

Network of National Construction Technology Platforms

**Newsletter No.9
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Edited by PTEC

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PRESENTATION

This is newsletter No.9 of the network of National Construction Technology Platforms or similar National organizations in about 20 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.

In this newsletter, contributions are included from:

- DG Growth on 4th meeting of the High Level Tripartite Strategic Forum for Construction
- CDTI (Spanish Ministry of Economy and Competitiveness) on Eureka chair in 2016
- Knowledge Platform–Living Labs on Retrofitting of dwellings
- Hellenic NTP on past and upcoming events
- Poland NTP on 27th Technical Conference and upcoming events
- Portugal NTP on 5th Strategic PTPC Forum
- Spanish NTP on 12th PTEC conference and 7th PTEC workshop.

The next newsletter No.10 will be published in November 2016.

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EUROPEAN COMMISSION

DG GROWTH. European Commission

4th Meeting of the High Level Tripartite Strategic Forum for construction

In order to respond to the key challenges affecting the Construction Sector, the European Commission has defined a European Construction 2020 Strategy and Action Plan¹. It is intended to complement the strategies developed by the enterprises of the construction sector themselves to improve their competitiveness and to respond to societal challenges.

This strategy focuses on five key objectives: (a) stimulating favorable investment conditions; (b) improving the human-capital basis of the construction sector; (c) improving resource efficiency, environmental performance and business opportunities; (d) strengthening the Internal Market for construction; (e) fostering the global competitive position of EU construction enterprises.

Each objective covers different key challenges; for example, favorable investment conditions are necessary for stimulating growth, research & innovation and the low-carbon economy. Similarly, a sound human-capital basis is essential to improve the performance of the value chain and to adopt innovative solutions, in particular for a low carbon economy. On the one hand, the strategy suggests recommendations that could address the short to medium-term economic and employment challenges faced by the construction sector. On the other hand, it presents a number of recommendations with a long-term perspective

¹ See COM(2012) 433 final "Strategy for the sustainable competitiveness of the construction sector and its enterprises"

to ensure durable effects on the competitiveness of the sector.

Last 14th April, DG Growth organized the 4th meeting of the High Level Strategic Forum for Construction. From the actions in progress the Commission highlighted the public consultation on the EU legislation for the construction sector ('construction fitness check'), the demolition waste protocol related to circular economy and the EU services passport for construction. How to improve the image of the sector and make it more attractive for young and women was also one of the main points discussed. The construction sector needs to progress on skills and innovation including new technologies and digitalization.

The complexity of construction legislation across Europe was also addressed during the meeting. As an example, the Dutch Ministry of Internal Affairs presented how the Dutch authorities have streamlined all laws affecting construction. Some case studies on how to improve public procurements procedures were added to the debate based on the situation in Finland.

The Meeting was an opportunity to take stock of the implementation of the Construction 2020 Action Plan, to identify where progress has been and made and where further efforts are required. Equally, in view of the proposed mid-term review in 2017, it was an opportune moment to give early consideration to the future orientation and possible revision of the Action Plan.

In addition, the Meeting was intended to support preparation of the forthcoming Ministerial Conference on Construction that the European Commission will organise with the Slovak Presidency in Bratislava on 15-16 September 2016. The Meeting provided,

therefore, an opportunity for the Forum to identify and highlight developments and issues that could be 'brought to the table' at the Ministerial Conference.

The Ministerial Conference will be organised around two main topics, which were mirrored in the agenda of the Forum Meeting. The first considered the construction sector's interrelations with the broad sweep of EU-level cross-sectoral policy initiatives. The second focused on strengthening the business environment for construction so as to support performance improvements and increase the sector's competitiveness.

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CDTI



Spain runs EUREKA chair in 2016 aiming at peaking the number of projects ever endorsed

On July 16th 2016, Spanish Eureka Chairmanship will begin. EUREKA, founded by Mitterrand and Kohl in 1985, was born as an intergovernmental R&D&I initiative to strengthen European Industry competitiveness and to reduce our technological gap with USA and Japan.

