



Newsletter

Issue 14 – December 2014



Table of Content

EDITORIAL: NEWS FROM BRUSSELS	1
WG1 PROFIT	2
WG-I2M INTEGRATED INTELLIGENT MANUFACTURING	2
WG2 TRANSPORT	3
WG3 CONSTRUCTION	3
WG4 PLANET	3
WG 5 PEOPLE	4
WG 6 ENERGY	4
Important events in S2-14	5
Forthcoming events	5

EDITORIAL: NEWS FROM BRUSSELS



2014 was the year when the **Horizon 2020 (H2020) R&I framework program** went into full gear and ESTEP has been deeply involved in this new adventure.

H2020 issued its first calls at the end of 2013. Proposals were received in the Spring and the winning projects announced in the Fall. ESTEP's community is particularly involved in the **PPP SPIRE** (Sustainable Process Industry through Resource and Energy Efficiency) and indeed was part of 4 of the 11 projects selected for funding in the 2014 calls - these calls alone make funding available at twice the amount of RFCS. More proposals are in the pipeline with the outcome to be announced soon.

The huge investment in contributing to the construction of SPIRE and H2020 is thus paying off!

Work is continuing at a brisk pace to liaise and dialog with the Commission regarding the program for 2016-17 and beyond. The complex system of stakeholders' engagement that the Commission has set up around 2020 seems indeed to be able to take on board the large variety of opinions and expectations that the various communities, including our own, carry.

The Board of SPIRE was renewed this Summer. ESTEP, ThyssenKrupp Steel, EUnited, LKAB and CMI continue to sit on the board and represent the steel community at large. J-P. Birat was reconvened as a vice president. There are more members in SPIRE Association coming from ESTEP's community: ArcelorMittal, Tata Steel, voestalpine, Gerdau, TUDOR, CSM, CRM, LUT, SSSA, Swerea MEFOS, Tecnalina, BFI and Jernkontoret. Altogether 22 people are working in various groups and committees of SPIRE, a demonstration of the strong commitment of the Steel sector in this Public Private Partnership.

Our community has maintained a connection with EU research going back to the ECSC early days and continuing with the **RFCS program** today. Just like the present EU is rooted in the early ECSC, present EU Research is very much indebted to the ESSC-RFCS programs, which have been going for 60 years and have demonstrated through several monitoring exercises that they are responsible for the technological leadership that the sector at large still projects internationally. It is very important that this be fully understood by all RFCS stakeholders, especially in this time when rationalization among different EU research programs might lead to too strict an alignment with H2020 and thus risk throwing the baby away with the bath water!

ESTEP "loves" RFCS and is "pro-RFCS", to paraphrase a famous statement of the French prime minister.

ESTEP has also been closely involved in other materials-centered initiatives:

- **EMIRI** (Energy Materials Industrial Research Initiative) on the one hand, an association born from the SET-Plan and promoting materials for the energy sectors; EMIRI seems on its way to move to higher visibility by being a serious candidate for PPP status. EMIRI is presently updating the SET-Plan materials roadmap and ESTEP is part of this effort.
- and **A4M** (Alliance for Materials), on the other hand, which is a think tank devoted to materials in general and to the role they play in our society: A4M just finished a project called **MATVAL**, in which ESTEP was represented by proxy, and with a H2020 project called **MATCH**, of which ESTEP is also part.
- the Commission produced a roadmap on materials (**Materials made in and for Europe**), which will serve as a basis for future H2020 calls. ESTEP was involved in the process of producing this document.
- ESTEP continues to support the **Society and Materials- SOVAMAT initiative**, which organizes an annual seminar that attracts 100 participants and roughly 40 papers. Its objective is to imagine new sustaina-

bility metrics that would propose alternatives and improvements to the existing status of LCA, MFA and SAT. The event is transdisciplinary and involves subtle sciences (SSH). SAM-9 will take place in Luxembourg on 11-12/5/2015.

- last, a **EUREKA** program called **Metallurgy Europe** was launched this year and several ESTEP member joined this initiative.

At Secretary General or WG's levels, ESTEP is also connected with a tight series of active networks: we liaise with other **ETP** platforms and associations (WssTP, EUnited, ERTRAC, EGVA, ECTP, ECCREDI, EUMAT, SUS-CHEM, EUROFER, CEM-Bureau, Eurométaux and the ETP stakeholders' network run by the EC), other **PPPs** (E2B, FoF, EGVI) and more exotic elements of the EC biome, like **EIPs** (raw materials and water) and **KICs** (Raw Materials, Manufacturing in the making, but also KIC InnoEnergy, the Climate KIC).

