

Member Newsletter

Issue 10, December 2012



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Word from the Secretary General

The role of the European Technology Platform for the implementation of Horizon 2020

European Technology Platforms (ETPs) were established in 2003 under the recommendation of the European Council as an instrument to strengthen the competitiveness of European Industry. There are currently 36 ETPs spanning a wide range of technologies and industrial sectors and ESTEP is one of them. Their purpose is to develop a common vision and Strategic Research Agenda (SRA) for all stakeholders responsible for technological research & innovation within a specific sector.

On 1st October, all the ETPs were invited by the European Commission to a workshop in order to talk about their role for the implementation of the flagship initiative Innovation Union and Horizon 2020, the new research & innovation programme over the period 2014-2020. Maire Geoghegan-Quinn, the Commissioner for Research, Science



Secretary General
Bertrand de Lamberterie

and Innovation introduced the workshop. Then, parallel sessions were organised focused on the following ETPs topics: core activities, criteria for recognition, inclusivity, relationship to European commission and EU initiatives, and funding. The main objectives of the ETPs would be:

- To mobilize industry and other stakeholders to identify research & innovation opportunities and bottlenecks, and facilitate knowledge circulation
- To develop research and innovation agendas related to the challenges and priorities of Horizon 2020
- To support the transition from R&D to pilot and industrial scale production, creating the bridge from science and knowledge to the market, and transforming results into industrial reality
- To create clusters to focus ETPs activities related to the challenges of H 2020
- To work in partnership with Member States and National –based platforms.

From the discussions of this workshop, it appears that ETPs have been providing major inputs to European research programmes in the past, and their role would be essential within Horizon 2020. A draft strategy paper on ETPs is under preparation, to be published by the Commission in the coming months. As for other platforms, ESTEP shall contribute to the preparation of this strategy paper.

There is no doubt that ESTEP will be part of Horizon 2020. As for the other ETPs, we are ready to play an active role in its implementation, and promoting activities in line with these main objectives. Our

ambition is to increase the participation of the steel industry in Research & Innovation within Horizon 2020, bringing the results to the market and leveraging investments for their dissemination.

Mirror Group meeting of November 7

In Borschette representatives of the Member States and European Commission met with ESTEP for the 5th time. It was 2 years since the previous meeting, so there was a broad look back to the developments over the past few years. ESTEP has been more successful in getting projects supported under FP7. An update on the ULCOS programme showed the difficulties in financing such a project in the current situation. The way forward for the coming years was discussed with the representatives of the member states.

A major part of the work of ESTEP is however directed to the future: the proposal for a new PPP, SPIRE- Sustainable process Industries for Resource and Energy Efficiency, the new EMIRI project (Energy Materials Industrial Research Initiative) as well as the update on the SRA-Strategic Research Agenda of ESTEP. All were discussed intensively.

Mr von Bose, head of Directorate G, Industrial Technologies, DG Research & Innovation, gave the group an outlook on HORIZON 2020. An essential difference from the past is that it is no longer about research and development only but also about innovation and especially bridging the gap towards use and exploitation: bridging the "valley of death". HORIZON 2020 provides the means but it also implies that industry should provide the commitment to leverage for exploitation on the funding upfront. Seeing the track record of the steel industry in using and exploiting results coming from RFCS, this could be an example how this can be done.

In his final closing remarks ESTEP President summarised the promising developments in the last two years and thanked the representatives for their support to the ESTEP projects expressed during the meeting.



Speakers at the Mirror Group, Nov 7 2012

10th Anniversary of RFCS

The Research Fund for Coal and Steel (RFCS) celebrates its 10th Anniversary

On 19 and 20 September 2012, the Research Fund for Coal and Steel (RFCS) held a two-day event in Luxembourg, the birthplace of the European coal and Steel Community, to celebrate 10 years of supporting the competitiveness of the European coal and steel sectors. The RFCS, managed by the European Commission, builds upon the successes and the historical legacy of the European Coal and Steel Community. Operating on its own legal basis, different from the legal framework of the Community Framework Programme, the RFCS is separate and distinct from the well-known FP7 and will be similarly distinct from the forthcoming Horizon 2020, due to start in 2014.

Since the first call for proposal was opened in 2002, the RFCS allocated almost 500 Million € of R&D and innovation funding to both coal and steel, bringing together industrial partners, SMEs, and leading research centres and universities across the European Union, creating opportunities to develop knowledge and foster innovation. Industry makes up 43% of the RFCS project participants.

