

# Member Newsletter

Issue 7, July 2011



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## Word from the Secretary General

### Towards the next Common Strategic Framework Programme HORIZON 2020

The current Framework Programme for research (FP7) will end in 2013 and the European Commission is working so far for the next one, covering the period 2014-2020. The Commission proposes a new approach for a Common Strategic Framework (CSF) for research, innovation and technological development, to be called **HORIZON 2020**. This CSF will eliminate fragmentation and ensure more coherence, including with national research programmes. The CSF will gather the Framework Programme for research (FP), the Competitiveness and Innovation Programme (CIP) and the European Institute of Innovation and Technology (EIT). On 29 June 2011, the EC presented the multiannual financial framework for the period 2014-2020. Investment in research and innovation will be significantly increased, with a proposal to allocate €80 billion for HORIZON 2020, an increase of 46% against current level (around €55 billion for 2007-2013).

Meanwhile, the EU organized a consultation about the CSF through a green paper questionnaire, where the first results were given last June. ESTEP wrote a position paper jointly with EUROFER and fully shared the overall recommendations provided



**Secretary General**  
Bertrand de Lamberterie

by over 750 associations, large organizations and others:

- There is a desire for a much clearer funding landscape, with fewer instruments and simpler rules and procedures. Also a demand for greater flexibility and part of a bottom-up approach
- The CSF must continue to support blue-sky, fundamental research, but there is also demand for applied research and more actions that are closer to the market, such as demonstration activities, trials and technology transfer. Supporting the whole innovation chain is a key point.
- European industry, including the process industries producing materials, will provide key enabling technologies to solve the societal challenges. The 3 PPPs (Public Private Partnership) launched end 2008 in the frame of the recovery plan, Factory of the Future, Energy Efficient Building and Green Car Initiative, is a very good example for research & innovation, where industry plays a key role. There is place for PPPs in the CSF with a need of better formalization within open and transparent structures.

In this context, ESTEP is active to contribute to the improvement of the programme for research and innovation. One example is our proposal for a new PPP on Resource and Energy Efficiency. We have set-up a partnership within the European process industries covering the major part of production of materials (steel, non-ferrous, chemicals, cement, glass, paper, ceramics, industrial minerals..). A first strategic document has been finalized end of June. 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. 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 draft legislative proposal for Horizon 2020, to be finalized by the end of November 2011.

## Steering Committee of March 3rd 2011

The 8th ESTEP's Steering Committee was held in Brussels, hosted by the European Economic and Social Committee (EESC) and the President of the CCMI (Consultative Commission on Industrial Change), Mr Jorge Pegado Liz. The meeting was chaired by Michel Wurth.

As usual all ESTEP's stakeholders attended or were represented for this annual meeting, including a high level representation of the EU Commission, especially Herbert Von Bose, Head of Directorate Industrial Technologies within DG for Research & innovation.

### ESTEP 2010 highlights

3 new roadmaps have been published.

- 4 collaborative projects accepted within the FP7 and one in the Leonardo da Vinci fund
- New energy initiatives both for steel production and steel products
- Reinforcement of collaborations with other ETPs
- ESTEP conference on Talent management in the steel industry, with 400 participants

### ULCOS II statement

The ULCOS-BF demonstrator project in Florange (France) has been submitted under the NER-300 rules. Next steps are the assessment on eligibility by the French government, submission to the EIB in May for a technical due diligence and approval decision by the Commission is expected by mid-2012.

- The Eisenhüttenstadt Green BF will experiment TGR on a medium-size BF.
- Hisarna, a new smelting reduction process built in Ijmuiden, will start in April 2011.

### Recommendations for the next framework programme

- ESTEP underlines that steel is an indispensable constituent of an advanced economy. More emphasis should be placed on structural materials, production processes of these materials and LCA (Life Cycle Assessment) approach.
- ESTEP is active in the consultation process launched by the E. Commission
- Within the Resource Efficiency Partnership (REP), ESTEP works on the objectives, research agenda and overall roadmap. A proposal to be finalized in July, with the opportunity to launch a new PPP (Public Private Partnership). Mr Von Bose welcomes the ESTEP initiative on Resource Efficiency Partnership within the process industries, and encourages ESTEP quickly to propose a structured approach.