ESTEP has been also carrying out **its major duty of producing foresight relative to the steel sector**, its technologies and research efforts. A number of **seminars** on contemporary or new open themes are organized regularly, as reported further in the WG sections. ESTEP is also part of the scientific and technical communities to which it contributes introductory and keynote lectures but also research papers; most of these are available at http://cordis.europa.eu/estep/publications_en.html.

ESTEP also acts as an expert on various technical issues related to the steel sector at large.

A **Mirror Group** meeting, MG-6, was organized this Fall and brought together the EC, Member state representatives and ESTEP community stakeholders. This meeting, which takes place every other year, was an occasion to understand how much ESTEP has changed in the last 24 months to accommodate the present steel and EU paradigms, while keeping on track with its missions. The audience was privileged to have a presentation by Director Clara de la Torre on the status of H2020 and a foresight projection of how the EU sees the future by 2030 and beyond, as presented by Didier Schmitt of the Office of advisors to the President of the Commission.

Some useful links:

<http://cordis.europa.eu/estep/>

<http://www.spire2030.eu>

<http://www.emiri.eu>

<http://eit.europa.eu/activities/innovation-communities>

http://ec.europa.eu/research/industrial_technologies/pdf/metallurgy-made-in-and-for-europe_en.pdf

<http://www.eurekanetwork.org/metallurgy-europe/about>

<http://europa.eu/espas/orbis/>

JP. Birat

WG1 PROFIT



The main scope of this working group is focused on process technologies applicable to the steel sector that show a major impact on production costs and productivity. A close monitoring of the different initiatives and opportunities launched at European level for supporting R&D and innovation actions is carried out.

During the period under review, one meeting was organized in October.

Special attention was focused on the communication and exchange of information between members about the proposals submitted in the various calls of the H2020 framework program, with a special emphasis on the "SPIRE" initiative and the preparation of priorities for the next calls.

The group also actively contributes to following and supporting the RFCS program and its evolution.

C. Marique

WG-I2M INTEGRATED INTELLIGENT MANUFACTURING



The working group has just started a sequence of rewriting its roadmap, which dates back from 2008. Because the European Steel industry has completely changed since then and important developments in all key tech-



nologies relevant to I2M have taken place, especially in the area of ICT, it was necessary to adapt the 6-year old ideas to the current situation. Thus steel producers, research centers and system suppliers have started to analyze the current needs of the European

Steel Industry in all technical fields related to I2M. Furthermore the different terms used around Europe like "Industry 4.0", "Usine du futur", "Smart Industry" or "Cyber-Physical Systems", their relationship and strong overlap with I2M have been discussed. In the last meeting of 30 October, where all members were able to attend, a new presentation to explain I2M was finalized and some homework was handed out to the different partners to create the new roadmap.

Another activity just started: indeed, a new SPIRE working group in the field of ICT was created to collect the demands of all process industries with the aim of speaking in a strong voice with the European Commission regarding this special topic. New research calls should be framed on the basis of the results of this working group. Three representatives of ESTEP were nominated to work in this cross-sectoral SPIRE ICT group: Harald Peters, Costanzo Pietrosanti and Luc Chenfneux.

Harald Peters Luc Chenfneux

WG2 TRANSPORT



The 3rd working group meeting took place on November 2014, following on a meeting in January and a creativity workshop in May. While the first two occasions focused on the identification of steel-related projects in Horizon 2020, the 3rd meeting was devoted to monitoring the status of "Topic Development" for the Calls of 2016 and beyond, which was conducted in the 2nd half of 2014.

In the May creativity workshop, our members had identified that concepts like "affordable lightweight" and "LCA-optimized vehicle structures", which are best met by steel-based solutions, had virtually been missing in the Horizon 2020 calls of 2014 and 2015. Consequently, one of the actions is to actively influence new call proposals for 2016 and beyond. In our 3rd working group meeting in November, we were pleased to be informed that the recommendation of "affordable weight reduction of high volume component by taking into account life-cycle assessment" had been accepted by a Public-Private-Partnership (PPP) association, thanks to the unrelenting effort of one of our RTO members in that association's general assembly. As soon as the recommendation is made public in January 15, ESTEP WG2 will issue a statement of support to make sure that the recommendation eventually turns into a proposal and eventually a call in Horizon 2020. Moreover, ERTRAC and EG VIA were identified as key organizations to influence transport-related calls under "Mobility for Growth" and the "Green Vehicles" calls respectively.

