

# **Network of National Construction Technology Platforms**

**Newsletter No.11  
June 2017**



**Edited by PTEC**

## INDEX

PRESENTATION.....	3
ECTP General Assembly .....	4
2017 impact workshop on the cPPPs in Horizon 2020 .....	5
EUROPEAN COMISSION .....	6
REFINET CSA ( <a href="http://www.refinet.eu">www.refinet.eu</a> ).....	7
NATIONAL TECHNOLOGY PLATFORMS .....	10
British Technology Platform .....	10
Germany NTP .....	11
Polish Construction Technology Platform .....	13
Spanish Construction Technology Platform.....	15
NTPs Network Activities .....	18

## PRESENTATION

This is newsletter No.11 of the network of National Construction Technology Platforms or similar National organizations in some European countries.

This network aims to promote synergies on R&I in the construction sector among these countries, in collaboration with ECTP ([www.ectp.org](http://www.ectp.org)) and the European Commission.

There are contacts between this network and 15 countries (Belgium, Cyprus, Denmark, Germany, Greece, Hungary, Italy, Lithuania, Norway, Poland, Portugal, Slovenia, Sweden, Spain and UK) and some occasional contacts in other countries.

This newsletter includes contributions from:

- ECTP on the General Assembly (June 13<sup>th</sup>) and 2017 PPPs Impact workshop
- DG Growth on the Construction conference (July 6<sup>th</sup>, 2017)
- REFINET CAs with its main outcomes

- Some NTPs:
  - British TP on flood resilient homes
  - German TP on several events
  - Polish TP on European Bioeconomy Congress 2017
  - Portuguese TP on Cluster AEC
  - Spanish TP on 9<sup>th</sup> PTEC workshop and 13<sup>th</sup> PTEC conference
- NTPs network with the participation at ECTP Infrastructure & Mobility plenary session and at ECTP General Assembly (June 13<sup>th</sup>, 2017) and collecting contributions on T&I for REFINET CSA.

Newsletter No.12 will be published in November 2017.

**Jesús Rodríguez**

[director@plataformaptec.es](mailto:director@plataformaptec.es)



## ECTP



### ECTP General Assembly

In June 13<sup>th</sup>, 2017, in Brussels, ECTP organized its General Assembly that was chaired by Emmanuel Forest, from Bouygues Europe SA and ECTP President, and coordinated by Alain Zarli, from CSTB and ECTP Secretary General. Between the various subjects included in the agenda, it is of interest for the NTPs network to summarise the review of main activities from ECTP Committees.

#### E2B Committee, reported by Acciona:

- Finalization of the 4 running CSAs;
- Exhibitions with selected EeB PPP projects;
- Initial milestones for FP9;
- PPP monitoring report for year 2016 on projects and online questionnaire for the production of the monitoring report 2017;
- Impact workshop (May 16<sup>th</sup> – 17<sup>th</sup>, 2017)
- Presentation and questions on cPPP (EeB, FoF, SPIRE) at sessions on June 12<sup>th</sup>, 2017, with NMBP Programme Committee (with all Member States and Associated Countries) and with the Expert Group supporting the EC on the mid-term review of contractual PPPs,, respectively;
- EC PPP Info Days scheduled on October 3<sup>th</sup> and 4<sup>th</sup>, 2017, together with the organization of the ECTP E2B annual plenary meeting.

#### Infrastructure & Mobility Committee, reported by Dragados:

- I&M Committee Plenary meeting on June 13<sup>th</sup>, 2017 (morning);
- Main outcomes from the REFINET CSA having ended on 30<sup>th</sup> of April;
- Support to DG Move for the organization of the Collaborative Innovation Days, 1<sup>st</sup>

workshop on Infrastructure Cloud (Construction and Maintenance), in March 28<sup>th</sup>, 2017;

- Participation in the Collaborative Innovation Days, 2<sup>nd</sup> workshop on Infrastructure Cloud (Operation and Services) in June 9<sup>th</sup>, 2017;
- Participation in FEHRL's FIRM17 conference;
- Working on the preparation of TRA 2018 as ECTP as full member.



#### Materials and Sustainability Committee, reported by HeidelbergCement:

- M&S Committee Plenary meeting on November 17<sup>th</sup>, 2016;
- Ongoing preparation of a Position paper with key areas on climate change, circular economy, H&S, competitiveness, user comfort, enablers (testing / methodologies / modelling / manufacturing ...).