This is the third time that Spain will manage EUREKA Chairmanship (July 2016 to June 2017) and the Centre for the Development of Industrial Technology (CDTI), as part of the Ministry of Economy and Competitiveness (MINECO), will be a key player in every activity linked to our Mandate. CDTI is a public business entity, which boosts innovation and

technological development among Spanish companies. This includes the funding of Spanish engaged companies in international programmes of technological cooperation such as EUREKA's.



Spain is a very active EUREKA member, Spanish companies have taken part in a 24 per cent of the projects so far approved, and it is EUREKA third European power after Germany and France.

EUREKA acts as a pan-European cooperation network in industrial research, technological development and innovation whose aim is to obtain new products, processes or market-driven services.

Currently EUREKA counts 40 members, from Europe and its surroundings, together with several overseas countries such as Canada, South-Korea and South Africa as Associated. EUREKA support businesses and technological and scientific institutions which work together in R&D&I projects, regardless their size.

EUREKA's main feature is its decentralized unding and management. Besides, its bottom up approach allows the consortia to define their projects objectives with no technology or market area restrictions.

Paving the way towards an 'Open EUREKA', cornerstone of innovation in the European Research Area (ERA), to find sound solutions to meaningful challenges, trough collaboration of European companies with the best global

partners, is the moto of the Spanish Chair. Therefore, its members should commit themselves to participating more and to increase their amount of projects under an international perspective.

In order to achieve that, three priorities have been established:

- Open EUREKA to enhance its internationalization strategy.
- Upgrade EUREKA to optimize its current tools and network management.
- Check EUREKA to analyze its performance and impacts.

Spain strives to improve its technological country image and to soar the number of Spanish companies through technological development projects, with the result that investment on R&D&i increases.

To that end, EUREKA 2014-2020 Strategic Roadmap will focus on seven action fields:

- Promote EUREKA projects
- Increase Participation in EUREKA Clusters (strategic subprogrammes to enhance projects in essential technological areas) and Umbrellas
- Improve EUROSTARS 2 implemen-tation
- Smart globalization
- Lean governance
- Efficient communication
- Comprehensive projects impact assessment

During this mandate, CDTI has planned plenary sessions, where strategic plans will be along with Executive Group meetings to address management and political questions. Several events for industry and business sectors will also take place. The principal will be held in April 2017 in Valencia where the industry sector, EUREKA's instruments and agencies

representatives as well as non-member countries will have the opportunity to meet together.

ATTRACTIVE SPANISH FUNDING INITIATIVES

Spain is one of the most active EUREKA members, in particular because of its high contribution to EUREKA projects' funding. CDTI is its main source, providing Spanish companies with its best current funding conditions.

In this regard, in May this year, CDTI has released the INNOGLOBAL call for €10 million grants to fund R&D projects developed by Spanish companies within EUREKA, among other cooperative R&D&I programs.

In addition, if this grant runs out, an alternative financing, a combination of credit and grant, will be offered, so that Spanish companies will be able to go on with their projects. This EUREKA support favours Spanish companies with their consortia joining foreign companies.

INNOGLOBAL fulfills Spain Mandate objectives, supporting Spanish companies in their numerous actions in the international arena, thus, they invigorate the economy, not only with their investment in market-driven technological projects, but also creating quality employment, both essential aspects to improve the Spanish balance.

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BELGIUM

Knowledge Platform – Living Labs: Retrofitting of dwellings (Vlaams Kennisplatform Woningrenovatie)

www.kennisplatform-renovatie.be



In Europe, 40% of the primary energy consumption and 36% of the CO₂ emissions are due to the residential sector. With its aging buildings, the Flemish housing stock presents on average a very low energy performance score. In order to meet the objectives of the EU roadmap 2050, the renovation rate in Flanders has to increase from 1 to 2.5% per year in 2020, leading to a huge boost of the renovation market.

