

Network of National Construction Technology Platforms

**Newsletter No.7
December, 2015**



Edited by PTEC

PRESENTATION

This is Newsletter No.7 of the network of National Construction Technology Platforms or similar National organizations in different countries.

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

National initiatives and events are published in order to facilitate the interaction among R&I stakeholders from different countries. At present, there are contact persons in about 20 European countries

In this newsletter, contributions are included from:

- EC DG Move on TRA 2016 (Warsaw, April 2016)
- ECTP on the message of the President
- Portugal on the presentation of the PTPC book on Building Rehabilitation
- Slovenia on the new Circular Economy Package adopted by EC and on two R&D projects on this topic
- Spain on REFINET CSA and on PTEC conference in Bilbao (Nov. 25th, 2015)
- UK on research priority roadmaps

The next newsletter (Newsletter No.8) will be published by mid-March 2016.

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EUROPEAN COMMISSION



TRA 2016 – Focus on Transport Infrastructure

The 2016 edition of the Transport Research Arena will introduce a number of new elements in its organization and performance: i) ECTP has been accepted as an observer in the

Management Committee and is a full and committed full member in the Programme Committee, in charge of the practical setting of Strategic and Technical Sessions; ii) the multimodal approach to transport as a system has been fully acknowledged by all TRA stakeholders and will be reflected in all main sessions.

Both this novelties have contributed to the approval of three out of eight Strategic Sessions with a specific focus on transport multimodal infrastructure, although each debating a different challenge to achieve a better performing infrastructure in the next decades.

Several aspects of innovation in the sector will be analysed from the point of view of managers, owners, constructors,... All together they can help building a complete landscape of challenges that the transport infrastructure has to face in the years to come.

"Green and resilient infrastructure" (Wednesday 20 April, 2016 – organized by ECTP with collaboration of EC DG MOVE) – the session will present the needs to achieve an infrastructure that has a reduced environmental footprint, is resilient to climate change and has a longer service life, and can achieve a positive balance by producing and harvesting energy. These challenges could present diverging objectives and implementation schemes: how to find an acceptable balance among them will be debated by the panel during the session.

"Adapting the Transport System to Changing Conditions" (Monday 18 April, 2016 – organized by EC DG MOVE with collaboration of ECTP, ALICE and ERRAC) – besides climatic change, there are a number of changing conditions that require an urgent adaptation of the transport system: pressing requirements for reduction of resource consumption (raw materials, land use, etc.), fuel security and international regulations; changes in demographic and societal trends. Adaptation pervades all components of the system and its

phases, having impact on plan, design, operation, forecast, emergency management, as well as information flow to ensure proper provision of mobility and logistics services. Particular impact is on infrastructure, the main enabling component of the system for a smooth mobility of people and goods. The subject will be presented from the point of view of constructors, operators, designers, providers.

"Creating one Europe – connecting services; connecting people" (Monday 18 April, 2016 – organized by CEDR with collaboration of EC DG MOVE) - This session will consider the challenges of network and service providers to deliver integrated trans-European services for transport and mobility needs. Connecting the physical network is one part of the equation but it needs to be coordinated with additional layers of governance and services. Transport providers are rising to the challenge of adapting their service models, their system and mission objectives in response to higher users' expectations. TEN-T offer good opportunities to test new solution and to support the deployment of the Digital Single Market. The session will bring together policy makers, service providers and users to consider the challenges and the associated innovations, and to explore the evolution of TEN-T concept, from a physical network to an integrated service for a connected European society and its neighbours.

Besides the Strategic Session, targeted to an audience between 800 and 1000 participants, on Tuesday 19 April, 2016 a session on **"Increasing the performance of multi-modal transport infrastructure through stakeholder engagement"** will present the work of the project cluster FOX/USE-IT/REFINET to a more selected audience of directly concerned operators. This cluster is funded by the EC R&I framework programme Horizon 2020 to support activities aimed at finding a consensual way towards innovation implementation to save money and resources in keeping our

valuable asset in good conditions and optimal operation.

