

ECTP Position Paper

Position paper on European RDI policies and the next Framework Programme

XXXXXXXXXXXXXXXXXXXX

The construction sector is committed to boost up constantly its RDI activities at EU level

The construction sector is the biggest industrial employer in Europe, representing¹ 9.9 % of the EU GDP, 51.4 % of Gross fixed Capital Formation, 7.1% of Europe's total employment and nearly 30% of industrial employment with 14.9 million operatives. The sector gathers 3 million enterprises (EU27) of which 95% are SMEs with less than 20 operatives, acting in local markets and in a highly regulated environment, while being geared to respond to the demand of its clients and the wellbeing of the society at large.

The sector has organised itself over the last decade or so to promote, develop and structure RDI activities in its domain at EU level, by creating successively:

- in 1995, the European Council for Construction Research, Development and Innovation (ECCREDI) gathering today 16 members² representing stakeholder's federations,
- in 2004, the European Construction Technology Platform (ECTP) networking today more than 220 members-organisations³ active in RDI at European level,
- and, in 2008, the Energy Efficient Buildings Association⁴ (E2BA) to formalize its partnership with the European Commission in the framework of the Energy-efficient Buildings PPP (EeB PPP).

The construction sector is continuously increasing its Research, Development and Innovation (RDI) activities at EU level. Today around 140 projects are active in FP7 (compared to 91 in FP6)⁵ across a wide set of thematic priorities (Nanotechnologies, Materials and new Production technologies (NMP), Energy, Environment, Information and Communication Technologies (ICT), Transport...). At the same time actors from the sector are also significantly active in other EU programmes such as CIP and other transnational collaborations in the context of the ERA-NET scheme. The ECTP was instrumental in increasing participation of industry to RDI, and more and more of these projects include and are often initiated by various industrial partners. Combined efforts of industry and of strong research and technology organisations, which is a feature of the sector, must be encouraged

¹ Source: FIEC, 2009

² [List](http://www.eccredi.org) available on the ECCREDI website at www.eccredi.org

³ [List](http://www.ectp.org) available on the ECTP website at www.ectp.org

⁴ [List](http://www.e2b-ei.eu) available on the E2BA website at www.e2b-ei.eu

⁵ Source: ECCREDI and ECTP

at a higher level to ensure high scientific and technical quality, extensive exploitation and dissemination of research results, including a close link to standardisation and regulatory aspects.

The construction sector is committed to contribute to EU 2020 objectives

As it is emphasized in the “manifesto for action” from the European Construction Forum⁶ and the “impact paper” from ECTP⁷, the construction sector has a crucial role to play in addressing many grand challenges of the Innovation Union identified as a “flagship” in the Europe 2020 Strategy, such as climate change, energy supply, water provision, public health, ageing societies and globalisation. Research on construction should therefore be kept high on the EU agenda. It must indeed be recognised that construction can significantly contribute towards solving many of the challenges that society is facing today. Taken from a global perspective, construction is essential for the prosperity of society. European citizens need a high quality and sustainable built environment in which to live, move, work and play. The creation of such a built environment must therefore underpin all European strategies and policies as it is an element that engenders growth and jobs, creates a sense of well-being and brings added value to society. Finally, construction accounts for more than 9.9% of EU GDP, and must be an essential actor of the EU 2020 Strategy for increased competitiveness.

On the basis of its Strategic Research Agenda, ECTP is today promoting two major European RDI Initiatives, each dedicated to an ambitious target⁸: **Developing Energy Efficient Buildings and Districts (E2B)** and **Strengthening the Infrastructure Networks of a Sustainable Europe (reFINE)**.