In order to encourage this trend and prepare the sector, the 'Housing Renovation Living Labs' of the Flemish region started in 2014. Funded by VLAIO (Flanders Innovation & Entrepreneurship), this project is composed of 10 living labs, supported by a 'knowledge platform'. The role of this platform is to ensure the research quality by defining the protocols and the methodology (i.e. for the monitoring and cost calculation). It should also cross-check conclusions of all 10 living labs projects, and is responsible for a wide dissemination of results to the sector.

The living labs are led by companies of the construction sector and by research organisations. Their aim is to develop and test innovative products and technologies on real renovation cases, so that reliable and replicable solutions are available for energy renovations.

These projects target social housing companies as well as owners and renters from the private sector, and address several challenges such as financing, cost optimality, business models,

sustainability or customer-oriented approach. An overview of the 10 living labs projects can be found hereunder.



Renoseec develops and tests a collective renovation concept for private dwellings of the 19th century in Gent. Vulnerable groups are taken into account.



De Schipjes: In the historical city centre of Bruges, eleven identical classified houses occupied by elderly peoples are being energetically renovated.

In Antwerp, **Kielpark** aims at the renovation of 3 residential towers from the fifties and sixties, with a focus on the financial limitations of social housing companies.



In **Duurzame thuis**, 5 terraced houses in Roeselare are renovated in order to receive a quality label.



Mutatie +: 3 terraced houses from a social housing company are renovated while unoccupied. Replaceable modules are used, keeping an eye on lifelong living.

Ecoren develops a methodology in order to renovate single-family dwellings and apartment buildings while occupied. Inhabitants are the core of this project.



In **Remoflex**, modular technics are used in order to achieve budget-friendly renovations within a short time laps. The studied typology is social dwellings from the '60s - '80s.



Drie Hofsteden focusses on the nZEB renovation of 124 social apartments in a residential tower in Kortrijk, where renters belong to a financially weak social group.



RenBEN: Three groups of ten old terraced houses will be renovated to nZEB level. Owners and renters will be guided and accompanied through the whole process.



Werfgoed: Intelligent guidance during the renovation process is developed and tested to convince private owners in Limburg to collectively renovate their building.

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GREECE

Hellenic Construction Technology Platform (HCTP)

Past event

The Hellenic Construction Technology Platform (HCTP) was among the actors that collaborated for the realization of the event took place on Tuesday, March 8, 2016 at Zappeion Hall in Athens, Greece (Figure 1). The event was about the presentation of the innovative research study conducted by the interdisciplinary research group of the National Technical University of Athens (NTUA) entitled "*Materials & Conservation, Reinforcement and Rehabilitation Interventions in the Holy Aedicule of the Holy Sepulchre*" within the framework of the programmatic agreement between NTUA with the Jerusalem Patriarchate. Scientific Coordinator for this research is Antonia Moropoulou, NTUA Professor, Laboratory of Materials Science and Engineering, School of Chemical Engineering and Vice President of the Technical Chamber of Greece. As the project is currently under development, she is still coordinating the works but also has the supervision of the project during all of its phases. Additionally, in this research the following Professors are involved: E. Korres School of Architecture Engineering NTUA, former Director of the Interdisciplinary Programme of Postgraduate Studies "Protection of Monuments ", C. Spyrakos Laboratory for Earthquake Engineering, Department of Structural Engineering, School of Civil Engineering NTUA and A. Georgopoulos, Photogrammetry Laboratory, Topography Department, School of Rural & Surveying Engineering NTUA.



Figure 1

Upcoming event

The Hellenic Construction Technology Platform in cooperation with the Technical Chamber of Greece (TEE), the Technical Chamber of Cyprus (ETEK) and the Association of Architects and Engineers of Israel (AEAGTSI - Association of Engineers, Architects and Graduates in Technological Sciences in Israel) are organizing an event with subject:

"The strategy of the Southeastern Mediterranean Independent Development, particularly between Greece, Cyprus and Israel, with Innovation and Cooperation with emphasis on the environment, energy, construction, cultural heritage and tourism ".