In the process we have learned that a close collaboration between steel industry and RTOs, as well as active engagement in the relevant Technology Platform and PPP are key success factors for our ambition to see steel solutions represented in the European research and innovation environment.

Beside Horizon 2020, our Working Group is looking into the possibility of joining the EUREKA "Metallurgy Europe" initiative, as a new environment where to nurture the creation of steel-related R&D projects in the EU. If you have experience with EUREKA projects, please share it with us!

Our next meeting will be scheduled on 28 April 2015 in Brussels. You are again invited to send us ideas and comments to let us know your priorities of future transport/steel-related research topics. Finally, I thank you for your support and I want to wish you a pleasant holiday and a Happy New Year!

O. Hoffman

WG3 CONSTRUCTION



WG3 continues to create and explore new connections and networks with other industry bodies, initiatives and projects (e.g. ECTP, ECCREDI, SUSCHEM, etc.) to ensure that Steel has the place it

deserves and is well represented in European Construction research arena and agenda.

WG3 has contributed to the next 2-3 years E2B research and innovation priorities. This has been submitted to the EC for integration into the H2020 priorities. This would enable WG3 members to develop strategies for harnessing value from the program.

WG3 and ESTEP's SC, in parallel, contributed to EC Questionnaire/Survey on Material roadmap focused on the identification and prioritization of the research and innovation needs for new/high-performing materials/construction solutions in order to meet the challenges for sustainable and competitive constructions. The survey is a complement of previous EU-wide initiative as SET Plan 2011 and EeB-PPP Roadmap 2013 mainly focused on buildings.

Networking activities during this period included the E2B General Assembly and ECCREDI in November, and the opening ceremony of Erasmus Mundus Program in Lulea where WG3 Chairman gave a lecture on Steel Construction – Overview, Challenges and Opportunity, in September. In October, the Working group organized a joint workshop, titled "Design of Steel Buildings", on the use of Eurocodes (EN1993) with ECCS in Brussels. The workshop was targeted at designers, to give them to hands-on practice with the new code.

WG3 membership was further strengthened, as three new members were welcomed into the group. WG3 is looking forward to 15 and already has a workshop on the use of steel structures as supporting structures for renewable energy planned for Q1.

S. Boudjabeur

WG4 PLANET



During the second half of 2014, the working group met in a face-to-face meeting in October. The participation remains relevant and constant (13 people). A new member of ARCELOR MITTAL Spain (Ms. Vanesa Maria Menendez Delmiro) joined the Planet working group.

During the meeting, the outcome of the SPIRE calls of interest for WG4 were shared and the best way to practically support the preparation of next phase's proposals involving steel sector partners was discussed. WG4 contributes to the definition of most relevant topics in the SPIRE Key Actions (KA). The only way ESTEP has to be sure that its own ideas are taken on board within the call is to include key persons in all the SPIRE WGs.

The activities within the WssTP Action Group is also presented by Valentina Colla, with a particular emphasis on the topics of interest for WG4, i.e. waste **water** reuse and recycling. A public consultation is ongoing on policy options to optimize water reuse in the EU. The results of the consultation will be used as input for the preparation of the impact assessment covering all key areas of po-

tential application for water reuse. EUROFER is currently preparing a position paper for this public consultation.

A task force on **biodiversity** has been established to complete the document prepared in February with an overview on what is already implemented in the steel industry and the specific need of the steel industry for the next years

Next meeting will be a conference call on 22/01/15 before the physical meeting planned for 03/02/14). New member LKAB joined Planet WG 4. Next physical meeting is scheduled in Rome at CSM premises on 19-20/05/15 including a workshop on "stories of biodiversity" in the steel industry (and possibly in other process industries).

E. Malfa

WG 5 PEOPLE



Talent Management: In 2014, the WG5 dealt intensively with the retaining of talents in the European steel industry. WG5 conducted a survey to analyze factors which are relevant for retaining them in the European steel industry. Eventually, 268 talents identified by European steel companies have completed the online survey.

