

Heerlen, July 1, 2021

GTB Lab starts 3D scanning DDC Pilot 'Roman museum' / Thermenmuseum Heerlen (NL)

On Monday 5 July 2021, the building of the Thermenmuseum Heerlen in the Netherlands will be mapped with a 3D scanner. The building, which will be completely demolished, is one of five pilot projects within the Interreg North-West Europe subsidy project Digital Deconstruction (DDC). Under the leadership of the Province of Limburg, 14 European project partners from France, Belgium, Luxembourg and the Netherlands are developing a digital software platform that can define materials in buildings for reuse and enable circular construction.

The DDC software platform consists of various digital components, such as 3D scanning, Building Information Modeling (BIM), digital materials and building database and blockchain technology. The integration of all these components makes the system interesting for the construction and demolition industry. Materials can be reused to a high standard and there is much less construction and demolition waste.

Green Transformable Building Lab (GTB Lab) from Heerlen, one of the 14 partners, leads the integration of the four technology modules on the Digital Deconstruction Platform and the test of DDC technology modules on 5 pilot sites (buildings in the Netherlands, Belgium, France and Luxembourg). The 3D scanner scans the surface of the building and based on those scans GTB Lab makes a 3D model, the so-called circular Reversible BIM model 'Durmisevic'. Reversible BIM detects all materials that can be reused and based on the analysis it defines the reuse options of materials. On this basis, reductions in CO2 and construction waste are calculated. Afterwards, Reversible BIM presents all materials with their dimensions within a '3D twin' of the building. The scanning is done under the supervision of GTB Lab and Luxembourg project partner BIM-Y. In collaboration with Blockmaterials (also partner in DDC), the data is stored in a materials database. Since 1977, the well-preserved remains of a Roman bathhouse can be seen in the Thermenmuseum in Heerlen. After thorough research and restoration, this is the oldest stone building in the Netherlands. A unique archaeological national monument of national allure. To properly manage, preserve and present it in an inspiring way to a large audience, this monument requires a new building.

The deconstruction of the Thermenmuseum/Roman Museum is an important pilot of the DDC project. The demolition of the building by Bureau Peutz will start in 2022 in sub-partnership with the municipality of Heerlen, with GTB Lab taking care of the activities

surrounding the development of the museum's deconstruction and reuse strategies. For the museum the start of an important transformation: from the Thermenmuseum to the Roman Museum de Thermen. A place to meet, a crossroads of connections between past and present, between Heerlen, South Limburg and the Euregio, between residents, entrepreneurs, students and tourists. After the test period of the technological DDC modules and their integration on pilot projects, an integrated DDC platform is expected to take shape in early 2023.



Note for editors:

Digital Deconstruction (DDC) is an innovative Interreg North West Europe (NWE) project to develop smart digital services that enable circular construction. More information at: <https://www.nweurope.eu/projects/project-search/digital-deconstruction/>

There will be a demonstration on Monday 5 July during the scanning between 11 am and 12 noon. You're welcome!

For more information about this press release:

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