The event will inaugurate in the following order:

The President of the Technical Chamber of Greece, *George N. Stassinos*

The Chairman of the Technical Chamber of Cyprus, *Stelios Achniotis*

The Vice President of Association of Engineers, Architects and Graduates in Technological Sciences of Israel, *Alec Groysman*

Some of the speakers per topic are as follow:

INNOVATIVE ENTREPRENEURSHIP: Senior Advisor to the Board Chair of the National Bank of Greece S.A. *Loukas Spanos*

ENVIRONMENT: Maria Loizidou, School of Chemical Engineering, National Technical University of Athens.

ENERGY: The CEO of Hellenic Gas Transmission System, *Costantinos Xifaras*

INFORMATICS: Federation of Hellenic Information Technology & Communications Enterprises, *Panagiota Paparidou*

INDUSTRY: The Board member of the Hellenic Federation of Enterprises, *Eftichios Vassilakis*

CONSTRUCTION: The representative of the Hellenic Construction Technology Platform, president of the Panhellenic Association of Engineers Contractors of Public Works, *George Romosios*

TOURISM: The Member of the Executive Committee of the Hellenic Chamber of Hotels *Sakellarios Soulounias*

The event will take place on Monday, June 27, 2016 at 15:00. Venue: TEE Hall, Nike 4 1st floor, Syntagma, Athens, Greece.

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PORTUGAL

Plataforma Tecnológica Portuguesa da Construção

5th Strategic PTPC Forum "Responsible and Innovative Public Investment"



LABORATÓRIO NACIONAL
DE ENGENHARIA CIVIL

The Portuguese Technology Platform Construction held its 5th Strategic Forum "Responsible and Innovative Public Investment" last March 31 2016, at LNEC, in Lisbon.

The session was dedicated to the subject of public procurement, given not only the initial cost but also the life cycle costs of projects, environmental, economic and social aspects and innovation.

Part I - Activities of PTPC and Invited Speaker

In the first part of the event the Board Members of PTPC presented the activity developed in the last year and prospects in the short term. In this context evidenced University Business relationship through joint efforts (forums, thematic sessions and workshops; master's theses; technological reports; working groups, RDI projects); international relations (member of the Steering Committee of ECTP, participation in the network of NTP's, participation in the reFINE project, H2020 applications, protocols with other European Platforms).

It was also evidenced the application that PTPC presented in connection with the recognition of Cluster Competitiveness by the Minister of Economy, which plans to establish a cluster in the construction sector, *Cluster AEC - Architecture, Engineering and Construction*.

This cluster will have the following objectives:

- To promote the activities of IDI in partnership;
- Increase exports and qualified employment;
- Promote the international visibility of the sector;
- Strengthen the sector skills; Promote cooperation and partnerships.



For this, includes a set of activities aligned by 5 Strategic areas:

- Research, Development and Innovation;
- internationalization;
- Cooperation and Partnerships;
- Qualification and Skills;
- Public Policy.



Still in the 1st half of the session, we could heard the invited speaker, an expert with regard to the transposition of Community Directives, the National Internal Law on Public Procurement -

Maria João Estorninho, from the Law School of Lisbon, who presented "*the Public Contract Code of review in the implementation process of the new European policies*".

Part II - Round Table "*Responsible and Innovative Public Investment*"

In the second part, held a round table "*Public Investment Responsible and Innovative*", directed by journalist recognized in the field of construction - Ricardo Batista, from the "Jornal Construir", and was composed of a panel of experts in the field and representatives of the various stakeholders in construction process, namely Valadares Tavares, from Instituto Superior Técnico-IST (Lisbon Engineering University); Antonio Ramalho, President of Infraestruturas de Portugal - IP (National rail and road authority), as representative of a major Project Owner, Mário Barros, Board Member of Mota-Engil, Portugal's largest construction company; Alexandre Portugal, Board Member of COBA, Portugal's largest design and consultancy engineering; Carlos Pina, President of the National Civil Engineering Laboratory (LNEC) and Rita Moura, President of PTPC (National Technology Platform).