### New orientations of the WG transport

-This WG works on a new mission statement in order to strengthen the position of steel in transport and to promote an atmosphere "pro steel". This statement includes the LCA approach and the potential of a steel solution in the Green Car initiative.

### New initiatives for 2011

The steering committee approved the main new orientations proposed by ESTEP for 2011:

- Preparing recommendations for the end of FP7 and the next FP8
- Renewing the mandates of the WGs, according to the new orientations proposed by the E. C.
- Reinforcing of ESTEP participation within the SET-Plan
- Enlarging cooperations with relevant ETPs and associations
- Re-engineering the ESTEP website with the support of Cordis.

## Steel for wind energy workshop, February 3rd 2011

34 persons attended this workshop organized by ESTEP WG6 in Brussels. The purpose was to exchange information between the wind power industry and the steel industry in order to assess the opportunities for the Steel industry in this fast growing wind-energy sector. TPWIND's stakeholders and the European Commission attended this workshop as well.

Today in Europe wind energy is by far the most mature technology to produce renewable energy with 80 GW installed power in 2010 and the perspectives of growth are huge with a forecast of installed power of 250 GW for the onshore and 150 GW for the offshore by 2030. Moreover, the wind sector acknowledges that no wind energy is possible to be realized without massive use of steel which makes this market, both onshore and offshore, a very strategic one to the European Steel industry. There is a common interest in Europe to increase the level of collaboration between the different players involved in the development of this technology. This means that the European Technology Platform on Wind (TPWIND) needs to work more closely with the European Technology of the Steel Industry (ESTEP) and vice versa. Cooperation is needed in different areas:

- 1) Shorter term material's development needed to achieve higher installed powers using large scale turbines from 7 up to 12 MW; however, totally new designs are needed to realize turbines of 15 to 20 MW of power. Therefore, there is a need to develop the necessary R&D activities leading to a technology breakthrough in the field of Wind power generation with steel solutions. Developments are necessary for the tower design (height up to and over 100m with heavier nacelle) and for the generator package. This applies to both onshore and offshore.
- 2) Still in the short term, the wind offshore market needs to develop fast technologies able to realize the forecasted installed powers. In this framework, the Steel industry has a significant advantage in comparison to other sectors as it can derive e.g. offshore platform design solutions from its vast

experience in the oil & gas sector. Coupled with this aspect comes materials and manufacturing process optimization due to the more aggressive environmental operation conditions of the turbine components in terms of corrosion and fatigue performance. Reliability requirements which are high already for the onshore will be really crucial for the offshore market.

3) Optimization of existing Steel solutions must take into consideration the needs of the manufacturer and of the user which are different in nature. Therefore, a different approach should be adopted encompassing the whole life cycle approach of the solutions provided by the Steel industry which clearly shall strengthen them.

4) In addition, the Steel industry must also pursue major efforts in the activities leading to standardization, certification and/or design guidance to ensure that Steel grades can be used to their full potential, especially for the offshore applications.

As a final conclusion of the workshop, it is obvious that Steel has a great potential to contribute to the wind sector. However, this can only be achieved through the establishment of a close collaboration of the major players who should discuss and agree upon the major R&D priorities to be pursued.

## Water for the Steel industry workshop, May 25th 2011

32 persons attended this workshop, organized jointly by ESTEP and WssTP, the Water Technology Platform. The purpose was to exchange information between the industrial water businesses and the steel industry in order to create synergies between these two sectors to point out areas of excellence and future R&D topics in water technologies and water management for the steel industry.

Steel was represented by trade associations, steel mills and research organizations, explaining the present situation in water management, main issues and expectations for the future.

Water was represented by water businesses and national labs working on water technologies, describing the state-of-the-art technologies and innovations areas.

14 presentations were made by the two platforms and the main outcomes were identified in the final discussion. It has been decided to organize an experts meeting in autumn to set-up further topics of R&D collaboration including:

- Water treatment and waste valorization : sludges and heavy metals, separation of oil, bio treatment of coke-oven water,
- Water and energy: better cooling with water, no energy destruction, water & energy data collection,
- Industrial Ecological and water value-chain.