The RFCS operates on a very innovating funding principle, using the interests produced yearly by the remaining assets of the former European Coal and Steel Community. Its projects, therefore, can be said not to be financed by "taxpayer's money" but by the interests generated by the levies that the coal and steel sectors paid into the coal and steel Community during its 50 years of successful operation.

By its own legal basis, the RFCS devotes 72.8 % of its early budget to fund innovative projects in the steel sector, and ESTEP has been and remains a prime interlocutor for the RFCS.

The two-day "10 years" event communicated the positive impact of the Research Fund on the Coal and Steel industry in Europe over the last ten years. The event provided also the first opportunity for the RFCS stakeholders to take stock of the draft Monitoring and Assessment Exercise of the RFCS, to gauge and communicate the main benefits from the RFCS, throughout this period, for industrial innovation and societal well-being.

Keynote speeches delivered by high-level participants, notably European Commission DG Research and Innovation Deputy Director General R. Strohmeier, Industrial Technologies Director H. von Bose and RFCS Head of Unit A. Haigh. The Secretary General of ESTEP, B. de Lamberterie, and its former Chairman (2006-2011), M. Würth, figured also prominently among the speakers, adding to the lively discussion and well-appreciated outcome of the event, which attracted more than a hundred participants from all across Europe.

More information can be found at <http://cordis.europa.eu/coal-steel-rtd/anniversary>
By Franco Cozzani, Deputy Head of Unit, RFCS



Participants listen attentively to presentations during the second day session, chaired by C.D. Wuppermann

Latest news about SPIRE

ESTEP is co-leading the SPIRE initiative for a new Public Private Partnership on "Sustainable Process Industry through Resource and Energy efficiency". The draft research roadmap was published in July 2012, followed by a public consultation during the summer time. The research & innovation areas have six components: feed/raw materials, process, applications, waste2resource, an horizontal component and an outreach one. We received more than 400 answers to the public consultation, with globally a very positive feedback and recommendations for improvement. A second version was published on the website www.spire2030.eu mid November. The final version is planned for end of 2012.

The association A.SPIRE was created in July, under the Belgian law for non-profit organizations and the first General Assembly was held on 20th November. We have so far 58 members, from industry, RTOs and associations. ESTEP has 10 members, 5 from the Steel industry, Eurofer and the 4 RTOs dedicated to steel research gathered within the RIES consortium.

RIES active in SPIRE

Under the patronage of Eurofer's Research committee, the Research Initiative for European Steel (RIES) has been formed in 2011. It is a network of the 4 leading European research institutes BFI, CRM, CSM and Swerea Mefos, aiming at providing support in identifying, pushing and conducting research topics to increase the competitiveness of the European steel industry. With this aim, RIES organizes several internal workshops and meetings per year.

There is a strong chance for the process industries to participate in the upcoming framework program Horizon 2020. In the PPP SPIRE (launched by the industries intensively using resources and energy), RIES plays a very active role in identifying potentials in innovation as well as R&D for the steel industry. The members of RIES are part of all the working groups which have prepared the roadmap of SPIRE, identifying the requirements of cross-sectoral approaches in the above mentioned industries, and discussing these with the European Commission in the Ad-hoc Industrial Advisory Group (AIAG). There is a joint strategy with ESTEP and its working

groups, as the RIES members are active there as well.

Apart from the activities in SPIRE, the RIES partners contributed to the Strategic Research Agenda of ESTEP.

WG1 Profit

Face-to-face meeting on September 27, 2012 at Brussels (ESTEP Office)
Attendants: 10 members on 18

Summary:

- Detailed information received from the Secretary General on the new framework programme of the European Commission called "Horizon 2020", on the appointment of ESTEP representatives for the EIP on "Raw materials" and on the "SPIRE" initiative, remaining open for new interested members.
- Updating of the ESTEP Strategic Research Agenda. Sharing of the work between volunteer WG1 members to revise and shorten the draft version available.
- Setting of time schedule and procedure to revise the RFCS annual priorities.



WG1-Chairman
Christian Marique

Factories of the Future sub-group

Meeting of our WG :

2012 :

June 1st (physical)

November 14th (physical)

Additionally, many conferences have been held in order to prepare proposals for the last FP7 calls.

