

RAICO

Inspired by the greenest
building in the world: *nature*.

ELEMENT⁺ H-I

MODULAR | REAL | SUSTAINABLE
The first real timber element façade



MEGATREND #1
GREENBUILDING



MEGATREND #2
**NATURAL
BUILDING MATERIALS**



MEGATREND #3
CONSTRUCTION TIMES

“If everything keeps growing, won’t we eventually be in over our heads?”



MEGATREND #4
**SKILLED LABOUR
SHORTAGE**



MEGATREND #5
URBANISATION



MEGATREND #6
REDEVELOPMENT

STATUS QUO

Megatrends in construction

The whole world is changing, and the construction world is also exposed to influencing factors, developments and technological changes – the so-called “megatrends”. This includes the climate crisis as well as demographic change or comprehensive digitalisation. We have taken a closer look at the most relevant megatrends for our industry and used them as the basis for our new development.

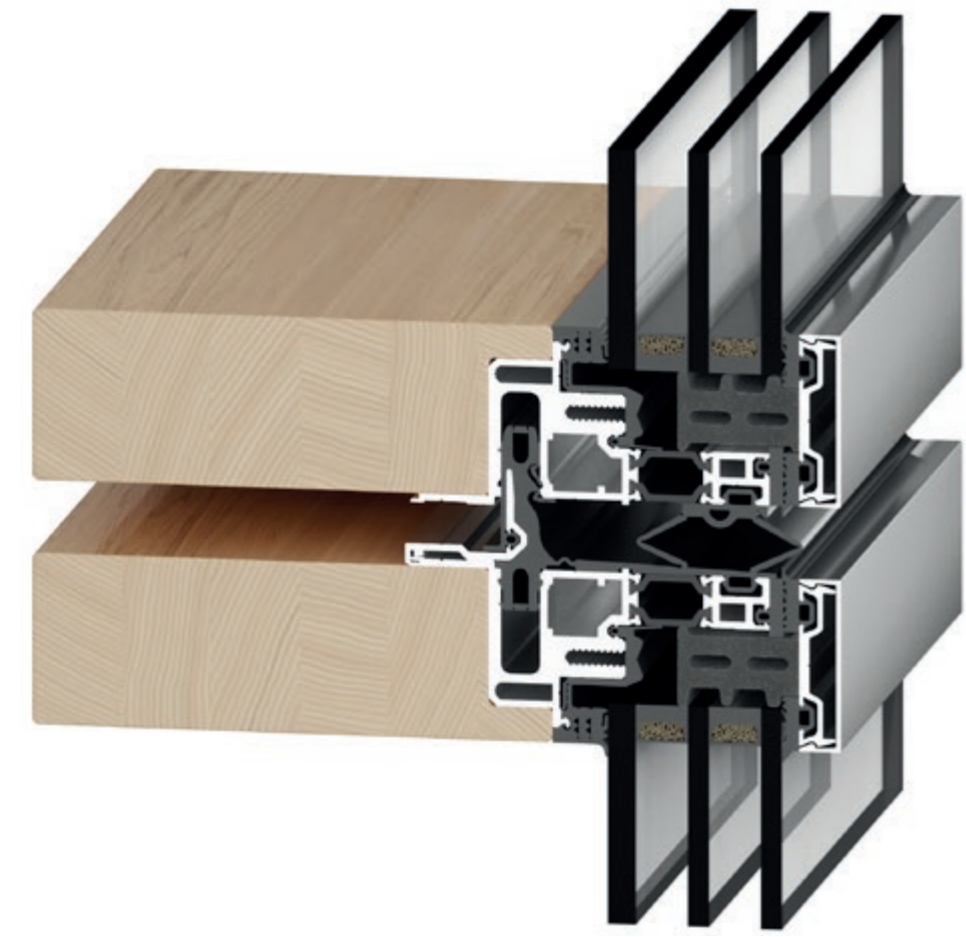
Fact: Construction accounts for almost 40% of global CO₂ emissions. As a systems supplier, we, therefore, see it as our responsibility to pay special attention to the topic of **GREEN BUILDING**. But what exactly does that mean? Does green building mean building with a few flowers and plants make it seem less disruptive to the environment? To erase the CO₂ footprint that goes into all those climate-damaging resources like concrete? Greenwashing it?

For us, green building is an attitude. A self-contained cycle in which we not only have growth in mind but also always the sustainable creation of value for people and the environment. That is why we already pay attention to later recyclability during the planning stage.