This panel ruled on the dynamics of cooperation created by PTPC and the importance of the Public Procurement Code for

the sector. Discussed further as the Public Procurement can and should be a key instrument in an economy of sustainable growth and social well-being based on the factor "Innovation".

Conclusions

It was common understanding of the utmost importance to implement a clear and appropriate legislation, socially and environmentally responsible, develop a code considering the following aspects:

- Adoption of a simpler code and supplemented by Guidelines to Good Practices;
- Multi-criteria evaluation - Cost-Benefit analysis
- Rule barring the "minimum-price" and abnormally low;
- Generalization of the use of electronic platforms and administrative simplification;
- Hiring depending on the performance evaluation;
- Adoption of innovative contracting procedures (bp "Partnership for Innovation");
- Evaluation of proposals in two separate stages ("two-envelope model");
- Monitoring the investments by a Project Manager;
- Dissemination of green procurement.

It was the general understanding that:

- It is essential public investment be directed to the conservation and regeneration, urban and infrastructure, and the need to adopt procedures leading to a Green Economy;
- The PTPC is a cross and comprehensive association and therefore constitutes an

important player to a responsible and innovative development in the construction-regeneration of the built heritage.

Some partnerships and concrete projects were suggested by the partnership between PTPC and IP, including the pilot project development based on BIM - Building Information Modeling; The creation of a Working Group on rehabilitation / regeneration of infrastructure, like other existing, for the consideration and implementation of initiatives and research projects, development and innovation, taking advantage of the synergies of cooperation between large companies construction and design, SMEs, universities, research organizations and other public entities that make up the "network" PTPC.

The meeting concluded with the viewing of the film "Mother Nature", produced by "CONSERVATION INTERNATIONAL" organization.

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POLAND



Polish Construction Technology Platform

Polish Construction Technology Platform (PPTB) is continuously supporting events in Poland which promote Horizon 2020 and support collaboration between science and business. The 27th Technical Conference organized on 27 April by the magazine "Swiat Szkla" (World of Glass) was one of such events.

The main topic of this year's conference was: "What affects the quality of glazed constructions (research, design, manufacture of components, assembly)". Presentations were held by the representatives of technical universities and research institutes. Additionally, companies were demonstrating their latest materials and technologies which are used to make the glazed elements of buildings and facades. PPTB was a technical partner of the conference.

Subsequently, events which will be held under the auspices of PPTB in the next few months are:

Horizon 2020: 'Secure, Clean and Efficient Energy' Information Day

'Secure, Clean and Efficient Energy' Information Day is organized by ASM-Market Research and Analysis Centre (coordinator of PPTB) together with Regional Contact Point for H2020 programme in Lodzkie region (Central Poland) and Polish National Contact Point. The two-day event will be held on 19-20 September 2016 in Lodz, Poland. The event targets potential applicants to the calls for project proposals under the H2020 Energy Challenge. The priorities and calls for 2017 in the area of H2020 energy research and innovation will be presented as well as good practises and case studies.

19th Monitoring of the Construction Market Conference

Monitoring of the Construction Market Conference is an event organised on an annual basis by ASM-Market Research and Analysis Centre in order to summarise the construction sector performance and present the current trends and forecasts for the construction market development and social analyses and

market research. Each year the event gathers more than 150 participants mainly from the industry sector. This year's conference will be held in October 2016 in Warsaw, Poland.

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SPAIN

Spanish Construction Technology Platform

PTEC conference (Barcelona, April 6th, 2016)

In April 6th, 2016, a conference was organised by PTEC on innovation in the maintenance and upgrading of the existing network of transport infrastructures, with the participation of Public authorities from the Government of Catalunya and the Town Hall of Barcelona, with 120 attendants and where PTEC presented their activities on innovation in the construction sector.



