## **GALVANIZED STEEL AND SUSTAINABLE CONSTRUCTION** SOLUTIONS FOR A CIRCULAR ECONOMY

Reuse



## CASE STUDY HOUSE D6 – SUSTAINABLE, REVERSIBLE HOUSING

The design task for this house in the Oberberg region of Germany was to construct a sustainable single-family dwelling, which incorporates the surrounding landscape into the living space and creates covered outdoor spaces for the rainy summer days in the region. The building follows the traditional, one-room deep longhouse concept with main rooms that take up the entire width.

The living room in the middle of the building reaches up under the roof and forms the central common room, from which the bedrooms, bathrooms and master bedroom on the upper floor are accessed. A galvanized steel walkway with a translucent grating connects the two independent units and leads to the common gallery in the two-storey living area. The slender steel and wooden skeleton construction are reversibly joined at all points.

The main galvanized steel beams are bolted to the columns and serve to carry the slender wooden beam ceilings. This ensures that the building is capable of deconstruction and reuse of the galvanized steel structure. The beams remain visible and create a warm atmosphere for living. Aretz Dürr Architektur's result is an architecture that focuses on the essential minimum to achieve the best outcome possible. The building was 'House of the Year 2020' in Germany.

## Above

All connections are reversibly designed to facilitate future deconstruction









Above

A bolted galvanized steel design will allow future deconstruction and reuse

Image credits: Aretz Dürr Architektur

## Learn more about galvanized steel and the circular economy

The galvanizing industry is moving forwards - keeping galvanized steel at the forefront of solutions for tackling climate change and delivering the circular economy.

Galvanized steel can provide innovative solutions that optimise durability and facilitate circularity of steel structures and components. These solutions can be easily implemented using this well-established and simple method of protecting steel.

Learn more at www.galvanizingeurope.org