#### Heritage and Regeneration Committee, reported by Tecnalia:

- H&R Committee Plenary meeting on November 16<sup>th</sup>, 2017;
- Collaboration for 2018 year of Cultural Heritage;
- Summary of the actions plan for 2017 including vision, SRA, participation in EC and European Parliament events, ECTP web, etc.

#### Active Ageing & Design Committee, reported by Utrecht University:

- AA&D Committee Plenary meeting on November 2016 at the ECTP conference;
- Construction and ICT identified as key sectors to jointly deliver innovation in active and healthy ageing, with the need to renovate and upgrade a large European building stock;
- Collaborating with Gerontechnology World Conference (Sep. 2016);
- Informing the ERF-AHA (European Reference Framework- Active and Healthy Ageing), and supporting roadshow of open innovation workshops in 7 countries.

Besides the report of the five ECTP committees, it would be of interest for NTPs network to mention the ECTP Ad-hoc Vision group that has delivered a document structured around:

- Societal challenges;
- Vision statements regarding each of the challenges;
- Achievements so far;
- Scientific/technological breakthroughs crucial for the transitions targeting the challenges;
- Implementation and adoption.

Finally, NTPs network was also presented at ECTP GA by PTEC (see NTPs network activities at the end of this Newsletter).

**Alain Zarli**

[alain.zarli@cstb.fr](mailto:alain.zarli@cstb.fr)

## **2017 IMPACT WORKSHOP ON THE cPPPs IN HORIZON 2020**

The yearly Impact Workshop for the three contractual Public-Private Partnerships (cPPPs) took place in Brussels on 16-17 May 2017. It was the occasion for the cPPPs projects to present their successful outcomes, advancement and more generally share their

experience and good practices of project-building.

As regards the Energy Efficient Buildings (EeB) cPPP, the first day of the Impact Workshop was organized by the ECTP E2B Committee.



The workshop began with two addresses by the EC on the topics of energy efficiency in buildings through Horizon 2020, cPPP achievements and challenges followed by an introduction to the proposal amending the Energy Performance of Building Directive. It was then divided into four sessions, with EeB cPPP projects “success stories”:

- Advanced Materials and nanotechnology
- Design, Construction Process, end of life, cross cutting information
- Technology Building blocks, Energy Performance monitoring and management,
- ICT, BIM/Data and Interoperability.

The second day was organized by the European Commission and it was focused on success stories from the EeB, Factories of the Future and Sustainable Process Industry cPPPs. Discussions focused on lessons learnt from the cPPPs, difficulties encountered, as well as the “after end-of-project” impact. A replay is available at [this link](#).

A report of the workshop will be published soon by the EC on the [event dedicated webpage](#).

**ECTP Secretariat**

[secretariat@ectp.org](mailto:secretariat@ectp.org)



## EUROPEAN COMMISSION

### Construction Conference: Let's build changes!

Brussels, 6th July 2017, Crowne Plaza Hotel,  
Rue Gineste 3, Brussels.



Transformations needed in the construction value chain to meet tomorrow's demands.

Much like any other industry, construction undergoes change and adaptation continuously, so it is important to keep on top of the latest developments leading to changes.

The "Let's build changes" conference will bring together industry leaders, financiers, policy makers, but also SMEs and start-ups.

Confirmed speakers are Mr Mischke (McKinsey Global Institute), Mr Sadauskas (European Commission), Mr Antink (Stora Enso), Mr Motte (Constructions 3D) and Vice-President of the European Commission for Energy Union Mr Šefčovič and Commissioner for Internal Market, Industry, Entrepreneurship and SMEs Ms Bieńkowska. Together, they will discuss these questions:

- Where is the sector heading? From the perspectives of trends, new demands on the construction sector, societal changes affecting the construction sector, etc.

- What are the strategies and responses to tomorrow's requirements? Discussing ways the sector (and the whole value chain) can adapt and modernise in order to remain competitive and resilient.
- What is the role of the public sector? Identifying the best ways the public sector can help and support such transitions.

The sector is too broad and issues too plentiful to meet every expectation and solve every problem. Therefore, we have identified four key areas on which to focus this conference:

- Using construction to reshape our cities, presenting the trends and conditions in our cities as well as best practice solutions.
- Resource efficiency, making progress in delivering a common sustainability language for the built environment.
- Innovation and Digitalisation, providing insights into opportunities to increase productivity and efficiency.
- Skills, discussing new ways of looking at skills and competencies.

