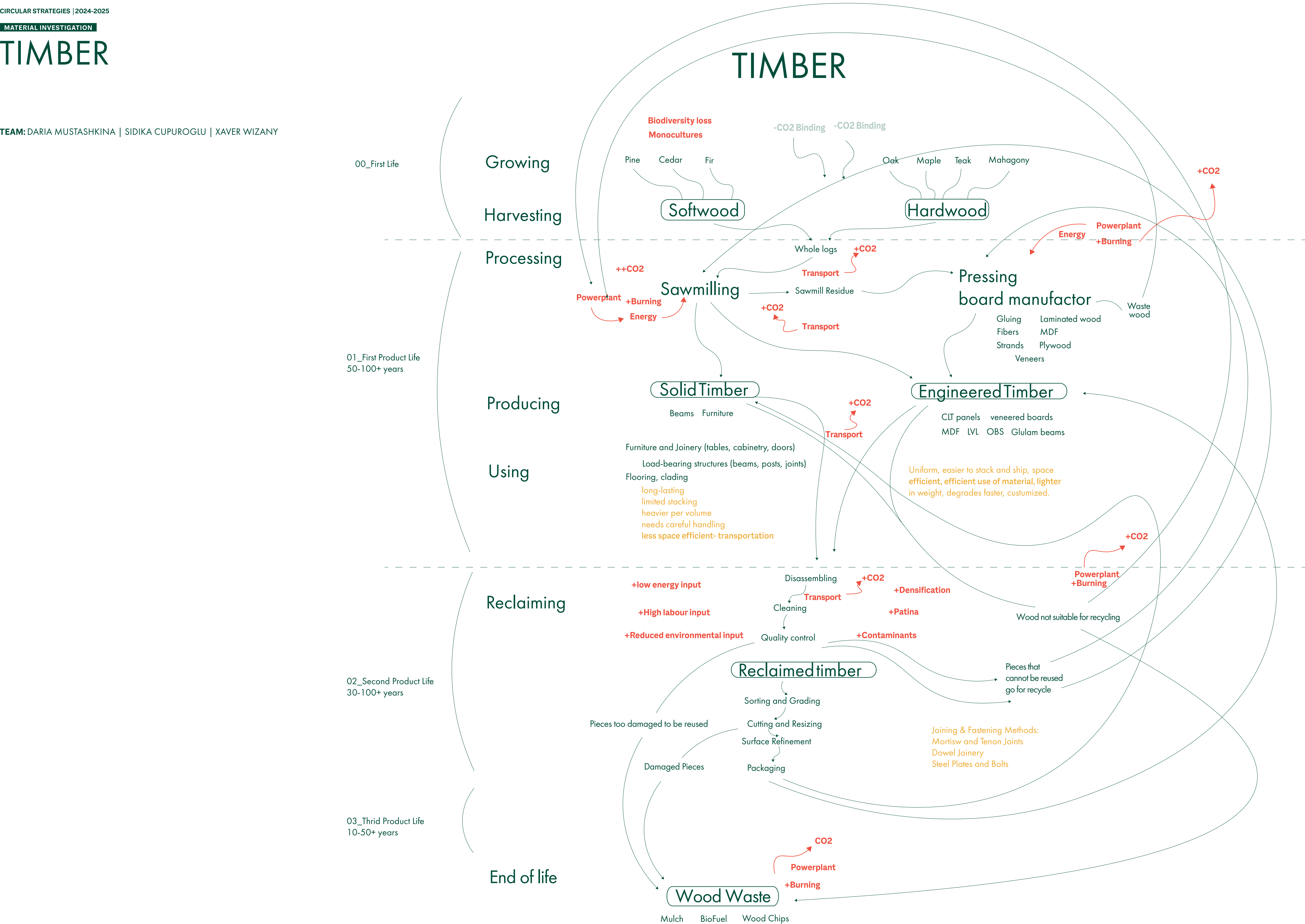


TIMBER

TEAM: DARIA MUSTASHKINA | SIDIKA CUPUROGLU | XAVER WIZANY



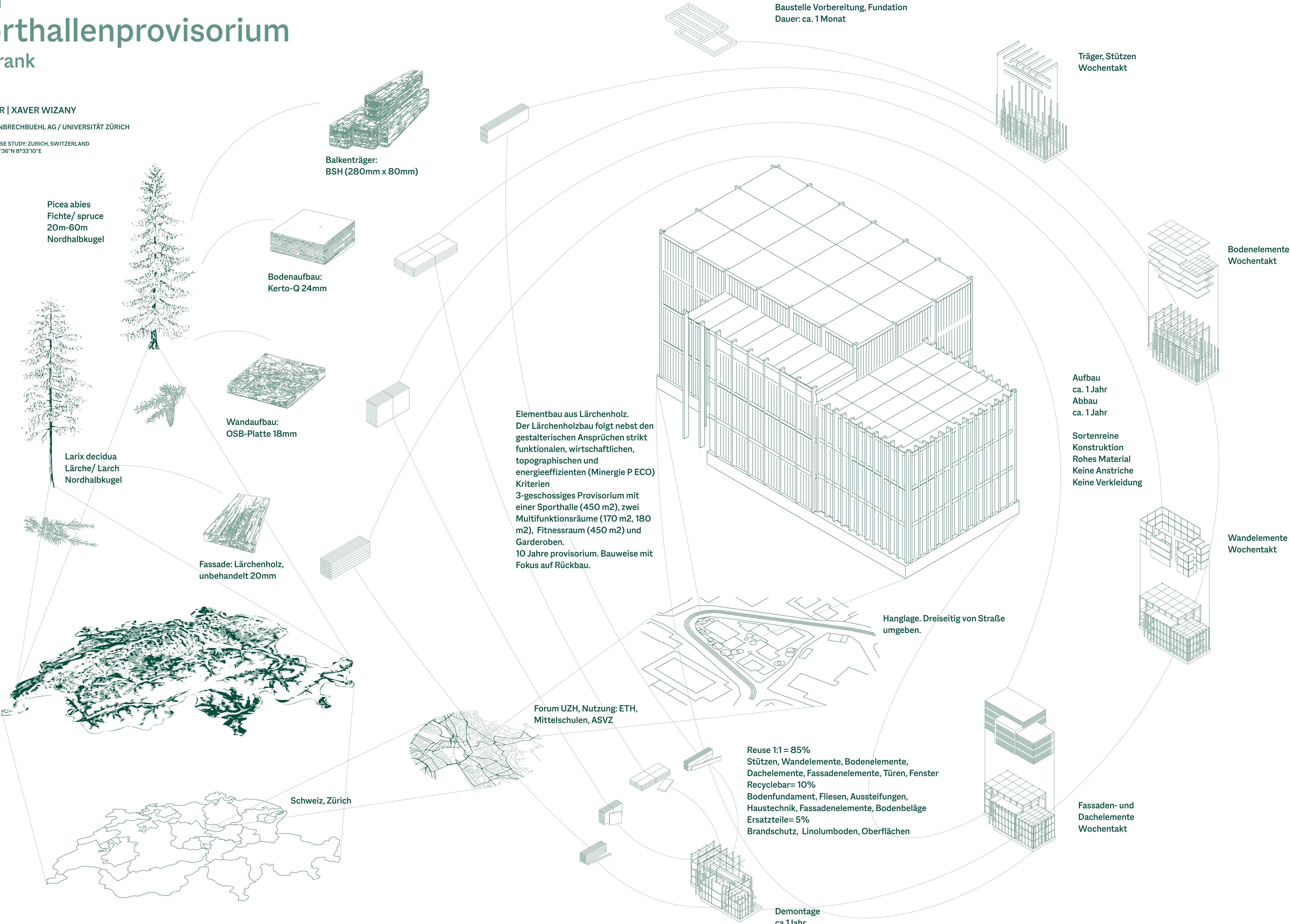
Sporthallenprovisorium

Gloriarank

TEAM: TIMBER | XAVER WIZANY

ARCHITECT: ITTENBRECHBUEHL AG / UNIVERSITÄT ZÜRICH

LOCATION OF THE CASE STUDY: ZÜRICH, SWITZERLAND
COORDINATES: 47°22'36"N 8°33'10"E
ALTITUDE: 420M



CIRCL PAVILION

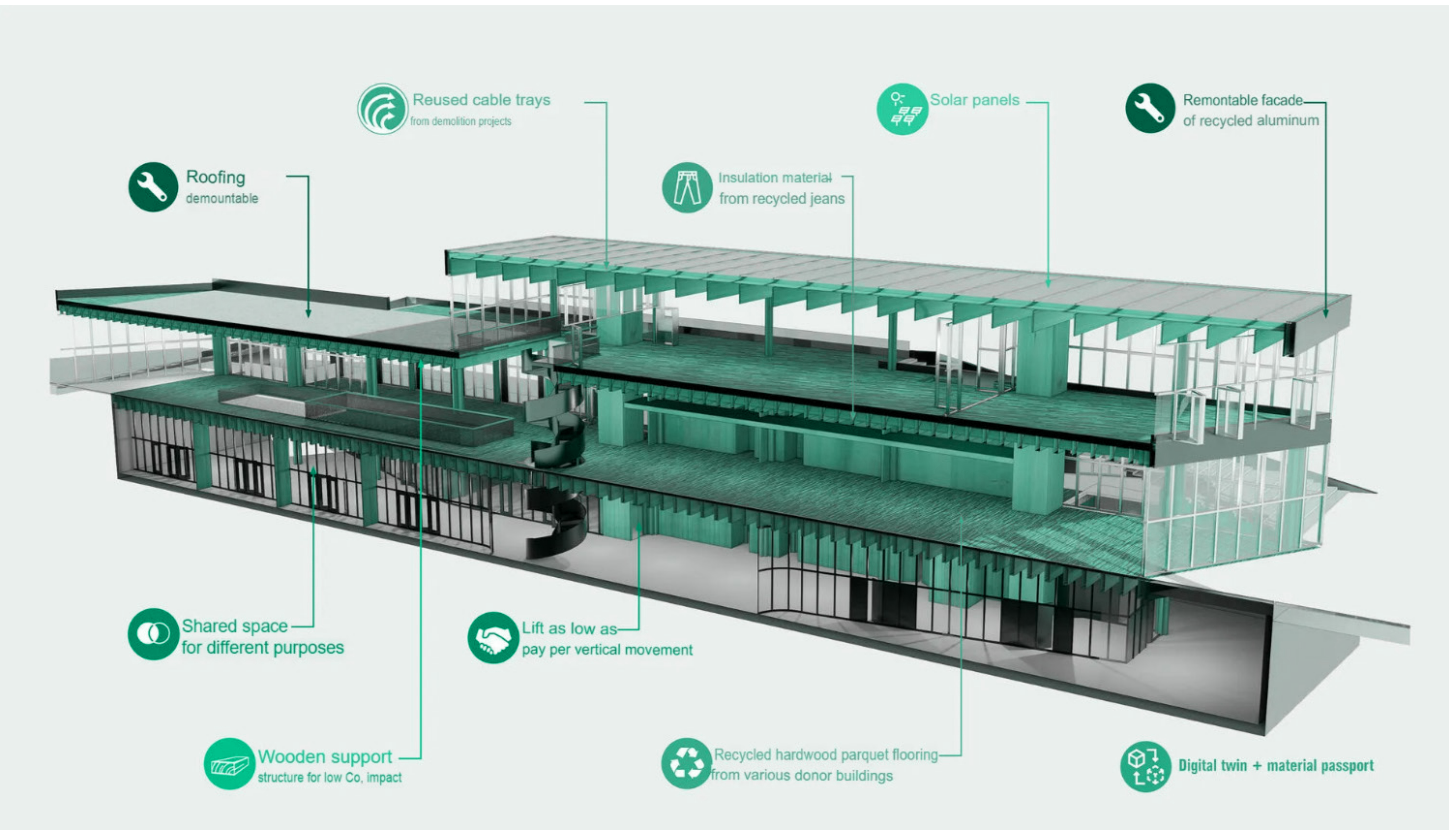
TEAM: DARIA MUSTASHKINA | SIDIKA CUPUROGLU | XAVIER WIZANY

ARCHITECT: DE ARCHITEKTEN CIE. B. V., AMSTERDAM

LOCATION OF THE CASE STUDY: AMSTERDAM, NETHERLANDS
COORDINATES: 52° 22' N, 4° 53' E
ALTITUDE: 2M



The ‘Circl’ pavilion is unique in the Netherlands: the first constructed practical example of sustainable and circular designs. The reuse of the applied materials was factored into the process right from the start. With the realisation of a circular pavilion, a philosophy has been put into practice. Together with client ABN AMRO, the TU Delft and the BAM, solutions have been found for problems that presented themselves along the way. The will and drive of the team to realise a maximum circular building has led to the ultimate feasible result.



Circular approach: components are bolted, not glued, enabling disassembly; materials are tracked via a digital building passport (LLMNT); systems like elevators and lighting are leased, supporting reuse and rental models.