More opportunities are offered during TRA 2016 to disseminate the results of projects to potential end users. They will constitute the TRA Marketplace, and are organized along three main lines:

POSTER SESSIONS to present case studies, interesting experiences looking for transfer opportunities, or valuable projects in their inception phase. It is an excellent opportunity to present your work and to have a close interaction with other TRA2016 participants.

RESULTS FORUM promotes the exploitation of research results. It offers opportunities for research providers – SMEs, large companies, research centres, and universities – to identify and establish contacts with potential buyers and users; and vice versa. Remote matchmaking will be available, leading to actual bilateral meetings between potential partners during the conference. You can register prior to the start of the conference and also during the conference via the link given during the TRA2016 registration process.

OUTREACH SESSIONS offer to participants the opportunity to give short presentations (15 minutes max.) of their research projects, supported by PowerPoint and/or video animations on a large screen during conference coffee and lunch breaks at the European Commission's exhibition stand. Presentations will address in priority EU funded projects (FP7 and Horizon2020) but any other Transport research project is entitled to apply.

A complete overview of the TRA 2016 Sessions and Events in <http://www.traconference.eu/>

Maria Cristina Marolda

Policy Officer, European Commission
Directorate General for Mobility and Transport
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ECTP



European Construction Technology Platform

Message of the President

Having been transformed into an association under Belgian law, the European Construction Technology Platform is ready to tackle the future challenges of our business under a strong umbrella covering all sectors and priorities of the construction business.

The constitution of the “Working Groups”, which have been put in place to take over the tasks already performed up to now, indicates the main targets of the association.

Energy Efficient Buildings, under the chairmanship of Acciona, remains the official partner of the Commission for the Research PPP on Energy Efficient Building. At a time when the COP21 has closed its doors, it is important to remind the importance of Energy Efficiency in the construction sector, which can contribute significantly to the objective of decrease in CO₂ emissions.

Infrastructure and Mobility, under the chairmanship of Dragados, will continue to advocate on the contribution of civil works to a better life in a better environment. It has a lot to bring in terms of innovation and modernity, also within the framework of road transports energy efficiency.

Active Ageing and Design, under the chairmanship of the University of Utrecht, has an important message to deliver, as it deals with more and more relevant issues, being recalled that everything which is done in order to make life of elderly people easier can benefit to younger ones. That’s why the work done with the EU Commission within the framework of Healthy ageing European Innovation Partnership is of great importance.

Materials and Sustainability, under the chairmanship of Università delle Marche and

Heidelberg, will be a key partner of the Commission regarding the circular economy package, and in particular the question of construction and demolition wastes.

Heritage and Regeneration, under the chairmanship of ACE, is also an important priority, considering the huge park of historical buildings in Europe, which need the most cost-efficient conservation and restoration measures

The strength of the European Construction Technology Platform is the collaboration of all stakeholders of the construction business, universities, research centers, SMEs, and big Groups, coming from all Member States. We have the objective to increase the number of these members in order to strengthen our communication capability.

In order to achieve the targets we have fixed to our association, it is important to rely on the cooperation with National Technology Platforms, with which we should increase our links. Nothing great can be done at the European level if it does not capitalize on national expertise, which is the duty of National Construction Technology Platforms. Through this cooperation we can work together more efficiently on the challenges of the next decade: smart cities, digitization of the construction business, and bring our contribution to the European Commission, beyond Horizon 2020, in developing our co-initiatives for new European Innovation Partnerships and focus areas.

That is why I am happy to make this contribution to the present release of the Newsletter of the network of National Construction Technology Platforms. I wish all its members, as to all members of the ECTP, happy Christmas holidays and an efficient and Happy New Year.