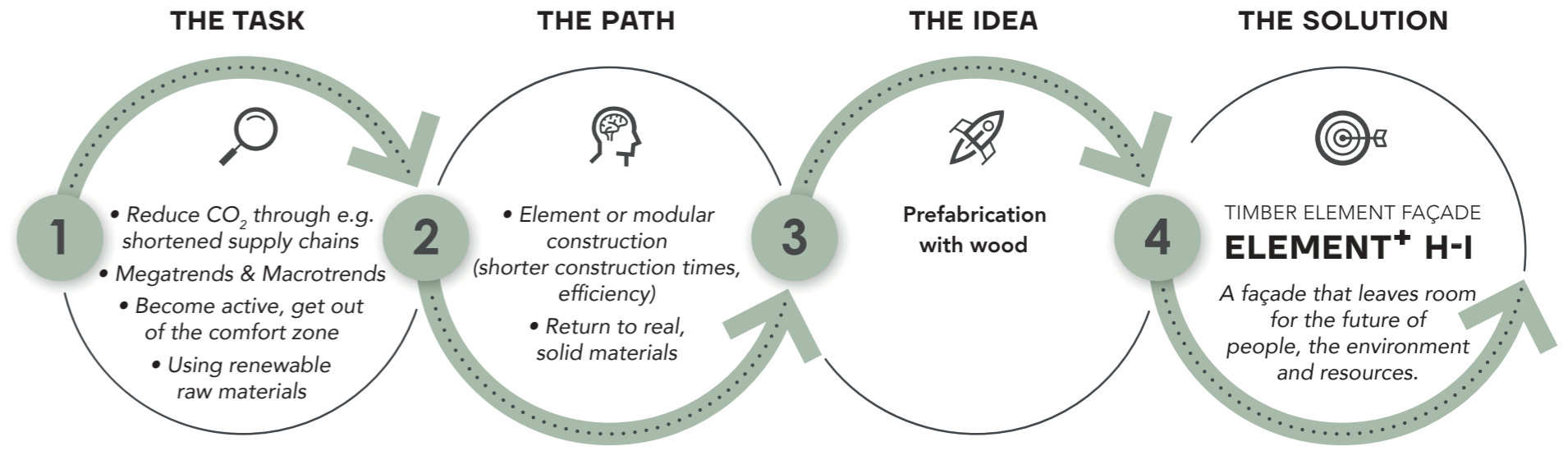
Our development results in the new RAICO ELEMENT⁺ H-I façade – the first true Cradle to Cradle certified* timber-aluminium element façade.

* For the market launch, certification according to the Cradle to Cradle Certified® product standard version 4 in silver by EPEA GmbH in Stuttgart is about to be completed. This seal attests to the environmentally intelligent design as well as the positive footprint of the materials used throughout the entire life cycle from cradle to cradle.

MODULAR | REAL | SUSTAINABLE ELEMENT+ H-I



Please scan the QR code:



Turn growth into added value and think about recycling today.