Alain Zarli, as ECTP Secretary General, has been invited to participate to a panel: Session TOWARDS A RESILIENT CONSTRUCTION SECTOR 13.45h. A: Innovation and Digitalisation – impacts on business models

Registration at:

[http://ec.europa.eu/growth/tools-databases/newsroom/cf/itemdetail.cfm?item\\_id=9151](http://ec.europa.eu/growth/tools-databases/newsroom/cf/itemdetail.cfm?item_id=9151)

The Construction 2020 Team, EC.  
DG GROW, Unit C1 - Clean Technologies and Products (Construction sector)

## REFINET CSA ([www.refinet.eu](http://www.refinet.eu))

The REFINET European Coordination action was a project supporting the Infrastructure & Mobility Committee of the ECTP. Its primary objective was to create a shared European vision of how the multimodal European transport infrastructure network of the future should be specified, designed, built, renovated, and maintained, and elaborate a Strategic Implementation Plan (SIP) that will define the innovation activities required to make this vision a reality.

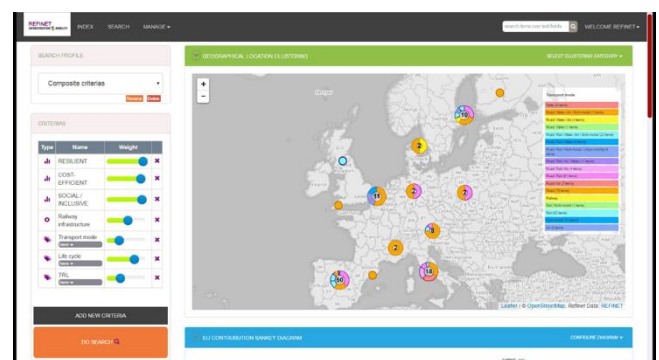
Such an ambition must be supported by a sustainable research network that integrates relevant stakeholders' representatives of all transport modes (road, railway, maritime, fluvial...) and transport infrastructure sectors, and is a major cornerstone of an ambitious initiative to be further supported by the European Union, facilitating the development and time to market of affordable breakthrough technologies and solutions for high-level service infrastructures supporting future Transport Services.

The project finished in April 2017 and the key outputs are:

- **A sustainable stakeholders network** 700+ stakeholders in Europe and beyond, from all transport modes and the infrastructure industry.
- **A Multimodal Transport Infrastructure model.** This model is a high-level non transport-mode specific model that should be a living reference for the establishment of objectives and sustained criteria for defining the design and operation specification of infrastructure projects in Europe.
- **A Collection of Best Practices** relying on a taxonomy of such use-cases and reference

practices in design, construction and maintenance of transport infrastructures that have already been deployed in practice

- **A Catalogue of technologies** for infrastructures, relying on a framework and taxonomy that provide means for current and future technology capture and classification
- **A Vision** for the European transport infrastructure network - so as to create a common understanding among the REFINET network members about the blueprint and characteristics of the multimodal European transport infrastructure network of the future - and the consequent R&I demands to evolve the current European transport networks according to this vision.
- **Strategic Implementation Plan (SIP)** with prioritised R&I actions, recommendations and guidelines - containing specific actions and initiatives at different levels which must be taken to design, maintain and operate European transport infrastructures according to the REFINET multi-modal transport infrastructure model, and cooperation between all stakeholders
- **Geo-Clustering platform for technological demands**, as a backbone of geographical nodes grouping both interested stakeholders and appropriate solutions targeting local or regional characteristics and needs from several points of view



This platform is a tool that allows registered users to search browse and map in a structured way, research project, best practices and technology related to transport infrastructures as identified and classified in the REFINET project, supporting the REFINET Strategic Implementation Plan. The tool will offer the users two type of search:

- A fast unstructured textual search to directly access identified item information.
- A structured weighted search based on predefined search profiles and search criteria.

All deliverables can be downloaded through the REFINET website ([www.refinet.eu](http://www.refinet.eu)). Additionally, a link to the Technology platform has been included in the website (TI-TECHMAPPER section).

REFINET partnership has developed a deep dissemination activity during all the project life that it has been included in different NTPs newsletters issues. In the last period of the project public events have been organized:

#### Rome workshop

A workshop was held in October 2016 in Rome to present a proposed deployment strategy and discuss it with 24 invited experts. By the end of the discussions, the representatives of the Transport Infrastructure managing authorities of two REFINET case study countries, Italy and Romania; Austrostrade per l'Italia, AISCAT (Italian Association of Toll Motorways and Tunnels Operators) and RFI (Italian Railway Infrastructure Manager) for Italy; CFR S.A. (Romanian Railway Infrastructure Manager) for Romania both confirmed their interest in being actively involved in the next steps of the short-term deployment strategy as well as in providing data and information for the validation of the REFINET Platform. A dialogue between these

organisations and REFINET was therefore initiated and a plan for collection of input defined.