Emmanuel Forest
President of ECTP

PTPC



Plataforma Tecnológica Portuguesa da Construção

Technological Summary Book of Building Rehabilitation

The PTPC Rehabilitation Working Group (WG), prepared a publication - "Technological Summary Book for Building Rehabilitation" in order to promote reflection on the strategy for rehabilitation in Portugal and raising awareness among decision-makers and other stakeholders in construction sector.



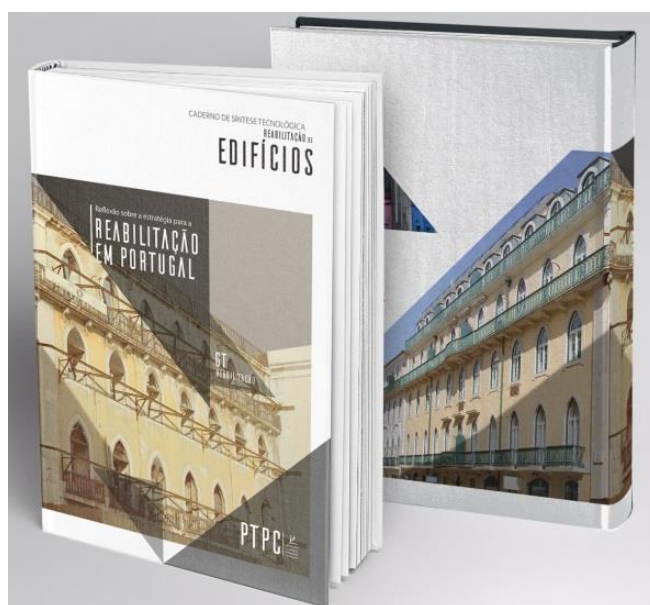
Rehabilitation of the built heritage is a priority in Portugal, taking in account the state of degradation of many buildings. Portugal is facing a transitional phase of new construction paradigm for rehabilitation. Governance should establish a strategic plan for the period 2015-2025, aimed a continuity strategy, letting the market find the appropriate dynamics.

The future of construction will have to go through rehabilitation, so a specific regulation is needed, which requires a new approach and a financial stable framework.

PTPC Rehabilitation WG developed this document in order to contribute to the diagnosis of the situation, propose measures and recommending the way forward, taking into account the need to quantify needs and investments, proposing measures of economic

and financial character, reflect on the regulatory framework, as well as draw attention to technological issues, durability and quality.

The "Technological Summary Book of Building Rehabilitation" includes the contribution of more than 30 experts from 15 institutions (universities, companies, associations and other institutions from the construction sector).



PTPC will hold two public presentations of this document, during this month, in Lisbon and Oporto, to raise awareness and promote debate on this subject among decision-makers and actors in construction to the absolute necessity of develop a strategic plan, extensive, quantifying needs, costs and stablishing the goals to be achieved associated with a financial strategy.

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SLOVENIA



Construction Cluster of Slovenia

Invitation to European Circular Construction Alliance

Clusters, other networked organisations and organisations interested for the application of principles of Circular Economy in construction sector are invited to join the ECCA that is to European Circular Construction Alliance, supported by European COSME programme. Please contact Construction Cluster of Slovenia for more information on the aims and plans of the alliance.

A new application to H2020 call Cluster facilitated projects for new industrial value chains ([INNOSUP-01-2016-2017](#)) is planned too.

On 2nd December 2015 the Commission adopted an ambitious new Circular Economy Package to stimulate Europe's transition towards a circular economy which will boost global competitiveness, foster sustainable economic growth and generate new jobs. The proposed actions will contribute to "closing the loop" of product lifecycles through greater recycling and re-use, and bring benefits for both the environment and the economy. The plans will extract the maximum value and use from all raw materials, products and waste, fostering energy savings and reducing Green House Gas emissions.

The proposals cover the full lifecycle: from production and consumption to waste management and the market for secondary raw materials. This transition will be supported financially by ESIF funding, €650 million from Horizon 2020 (the EU funding programme for research and innovation), €5.5 billion from structural funds for waste management, and investments in the circular economy at national level.