PRODUCT INFORMATION

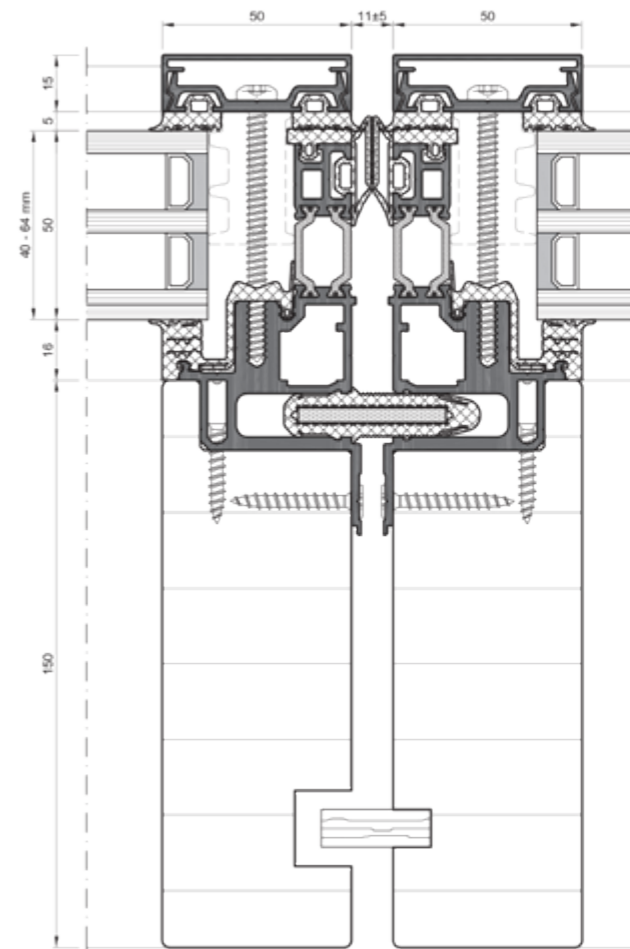
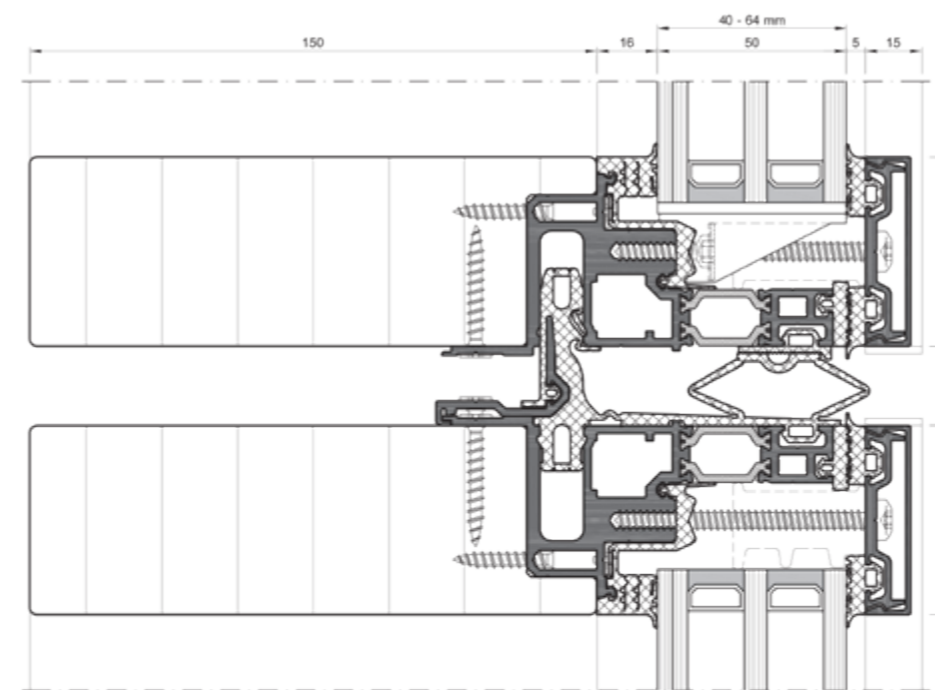
- Suitable for large projects due to very high level of prefabrication
- Optimised for just-in-time assembly
- Based on the proven RAICO THERM+ H-I façade system
- Sight-line width frame: 50 mm
- Possible glazing thickness: 40–64 mm
- Passive house certified

Please scan the QR code:



ELEMENT+ H-I Sections

The concept of the environmentally friendly, modular element façade made of solid timber is based on the proven RAICO THERM+ H-I façade system. Due to the very high level of prefabrication, large projects and time-critical construction sites can be assembled efficiently and just in time. ELEMENT+ H-I also meets strict urban planning requirements regarding ecology and energy efficiency.



Element dimensions W x H up to:

3 x 4 m

Air permeability according to EN 12152:

AE

Impact resistance according to EN 14019:

E5 / I5

Element weight up to approx:

1,000 kg

Driving rain resistance acc. EN12154:

RE 1800

Resistance to wind load (EN 13116):

2.5 kN/m²

Aluminium savings compared to commercially available aluminium element façade:

approx. 60%

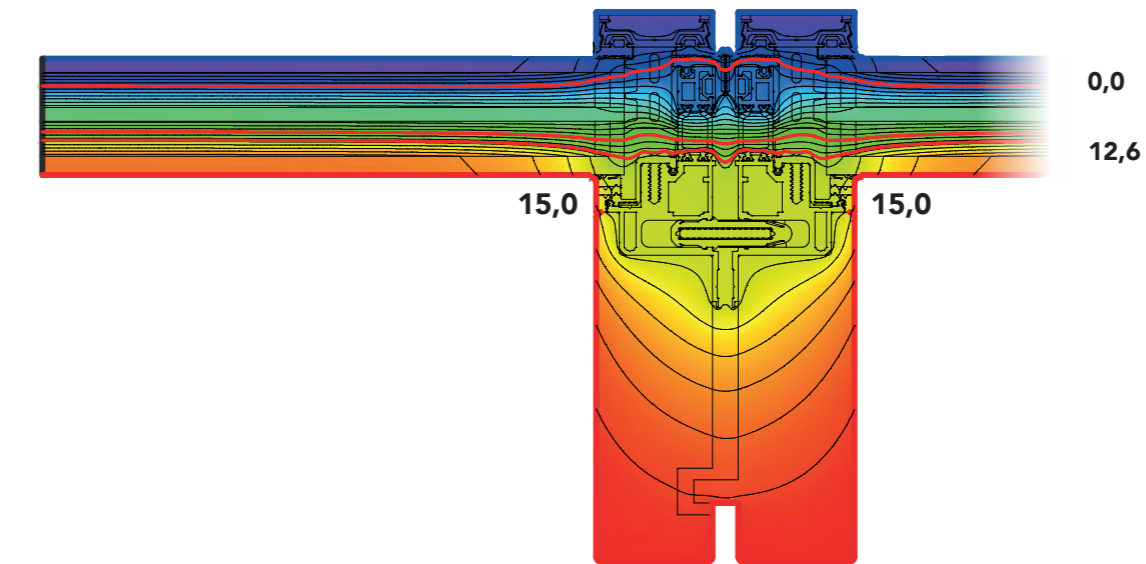
ELEMENT⁺ H-I

Technical Highlights

In addition to ecological advantages, RAICO ELEMENT⁺ H-I naturally also scores technically: With 1,800 Pascal, the driving rain resistance according to EN12154 exceeds standard aluminium façades approximately two fold.

THERMAL INSULATION VERTICAL/HORIZONTAL

- Thermal insulation values of $U_{m,t}$ = approx. 1.70 W/m²K with screw influence, without insulation blocks



SUSTAINABILITY/CERTIFICATES

- Target Cradle to Cradle Certification in Silver Collaboration with EPEA GmbH – Part of Drees & Sommer **in progress*
- EPD (Environmental Product Declaration) according to DIN EN ISO 14025 and DIN EN 15804 – Collaboration with ift Rosenheim GmbH **in progress*



A façade that leaves room for the future of the people, the environment and the resources.

ELEMENT⁺ H-I FAQs

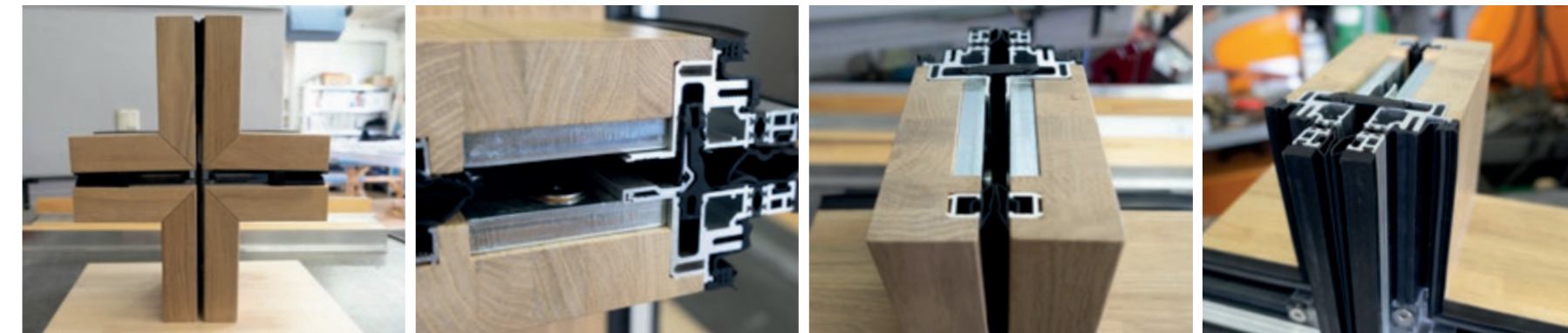
What relative advantage does the product have over other manufacturers or comparable products?

With ELEMENT⁺ H-I, aluminium is not just clad with wood, it also acts as the load-bearing component. The aluminium attachment is only for the functional level (weather protection, building physics/heat insulation), which saves us a lot of aluminium compared to standard aluminium element façades. In addition, we have proven a very high driving rain resistance with class RE1800.

Are there certain requirements or restrictions for the use of the product?

There are restrictions on the element dimensions of max. 3.0 m width x 4.0 m height and an element weight of max. 1,000 kg.

Due to fire protection regulations, the product can only be used for buildings above the high-rise limit in close coordination with all project participants and the building authorities.



SAMPLE

“If you had the opportunity to design buildings even more sustainably, would you do it?”

WE WOOD.

If you want to move something forward, you sometimes have to take a step back. RAICO thought the same and took inspiration for the development of the new ELEMENT⁺ H-I façade from the “greenest building in the world”: nature. The product presentation of the modular, cradle-to-cradle certified system made of wood illustrates the advantages of the element construction method for planners and fabricators, users, as well as sustainability. ELEMENT⁺ H-I inspires the architecture of tomorrow, provides answers to megatrends, and combines value creation, economic efficiency and recyclability.

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