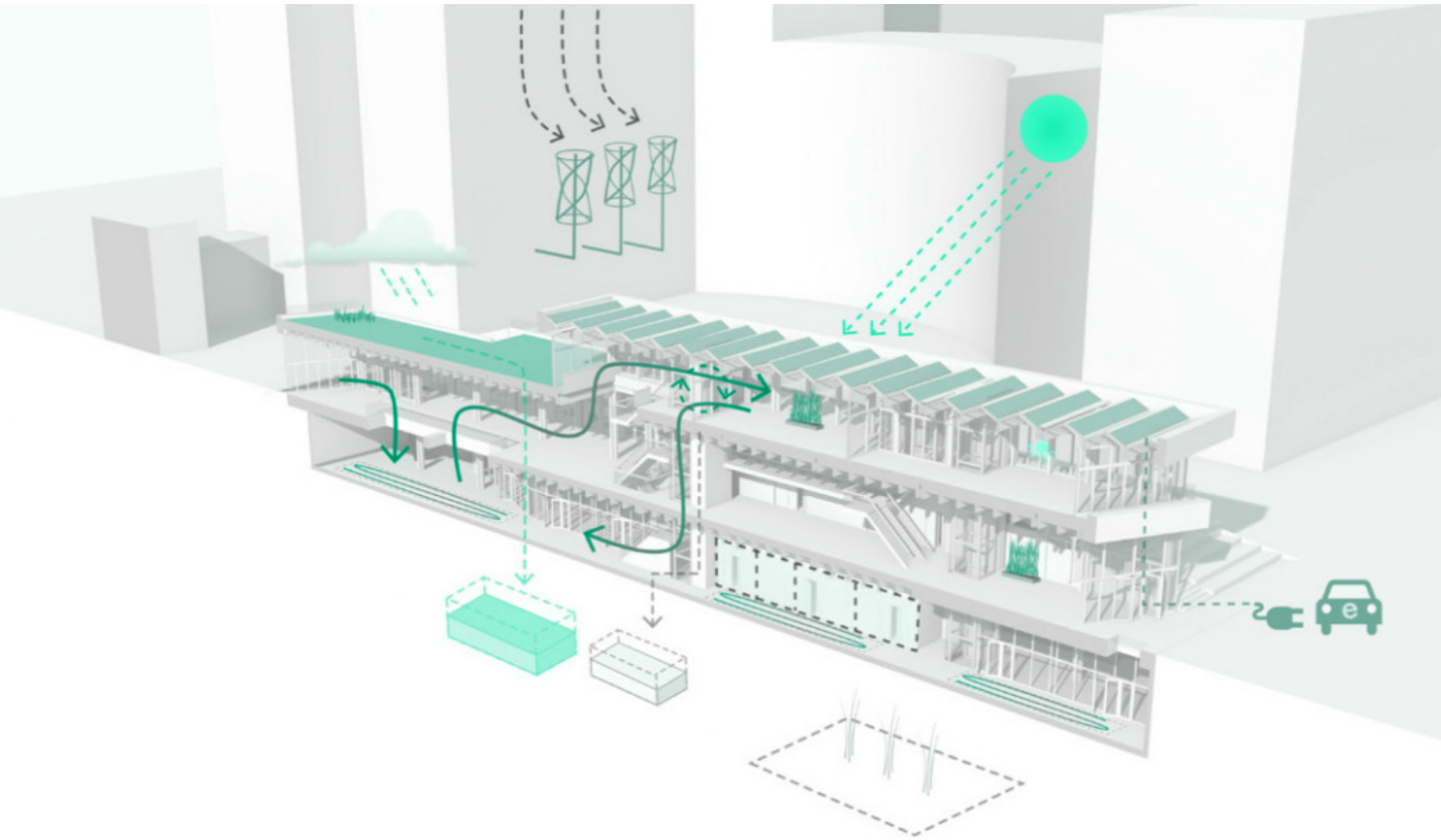
Process: locally sourced pre-used materials, assembled with dry connections; the building functions as a live test lab for circular construction.

Resources: reclaimed timber from a monastery floor, old window frames, and demolition wood; insulation made from 16,000 pairs of jeans once worn by bank staff; powered by over 500 rooftop solar panels.

Waste: construction generated nearly zero waste; all materials were chosen for future reuse and tagged with QR codes to track their lifecycle.



“The principles were clear: minimal single use of raw materials, as energy-neutral as possible, everything designed to be disassembled later. But how do you actually achieve that in practice?”

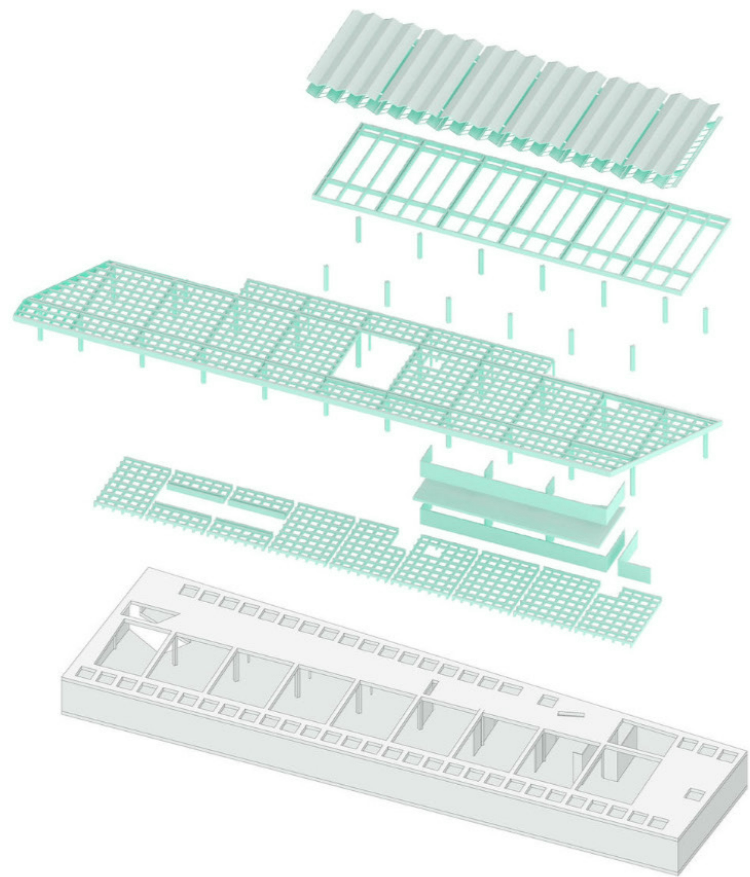


Discarded wooden window frames were transformed into high-quality wooden flooring, while old concrete was reused to create tiled floor surfaces.