2013 :

February 27th

Since our last meeting, we decided to establish a co-chairmanship : Luc Chefneux and Harald Peters.

Relevant event :

The very first edition of the Integrated Intelligent Manufacturing (I2M) workshop took place in ArcelorMittal's Maizières research centre on April 23rd and 24th.

The first objective of this workshop, co-organized by ArcelorMittal and BFI (Betriebsforschungsinstitut), was the dissemination of the I2M concepts which have been developed in the Process Factory of the Future of ESTEP working group, which is managed by Luc Chefneux.

The second objective was to communicate on the projects already completed or still running, mainly in the RFCS program.

As regards the objectives, this workshop has been a real success. It welcomed 72 registered attendees. Mr Alan Haigh, Head of Unit RFCS at the DG Research & Innovation of the European Commission was present during the two-day seminar. He presented the first key note in which he explained the support that Europe is giving to research and especially to the steel industry,

through the RFCS program. Other possibilities do exist, especially PPPs (Public Private Partnerships) and will be increased in the next Frame program, Horizon 2020.

Dr Harald Peters, co-chair of the workshop with Luc Chefneux, concluded that this success will encourage the ESTEP working group devoted to I2M to continue its actions with the support of the European Commission.

WG2 Transport

After two successful meetings in 2012, a focus team meeting took place in Ijmuiden at Tata Steel to prepare the next regular WG 2 meeting concerning the topic mission statement. Main task was to start the first approach to a presentation with a condensed content focusing on the main messages which should



WG2-Chairman
Oliver Hoffmann

be transferred to the audience, mainly the automotive customers of the steel industry. The intention of the members is to answer the questions about the potential of steel in future vehicles either with internal combustion engine or electric driven. Technical, societal as well as commercial and lifetime aspects will be implemented in clear and testable statements. Steel as one of the main future materials of choice for the transport sector will be founded.

Concerning vehicle electrification WG 2 helped to bring potential project partners together. A project proposal team for the call topic "Next generation electric motors" searched and found successful a producer of electrical steel which has the knowledge and is willing to participate in a future project. From weight reduction and increased power density, increased efficiency and integrated thermal management, optimized design and processes for manufacturing and dismantling to novel or improved materials for permanent magnets, the topics are named and in preparation. This should also make clear that the steel industry is willing to take responsibility for new sustainable and affordable solutions for the improved mobility of the European transport sector.

To extend the work on future improvements concerning resource and energy efficiency of the steel industry, WG 2 will participate in the SPIRE work group "Application". SPIRE is a forthcoming PPP which brings the European process industry together. Our commitment is to support the best material related solution for the different demands, not only focussed on but including also the transport sector.

The update of the ESTEP SRA was discussed and fixed. The chapter "Steel applications for transport" was the focus of our contribution. The main four pillars of cost effective and ecological applications in

the transport sector, as well as in the construction and energy sector, are high performance steels, functional surfaces, adapted design and application technologies. Every pillar is strong but could be reinforced by on-going research and development. New steel grades in combination with innovative manufacturing methods and new design concepts should be available for the automotive and, through knowledge transfer, also for the commercial vehicle and railway sector.

The RFCS priority for 2013 was also discussed and a proposal fixed. The group stated that the Life Cycle Assessment (LCA) should remain as an important part of the priority, and of course of the steel business itself, to prove the advantages of steel.

The next scheduled WG 2 meeting had to be postponed from 29th November 2012 to 18th January 2013

WG3 Construction

WG3 has been very active in the following areas:

- Reviewing current proposals to see if the set priority is appropriate
- Review of the the mandate topics for Eurocodes - Meeting took place with EC3 coordinator to establish the EC3 priorities.
- Building UP Roadmap completed and circulated
- Feedback provided to E2B energy efficient roadmap
- ESTEP SRA - Update
- New direction for WG3



WG3-Chairman
Samir Boudjabeur

Meetings

May 2012

Oct 2012 to review and update SRA

Forthcoming meeting

May 2013. This will be a joint meeting with FrameUp project and the theme of this project will be on Modular construction with invited speakers from Japan and the US.

WG4 Environment

WG4 met last on 19 September 2012 in Saint Denis.