To conclude the results of this survey, we find three main action areas: Personnel Development, Leadership and Work-Life Balance. It is very clear that personnel development is one big factor in a great company from the view of the target group.. The survey shows that motivational leadership which shares information and success is an important issue for talents in the EU steel industry. Moreover it can be showed that the quality of leadership has a huge influence on other HR-instruments. Last but not least, the elsewhere already identified trend of the importance of work-live-balance for talents could be replicated by the results.

A detailed report of the results is expected in the spring of 2015.

HORIZON 2020 SPIRE: WG5 was also involved in preparing proposals of HORIZON 2020 calls. Finally, one proposal submitted in "Factories of the Future" (FoF) passed the threshold and was successful. The now funded project "Facts4Workers – Worker-Centric Workplace in Smart Factories" focuses on the development of employee-centered IT-Tools to support information and knowledge working in production plants.

V. Echterhoff

WG 6 ENERGY



During the year 2014, the working group continued to strongly support the European Commission (EC) public-private-partnerships (PPP) initiatives dealing with the group thematic topics such as Sustainable Process Industry Resource Effi-

ciency (SPIRE - Applications) and Energy Materials Industrial Research Initiative (EMIRI).

Various initiatives on specific energy topics were also carried out. On 13 March for instance, the group supported a workshop on "Future trends on steel for nuclear applications" with the strong participation of EC representatives. For the year 15 some new workshops on renewable and power generation are under preparation.

Regarding funding, several H2020 projects are about to be signed by the EC.

Concerning both proposals and projects presented and approved in the RFCS context, the **very strong increase in numbers related to energy topics** has to be highlighted. The interest for steel for energy applications is continuously growing.

Furthermore in the second part of the year various initiatives and actions on Horizon 2020, the R&I Program of the European Commission that will stretch from 2014 up to 2020, were carried out. Among them, representatives of WG6 participated to various brokerage events regarding SPIRE (Applications) and EMIRI in Brussels.

All those initiatives on energy themes put once more the activities of this WG on the wave top of EU research and innovation activities!

Date and location of next meeting: 12 March 2015 - Brussels.

P. Gimondo



On 4 December, ESTEP lost one of its important members, Jean-Sébastien Thomas of ArcelorMittal.

Jean-Sébastien was a dedicated member of WG4, where he served as secretary for 6 years. He was an expert

on environmental and sustainability issues, on LCA and CSR. He was one of the founding fathers of the SAM seminars.

He was only 45 and leaves a wife and two children. We express our sincerest condolences to them.

Important events in S2-14

Future trends on steel for nuclear applications workshop, 13/5/14 - Brussels¹

MATVAL project, 1/7/14 - Brussels

WssTP workshop (water), 1/7/14 - Brussels

EMIRI roadmap co-leaders workshop, 1/7/14 - Brussels

Role of Gas Round Table, 1/7/14 - London

RECREATE project, 2-3/7/14 - Brussels

High-level ETP meeting, 9/7/14 - Brussels

SPIRE partnership board, 11/7/14 - Brussels

SPIRE outreach & dissemination, 14/7/14

Interview with K. Neuhoff, GIEC - DIW Berlin, 15/7/14 - phone

Jubilee of Professor D. Ablitzer, 3/9/14 - Nancy

EUROSTEEL, 10-12/9/14 - Napoli

European Steel Environment Congress, 15-17/9/14 - Teesside

Future Circular Materials Conference 14, 23-24/9/14, Stockholm

WG 6 meeting, 23/9/14 - Brussels²

LET'S 14, 29/9-1/10/14 - Bologna

MATVAL project closure meeting, 30/9/14 - Bologna

WG 1 meeting, 1/10/14 - Brussels

WG 4 meeting, 2/10/14 - Brussels

WG 5 meeting, 2/10/14 - Brussels

EPO (J. Ceulemans) - survey on patent categories for CCS technology, 6/10/14 & 17/11/14 - phone