The structural frame is built from locally sourced Larch wood, selected for its renewability and strength. This timber structure is designed to be fully dismountable, enabling the reuse of its components in future projects without damage or waste—supporting the idea of buildings as temporary material repositories.

The building also repurposes textile waste: 16,000 pairs of old jeans from bank employees and partners were shredded and used as insulating material in the ceiling.

A key feature of Circl’s operational model is its use of leased systems—such as elevators—which remain the property of the manufacturer and are returned after ten years.

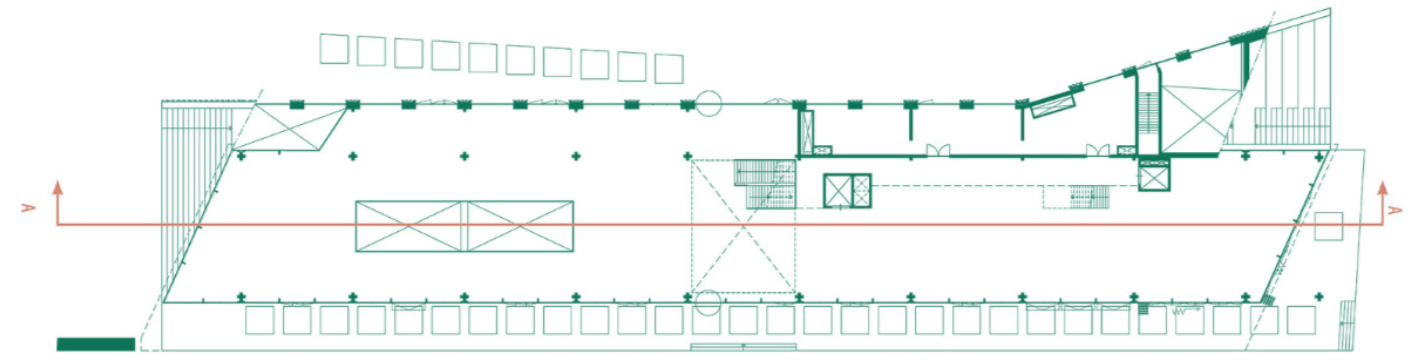
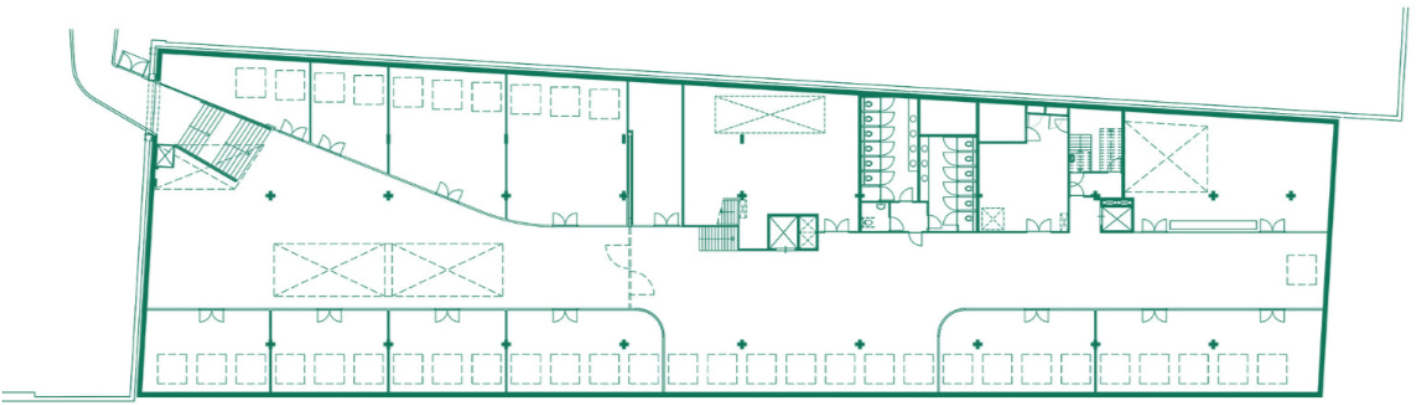


“So, the concrete structure that was meant to support the building was dropped in the new design. A relatively large amount of CO2 is released in the production of concrete, and it’s not something that can easily be recycled. In its place, large larch wood beams would be used and screwed together. Those beams are actually a fraction longer than they needed to be because this makes them easier to reuse. Simply saw off the parts of the beams where they were screwed together and you’re left with wooden beams that can be used straightaway to support another building. The supplier also delivered the leftover parts of wood to the bank. They would be used later to make large parts of the restaurant’s interior.”



