

Construction industry associations CECE and FIEC introduce DigiPLACE, an EU-funded project aimed at creating a path to digitalisation for construction in Europe

The future is digital



In the modern economy, digitalisation is a major driver of productivity growth across industries and services. To remain competitive in an increasingly globalised market, the EU economy must transform itself digitally.

The construction sector is characterised by a high presence of SMEs, low capitalisation, a low rate of higher educated employees, low investment in innovation, and a long

supply chain. Moreover, in the EU market, different languages, taxation, and regulatory frameworks are obstacles to Union cohesion. DigiPLACE will address these issues and exploit the potential for EU added value.

DigiPLACE is an EU-funded project with a budget of €1 million aimed at creating a roadmap for the digital platform for construction in Europe. The digital platform is an operating system that integrates different

technologies and various applications and services. Starting from suitable reference architectures, platform interfaces will be defined, tested via piloting, supported via ecosystem building to prepare their roll-out; and evolved into standards.

COLLABORATION IS KEY

DigiPLACE will rely on a large set of partners, linked third parties and an advisory board.

A personal insight on construction's digital revolution

In an interview with CECE and FIEC, Alberto Pavan, coordinator of DigiPLACE and Assistant Professor at Politecnico di Milano, explains his point of view

DIGIPLACE INTENDS TO CREATE A ROADMAP FOR A DIGITAL PLATFORM FOR CONSTRUCTION IN EUROPE, BUILDING SYNERGIES BETWEEN THE DIFFERENT NATIONAL SYSTEMS AND STRUCTURES. YOU ARE THE COORDINATOR OF THIS €1 MILLION PROJECT. WHY DOES THE INDUSTRY NEED DIGIPLACE AND WHAT FOR?

The construction sector is the least digitalised industrial sector, even behind agriculture, according to McKinsey. With very few exceptions, construction is characterised by micro-enterprises throughout Europe, so it is difficult for this sector, more than any other, to undertake innovative research and make structural investments.

DigiPLACE is a unique opportunity for such a fragmented and heterogeneous supply

chain to share experience and knowledge through digital technology.

IN THE CONSTRUCTION SECTOR, THERE ARE A LOT OF SMES. DO YOU BELIEVE THEY WILL PROFIT FROM EUROPEAN DIGITAL PLATFORMS IN THE FUTURE OR WILL ONLY THE BIG PLAYERS BENEFIT?

Globalisation will increase, also in the construction equipment market. Forecasts still show an upward trend in production numbers, in Africa, Asia and in the Americas more than in Europe. Digitalisation, starting from the internet, allows local micro-businesses in other economic sectors to appear in the world as they never could before. A European platform can be the basis for aggregation and fundamental development also for the very small European companies in the construction

sector, to enter the future globalised market.

WHAT WILL BE THE FIRST STEPS FOR YOU?

Collect best practice from other industrial sectors and services, because a lot of work has already been done. Then understand how to adapt them to the specific circumstances of our market, so that they can perform well for us, too: a real estate product with a very long life cycle is not a series product, for example.

INSTITUTIONS FROM BELGIUM, FRANCE, SPAIN, ITALY, UK, SLOVENIA, GERMANY AND THE NETHERLANDS ARE INVOLVED, INCLUDING SEVERAL EUROPEAN MINISTRIES. COULD YOU EXPLAIN WHAT THE WORK WILL ACTUALLY LOOK LIKE?

Strong collaboration. We will find the right balance between the legitimate national



di Milano, which will hopefully pave the way for new future projects in the field of digital construction.

DigiPLACE is a framework, which will facilitate the development of future digital platforms as common ecosystems of digital services that will support innovation, commerce, etc. It will define a reference architecture framework for a digital construction platform based on an EU-wide consensus involving a large community of stakeholders, resulting in a strategic roadmap for successful implementation.

KICK-OFF IN BOLOGNA

On Friday 22 November, DigiPLACE hosted its first public event, a launch conference entitled Towards a European Digital Platform for Construction. The event was organised on the fringes of the DIGITAL&BIM Italia fair in Bologna, which gathered all the stakeholders of the sector to see what new digital products and services are on the market. The event started with a welcome speech from Federica Brancaccio, president of Federcostruzioni, and Gabriele Buia, president of ANCE, the Italian contractors' association. They highlighted the importance of digitalisation for SMEs and talked about the challenges of connecting national and international platforms.