The EU Action Plan for the Circular Economy addresses the construction sector in number of topics.

ECTP's network of National technology Platforms addressed this goal at the beginning of 2015 with two R&D project proposals being prepared for H2020 and COSME calls for proposals. A number of NTP members collaborated within the preparation which was led by Construction cluster of Slovenia. **European Circular Construction Alliance-adopting Circular Economy for internationalization and global competitiveness of European SMEs in Building and Construction (ECCA)** project proposal has been approved for financing (COS-CLUSTER-2014-3-03/COS-CLUSTER-2014-3-03). The project will start on 1st of January 2016.

The main objective of the proposed action is to establish **European Circular Construction Alliance (ECCA)**, an EU wide meta-cluster as a long term European Strategic Cluster Partnership (ESCP) supporting clusters and business network organisations, their SMEs and other cluster members collaborating for innovation, market-uptake, and marketing of competitive products, services and technologies in the field of circular construction and support SMEs in global competition.

The ECCA project will be coordinated by **Construction Cluster of Slovenia** (SLOVENSKI GRADBENI GROZD –GIZ) and supported by two partners: **BALTYCKI KLASTER SEANERGIA** from Poland, and **ASOCIACION CLUSTER CONSTRUCCION SOSTENIBLE TENERIFE**, Spain. Other cluster and networked organisation are welcome to support the aims of the ECCA project.

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SPAIN

Spanish Construction Technology Platform

REFINET CSA



REFINET is now working on the definition of the multi-modal transport infrastructure (RMMTI) model. Different documents issued by different Technology Platforms, transport sectorial associations, European Commission and National governments are being analysed in order to integrate their partial approaches (by transport mode, technical aspects, business models...) in a unified multi-modal transport infrastructure model.

Previously, in July 2015, REFINET stakeholders' database was initiated and, until now, more than 550 members have shown interest in participating (25 of them were contacted by PTEC through the NTPs network). The objective is to reach about 1000 members from 40 countries at the end of the CSA.

Workshops with the partners and some invited experts selected from the stakeholders' database were initiated.

In October 21st, a workshop with experts contacted through the National Construction Technology Platforms was carried out. Three REFINET partners (PTEC, TECNALIA y DRAGADOS) and 14 experts from seven countries participated in this event through Internet. PTEC introduced REFINET CSA and REFINET network. Dragados presented the background on the ECTP Infrastructure & Mobility initiative and finally, Tecnalia presented the preliminary work on REFINET Vision and Strategic Implementation Plan. During the debate the following comments were presented:

- REFINET will prepare documents on cross-modal transport infrastructures and the strategic lobby at EC, EP, etc. will be done by ECTP through the Infrastructures & Mobility Committee.
- NTPs network has to play a crucial role connecting and integrating Member States views
- REFINET scope is too large and a systematic approach will be need considering technical items, potential markets, etc.
- The Roadmap for Cross-modal Transport Infrastructure Innovation, published in 2013, is considered a good starting but complemented with information from transport modal TPs and from ECTP/reFINE.

The participants agreed to organize the next workshop in March 8th, 2016 to present REFINET multimodal transport infrastructure model RMMTI.

In December 2nd, a workshop was organised at IETcc in Madrid and it was focused to the analysis of technological demands on transport infrastructures. 18 experts participated from some REFINET members (PTEC, Dragados, Tecnalia, Arup, CSTB, D'Apolonia and FEHRL) and from other organizations (four of them contacted by PTEC through the construction NTPs network). The conclusions of this workshop will be taken into account when developing the cross-modal transport infrastructures model.



REFINET newsletter will be published regularly and newsletter No.1 was distributed by PTEC in mid-November through the stakeholders' network and the construction NTPs network.