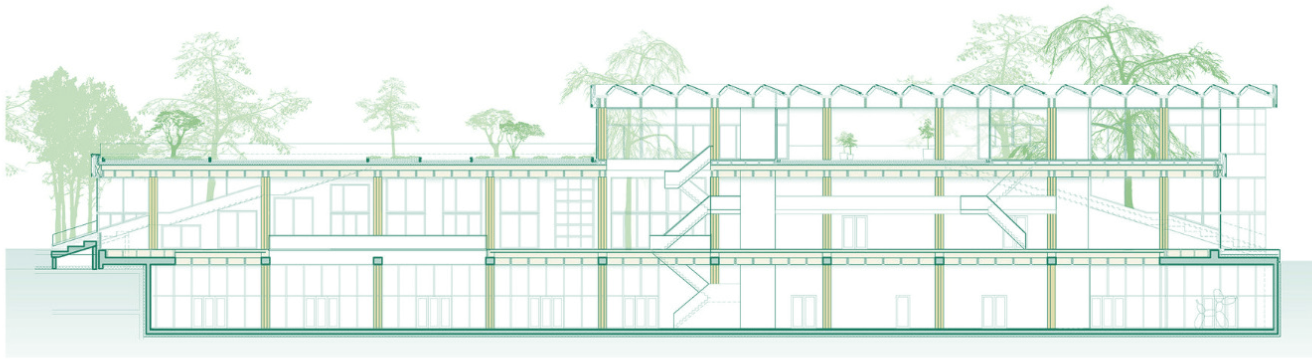
“dry assembly” approach—entirely devoid of bonding agents—ensures all parts are joined via screws, bolts, clicks, or clamps, enabling complete disassembly and reuse.

A standout feature is the direct-current (DC) electrical system: solar panels feed appliances and LED lighting without conversion losses, eliminating the need for inverters or adapters. Additionally, the building implements urban mining, integrating salvaged materials—such as paving stones, fire-hose reels, and cable conduits—from demolished structures, turning waste streams into upstream resources.



Circl isn’t just a building — it’s a dynamic ecosystem where circular strategies are tested and shared.

Designed as a “clubhouse of circularity,” it hosts workshops, debates, social events, and food labs, all aimed at accelerating society’s transition to a circular economy. Circl redefines what a building can be: a living laboratory, a shared knowledge base, and a testbed for circular solutions.



TWO CORK HOUSES_CATALONIA

TEAM: TIMBER_SIDIKA CUPUROGLU

ARCHITECT: EMILIANO LÓPEZ MÓNICA RIVERA ARQUITECTOS, BARCELONA, 2016

PALAFRUGELL, GIRONA, CATALONIA SPAIN
COORDINATES: 41.8880° N, 3.1840° E



Total Area : 250 m²~
Function: Private Housing

MATERIALS

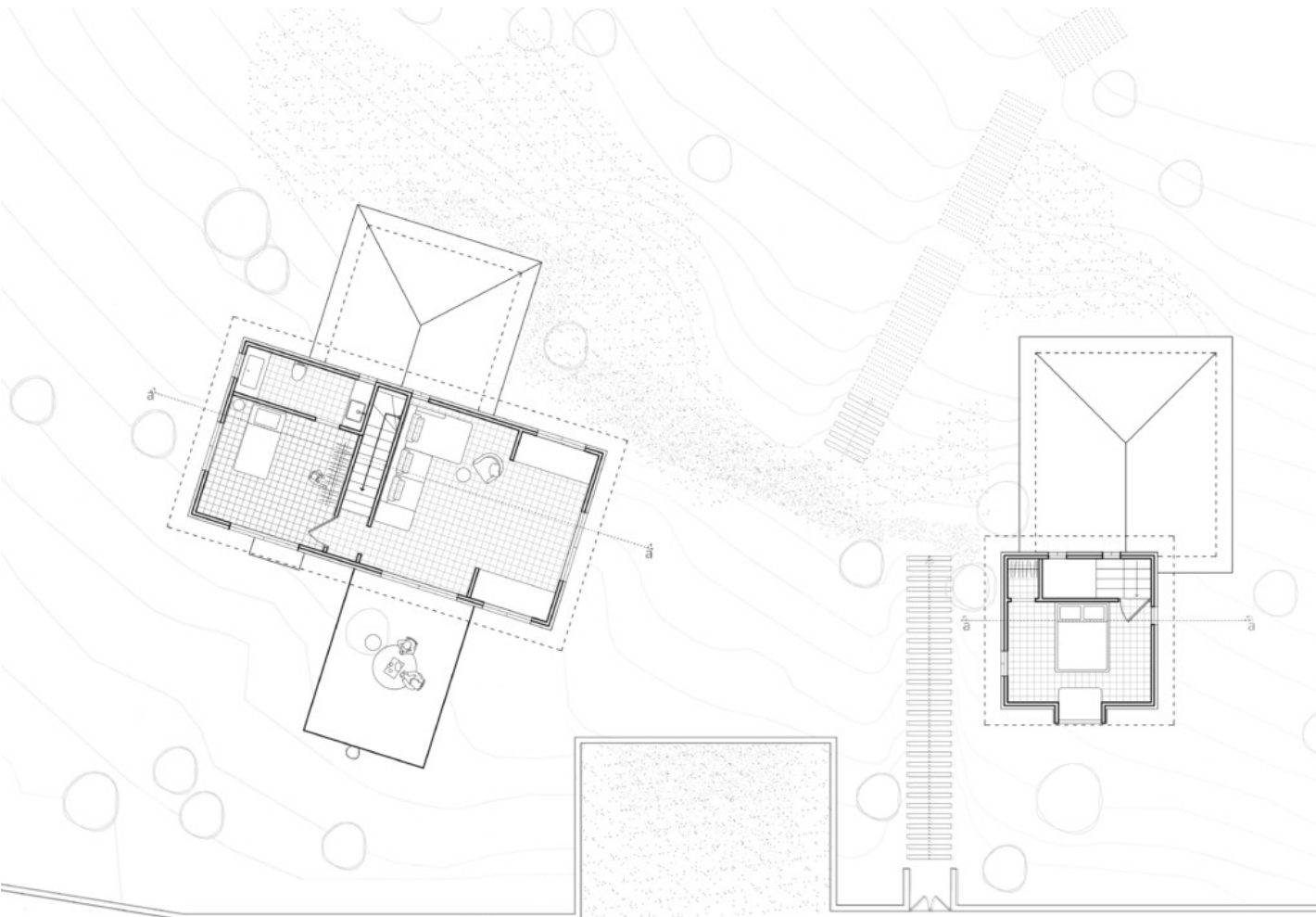
Cork out of Oak Bark
Cross laminated Panels out of Pine wood
Concrete