- Buildings account for 40% of the total European energy consumption and a third of CO₂ emissions. To help addressing climate change, the European Commission has set specific targets to be achieved by 2020, known as the 20/20/20 targets. These targets aim to reduce energy consumption by 20%, reduce CO₂ emissions by 20% and provide 20% of the total energy share with renewable energy. A major part of this challenge can be met by the construction sector, and in order to unlock this potential and achieve real energy neutral buildings and districts by 2050, the European Construction Technology Platform has set up the Energy Efficient Buildings European Initiative (E2B EI), steered by the Energy Efficient Buildings Association (E2BA) founded in November 2008. The overall goal is to foster, jointly with the Public side, a Europe-wide industry driven research and demonstration programme for **energy efficient buildings and districts**, with the ambitious vision that all European buildings will be designed, built or renovated to high energy efficiency standards by 2050, integrating renewable energy sources. The Energy-efficient Buildings PPP (EeB PPP) launched within the European Economic Recovery Plan is fully in line with the sector’s vision and

⁶ Building prosperity for the Future of Europe, European Construction Forum, September 2010

⁷ Impact Paper, ECTP, January 2011

⁸ “Modernizing infrastructure networks and improving energy efficiency” was already one of the major recommendations of the Leipzig Charter on Sustainable European Cities (document issued in May 2007 by the Member States’ Ministers responsible for urban development, with the broad and transparent participation of European Stakeholders).

perfectly matches the first step of the industry longer term strategy, with a fruitful cooperation in place between the private and the public stakeholders.

- **Infrastructure networks** transport people and goods and are fundamental lifelines of today's society. Their condition and the quality of the service which they provide affect the competitiveness of European industry and the quality of life of European citizens: they support the development of sustainable cities; they ensure efficient fluxes for all trading activities. At the same time, demographic changes, the necessary adaptation to climate change, increasing fossil energy costs, and the need to reduce impact of human activities on the environment create new and urgent requirements for our lifelines and human behaviour. In this context, the maintenance and rehabilitation of ageing networks, as well as the development of new low-carbon infrastructure networks, are essential in order to meet the needs of European society, but it is clear that the associated costs will substantially exceed available public funding. A structured and well-planned RTD effort is therefore necessary to deliver better and stronger infrastructure networks for a sustainable mobility at lower cost.

Additionally, following a recent workshop on “improving economy in an ageing society by architecture and construction”, the ECTP and other stakeholders plan to set up a task force on “**construction for the ageing society**” in due course.

As regards the future Framework Programme, the construction sector has ambitious goals

- The sector welcomes the **Grand Challenges** approach and the **European Innovation Partnership** “concept”, especially:
 - the current pilot on “Active and Healthy Ageing”,
 - and the future intended pilot on “Smart Cities”.

On “Smart Cities”, the construction sector underlines the pre-eminent role that it can and should naturally play through both the “Buildings” and the “Urban Infrastructures” issues pointed out beforehand.

On a broader front, since Buildings and Infrastructures require **integrated approaches**, going beyond sectoral sub-programmes (NMP, Energy, Environment, ICT, Transport...), it is suggested that construction issues should be considered through dedicated multi-disciplinary lines instead of scattered in numerous priorities. A **specific programme with dedicated resources for the construction sector** in the next Framework Programme would help overcome this problem fostering the creation of those value networks across different sectors and domains that are needed in order to deliver a rapid impact in terms of growth and employment while addressing societal challenges.

- It strongly supports the **continuation of the PPP approach** in the next FP, since the recent calls for proposals under the EeB PPP showed evidence of the benefit of this mechanism compared to traditional FP tools: high success rate, strong presence of SMEs, short approval and negotiation time, industry leadership of projects, dialogue through the AIAG, long term vision implemented in a roadmap developed with industry, predefined budget, funding for

enabling technologies, coordination of several EC themes. This initial success and the fruitful dialogue in place between industry and the public sector has to be nurtured for a real and sustainable transformation of the sector with clear economic, environmental and social impacts. It is therefore strongly suggested to build on the JTI Sherpa Group recommendations and the coming PPP evaluation process to firm up the future PPP tool.

