

## **GYPSUM TO GYPSUM (GTOG): THE EUROPEAN LIFE+ PROJECT THAT AIMS TO TRANSFORM THE GYPSUM WASTE MARKET**

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The European Gypsum industry is one of the fully integrated industries within the construction sector, covering the whole life-cycle of the gypsum products from cradle to cradle. Gypsum products are indefinitely and fully recyclable, reason why the gypsum companies strive to effectively recycle the products at the end of their life-cycle. Gypsum waste can be differentiated in three categories based on its origin:

- Production waste (clean waste)
- Waste generated during new building construction works (usually clean waste).
- Demolition waste which includes demolition and renovation waste (mixed C&D waste).

The current demolition practices implemented represent the main barrier to create a recycling culture within the construction industry, leading to unsegregated C&D waste which is disposed of in landfills reducing the possibilities to recover valuable recyclable materials, like plasterboards, and contributing to an increase in the environmental impacts generated by this type of waste.

The overall aim of the GtoG project, From Production to Recycling: A Circular Economy for the European Gypsum Industry with the Demolition and Recycling Industry is to transform the gypsum demolition market to reach higher recycling rates of gypsum waste, thereby helping to achieve a resource efficient economy. Therefore, the GtoG project aims to put an integrated approach in place to holistically manage C&D waste, starting with the demolition sites, to the reinsertion of the recycled gypsum in the manufacturing process, via the processing of gypsum waste as a secondary raw material.

The project develops its technical activities through three differentiated actions:

- Action A, which analyses and evaluates the current practices in deconstruction/demolition, CDW characterization, processing of the gypsum waste for the production of recycled gypsum and its reincorporation into the manufacturing process.
- Action B, where 5 pilot projects implementing a set of deconstruction techniques, the decontamination and the waste qualification and reprocessing in gypsum manufacturing plants is being carried out in Belgium, France, Germany and UK.
- Action C, where the pilot projects are being monitored to assess the impact of the actions implemented. The end results will be a report on best practices to recycle plasterboard waste throughout the entire value chain.

The GtoG project is contributing to demonstrating that gypsum recycling rates can be increased and incorporated in the gypsum manufacturing process if deconstruction techniques are used in demolition and renovation works as gypsum waste, if correctly managed, can always be recycled into new gypsum.