The meeting was devoted to a discussion of the RFCS priorities for next year, to an



WG4-Chairman
Jean-Pierre Birat

analysis of the success rate of WG4-based research topics in FP7 and RFCS programs and to various roadmapping exercises. Moreover, WG4 organized to participate in the upcoming European Innovation Partnerships (EIPs), especially Raw Materials, SPIRE and Water, which will most probably restructure its activities in the future.

Research topics related to the themes of WG4 amounted to 20 RFCS proposals, in last September's delivery, and to 4 FP7 proposals plus, possibly, two more upcoming calls (ENV2013 6.5.5; NMP2013 3.0.1, FoF NMP-1; NMP-2012-CSA-6 (MATVAL); SSH2013 2.1.1 & SSH2013 7.1.1.). Due to the transversal nature of sustainability issues, many of these proposals also cover themes related to other working groups. Note that the MATVAL Coordination and Support Action (CSA) project, led by CSM as the leader of the EUMAT platform, has been launched and that ESTEP is represented in it by ArcelorMittal.

WG4 has contributed a draft to the rewriting of ESTEP's Strategic Research Agenda (SRA), i.e. section 2.1 related to sustainable steel production. A report on the joint work carried out between ESTEP and WssTP (Water) is being finalized. The issue of biodiversity, as a possible topic for a future ESTEP roadmap, was also discussed and analyzed and a special meeting will be convened in January to decide on the next steps.

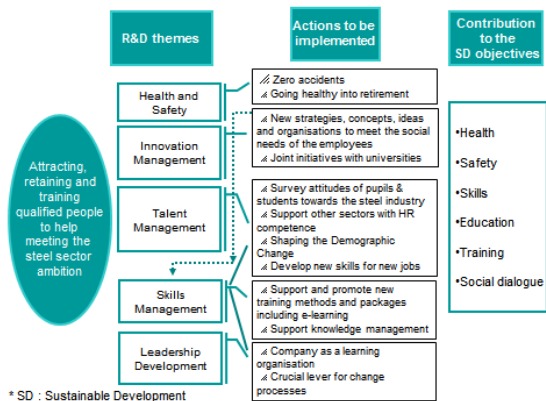
WG5 People

As all other Working Groups WG 5 reflected on future challenges and issues to be tackled. In October 2012 we launched our R&D themes and actions to be implemented in future. The main challenges for people issues will remain for the coming years. WG people will contribute innovations and the sustainable development for the European steel industry. The following figure explains the coherences.



WG5-Chairman
Rudolf-Carl Meiler

Strategic Research Agenda WG "People"



Last WG 5 meeting took place on 04th October 2012. Next steps for the working group are to focus on talent management and innovation strategies in European steel companies. Relevance, future skills and expectation towards talent management will be analyzed in a survey in 2013.

WG "People" supported Italian Steelmaster in October 2012.

Interim results of the GT-VET project (Greening Technical Education and Training) were presented and discussed on a social dialogue meeting on the 25th October 2012. The final conference of the GT-VET project is scheduled on the 20th February 2013 in Brussels. The next WG 5 meeting will probably take place in January 2013.

WG 6 Energy

Working Group 6 has given its contribution to the revision of the SRA. It has been updated taking into account Horizon2020 the upcoming R&I Programme of the European Commission that will last from 2014 up to 2020. In the SRA higher relevance has been given to renewable energy including the marine one in addition to the consolidated power generation and transportation technical items.

The members gave their contribution to the proposal for the RFCS priorities for 2013. More specifically the approach for new products and steel applications considering the LCA performance is highly recommended.

Concerning the submission of proposals to RFCS, the ones generated by this group, in a few years, starting from 2008 went from just a few to more than 25. The very good results in the FP7 have been increased this year by the approval also of the IMPACTS project dealing with management of different quality types of CO₂.



WG6 Chairman
Pietro Gimondo

The coming WG6 meetings are scheduled for the 19 of February and 8 of May 2013

WG on energy efficient steel production

This temporary working group is co-piloted by Eurofer and ESTEP.

In 2012, meetings in Feb, March, May and October The Energy templates have been filled up by all the steel companies and will be completed by the end of the year. A first analysis of the energy results was achieved.

A deeper analysis per step of production will be done in the coming months. Final results and recommendations for energy savings are expected by the end of January 2013.

It is also proposed to use in the future this methodology (with the energy templates) as energy management protocol for the European Steel industry.