The results of this work will be also used as an input for the European Innovation Partnership (EIP) "Water Efficient Europe" of the Innovation union.

## WG1-Profit

The WG reviewed the joint meeting between ESTEP and RFCS on the annual priorities. Final version from the Commission to be received, Validation will come after the SAG meeting on January 25, 2011.

Under the initiative of the ad-hoc WG on "Intelligent manufacturing", a proposal for "Factories of the Future" has been submitted in December 2010.

In April detailed information by the Secretary General of recent and important initiatives launched by the Commission and ESTEP in association with other platforms and industrial sectors on the strategic items that are the energy efficiency and the sustainable use of natural resources. There was an open discussion on the new orientations for the WG1 mission with the agreement to launch 5 small working teams composed of representatives from WG1,4,7 & IM in order to prepare action plans & roadmaps addressing questions related to the energy efficiency in processes, the sustainable use of raw materials and the recycling of by-products. First membership proposal to be identified for end of June 2011.



**WG1-Chairman**  
Christian Marique

## WG2 Transport

Two meetings of workgroup 2 were held this year. As a result of the work on our position paper regarding steel in transportation we can point out now that in future projects cost and LCA (Life Cycle Assessment) scenarios should always be major elements to show the real potential of steel for our society. As stakeholder of the CARS 21 group ('Competitive Automotive Regulatory System for the 21st century') WorldAutoSteel (WAS) also focussed on LCA during a public hearing of the EC in May 2011.



**WG2-Chairman**  
Oliver Hoffmann

Our cooperation with WorldAutoSteel is ongoing. We have a common understanding of the societal and environmentally friendly advantages of steel in the transport sector:

affordable and ecological solutions with a high contribution to the reduction of Greenhouse Gas emissions in addition to innovative lightweight design also for future vehicle concepts. This is valid for internal combustion engines as well as for future electric driven cars.

The project ELVA ("Advanced Electric Vehicle Architecture") addresses the call topic GC.SST.2010.7-5. ESTEP is part of the advisory



board. ESTEP delivered the update on European steel grades (based on the WAS grades list of the project "FutureSteelVehicle"), information about the LCA methodology developed by the University of St. Barbara, USA, and comments to the official project survey on the basic concept specifications of ELVA.

The conference "Materialien im Karosseriebau", Bad Nauheim in May 2011 was supported by an ESTEP presentation positioning steel as an ecological, economical and lightweight material in a session with Aluminium and Composites. Many of the 150 attendees were decision makers from automotive companies.

Forthcoming events hosted by workgroup members in September:

'Metallic materials for automobile of the future', University of Liège (19th) and 'Aachen Body Engineering Days 2011', ika, University of Aachen (20th and 21st).

The next WG 2 meeting will take place near Paris at the end of September 2011.

## WG3 Construction

After discussions with TGS8 in January there was complete agreement on the current priority topic for ERFCS, i.e. 'Steel intensive solutions for energy efficient buildings' and it is anticipated several projects will be submitted in this area.

ESTEP, and in particular WG3, is a member of the approved FP7 CSA project 'Building Up' : "Multi-stakeholder, Cross-sectorial, Collaborative long term Research and Innovation Road Map to overcome Technological and Non-technological barriers towards more energy-efficient buildings and districts" This project is to develop synergy, and identify best practice and expertise across different Platforms which have energy efficient buildings as a key part of their SRA. In addition to developing networks and synergy, key objectives for WG3 include mapping of 'steel intensive' networks in energy-efficiency, and the identification and input of best practices for steel intensive technology. The kick off meeting for this project was attended in May and the work programme has started. A draft report has been circulated on a 'library' of key reports and studies which have been collated to identify scenarios and trends. A web based platform has been set up for knowledge repository and collaborative working space ([www.buildingup-e2b.eu](http://www.buildingup-e2b.eu)).

ESTEP WG3 is now also a member of the newly approved CSA Project on Geo-Clusters where Arcelor Mittal will represent ESTEP WG3.