In the first session, five presentations were made on:

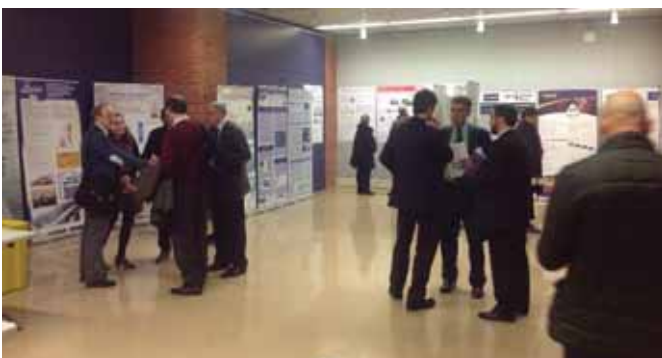
- Mobility at the cities, by Barcelona City Hall

- Maintenance of railways infrastructures, by Ferrocarrils Generalitat de Catalunya and VÍAS, respectively.
- Upgrading of existing structures to respond to new demands, by Technical University of Catalunya
- The future innovation in the ports, by Port of Barcelona

In the second session, six presentations were made on:

- Adaptation of transport infrastructures to climate change, by CEDEX
- Innovation in the maintenance of motorways, by Abertis Group
- Innovation in pavements, by Technical University of Catalunya
- Sustainable rehabilitation of pavements, by SACYR
- Opportunities in R&I in transport infrastructures within H2020, by CDTI
- REFINET and the strategy of the European construction sector, by Dragados

An exhibition of R&I projects in 22 posters was carried out during this conference



PTEC workshop (Madrid, May 10th, 2016)

In May 10th, 2016, a workshop was organised for PTEC members in Madrid with more than 60

participants in order to explore international R&I opportunities in the construction sector, excluding H2020. In the first session, there were presentations with information on:

- Eureka, Eurostars, Iberoeka, bilateral programmes, etc. by CDTI
- Life programme and Cost Actions by PTEC
- Opportunities on innovation within Juncker programme and EIB by CNC

The second session dealt with experiences of PTEC members in several programmes:

- Life initiatives were presented by Acciona
- Iberoeka projects with Spain and Mexico were presented by Tecnalia
- Projects in Chile (CORFO programme) and Perú (CONCYTEC) were presented by OSSA
- Cost networks and projects with Spain and Mexico (CEMIE-SOL) were presented by CARTIF
- KIC Climate was presented by IVE
- Collaboration between Spain and US (MIT) was presented by Ferrovia

The workshop ended with some debate and the conclusions will be taking into consideration when preparing a PTEC document on the opportunities for R&I in the construction sector (excluding H2020).

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NTPs NETWORK ACTIVITIES

In March 2016, newsletter No.8 was published with contributions from ECTP on the Active Ageing & Design Committee, from ENCORD, Germany, Portugal and Spain.

PTEC participated as observer at ECTP Steering Committee meeting in Brussels (May 25th, 2016), representing NTPs network. There, the proposal on the link between ECTP and this network was approved to ensure a feed-back in both directions:

- In one side, European organizations as EC, EP and other European Technology Platforms through ECTP.
- In other side, National entities, including SMEs, and National and Regional Authorities, through the NTPs.

A webinar meeting of the construction NTPs network was organized in June 15th with participation of 12 countries (Belgium, Cyprus, Germany, Greece, Hungary, Italy, Lithuania, Norway, Poland, Portugal, Spain and UK) and ECTP. During this meeting:

- Information on REFINET CSA was shared with the participants on LinkedIn group https://www.linkedin.com/groups/846424_1, newsletter No.3, network of experts and stakeholders, and documents “Best practices in design, construction and maintenance of transport infrastructures” coordinated by Dragados and “Catalogue of technologies” coordinated by Arup. This information is available at Resources-Publications in www.refinet.eu
- ECTP representative summarized the progress in the new ECTP organization with five committees and the ECTP conference to be organised in Brussels in November 17-18th, 2016
- Greece, Italy and Spain presented some comments on their National Construction Technology Platforms.

During the second part of the year, newsletter No.10 will be published (November 2016) and the NTPs network will participate at ECTP conference in Brussels (November, 17-18th, 2016)

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