#### Bucharest Workshop

A workshop was then held in Bucharest on 7<sup>th</sup> and 8<sup>th</sup> March 2017 with a twofold aim (the proposed agenda of the workshop can be found below):

- Present the results of the collaboration with the two case study countries to date and finalise **the short-term roadmap** approach as illustrated by the Romanian case study
- Start exploring the **medium to long-term** roadmap timescale, starting from the Romanian case study, aiming at feeding information to Policy Makers, Public Bodies and Members States Authorities on future research topics.





30 participants from 20 organisations attended the workshop, most of them from Romanian Infrastructure Management authorities and ministries. Representatives of European associations and of other national organisations involved with TI from Slovenia, Italy and Spain were also present

#### REFINET final conference

REFINET presented its main results during FIRM2017 (Brussels, April 5<sup>th</sup>, 2017) with about 80-100 participants.

Jesús Rodríguez, PTEC Managing Director and REFINET dissemination manager, opened the session and made some comments on R&I initiatives in transport infrastructures before REFINET and the expected actions after REFINET through ECTP Infrastructure and Mobility committee.

Alain Zarli from CSTB and REFINET coordinator presented the multi-modal transport infrastructures approach developed within this CSA. Savina Carluccio from ARUP summarized the best practices in transport infrastructures and the available technologies with different TRL values.

Research and innovation priorities for multimodal transport infrastructures have been identified in REFINET with the coordination of Jesús Isoird and Jon Aurteneitxe from Tecnalia and were also presented by Alain Zarli in this session. It was pointed out that these R&I priorities would be complemented with expected contributions coming from National Construction Technology Platforms.

Clemente Fuggini from D'Appolonia presented the recommendations for mobilizing R&I programs in transport infrastructures and a geo-cluster platform, with some conclusions on the lesson learnt from a case study (Railways in Romania).

Finally, after some minutes of debate, Miguel Segarra from Dragados and chairman of ECTP Infrastructure and Mobility committee made the closing remarks highlighting the need to continue the work of REFINET within ECTP in collaboration with other European Technology Platforms.

**Elena Gayo**

[ptec@plataformaptec.es](mailto:ptec@plataformaptec.es)



## NATIONAL TECHNOLOGY PLATFORMS

---

### British Technology Platform



#### Flood resilient homes – Repair standards

Flooding and its associated damage is a major issue in the UK. BRE has undertaken a programme of research looking at flood resilience. If you would like to find out more or get involved please contact Dr Deborah Pullen, Group Research Director, [pullend@bre.co.uk](mailto:pullend@bre.co.uk)

#### Why the research was needed

Flooding has long been recognised as the greatest natural threat the UK faces (ABI, 2015). Environment Agency data shows around two million homes in England and Wales are at flood risk now from the rivers and sea, with over 500,000 of these at 'moderate' risk or greater, and around 2.4 million additional homes at risk of surface water flooding, further risks from groundwater brings the total to over five million. Further properties at risk across Scotland, Wales and Northern Ireland bring this number to around six million homes.

Without action to reduce the risk across the UK, the effect on homes, businesses, communities, infrastructure and way of life is potentially devastating. There are a number of actions that can be taken to protect homes, including investment in major flood defence infrastructure and ensuring that planning does not allow irresponsible new development. However, structural measures are not without their challenges including the high cost of major flood defences. The opportunity therefore exists for investment to be made in

non-structural measures, including flood resilient repair for existing properties that are at flood risk.

#### Objectives

The aimed to enable the greater uptake of flood resilient repair approaches by homeowners, assisted by appropriate standards and contractors with the skills to deliver cost-effective measures. The project has the following specific objectives:

- To establish the state of the art in flood resilient repair for existing homes.
- To use develop a range of performance measures that can form the basis of a flood resilient repair standard for existing homes.
- To develop the standard by creating technical guidance.
- To carry out a demonstration of flood resilience measures using the Innovation Park at Garston.

#### Outcomes

The project has brought together BRE with a range of public and private sector organisations. The research coincided with the major floods over the winter of 2015/16, which impacted across the north of England and much of Scotland. The floods demonstrated the vulnerability of the built environment to floods, and the substantial cost involved in repair. The research was also taking place during the period in which BRE undertook a review with industry partners and produced the Property Flood Resilience Action Plan.

The creation of a demonstration project of property flood resilience addresses much of the requirements of the Action Plan, with the potential to feed into the development of training, standards and certification. The

demonstration has attracted over £30,000 input from industry partners. The completed demonstration includes both resistance and resilience technologies. It was intended to produce an appealing building that did not look different (see below).



