

INNOVATIVE CONSTRUCTION

climate-neutral | resource-saving | sustainable

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CEPS-Panel
“Green and resilient construction”,
Brussels, June 6th, 2023

Everyone shapes the future of building by deciding on a certain form of living.



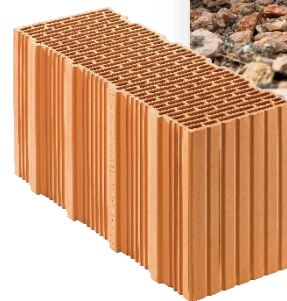
SUSTAINABLE PRODUCT USE

Construction AND Operation = Footprint



SUSTAINABLE PRODUCTION

- green energy sources
- circular production
- regional value chains



BRICK BAUHAUS 2050 One standard - nine qualities

Brick Bauhaus 2050 is an Austrian building standard based on nine scientifically developed qualities for climate-neutral, resource-efficient, sustainable and healthy construction.



„Brick Bauhaus“-sun: 9 qualities for sustainable buildings



1 Climate neutrality

Construction and operation of the certified buildings produce so little CO₂ that climate neutrality is realised.



2 Climate resilience

The buildings do not overheat in summer and are prepared for extreme weather events and energy supply failures. The desired performance will also be achieved in the predicted Austrian climate of the year 2100, which will be similar to the current climate in southern Europe.



3 Nature conservation

The certified qualities of each project guarantee that land use is optimised, environmental impacts from production, transport and use of building materials are reduced, green and open spaces are maximised and biodiversity is promoted.



4 Affordability & economic efficiency

Cost analyses for a period of 100 years, looking beyond the construction costs.



5 Energy sector coupling

The preferred use of local energy sources, such as solar energy, enables long-term flexibility in operation.



6 Circular economy, regional, recyclability

Regional, local, recyclable building materials and products are used.



7 Social inclusion and security

The building has a differentiated housing mix, affordable quality housing and security.



8 Health & Comfort

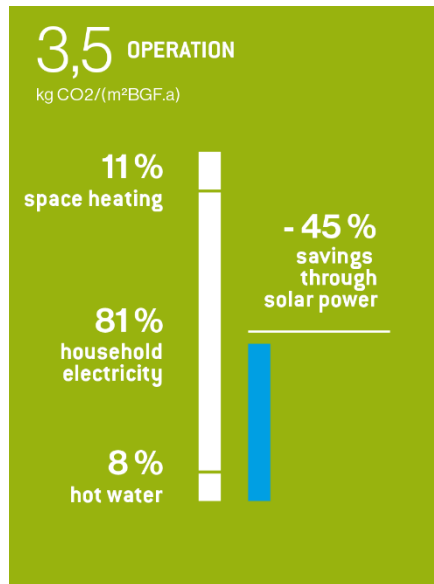
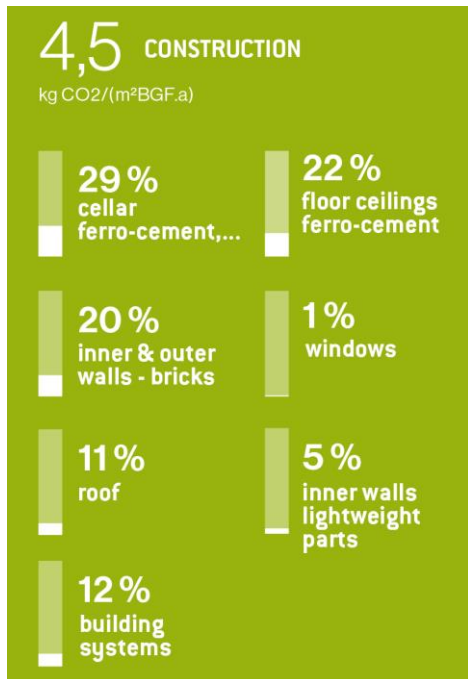
The building has a comfortable indoor climate and supports the health of the residents.



9 United Nations Global Goals

Embedded in the United Nations Global Goals for sustainable development and transformation.