The new PPP call is still relevant for steel intensive solutions, e.g. :



**WG3-Chairman**  
Tim Hurd

'EeB.NMP.2012-2 Systemic Approach for retrofitting existing buildings, including envelope upgrading, high performance lighting systems, energy efficient HVAC systems and renewable energy generation systems'

The WG was also active in the European Steel Day event where ESTEP activities were presented and a workshop held on steel applications in construction.

The launch meeting on the European Construction Technology Platform (ECTP) European Initiative on the topic of 'Infrastructure Networks for a Sustainable Europe'(reFINE) was attended and a presentation made on ESTEP activities and vision for this initiative. The initiative is again looking for close cross platform collaboration and development of a common vision and research agenda and WG3 are fully supportive and will remain actively involved.

## WG4 Environment

During its winter meeting in Saint Denis, WG4 reviewed the research proposals to RFCS and FP7, which were related to themes for which the Group is in charge: 8 projects were accepted (38% of the total) in RFCS against a KPI target of 2, which emphasizes that environmental issues, mainly, are considered as essential; regarding FP7, 3 projects were accepted at the first stage, but eventually rejected, which met the KPI target of ½ project, but was hardly satisfactory.

The group also spent time reformulating its mandate. First, on-going activities devoted to the writing of roadmaps, to using KPIs, to working on improving the quality of research proposals from WG4's themes and to monitoring new Calls in order to identify those that ought to be answered, should be pursued.

Second, contacts with other technological platforms (ETP) should be fostered, especially in the EII area, flesh out the membership of the WG with more industry people from the steel value chain and be very proactive in proposing ready-to-publish Call proposals to be submitted to the Commission.

Then the group worked on two new themes, which could eventually become the subject matter of new roadmaps: biodiversity and resource scarcity. The conclusion was that we needed to invite external experts at our next meeting to proceed further and to judge what ought to be done, if anything.

The working group noted that one of its roadmap, published in 2010, was released early this year: "a short roadmap addressing the strategy of the steel industry in the fields of sustainability, energy, CO2 and environment".

WG4 also co-organized a meeting with the Water Platform, which is reviewed elsewhere in this document.



**WG4-Chairman**  
Jean-Pierre Birat

## WG5 People

WG5 Project „Greening Technical Vocational Education and Training – Sustainable Training Module for the European Steel Industry” started in January 2011. A first kick-off meeting was held on the 18th and 19th February in Dortmund, Germany. First research results concerning European and national legislation in environmental and health and safety in relation to company specific guidelines will be presented and discussed in a second meeting in Gliwice, Poland on the 07th and 08th July 2011.

Besides the exchange of best practices in safety issues, subgroup safety is identifying ideas to launch a research project.

In consequence of the project activities WG5 meeting in May was postponed. The next WG5 meeting will be in autumn 2011.



**WG5-Chairman**  
Rudolf-Carl Meiler

## WG 6 Energy

In the first semester 2011, the WG6 – Energy has organized a symposium on wind energy that has been held the 3<sup>rd</sup> of February 2011 in the EUROFER premises. A large participation of experts has been obtained. In addition, Mr. De Lamberterie Secretary General of ESTEP has been nominated as

Member of the Board of TP WIND continuing the well established connection between the two ETPs. The power generation line of activities has recovered from the important amount of projects of large dimension obtained by the FP7, late 2010. It is now ready to approach the coming energy calls of next July already working on new ideas. Concerning the non standard fluid transportation part a growing interest has been raised especially considering the large infrastructure in order to answer to the EC expectations to secure the energy supply improving the related distribution systems.

## 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. Three meetings were organized in the first half 2011. The working group agreed for using the ESEC

energy benchmark methodology for the data collection process. The templates for this data collection are finalized . The energy data will be completed for one representative plant per company and for the year 2010. The results will be analysed in autumn . The conclusions of this working group are expected by the end of 2011 with the identification of best practices and advanced energy savings technologies and the proposal of new topics of R&D in this area.

## Information Days on the Research PPPs

Brussels, 11-12 July 2011

For the 3<sup>rd</sup> time in a row the European Commission organised a information day on the research PPPs **Factories of the Future, Energy-efficient Buildings, Green Cars**, in front of the calls. This year 950 registrations. On the first day it was as usual a review of the past calls and information on the next calls to be published on 20 July 2011. All speakers expressed that PPPs have become a new instrument that has attracted again the participation of industry. This is because the industry was heavily involved in the setup of the PPPs to address the needs of the industry.

