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Press Release

New Consortium to lead the European construction industry to a low-carbon, climate-resilient digital transformation with Digital Twin Tech

The consortium of '**BIMprove** - Improving Building Information Modelling by Realtime Tracing of Construction Processes' is delighted to announce the start of this joint initiative selected and granted by the European Commission under the Horizon 2020 Research & Innovation programme.

The project will **develop a dynamic digital thread system for construction sites**, going beyond the static Building Information Modelling (BIM) process used today, thanks to the **employment of Digital Twin technology**. This will allow for profound disruption in the construction industry, long stagnant and ripe for digitalization.

The building construction market has experienced a rise in the last decade and is estimated to reach 7955 billion euros in 2022, but productivity in the sector has not improved over time, hindered by increased cost of human labour, inefficient working conditions and decreasing interest among young generations. In addition, jobs in the construction industry represent the most dangerous of today's European reality. Yet the population is increasing continuously, and zero-energy buildings must replace the old in the upcoming years. **Improving the construction industry as well as promoting safety and efficiency is crucial for Europe.**

BIMprove will invest effort in developing a solution to **fast-track productivity, cutting costs and improving working conditions** by employing the 3D model-based process

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 958450

BIM systems in combination with a Digital Twin technology, introducing a much more dynamic and multi-functional system based on real-time data. This new technology will consolidate the European construction industry of the future and **allow enterprises in the sector to optimize their performance**. In fact, a real-time overview of the current state of the building will be available, allowing to identify errors early and to be able to remedy them at the lowest possible cost. In addition, it will be possible to control resources and transactions as required, to ensure a high level of security on the construction site and to follow up the schedule and adapt it to current needs.

The project will be showcased in 3 real-world pilot use cases, achieving:

- Better scheduling forecast by 20%
- Better allocation of resources and optimisation of equipment usage
- Reduction of the number of incidents in construction sites
- Reduction of costs by 20% in construction project

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BIMprove will be carried out over a stretch of 3 years, involving 12 prominent partners from Norway (SINTEF, Catenda AS, AF Gruppen), Spain (AUSTRALO, Vias y Construcciones SA, Robotnik Automation AGVs), Germany (Fraunhofer IAO, DIN German Institute for Standardization, University of Stuttgart IAT), Switzerland (Zurich University of Applied Sciences, HRS Real Estate AG) and Finland (VTT Technical Research Centre of Finland). The project receives funding by the European Commission in the frame of the European Union's Horizon 2020 research and innovation programme under grant agreement n° 958450.

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