CIRCULAR APPROACH

- Existing vegetation has been preserved and enhanced with new Mediterranean plantings.
- locally produced prefabricated CLT panels out of regional pine trees.
- Local cork resource from the forrests of the Basque Country
- short transportation to the site
- Local sourcing = local jobs supporting regional economies and traditional crafts.
- low impact construction



SECTION



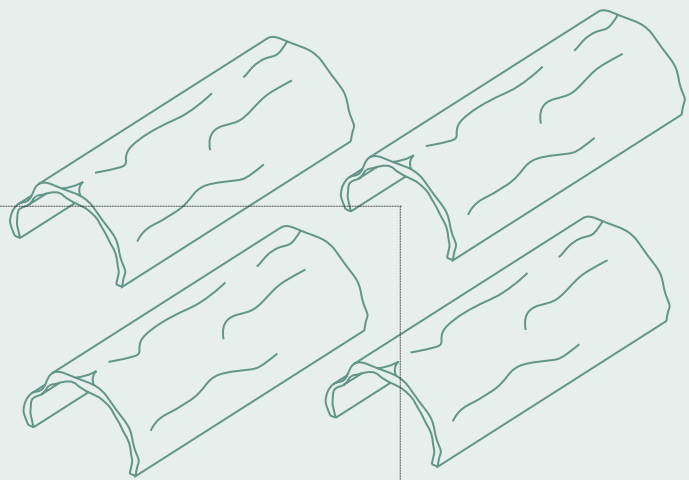
PLAN



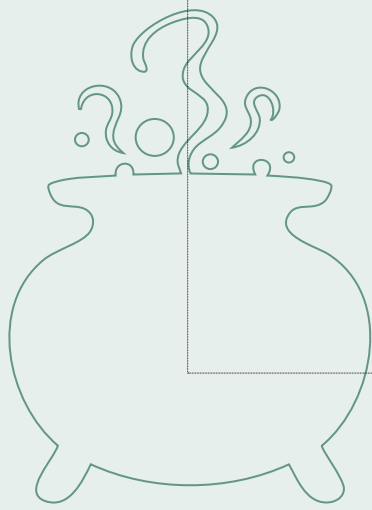
CORK PRODUCTION



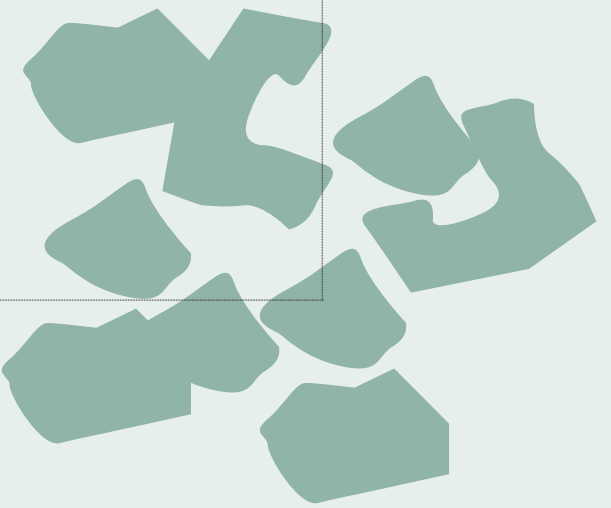
Oak Trees average lifespan is 200 years.
Harvest is beeing done during May to August



The harvested cork planks are then stacked and dried for several months. Cork is harvested by hand using specialized tools. The process is often a family tradition, with skilled workers known as “tiradores” delicately removing the bark



The dried bark is boiled in hot water for about an hour. This process cleans and disinfects the material, causes it to expand and become softer and more flexible, and improves its insulation properties.