Finally, in December 3rd, a REFINET project meeting was organised at Tecnalía office in Madrid where the activities for the next months were decided. Between them:

- REFINET website www.refinet.eu will be available in the following weeks within the new ECTP web
- A workshop will be organised in March 16th, 2016, at Arup offices in London
- REFINET Newsletter No.2 will be published by the end of February
- An invited session on three CSAs in transport infrastructures (REFINET, FOX and USE-it) will be organised in Warsaw at TRA in April 2016.

PTEC Conference

In November 25th, 2016, PTEC hold the 10th Conference in Bilbao on the innovation in the city for the citizens, organised by PTEC WG City of the Future that is coordinated by CARTIF and TECNALIA.

The main objectives of this event were:

- Disseminating PTEC activities between public and private entities of Basque Country and neighbouring areas
- Encouraging the participation of PTEC members in the region and also of those that are not members of PTEC but are interested in innovation in construction
- Exchanging views on the implementation of different technologies for more accessible cities and for protection of old cities.

The conference was attended by 80 participants and it was chaired by the Mayor of Bilbao City, the President of the Architects Association of the Basque Country and Navarra and PTEC Managing Director.

The conference was organized with a first session and in a round table where different speakers presented cases related to the innovation applied to the accessibility in cities and to the maintenance and upgrading of old cities.

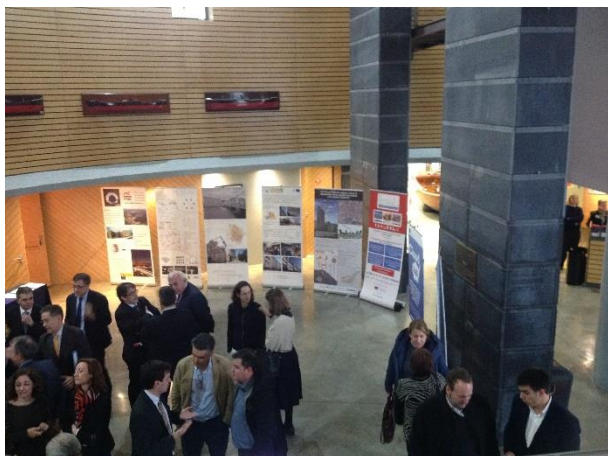


The first session was chaired by the Deputy Minister of Housing of the Basque Government. Fundación ONCE presented different R&D projects related the application of new technologies to the inclusive city. CEAPAN shown the difficulty to reach a city for all the citizens as far as the diversity of citizens the city has to serve. Related to the preservation and conservation of the old cities, Fundación Santa María la Real explained the need of maintaining the population on the centre of the cities in order to guarantee it conservation. IRP presented two projects on BIM application to cultural heritage and on visual integration of buildings with visual impact. Fundación Metropoli presented a model for cities network that was developed for Basque country and transferred to an area of Colombia. Finally, Tecnalía presented different R&D projects applied to the urban areas improvement.

The round table was chaired by the General Director of Cultural Heritage at Castilla-León Government. Participants from Universities (Technical University of Madrid and Basque University) and Research Centres (Cartif and

Tecnalia) presented different aspects related to the urban regeneration of old areas.

Finally, there was an exhibition of 15 posters with R&D and innovation projects related to the accessible cities and protection of old cities.



PTEC continues with the organization of conferences. The next one will be organised in Barcelona, in April 6th, 2016, promoted by Transport Infrastructures PTEC WG under the coordination of DRAGADOS and VIAS and with the collaboration of UPC (Technical University of Catalonia). It will address the innovation in the maintenance and upgrading of existing transport infrastructures.

