



Exploring circularity: Europengineers on piano

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Abstract

Europengineers organized a design sprint on the theme of reuse, which took place at Setec's headquarters from the 20th to 22nd February 2020. This was based on a study case: how could the 80 steel frames in the Thales factory be saved from the foundry and reused in another project? What barriers and difficulties would be encountered in such a project?

The teams of twenty engineers shed light on the design stages (find the client, use and shape), the technical challenges (Structural diagnosis and reliability, dismantling, storage) and marketing issues (marketplace, insurability).

Keywords: circularity, reuse, steel, design, diagnosis

1 Introduction

Europengineers is a network of independent European Consultants and Engineers that provide a comprehensive range of services throughout the world, with members based in the following countries: France, Greece, Italy, Ireland, Portugal, Spain, Switzerland, The Netherlands, Germany and the United Kingdom. Its aim is to share knowledge between members, and to facilitate this it organises a wide range of meetings, workshops, trainings and panel discussions. Europengineers organized a design sprint on the theme of reuse of

existing buildings, which took place at the Setec headquarters from 20th to 22nd February 2020.

We shall start with a quick reminder of definitions:

- Reuse: the structural components are identically used for their original purpose
- Repurposing: the structural components keep their original shape but are used differently (for example a column becomes a beam)