Granulated and shaped. After boiling, the cork is pressed flat to shape it and smooth out natural curves. Then it is left to rest and dry again (2–4 weeks) before further processing.

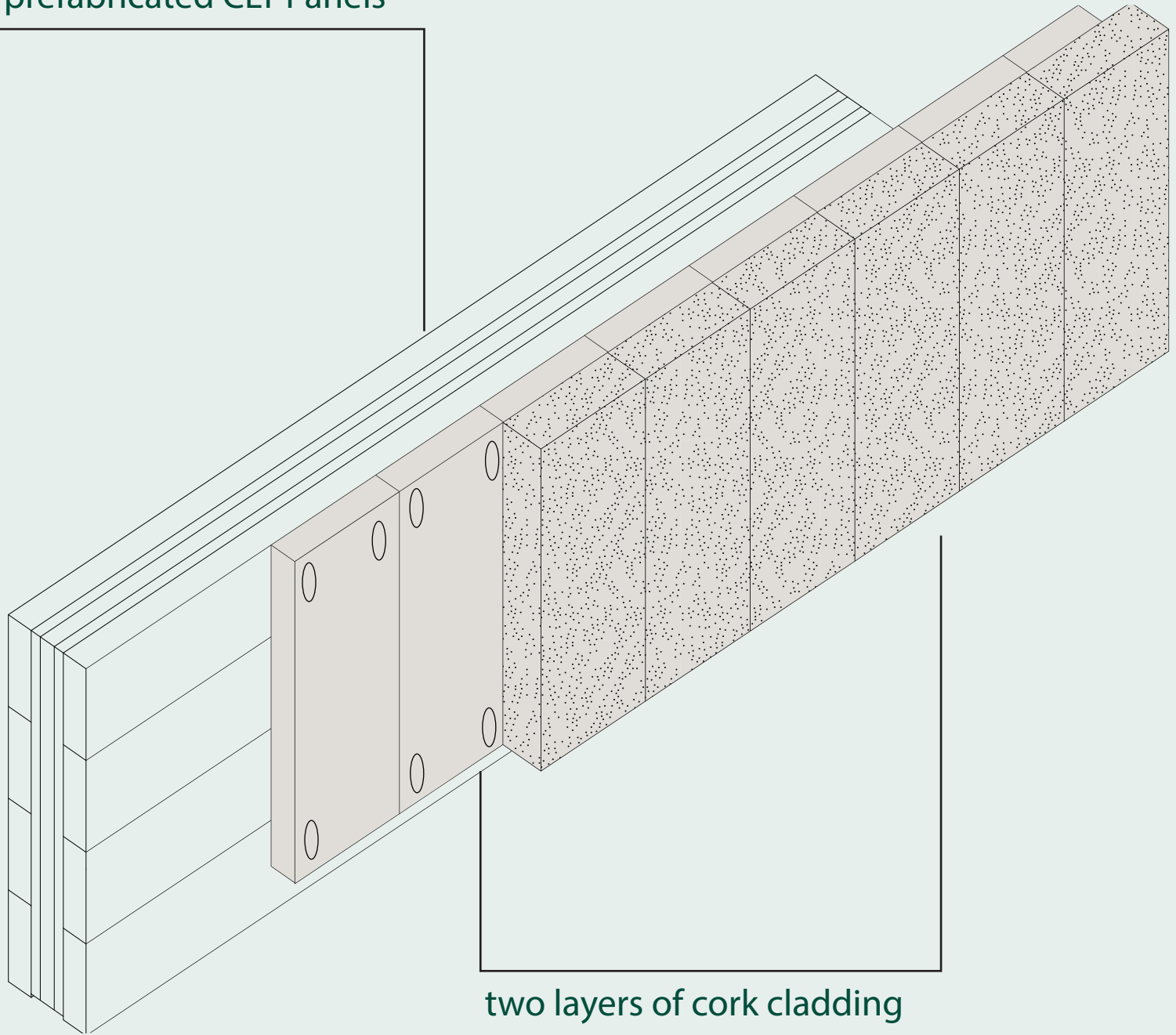
9 years cycle

CONSTRUCTION

The cork panels used in the two buildings serve a dual purpose: they function both as external insulation and as facade cladding. A 40 mm-thick layer of cork is mechanically fixed to the timber structure of the buildings, followed by a second 50 mm-thick layer applied with lime mortar



prefabricated CLT Panels



two layers of cork cladding