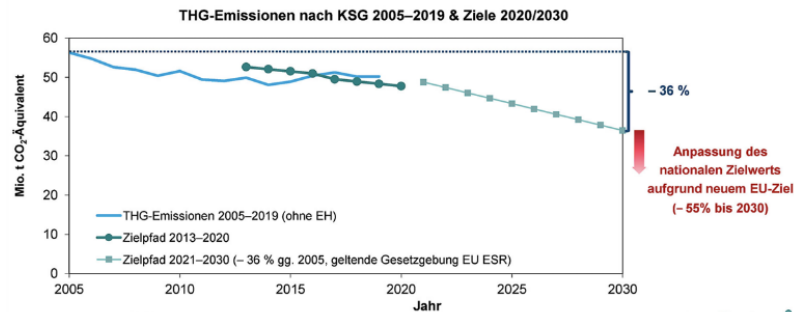
A goal without a plan is just a wish. *Antoine de Saint-Exupéry*



TARGET = 11 KG CO_{2E} per m²GFA.a

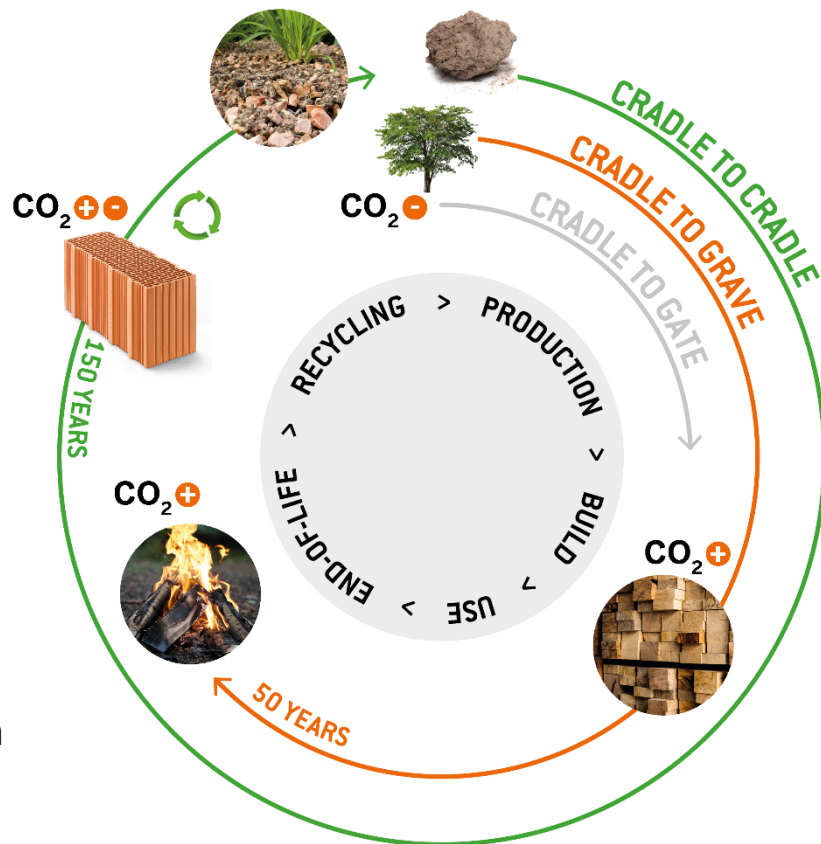
(GFA = gross floor area)

to fully support the Green Deal & reach the 1,5°C-goal for building sector



FAIR COMPARISON = CRADLE-TO-CRADLE

- **Cradle-to-cradle approach** for CO₂ balance
- **Life cycle analysis** in building material comparison as per EN 15804 “Sustainability of construction works”
- **Forests** must remain **CO₂ sinks**
- **Long life cycle** supports climate protection



