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Press Release

The Reincarnate project will develop innovative solutions to maximise the life cycle of buildings, construction products and materials

The consortium of **Reincarnate** — “Reincarnation of construction products and materials by slowing down and extending life cycles” — is pleased to announce this joint international initiative, funded by the European Commission under the Horizon Europe research and innovation programme, has officially started.

The average lifespan of a building is 39 years — in Europe, it is only 25-30 years — and the main reason for demolition is obsolescence. This is why there is a large amount of construction and demolition waste (CDW) — representing approximately 25-30% of all waste in Europe —, in addition to that generated in current construction works.

The recycling rate for CDW is relatively high (above 75%). This activity generated \$126.89 billion in 2019 — Europe contributed the largest share, almost two-fifths of the total global market — and is projected to reach \$149.19 billion by 2027. Unfortunately, many of the most valuable materials in CDW cannot be meaningfully separated and end up in landfills.

This helps to get an idea of the efficiency potential for climate neutrality that exists in construction.

Reincarnate aims at advancing circular economy practices within the European construction industry and enabling to significantly maximise the life cycle of buildings, construction products and materials, reduce CDW by 80%, increase the reusability of buildings, construction products and materials and, as a result, lower the sector's emissions by 70%.

To this end, Reincarnate will create a **Circular Potential Information Management (CP-IM) platform** and a set of innovations to use it. The platform will provide a digital representation of building products and materials with information on their life cycle, and will allow assessing their potential for life extension and reuse, as well as predicting circular value streams.

Reincarnate will then generate **ten technical innovations** using CP-IM data. From solutions for building inspection, to construction and dismantling planning, and identification and classification of CDW — these solutions will draw upon **emerging digital technologies**, such as digital twin representation, artificial intelligence, and robotic automation.



This project has received funding from the European Union’s Horizon Europe research and innovation programme under grant agreement N° 101056773.

3 empirically proven social science insights will allow fostering widespread adoption of reused high-quality construction products and materials as well as business eco-system development frameworks to combine actors within sustainable value chains.

All innovations will be demonstrated on eleven selected real-world projects and value chains. Furthermore, business process guidelines and an e-learning platform will be developed to drive the dissemination and exploitation of Reincarnate's results.

The Reincarnate consortium combines **16 multidisciplinary organizations** – including SMEs, large industries, non-profits, RTOs and higher education establishments – **from 8 countries**. This diverse team will work together for **48 months**, bringing strong expertise in digital twins, lifecycle prediction, material assessment, social sciences, construction management, architecture, and real estate management.



Learn more about Reincarnate and contact us!



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