The upcoming call items have been explained by the EC scientific officers . The budgets for the calls have slightly increased against previous year. Special new element this year is that an Annex 5 is added to the call documents to present an overview of the calls for the PPPs.

The calls 2012 show interesting topics for the steel sector, but the presented proposal ideas from other organisations were not always aligned with our sector, so far..

As the new CSF for the period 2014-2020, now called HORIZON 2020, is under construction, the second day was devoted to discuss the future of the PPP instrument as this was originally only designed as part of the economic recovery plan. As it has proven to be flexible, fast and admin light, the general consensus is that there should be place for PPPs in the new framework. However the legal framework should be strengthened. The expectation is that it will be somewhere in between the current PPP and the JTI legal framework. There will also be space for new PPPs. However these should have not only a good research roadmap but also a business roadmap to show how the knowledge developed will be used.

## Information on the RFCS Electronic proposal submission system (EPSS)

In 2011, for the first time, the submission of proposals to the RFCS ( Research Fund for Coal and Steel) will only be accepted in electronic form via the Electronic Proposal Submission System (EPSS), which is accessed from the address published on [http://cordis.europa.eu/coal-steel-rtf/infopack\\_en.html](http://cordis.europa.eu/coal-steel-rtf/infopack_en.html). This only affects the submission process and no changes are introduced in the evaluation procedure.

There are three steps to follow to submit a proposal using the electronic submission system:

1. Each organisation intending to participate in a proposal (be it as coordinator or other beneficiary) should register for a Participant Identification Code (PIC), following instructions through the address <http://ec.europa.eu/research/participants/portal/ppmanager/participants/portal>
2. The coordinator should register at the EPSS site in order to access the submission system, receive access codes and prepare a proposal. He will receive a username and password for himself and a common username and password for all other beneficiaries.
3. Preparation and submission of a proposal. From this point onwards the proposal can be saved and once all the compulsory information is completed it can be submitted at any time prior to the deadline. Any subsequent submission will overwrite the preceding ones. It will no longer be possible to submit after 17h00 (5 pm), Central European Time on September 15th, 2011. The EPSS website will give all the details of the RFCS submission forms and how to fill them.

A full manual of the EPSS system (Electronic Proposal Submission System) is available on [http://cordis.europa.eu/coal-steel-rtd/infopack\\_en.html](http://cordis.europa.eu/coal-steel-rtd/infopack_en.html)

The Research Fund for Coal and Steel looks forward to receiving your proposal through EPSS.

## 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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## 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.

## 1<sup>st</sup> Innovation convention

On 5-6 December 2011, the European Commission is holding its first Innovation Convention following the adoption of the Innovation Union Flagship initiative in October 2010.

This major event will gather more than 1200 participants involved in the innovation chain, including high-level policy makers, leading CEOs, deans of universities and research centres, bankers, venture capitalists, top researchers and innovators.

## Forthcoming Events 2011 International conferences

### Euromat 2011

Montpellier, France 12-15 Sept 2011

European congress on advanced materials and processes <http://euromat2011.fems.eu>

### Aachen Body Engineering Days

Aachen 19-21 Sept 2011

Meeting event for car body developers

<http://www.ika.rwth-aachen.de/veranstaltung/2011/09-20/>

### Fumat 2011

Warsaw, Poland 22-23 Sept 2011

Future materials for grand challenges of our time

<http://www.fumat2011.eu>

### Cleantech11

Budapest, Hungary 26-28 Sept 2011

2<sup>nd</sup> International conference on clean technology in the steel industry <http://www.cleantech11.com>

### Manufuture 2011

Wroclaw, Poland 25-26 October 2011

<http://www.manufuture2011.eu>

## ESTEP meetings

### Implementation Group meeting

Brussels 17 October 2011

### Support Group meeting

Brussels 18 October 2011

### Mirror Group meeting

Brussels November 2011

### Innovation Convention

Brussels (The Square) Dec 5-6 2011

### Steering Committee

Brussels March 1/8 2012