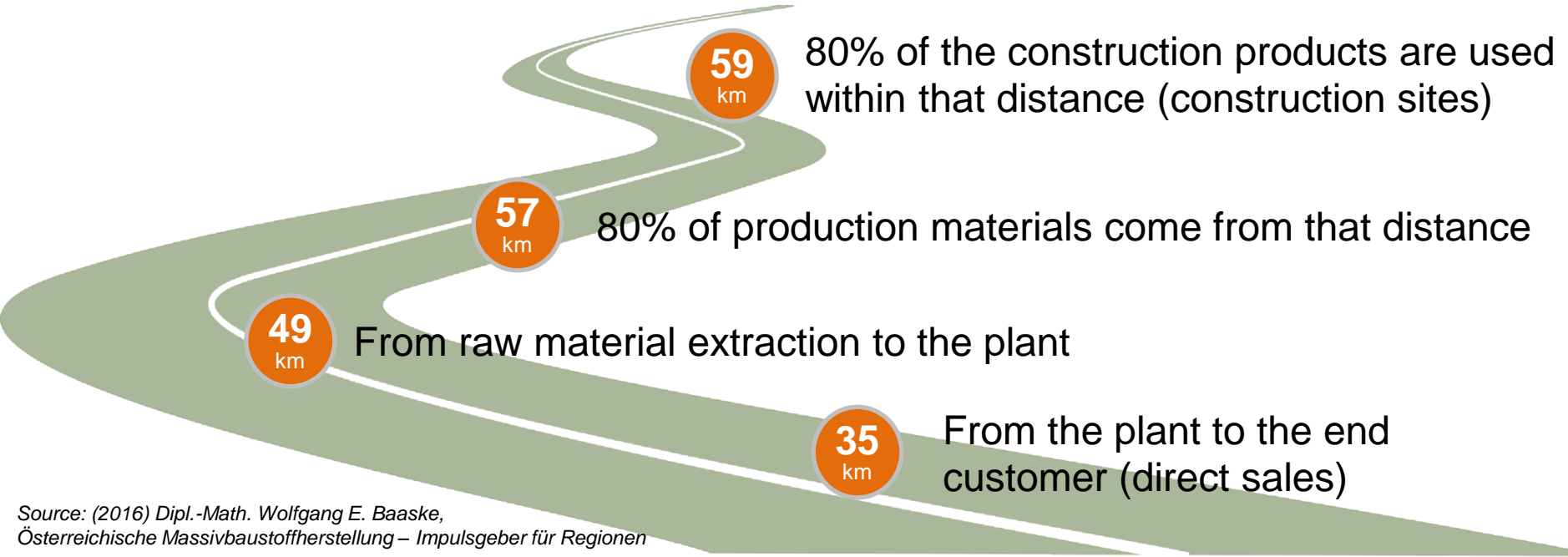
WE LIVE CIRCULARITY

- Mineral construction materials are **infinitely recyclable**
- **Raw material reservoir**
“Construction works as material storages” are „**used**“ not „**consumed**“
- **„Urban Mining“**
is a secondary raw material stream for re-use in addition to primary raw materials
- **Biodiversity conservation** with circular material streams



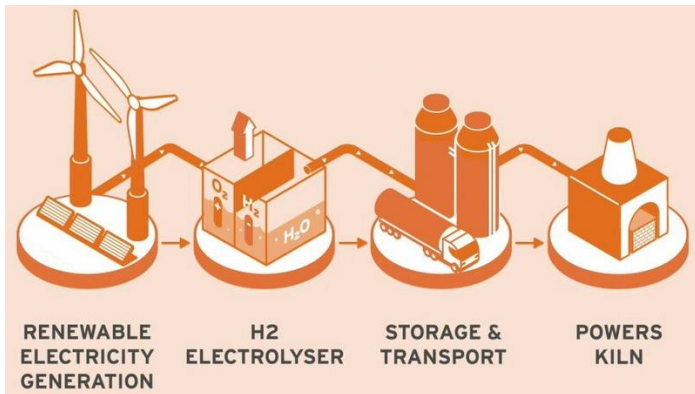
* Average distances for Austria

Massive construction materials are record holders for **short transport distances**



The **European Brick Industry** is working on net zero production methods, e.g.:

- use of highly efficient, novel kiln technology based on green electricity and green gases,
- use of heat pump technology to improve energy efficiency in drying bricks,
- adaptation of existing gas kiln technology for the use with green hydrogen



Source: Michelmersh



Source: Senftenbacher



The carbon neutral production is a challenge that we already have accepted.

But: We as SME's can't become full energy suppliers!

Without (public) infrastructure and supply of energy we are powerless.

- Supply of affordable **green energy** in industrial scales
- Infrastructure for the transport and further processing and / or storage of the captured CO2 from process emissions (CCU/CCS)
- Solutions for landlocked countries with no access to (undersea) CCS-possibilities



Source: Earth.org

Goal: That shouldn't just be an icon image!

We welcome actions that strengthen the European economy:

- The “Green Deal Industrial Plan” and the “Net-Zero-Industry-Act”
- The InvestEU programme

We support and keep the transition going:

- Stepping up of **EU-fundings to increase the speed of transformation**
- **(Legal) solutions** to make the Net-zero-industry-act NZIA work for member states with no possibility for **CCS**
- Timely unlimited authorization of **state aid for zero-emission-technologies and infrastructure**
- **Simplification of procedures** (e.g. one-stop-shop) for easier implementation of projects (including avoidance of “gold-plating” in member states)

Brick Bauhaus 2050

Klimaneutral Bauen und Wohnen - eine wirtschaftliche Lösung für den Wohnbau

www.brickbauhaus2050.at



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New European Bauhaus
beautiful | sustainable | together



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ZIEGEL





Any Questions?

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