### Next steps

In the course of the project technical guidance has been developed on flood resilient repair. In order to ensure wide scale industry take up BRE is working with a number of industry partners in order to produce a Code of Practice for property flood resilience. The Code of Practice will be pivotal to achieving the actions set out in the Action Plan; it will underpin training and certification of property flood resilience surveyors.

**Alison Nicholl**

[Alison.Nicholl@bre.co.uk](mailto:Alison.Nicholl@bre.co.uk)

## Germany NTP

### BAU 2017 in Munich: Successful Workshop

Eleven European projects participated this year at the **BAU 2017** in Munich in the workshop: **From Research to Market – Innovative Technologies and ICT Solutions for Energy Efficiency** organized by the projects RESSEEPE and EeB-CA2. The European context was provided by the CSAs EeB-CA2 and

AMANAC. The projects RESSEEPE, HOMESKIN, GELCLAD, WALL-ACE, ADAPTIWALL, ECO-BINDER presented innovative construction products. The projects SWIMing, FASUDIR, QUANTUM and RESSEEPE informed about ICT solutions for monitoring and planning. A lot of GCTP members participated. The audience was from industry and academia.

**Date:** Thursday, 19.01.2017 // 10.00-15.00 CET  
**Location:** BAU17, Munich, Germany // ICM room B21

**FROM RESEARCH TO MARKET**  
**INNOVATIVE TECHNOLOGIES AND ICT SOLUTIONS FOR ENERGY EFFICIENCY**

**join our Workshop**

**PRESENTERS:** ECTP, RESSEEPE, FASUDIR, HOMESKIN, WALL-ACE, ADAPTIWALL, GELCLAD, ECO-BINDER, QUANTUM

**Booths:** 80.212 (ECTP), 80.212 (RESSEEPE), 80.212 (FASUDIR), 80.212 (HOMESKIN), 80.212 (WALL-ACE), 80.212 (ADAPTIWALL), 80.212 (GELCLAD), 80.212 (ECO-BINDER), 80.212 (QUANTUM)

**Materials:** (TubelCE); high efficiency flat plate solar collectors; ventilated facade with PV, VIP, supercapacitor; superinsulating aerogel mortar

- **HOMESKIN** – AABC (Aerogel Based Composite), new high performance insulation panels; ETIC /multi layer outdoor insulation system/roof insulation system
- **GELCLAD** – composite insulation cladding system (from functional bio-polymer composite and foamable extrudable aerogel)
- **WALL-ACE** – External thermal insulation plaster based on Aerogel (Quick-Mix, former Schwenk); internal thermal insulation plaster based on Aerogel (Vimark) and filler (Toupret); internal thermal coating-finishing with low emissivity (Vimark); Insulation bricks (Leipfinger-Bader)
- **ADAPTIWALL** – Adaptiwall: all-in-one prefab wall (harvesting, storage, breathing)
- **ECO-BINDER** – concrete systems with low CO2 and low embodied energy (BYF cement)
- Q&A carousel

**12.30-13.30 Networking Lunch**  
**13.30 – 15.00 ICT solutions for planning and monitoring**

- **SWIMing** – Clustering for data management
- **FASUDIR** – decision support methodology; technology repository; IDST (Integrated Decision Support Tool)
- **QUANTUM** – HPS/NG9, in-situ energy metering devices with online data analysis; Comfortmeter, web-based questionnaire for perceived user comfort; Performance Test Bench, specification and automated validation of BMS functions using Active Functional Specifications (AFS)
- **RESSEEPE** – Retrofit planner (building & district level); Web-based case study database; non-contact U-value monitoring system; Retrofit Analyzer; real-time occupancy monitoring

Additional several projects were present at a common stand organised from ECTP and EeB-CA2. HOMESKIN had an own stand, whereas WALL-ACE was hosted by QuickMix, GELGLAD by Active Aerogels and AMANAC by Fraunhofer ICT.



### **BAU 2017 in Munich: Successful launch of the product TRI-O-Therm M by QuickMix a development of the EU-project CETIEB**

The fully mineral thermal insulation plaster **TRI-O-Therm M** was a development within the European funded project **CETIEB** ([www.cetieb.eu](http://www.cetieb.eu)) and was brought to market within two years after the project by QuickMix under the branch Schwenk Putztechnik. The BAU 2017 was the official market launch of this new fully mineral insulation plaster. This insulation plaster will be the base for the improved aerogel outdoor insulation plaster which will be developed in the EU-project **Wall-ACE**.