Second campaign with Hlsarna pilot plant successfully completed

The Hlsarna process is an alternative to the blast furnace developed by the ULCOS partners in cooperation with Rio Tinto. The Hlsarna process produces a liquid hot metal directly from fine ores and coal. The process is expected to reduce the CO₂ emissions per ton of steel with 20 %.

In 2010 a pilot plant with a design capacity of 8 t/h was constructed at Tata Steel in IJmuiden, The Netherlands.

During the first experimental campaign in June 2011 the plant reached 60 % of its design capacity for a period of several hours. Because of equipment failures and lack of operating experience longer stable periods could not be reached during the first campaign.

After the first campaign several improvements were made to the pilot plant and the operating procedures. The ULCOS partners jointly set a target for the second campaign. This target was maintaining 80 % of the design capacity for a period of 8 to 12 hours.

During the last campaign the plant reached and even exceeded this target. In the last week of the campaign the design capacity of 8 t/h was achieved. The main process parameters like, metal composition and temperature, the gas utilisation and the heat losses, are within the expected range. The campaign has run during the months October and November and the trials were closed at 5.12.2012.

The team, consisting of engineers from Tata Steel, Rio Tinto and the ULCOS partners, is looking forward to the third experimental campaign planned for the first half of 2013.

The second and third Hlsarna campaigns receive financial support from the RFCS.



Steelmater 2012, XVI edition: closing session in San Gemini (Terni, Italy)



On 19th October in San Gemini Prof. Antonio Gozzi, President of Federacciai, the Italian Association of Steel producers, closed the XVI edition of the Steelmaster with a lecture on "The Italian steel industry in the European market".

The Steelmaster is a high level course on the steel industry, held in Terni organised by Mr Andrea Tropeoli under the direct responsibility of Mr Enrico Gibellieri, director of the Steel area of ICSIM (Istituto per la Cultura e Storia d'Impresa "Franco Momigliano") since 1996. The main mission of the course is to provide a general overview on the steel industry, on the main areas and field of interest to middle managers coming from Italian steel companies or business related ones. In the sixteen years about three hundred participants have attended the course and most of them have a very important position in their companies.

The main topics contained in the Steelmaster's programme, both in the past and the current editions, are: environmental issues, stainless steel, European market and financial crisis, innovation and research, description of the steel production cycles and HR. Lectures and presentations on the above mentioned topics are delivered by experts coming

from university, steel companies, research centres, national and European steel producers associations and national and European institutions.

Since 2009 the course is recognized by ESTEP as a quality training course on steel and the ESTEP's logo is on the Steelmaster programme and all the didactical materials.

Mr. Rudolf Carl Meiler, WG 5 chairman, is one of the speakers of the course addressing the participants on the meaning of the work in ESTEP, its aims and objectives.

The European level commitment is also assured by the speech of Mr. Jeroen Vermeij, Director of Market Analysis & Economic Studies from EUROFER, Mr. Pietro Gimondo, Vice Chair of Support Group and WG 6 chair.

This year Steelmaster has had also the speech of Mr. Philippe Morvannou from Syndex, speaking about the situation of the stainless steel market in Europe.

As already said the closing lecture speech has been given to Prof. Gozzi who has given a wide perspective overview on Italian and the European situation of the steel industry, showing also the European strategy to go forward and to recover from one of the worst economic crises in history.



Out in the evening in San Gemini



Steelmaster final concert in San Gemini

Miscellaneous

ESTEP and EUROFER are moving. The new address will be

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There is no parking at the new offices. We recommend you come by Public Transport. We are close to metro Schuman and on bus 12,21 & 79 at bus stop Place de Jamblinne de Meux. There is a public car park at Arts-Loi.

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

JSI 2012. 30th International Steel Industry Conference, Dec 18-19 2012
Paris

European Steel Day May 16 2013
Brussels

SAM 7 conference 25 and 26 April, 2013
Aix-la-Chapelle

ESTEP meetings

Joint ESTEP RFCS meeting Dec 14 2012
Brussels

Support Group January 22 2013
Brussels

SAG meeting January 23 2013
Brussels

GT VET, final conference February 20 2013
Brussels

Steering Committee March 13 2013
Brussels

Implementation meeting June 17pm 2013
Brussels

Support Group meeting June 18 2013
Brussels

Modular Steel intensive buildings June 2013
Brussels