

Straubenhardt – First Model Municipal Community in the Federal State of Baden-Württemberg to Commit to Recyclable Buildings

Unnecessary waste comes not only from drinking straws or plastic bags. Half of the waste produced in Germany currently comes from construction and demolition. And much of it is toxic. That is not all: construction uses enormous quantities of resources. Experts sound the alarm, and the municipality of Straubenhardt in the Enz district in Baden-Württemberg reacts. It is the first model municipal community in Baden-Württemberg to commit to the *Cradle to Cradle* principle in its new building projects, i.e. sustainable, recycling-enabled solutions to ensure that building materials can be reused in their original form after demolition. Today, the foundation stone is being laid for the first such project – the new fire station in Straubenhardt.

EPEA GmbH in Hamburg, a leading environmental consulting institute which has been a subsidiary of the Stuttgart-based planning and consulting company Drees & Sommer SE since the beginning of the year, is supporting the municipality of Straubenhardt in this exemplary goal. *Cradle to Cradle* or C2C means that the materials used in a project can be completely recycled. Basically, the raw materials for products, processes and buildings should be used in such a way that they are either preserved in the same quality, or that they can be completely removed and returned to the biological life cycle.

‘In practice, part of the waste from construction projects is already recycled, but only with a reduction in the quality. For example, the rubble from demolished buildings is mainly used as filling material, so it effectively becomes a downcycled product. However, recyclable building under the C2C principle means that the resources need to be used in such a way that they can be reused in construction materials with the same or even higher quality,’ says Daniela Schneider, the project partner at EPEA GmbH in her explanation of the process. In such recycling or upcycling, the usage value is significantly extended: buildings effectively become storage sites for raw materials. Demolition must then be understood as a source of raw materials, especially because the construction sector is one of the largest consumers of raw materials.

The Fire Station Building is the First Step.....

Straubenhardt started to put this approach into practice when the municipality began the construction of a new fire station building, designed by the Stuttgart-based architectural firm Wulf Architekten GmbH, which is due for completion in the fall of 2020. The new fire station marks the first step for Straubenhardt.

‘As a municipality, we want to set a good example,’ says Straubenhardt’s mayor, Helge Viehweg. In the further development of its transition to a sustainable municipality, Straubenhardt plans to implement further smaller C2C projects in daily life and hopes for the broad participation of the local community.

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EPEA GmbH: Circular Economy powered by Cradle to Cradle

EPEA GmbH – Part of Drees & Sommer is an innovation partner and international research and consultancy institute for environmentally compatible and recycling-enabled processes, products and buildings. The company was formed in 2019 through the merger of EPEA Internationale Umweltforschung GmbH, established by Professor Dr. Michael Braungart in 1987, and the project management and real estate consulting company Drees & Sommer. Its 35 employees work with experts and legal entities in industry, science and the public sector to advise on solutions for the circular economy. They apply knowledge from the fields of chemistry, biology and environmental science to develop or optimize products of all kinds with a view to materials healthiness and recyclability. They also develop concepts as to how material cycles in production processes, buildings or cities and municipalities can be closed.