The product TRI-O-Therm M won one of the main prizes of **BAKA 2017**. The price was handed over by Dr. Barbara Hendricks, the Federal Minister for Environment, Nature Conservation, Building and Nuclear Safety, at the **BAU 2017** in Munich. (See: <http://www.innovation-altbau.de/altbau/preistraeger-01.php>).



### **GCTP-FACH meeting in Oberhausen, 24<sup>th</sup> November 2016**

The Focus Area Cultural of GCTP met 24<sup>th</sup> November 2016 in Oberhausen at the [Fraunhofer UMSICHT](http://www.fraunhofer-umsicht.de) to give an overview of running EU- and National Cultural Heritage projects. The participation of GCTP-FACH in the national actions of the European Cultural Heritage Year 2018 was discussed and confirmed. The cooperation with the ECTP Committee Heritage & Regeneration will be discussed in the next Executive Committee Meeting in Brussels at 18<sup>th</sup> May 2017.

### **UNESCO World heritage site Reichenau: Successful final workshop of a national funded research project**

At the isle of Reichenau the final workshop of a national funded research project dealing with the Ottonian wall paintings took place. Several members of GCTP-FACH were involved and presented their results.

Press release in German:

[https://www.denkmalpflege-bw.de/service/presseoeffentlichkeitsarbeit/pr/essemitteilungen/pressemitteilungen/?no\\_cache=1&tx\\_ttnews%5Btt\\_news%5D=706&cHash=cb3360900ba22e58095996f2f3ce4aa7](https://www.denkmalpflege-bw.de/service/presseoeffentlichkeitsarbeit/pr/essemitteilungen/pressemitteilungen/?no_cache=1&tx_ttnews%5Btt_news%5D=706&cHash=cb3360900ba22e58095996f2f3ce4aa7)

UNESCO World heritage site Reichenau:  
<http://www.reichenau-tourismus.de/Kultur3>



### 33<sup>rd</sup> International WTA-Colloquium 3<sup>rd</sup> March 2017

The 33<sup>rd</sup> International WTA-Colloquium (<http://wta-international.org>) took place at 3<sup>rd</sup> March 2017 in Karlsruhe at the Hochschule Karlsruhe – Technik und Wirtschaft (University of Applied Sciences). The theme was “Living with Natural disasters – New challenges for construction”. Members of the GCTP participated.

Jürgen Frick  
[Juergen.Frick@mpa.uni-stuttgart.de](mailto:Juergen.Frick@mpa.uni-stuttgart.de)

### Polish Construction Technology Platform



### European Bioeconomy Congress 2017

Polish Construction Technology Platform, together with ASM-Market Research and Analysis Centre and Regional Chamber of Construction Sector in Lodzkie Region has been invited to be the co-organizers of the 5<sup>th</sup> European Bioeconomy Congress in Lodz, Poland.

PCTP with Partners will organize a session entitled „Green Cities Revitalisation”. Experts will present trends in "green revitalization" in Europe, good practices, legal aspects of revitalization and existing planning and financing instruments. Moreover, a discussion panel is planned which aim is to elaborate strategic trends / specializations in Polish construction sector within the framework of "green revitalization" (eg. modular houses, wooden houses, etc.). The topic of revitalization is crucial in Lodzkie region because City of Lodz is one of the candidates to organize Expo 2022 exhibition which will be dedicated to revitalization.

The European Bioeconomy Congress is organised by the Marshal's Office of the Lodzkie Region. The purpose of this Congress is to create a friendly atmosphere around the innovative, effective and competitive approach to activities intended to support the development of bioeconomy. The objective of the Congress is to bring its participants up to date on current strategies and initiatives that enable the development of bioeconomy in the European Union, as well as to intensify the collaboration between regions of Central and Eastern Europe. This years Congress will be held on 20-21 November 2017.

Przemysław Dana  
[p.dana@asm-poland.com.pl](mailto:p.dana@asm-poland.com.pl)

### Portuguese Construction Technology Platform



### Cluster AEC – Arquitetura, Engenharia e Construção Recognized by the Ministry of Economy.

The Cluster AEC presented by the Plataforma Tecnológica Portuguesa da Construção - PTPC, was one of the 20 clusters recognized last February by the Minister of Economy, Manuel Caldeira Cabral at the presentation ceremony of the Program Interface.







In July 2015, PTPC submitted an application regarding the creation of a Competitiveness Cluster in the construction sector for the period from 2015 to 2020, bringing together the interests of about 80 entities in the sector, among large companies, SMEs, sector associations and Non-business entities of Research and Development that, together, constituted the initial group of the cluster associates.