CECE secretary general Riccardo Viaggi moderated the event, welcoming European Commission representative Ilektra Papadaki, who reminded the audience about the new Commission's priority for a "Europe fit for the Digital Age". Ms Papadaki also stressed that cooperation through digital platforms is crucial to achieve EU goals on sustainability.

The second part of the launch conference featured contributions from experts and project partners from the academic world, the technology sector, product manufacturers and architects. The speakers addressed the role of digital platforms in construction, sharing experiences and lessons learned for the advancement of DigiPLACE. Of particular interest was the presentation by the French technology centre CSTB of the French public digital platform KROQUI. As stated by Ziga Turk, BIM professor and chairman of FIEC's Construction 4.0 Working Group, "to increase productivity in construction, platforms must enable greater specialisation by the industry and minimise duplication of work. When sharing data, intellectual property should not be a secret but an item of trade".

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CECE will be in charge of the project's communication and dissemination activities. **FIEC** will be in charge of co-ordinating the project's Advisory Board, organising the meetings and informing members of the project's progress. For further information, please contact info@cece.eu or info@fiec.eu.

Unprecedented collaboration of all EU construction industry representatives with strong academic and public support – and involvement of three member state's ministries – will work together for 18 months. The project kicked off in September 2019 with a partner meeting in Brussels. The project partners will collaborate to create the framework for the digital platform. DigiPLACE incorporates 19 partners from 11 countries, led by Politecnico

interests and the enormous benefits that a European-wide digital platform can give them in the future.

THE PROJECT WILL BE FINISHED IN 18 MONTHS. WHAT ARE THE MOST IMPORTANT MILESTONES AND WHAT IS THE TIMELINE FOR THEM?

The state of the art, extended to the other sectors, obviously the writing of the Reference Architecture Framework, the strategic application roadmap and, fundamentally, the involvement in the project of the whole supply chain and the stakeholders.

The schedule is very tight and the first tangible results will be visible only after the conclusion of the project.

WHERE DO YOU SEE OBSTACLES AND CHALLENGES?

I don't see obstacles, or at least any insurmountable ones, only interesting challenges. And I see colleagues and other contacts in our network, very prepared and ready to face them together.

WHAT WILL HAPPEN FOLLOWING THE COMPLETION OF THE PROJECT?

I believe that it is absolutely necessary to create a digital industrial platform for the building and construction sector, so I hope there will be a second EU-funded project to actually do this.

WHAT IS YOUR PERSONAL MOTIVATION TO BECOME INVOLVED IN SUCH A PROJECT?

For years I have been doing research in this area, coming from the world of economics for construction [economic science]. I drafted the scheme for the first digital platform of the sector in 2007 [which later became INNOVance], when the UK PAS [1192: 2013] had not even been published. The Italian standard the Committee of which I have the pleasure to chair [UNI 11337: 2009-2017, now the national annex for Italy of ISO 19650] introduced the concept of a platform as early as 2015. Digital platforms [organisation, supply chain, national and, now, European], above the various Common Data Environments are part of my work and my daily studies.

WHAT WERE THE REASONS FOR THE POLITECNICO DI MILANO TO ACCEPT THE ROLE OF COORDINATOR?

The Politecnico di Milano, together with the Italian manufacturers and industry, was the creator of the first prototype of a digital platform specifically aimed at the construction sector from 2011 to 2014. It is also part of the European and International technical groups for BIM standards and founder of the Italian Building Smart International Chapter in 2005.

The scheme of data management shared in the DigiPLACE vision comes from a doctorate at our polytechnic by Claudio Mirarchi, who is involved in DigiPLACE. The Politecnico di Milano therefore represents the right entity for knowledge, experience and competence to coordinate this fantastic work group. That is nevertheless acknowledging the competence and experience of the other beneficiaries, third parties and members of the Advisory Board. DigiPLACE has a unique consortium in terms of the quality of its team members.