the endorsement of ESTEP and various steel players as Arcelormittal, Voestalpine, CSM, University of Liege and others.

2) strong contribution to the SET-plan roadmap prepared by the European Commission, for the 10 different identified energy items such as wind, photovoltaic, CCS, Hydrogen etc.

3) deeper integration with the other platforms, TPWIND, PV, ZEP and in the last months also with the Joint Undertaking FCH dealing with hydrogen.

4) first steps and contact with the reFINE initiative made by ECTP, the construction platform, aiming at improving energy infrastructure in Europe following the EC communication on infrastructure issued by the EC in November 2010; first contacts also with GERG the research group of gas companies;

In the meanwhile the group has consolidated the presentation of various proposals in the FP7 dealing with power generation, fluid transportation, hydrogen. The group has reached quite a good basket of proposals prepared every year ranging between 20 and 30, submitted in various frame with a quite interesting success rate. To be also noted also the submission of proposals dealing with renewables, wind and PV energy.

The group has reached a consolidated structure with new representatives joining continuously and increasing the number of members. WG6 steel application for the energy sector is of course open to deal with new ideas participation and initiative.



WG6 Chairman
Pietro Gimondo

WG on energy efficient steel production

The temporary working group is co-piloted by Eurofer (climate change committee) and ESTEP (support group). Participants are experts in energy from the steel industry and steel research centers. Two meetings were organized in the second half 2011. The working group agreed for using the ESEC energy benchmark methodology for the data collection process. The templates for this data collection have been reviewed and enriched. Specific data has been added with regards to parameters with potential impact of the energy performance such as Blast Furnace slag rate, hot metal ratio at converter, process gases valorisation. The energy data will be completed for one representative plant per company and for the year 2010. The conclusions of this working group are expected by April 2012 with the identification of best practices and advanced energy savings technologies and the proposal of new topics of R&D in this area.

SPIRE: Sustainable Process Industry through Resources and Energy Efficiency.

The Resource and Energy efficiency Partnership (REP) consists of European associations and European technology platforms dealing with process industries producing materials. The main technology platforms are the European Steel Technology Platform ESTEP and European Platform for sustainable Chemistry SUSCHEM. Two complementary platforms for water and minerals, WSSTP and SMR, are also associated. The European associations are EUnited (European Engineering industry Association), Glass for Europe, the Industrial Minerals Association, the European Coil Coating Association, the European Copper Institute, the European Aluminium Association, Eurométaux, the Confederation of European Paper Industries, the European Ceramic Industry Association, the European Cement Association and the Nickel Institute.

REP has finalized a strategic document in October 2011, in order to present a proposal for a Public Private Partnership called 'SPIRE' for **Sustainable Process Industry through Resource and Energy Efficiency**.

SPIRE has the objective to develop the enabling technologies and solutions along the value chain that are required to reach long term sustainability for Europe in terms of global competitiveness, ecology and employment. We propose a technology roadmap designed around two key priorities; energy efficiency and non-energy resource efficiency (e.g. water, waste.) for the process industry. For each of these priorities, three areas of development have been defined; leverage existing technology beyond current practices, new innovations in single sectors and across sectors.

This strategic document has been sent to 5 Commissioners (Research, Energy, Enterprise, Environment and Trade) . SPIRE is fully in line with

the HORIZON 2020 roadmap published on 30th November 2011, matching with the pillars "Industrial Leadership" and "Tackling Societal challenges". We are in close contacts with the European Commission so far, in order to explain this approach and to provide a relevant input for the implementation of Horizon 2020.

Seminar Standardisation in Research and Innovation

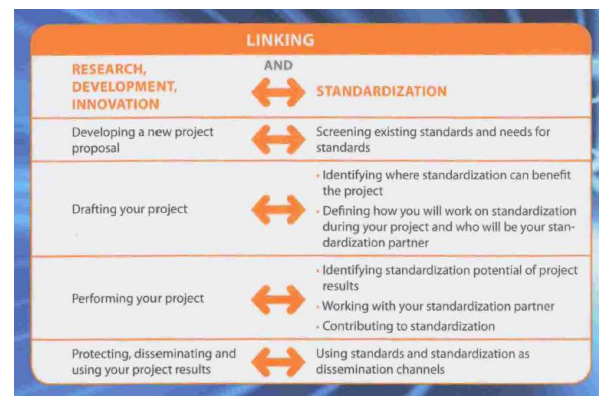
Practical tools for the dissemination and exploitation of research results

European Commission 10 November 2011, Brussels

4 ESTEP' stakeholders attended this seminar.

Standardisation in the broadest sense is seen as important for the innovation process. The commission will try to help with new policies and supporting actions. Standardisation can be a means of dissemination of research results. If budgeted for in the project plan, the costs of standardisation can be covered in FP7 anyway. For RFCS this needs to be discussed further.

The benefits of standardisation in metrology (protocols, standard analysis) and for new products are obvious. How standardisation can help process developments became not clear. The CEN-CENELEC checklist may help.



Joint Meeting ESTEP RFCS

This annual meeting between the chairmen of RFCS's Technical Groups for Steel and ESTEP's Working Groups was held on 13 December 2011. The objectives are to share the activities of WGs and respective TGs, and identify the priorities for the RFCS call 2012. An updated set of 11 priorities has been finalized and will be proposed for the next SAG meeting (Steel Advisory group) to be held end of January.

ESTEP Membership

One of the most frequent questions for the ESTEP secretariat: How can I join ESTEP? When ESTEP started, the whole European steel



industry in EUROFER joined forces with steel research institutes and these formed the basis for the platform together with the European Commission and Member States. Machine builders and representatives from universities (time) and universities have been invited to join the platform. However these "founding fathers" are not the exclusive members of ESTEP. ESTEP is open to any organisation with activities linked to steel research and technology. As a platform we want to be a forum for steel dialogue in the steel sector and relevant public organisations. The main request is that new participants not only join but become really active members to participate in the day to day activities of the working groups: setting up roadmaps, defining priorities, formulating proposals and setting consortia, communicating with relevant bodies over common themes. Any application will be handled in principle through the respective working group. A definitive decision on participation is after a few meetings to assess whether membership is useful for both sides. In this way the membership has changed over the years. ESTEP has now also members from outside the EU.

Colophon

The ESTEP Member Newsletter is issued on a regular basis by the ESTEP Secretariat to the ESTEP members. The editorial panel consists of Bertrand de Lamberterie, N. Remoy and Wim Moonen.

Contributions for the newsletter can be sent to the ESTEP secretariat.

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Forthcoming Events 2012 International conferences

ESTEP meetings

WG2

Brussels 10 January 2012

WG6

Brussels 11 January 2012

WG1

Brussels 19 January 2012

Implementation Group meeting

Brussels 23 January 2012

Support Group meeting

Brussels 24 January 2012

WG5

Brussels 26 January 2012

ERA Conference 2012 Fostering Efficiency, Excellence and Growth

Brussels 30 January 2012

Steering Committee

Brussels March 1 2012

10th International Symposium Electrical Engineering of Arc Furnaces

Krefeld (Germany) March 19-21 2012

Industrial Technologies Conference

Aarhus (Denmark) 19-21 June 2012

Mirror Group meeting

Brussels June/July 2012