The Cluster AEC bases its strategy on a mission and vision that focuses on investing in RDI and internationalization as the main drivers of the competitiveness of the architecture, engineering and construction sector at a national level, seeking above all to foster relationships and synergies between the various actors in the sector and across the value chain.

According to Rita Moura, President of PTPC, "it is with great enthusiasm that we see the Cluster AEC recognized, representing the corollary of the work that PTPC and its partners have been developing in recent years." "It is intended that this Cluster assert, at national and international level, as a cluster of excellence, which will clearly lead to new opportunities and visibility for the associates themselves," she concludes.

The Cluster AEC intends to position itself as an aggregator of knowledge and skills of the

construction industry, promoting the competitiveness of the business fabric through the encouragement of RDI activities and the strengthening of its export and internationalization capacity, promoting an ambitious Action Plan, both internal and external.

To be recognized in 2020 nationally and internationally as a privileged and enlightened interlocutor capable of contributing decisively to the affirmation of the Portuguese construction sector in strategic markets is the mission of the Cluster AEC.

PTPC as the management entity of a Cluster of competitiveness in the construction sector intends to position itself as an **aggregator of knowledge and skills of the construction industry**, promoting the competitiveness of the business fabric through the promotion of research development and innovation activities (RDI), and the strengthening of the capacity of exportation and internationalization.

An **Action Plan** was developed, which contemplates a diversified set of activities aligned in **5 strategic axes**:

- Research, Development and Innovation
- Internationalization
- Cooperation and Partnerships
- Qualification and Skills
- Public Policies

In order to incorporate the defined strategy, the Cluster AEC presents in addition to the social organs (General Assembly, Fiscal Council and Executive Committee) a Technical-Scientific Council that will support the Cluster in the technical and scientific structuring of the activities and projects to be carried out which will be composed of associates.

In addition, and with distinct functions, the organizational structure presents an Advisory Board, composed of a distinguished group of national and international high-level specialists, related to the construction sector and who will monitor and evaluate the strategy and general activities to be developed by the Cluster AEC.

**Rita Moura**  
[rd@teixeiraduarte.pt](mailto:rd@teixeiraduarte.pt)

## **Spanish Construction Technology Platform**



### **PTEC workshop**

In March 22<sup>nd</sup>, 2017, a workshop focused to Construction 4.0 was organised in Madrid for PTEC members.



There were 76 participants from 42 different entities. The main objective of the workshop was the interchange of experiences among the participants. 13 entities participated as speakers, and the presentations were:

- The digital transformation of the Spanish Public Administration: its impact on construction sector companies. SPANISH INSTITUTE OF ENGINEERING

- Digital transformation and its disruption in the construction sector. AUTODESK
- Civil Engineering 2.0. INECO
- Client and Server of Constructive Information. ACCIONA
- Construction 4.0: An opportunity to reinvent the sector. ITAINNOVA
- Digitalization of built reality based on LiDAR mobile and automatic generation of information models. INGENIERIA INSITU
- Construction 4.0. New business in prescription and management of buildings and infrastructures. TECNALIA
- Digital Hub: Integration of technologies in the company. FERROVIAL
- Collaborative robots. UC3M
- Artificial Intelligence in the processes of digital transformation. EXPERT SYSTEM
- Digital Works: Less Chaos and Higher Productivity. EPC TRACKER
- Examples of use of wireless devices in construction works. ETECTIA
- Benefits of the use of ICT technologies for construction sector. OSSA

In the last part of the workshop a debate moderated by OHL and UNICAN took place. Some discussed themes were:

- Need for specialized training and skills
- Importance of cultural change
- Risks in the implementation of these technologies
- Peculiarities of the sector that prevent benchmarking with other sectors

### **13<sup>th</sup> Conference PTEC**

13<sup>th</sup> PTEC Conference took place in May 31<sup>st</sup>, 2017, in Valladolid, on the innovation for the decarbonization of the cities, with the participation of Public Authorities from Castilla y León Region and the City Hall of Valladolid and with 142 attendants.



The layout of the conference was:

- Two sessions with 11 speakers during the morning
- A visit to Laguna de Duero, place where the CItYFieD project with demonstration activities in a district with 31 buildings are being developed, during the afternoon
- In parallel to those activities, there was a poster session with R&I projects

High-level representatives participated in the Opening of the conference from Regional Government, Valladolid City Hall, Valladolid University, as well as the President and the Managing Director of PTEC.