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UK



National Platform for the Built Environment

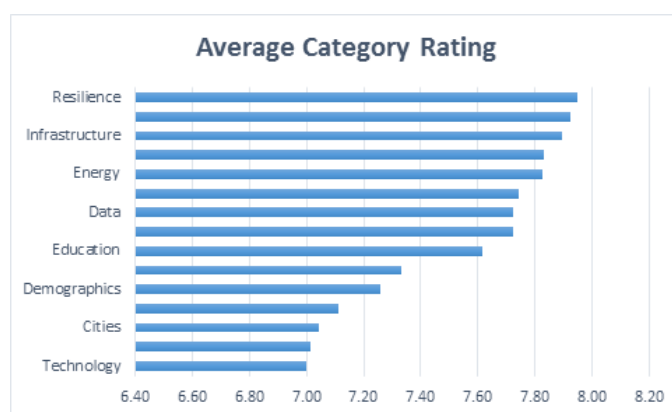
Updating Research Priority Roadmaps

The UK National Platform is currently carrying out a series of activities to develop and update research priority roadmaps. The team are working with stakeholders from across the built environment to look at the emerging challenges and research gaps in key areas of the built environment.

The National Platform held a workshop session at a briefing session hosted by the Knowledge Transfer Network at the Future Cities Catapult on Smart and Sustainable Cities: EU funding opportunities in June 2015. The National Platform had carried out a mapping exercise on Future Cities Research capabilities within the UK. This is available from the National Construction Technology Platform website <http://www.nationalplatform.org.uk/map.jsp?id=20> and workshop participants added further projects and capabilities to this map.

Workshop participants were also asked to prioritise the short, medium and long-term research priorities for cities and urbanisation. These were refined and incorporated into a consultation questionnaire that explored the significance of different research priorities and categories. Over 50 responses from a broad cross section of the community were received.

The top research category was resilience, followed by transport, infrastructure and environmental issues. The top issues prioritised as needing further research are resource resilience, systems thinking, integrating electric transport and renewable energy, awareness of unintended consequences, and ensuring healthy internal environments. The least prioritised issues are non-governmental led cities, drones, urban robotics, pre-commercial procurement mechanism and urban food patterns and usage.



If any other National Platforms are interested in using the questionnaire, please contact the UK National Platform to discuss opening the online questionnaire to other countries.

In September the UK National Platform held a workshop to explore the changes in the digital construction landscape that have taken place since their original roadmap on ICT & Automation was produced in 2007. A team of stakeholders from across the built environment considered how far technologies such as BIM, mobile technology, automation and robotics have come since 2007 and the research gaps that still exist and have emerged in that period.

<http://www.nationalplatform.org.uk/filelibrary/ICTscopingstudy.pdf>

The National Platform is now working with the Knowledge Transfer Network to validate the workshop outcomes and revised roadmaps. A further workshop looking at emerging challenges and research gaps in the infrastructure space is planned for early 2016.

Any National Platforms that wish to engage in the UK Roadmaps or explore how these could be applied in their countries please get in touch with UK National Platform.

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NTPs NETWORK ACTIVITIES

In October 2015, Newsletter No.6 was published with contributions from EC DG Research and Innovation, EC DG Grow and four NTPs: Greece, Portugal, Slovenia and Spain.

A workshop with REFINET members (PTEC, Dragados and Tecnalía) and 14 experts on transport infrastructures from 7 countries, contacted through NTPs network, was carried out in October 21st (see page 7).

Besides, a WebEx meeting of the construction NTPs network was organized in October 22nd with participation of 14 countries: Belgium, Cyprus, Denmark, Finland, Greece, Italy, Lithuania, Norway, Poland, Portugal, Slovenia, Spain, Sweden and UK. Subjects on the relationship between the NTPs network and the new ECTP, the REFINET CSA and presentations from Portugal, Slovenia, UK and Spain were covered in this meeting.

The planned activities at NTPs network in 2016 are:

- WebEx workshop with NTPs experts on transport infrastructures and REFINET CSA in March 8th, 2016.
- WebEx NTPs network meetings in March 17th and June 15th, 2016
- NTPs network meeting in Brussels during ECTP conference (second half of November 2016)
- Newsletters No.8, 9 and 10 to be published by mid-March, mid-June and November 2016

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