- It strongly supports the **continuation of a number of existing instruments** in their essential aspects while careful clarification of their scope, their limits and their formats is needed. Apart from European Technology Platforms (ETPs) and Public Private Partnerships (PPPs), these instruments should embrace Smaller Collaborative Projects including Specifically Targeted Research Projects (STREPs) and Coordination and Support Actions (CSAs). With respect to STREPs, the EARTO vision is supported, e.g. *“the future FP policy mix must provide adequate space for funding applied research aimed at solving practical problems among firms not necessarily operating in high-tech sectors, in particular that large part of manufacturing (including construction) and employment in Europe which is reliant on continual improved process and product technologies for its competitiveness”*. For the construction sector it is vital to be able to expand further also on successes obtained in such rather small scale projects.
- It supports the current level of increase of **demonstration activities** in the PPP schemes, and more generally the Framework Programme, in order to support the industrial exploitation of research results and the involvement of less research intensive SMEs which will champion the transfer to the sector. On that matter, it is not suggested to increase them further, but preferably to reach a stronger link and synchronization between FP and CIP programmes to get a continuous chaining between projects on a same topic.
- It suggests increasing, through coordination or support actions, the role of **generic/accompanying research** in order to favour the extension and dissemination of collective knowledge needed by the various categories of stakeholders (especially within the construction sector) to develop innovation and implementation to the market.
- It considers that some kind of **SME-dedicated RDI support measure** should be continued **within the main FP**, although improved and re-engineered, based on the lessons learnt in the last FPs. For example, it must be noted that the **Collective Research** tool has not been used widely by the Associations of the Construction sector up to now, because the measure did not leave room enough for projects supporting take up of incremental innovations and were too much geared to breakthrough projects driven by consultancy firms. It is also suggested, as regards calls for the benefit of SMEs, to maintain the 2-step procedure since preparing a first step requires a significantly lower effort and passing the first step means higher chance and encourages perseverance.
- It emphasizes that, although the construction sector comprises a lot of SMEs⁹, there are not many of them with a real capacity to do research. The main need is in fact the **transfer of research results through the SME network**. Europe must gear its research capacities towards ensuring a successful **transfer of its results into innovation**. Looking for increased convergence of European research and innovation activities is in this respect very important

⁹ Nearly 3 millions, according to FIEC figures

and industry federations can play a crucial role in transferring the results of research to SMEs. Attention must be also given in EU research projects to the transfer of information to SMEs and SME Associations, as far as it does not break a competitive advantage for those having invested time and money in research activities. Publishing articles (for example in construction-related magazines) explaining goals and achievements during the research project should be widely used. Research results should also be opened up for peer review by stakeholders, when Intellectual Property Rights (IPR) do enable it.

- Because the European Commission is also a major supporter of construction activities through funding schemes such as structural funds, for example, the construction sector **calls for innovation to be routinely embedded within such schemes**. Moreover, innovation should be considered as an element of additional European relevance when evaluating the allocation of Commission resources.
- Linked to the above, it supports the request for more attention to be given to **socio-economic research**, including on human behaviour aspects, in order to achieve a real societal breakthrough and support in the development of an adequate framework of (EU) policy instruments.
- Last but not least, it welcomes the recently launched **simplification process** of the various aspects of the Framework Programme and favours a **uniform implementation** of the financial rules and procedures through the different Programmes and Directorates. Efforts already made by the Commission to reduce administrative barriers and proposals defined in the Communication COM (2010)187 about simplifying the implementation of Research FP are welcomed. In particular the proposals related to:
 - a) Setting up better support, guidance, transparency, IT tools and processes.
 - b) Ensuring that the organizational set up provides for uniform interpretation and application of the rules and procedures. However this interpretation should allow broad acceptance of different usual national accounting practices.
 - c) Reducing the number of combinations between funding rates, organization types and activity types.
 - d) Reducing the number of methods for determining indirect costs.
 - e) Fully or partially cancelling the obligation to recover interest on pre-financing.
 - f) Accelerating the project selection procedure.



Acknowledgments: This position paper has been prepared by the European Construction Technology Platform (ECTP), in close cooperation with the European Council for Construction Research, Development and Innovation (ECCREDI) and with contributions from several other organizations such as the Association of European Building Surveyors and Construction Experts (AEEBC), the Architects' Council of Europe (ACE), the Council of European Producers of Materials for Construction (CEPMC), the European Construction Industry Federation (FIEC), the European Council of Civil Engineers (ECCE), the European Construction Forum (ECF), the European Concrete Platform (ECP), the European Network of Building Research Institutes (ENBRI), the Forum of European National Highway Research Laboratories (FEHRL), ..., as well as the European Network of Construction Companies for Research and Development (ENCORD).

Contact: Luc Bourdeau, ECTP/E2BA Secretary General, secretariat.ectp@cstb.fr