The General Director of Architecture and Urbanism of the Regional Government chaired the 1<sup>st</sup> session and PTEC Managing Director coordinated this session. Presentations were made on:

- Rehabilitation and urban regeneration in Castilla y León. Regional Government
- Initiatives in rehabilitation, regeneration and urban renewal. AEICE.
- Housing development under the passivhaus standard in Valladolid.
- Decarbonization: a challenge or an opportunity for the construction sector. Ferrovial.
- The influence of energy efficiency of buildings on air quality. Ciemat.

- New models of implementation of Integrated Urban Regeneration. Tecnalia.

A representative of the Valladolid City Hall chaired the 2<sup>nd</sup> session and PTEC Managing Director coordinated this session. Presentations were made on:

- Valladolid as an innovative and sustainable smart city. Valladolid City Hall.
- European R&I in urban rehabilitation. Cartif.
- Nature as a material for the construction and planning of the city. Valladolid University.
- Networks for the “walkable” city. Technical University of Madrid.
- Nature Based Solutions from concept to re-naturalization of cities. Acciona

In the posters session, 19 posters of R&I projects related to the theme of the conference were exhibited.



During the afternoon, there was a visit with 50 participants to Laguna de Duero, a district close to Valladolid, where the demonstration activities of the CItYFieD project ([www.cityfied.eu](http://www.cityfied.eu)) are being developed in order to rehabilitate the facades of a group of 31 tall buildings and to improve and modified the two central heating installations for all the district.

After the conference, the dissemination activities carried out by PTEC are:

- Publication of summaries of each session at PTEC website ([www.plataformaptec.es](http://www.plataformaptec.es)), PTEC e-newsletter and PTEC social networks
- Publication of slides and posters
- Publication of videos of all speeches
- Elaboration of a conference report

**Elena Gayo**

[ptec@plataformaptec.es](mailto:ptec@plataformaptec.es)



## **NTPs NETWORK ACTIVITIES**

---

### **Contribution to REFINET CSA**

PTEC has represented the NTPs network at REFINET CSA (H2020), which was developed from May 2015 until April 2017. During this time, the activities were related to:

- Dissemination of REFINET information through meetings and newsletters
- Selection of experts from NTPs to be included at REFINET network
- Collecting examples of best practices technologies with regards to design, construction and maintenance of transport infrastructures
- Collecting R&I priorities in transport infrastructures

Information on REFINET is available at [www.refinet.eu](http://www.refinet.eu) and LinkedIn Group <https://www.linkedin.com/groups/8464241>

### **NTPs network represented at ECTP events**

Jesús Rodríguez participated at ECTP events in Brussels, in June 13<sup>th</sup>, 2017, representing the NTPs network.

In the morning, at the ECTP Infrastructure & Mobility Plenary Session chaired by Dragados, he presented:

- The network of Construction NTPs or similar National organizations
- REFINET main outcomes in collaboration with Clemente Fugini from Rina Engineering, both members of REFINET consortium
- Infravation EraNet on roads: past, present and future, as member of the Scientific Panel.

In the afternoon, at the ECTP General Assembly chaired by Emmanuel Forest from Bouygues with Alain Zarli from CSTB, he

presented the NTPs network and he highlighted some items for the future:

- To mobilize the networking activities at country level either through the NTP in the country or through a National organization ready to interact with the construction stakeholders if a NTP does not exist in this country.
- To interact with other countries that till now are not involved in the NTPs network.
- To strengthen the relationship between the NTPs network and ECTP, through the chairmen of the five Committees, the General Secretary and the Steering Committee, and the web [www.ectp.org](http://www.ectp.org)
- To get financial support for the NTPs network

### **Action Plan 2017**

During 2017, the NTPs network is working on:

- Enlarging the number of contact persons and countries in this network.
- Interacting with the chairmen of ECTP committees
- Working with ECTP secretariat implementing NTPs information at [www.ectp.org](http://www.ectp.org)
- Organizing three webinar meetings of the network, in March 20<sup>th</sup>, June 27<sup>st</sup> and October 26<sup>th</sup>, respectively. In the last meetings, there were representatives from Belgium, Denmark, Germany, Greece, Italy, Lithuania, Norway, Poland, Portugal, Slovenia, Spain, Sweden and UK.
- Mobilizing answers from countries to EC inquire on FP9 (open in July 3<sup>rd</sup>, 2017) to get support for construction priorities
- Editing and distributing Newsletters No.11 (June 2017) and No.12 (Nov. 2017).

**Jesús Rodríguez**  
[director@plataformaptec.es](mailto:director@plataformaptec.es)