REFOCUS, 8/10/14 - Brussels

SAG-CAG meeting, 9/10/14 - Brussels

EUROFER Research Committee, 13/10/14 - Brussels

ESTEP support group, SG-34, 14/10/14 - Brussels

SPIRE partnership board, 20/10/14 - Brussels

SPIRE General Ass., 20/10/14 - Brussels

InfoDay on Research PPPs, 21/10/14 - Brussels

EUROFER Energy Committee, 21/10/14 - Brussels

IEA Industry workshop, 23/10/14 - Paris

14th IAEE European Energy Conference, 29-31/10/14 - Rome

WssTP meeting, 6/11/14 - Brussels

ETP Stakeholders' meeting, 14/11/14 - Brussels

6th EIPP Annual Symp., 17/11/14 - Brussels

ESTEP mirror Group, 18/11/14 - Brussels

EMIRI Steering Committee, 18/11/14 - Brussels

EUROFER Environment Committee 19/11/14 - Brussels

WG2 meeting, 25/11/2014 - Essen

¹ *In italics*, events for which a presentation or a paper was given. Most are available on ESTEP's website at http://cordis.europa.eu/estep/publications_en.html

² **in bold**, events relative to ESTEP's metabolism

5th International Conference on Future-Oriented Technology Analysis (FTA), 27-28/11/14 - Brussels

Matériaux 2014, 24-25/11/14 - Montpellier

EC Questionnaire/Survey on Material roadmap focused constructions, 11/2014

SPIRE IRIAG, 2/12/14 - Brussels

SET-Plan conference, 10-11/12/14 - Rome

Erasmus Mundus Program, November/14 - Luleå

Publication of Metallurgy for and in Europe, 6/12/14, http://ec.europa.eu/research/industrial_technologies/pdf/metallurgy-made-in-and-for-europe_en.pdf

SPIRE Board, 8/12/14 - Brussels

Interview regarding the CRM-Innonet project roadmap, 9/12/14 - phone

SPIRE Partnership Board, 11/12/14 - Brussels

A4M Board, 11/12/14 - Brussels

Social Dialog Committee on steel, 11/12/14 - Brussels

Interview with Kairos Future, Stockholm (strategic foresight regarding steel), 12/12/14 - phone

ZEP platform WG on CCS in Energy Intensive Industries, 16/12/14 - Brussels

Horizon 2020 national Meeting, 16/12/14 - Paris

Answer to the inquiry of R-J. Smits, regarding regulatory context for H2020 projects

Forthcoming events

ESTEP WG chairmen Meeting: 9/01/15 - Brussels

High Level Conference of the EIP on Raw Materials, 13/1/15 - Brussels

REFOCUS meeting, 14/1/15 - Brussels

SAG meeting, 15/1/15 - Brussels

EMIRI Steering Committee, 16/1/15 - Brussels

WG 4 meeting: 22/1/15 - Brussels

WG 5 meeting: 22/1/14 - Brussels

RECREATE project meeting, 27-28/1/15 - Brussels

EMIRI General Assembly, 28/1/15 - Brussels

EUROFER Research Committee, 2/2/15 - Brussels

Support Group SG-35, 3/2/15 - Brussels

WG 2 - WG6 workshop on windmill steel towers, 4/2/15 - Brussels

WG 1/I2M meeting: 5/2/15 - Brussels

WG 3 meeting: 5/2/15 - Brussels

WG 6 meeting: 12/03/15 - Brussels

Challenges for Recycling, 18-19/3/15 - Metz

50th anniversary of SF2M, 20/3/15 - Paris

1st ARTEM Organizational Creativity, International Conference, 26-27/3/15 - Nancy

ESTEP Steering Committee: date n/a - Brussels

EMIRI Steering Committee, 15/4/15 - Brussels

4th International Slag Valorisation Symposium, 15-17/4/15 - Leuven

High Level Group on Manufacture, 28/4/15 - Brussels

WG2 meeting, 28/4/15 - Brussels

Collège Belgique, 5/5/15 - Namur

ECCREDI Meeting, 7/05/15 - Brussels

SAM-9, 11-12/05/15 - Luxembourg

Eurosteel Master, 14/5/15 - San Gemini

WG4 meeting & Stories of biodiversity in the steel industry workshop, 19-20/05/15, Rome

Nanotech Forum on nanotechnology & advanced materials, 10-12/06/15, Riga

EMIRI Steering Committee, 11/6/15 - Riga

ESPAD 15, 17-19/6/15, Düsseldorf

EMIRI General Assembly, 1/7/15 - Brussels

Clean Steels, 8-10/9/15 - Budapest

Journées SF2M, 28-30/10/15, Paris

The ESTEP Newsletter is issued on a regular basis by the ESTEP Secretariat to the ESTEP members. The editorial panel consists of J.-P. Birat, R. Di Santo and W.H.L. Moonen.

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

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Merry Christmas & Happy New Year!

