



## Creating a basis

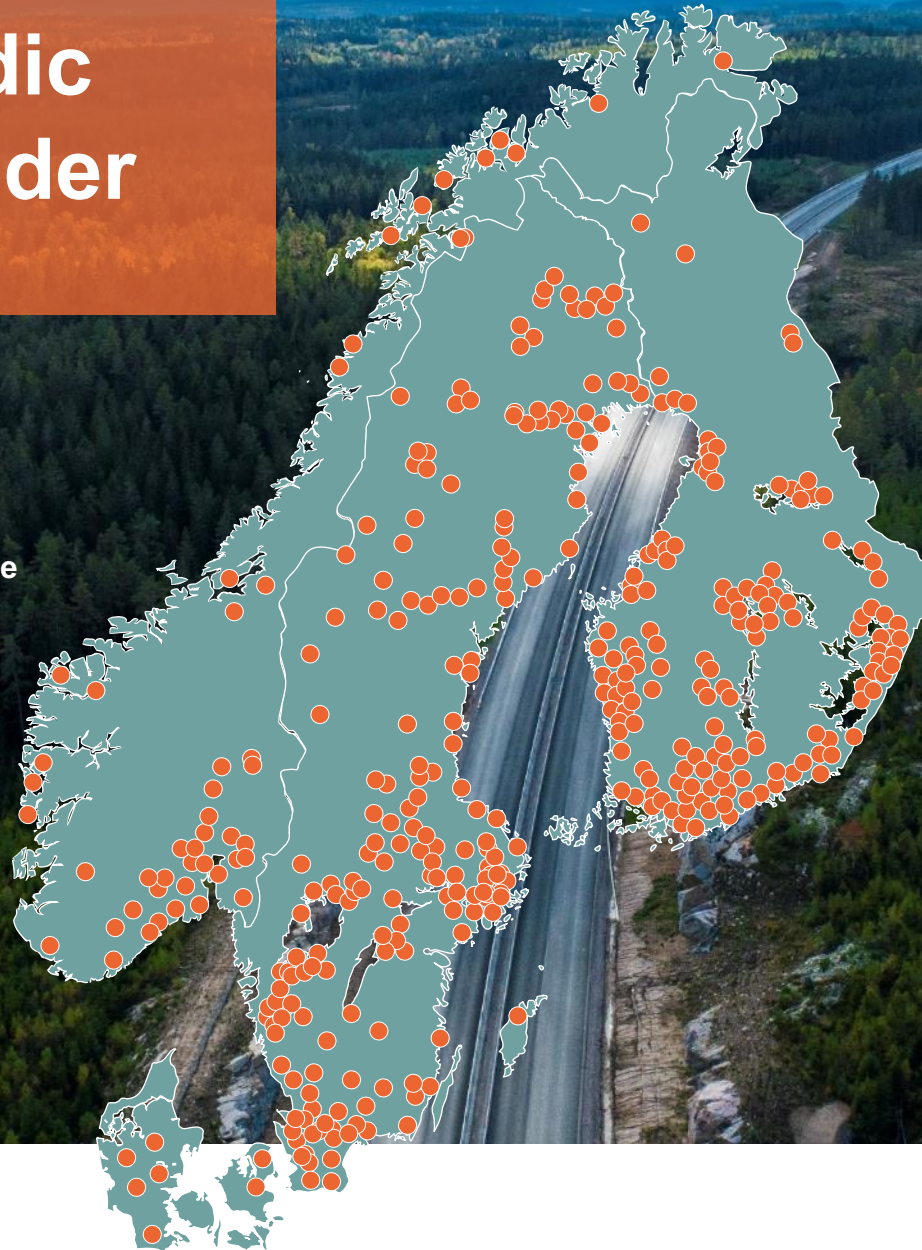
- Potential climate impact reduction in the construction industry



# Peab is the Nordic Community Builder

## Strong core values

Down-to-earth • Developing • Personal • Reliable



**15,000** employees

**63** billion SEK in net sales

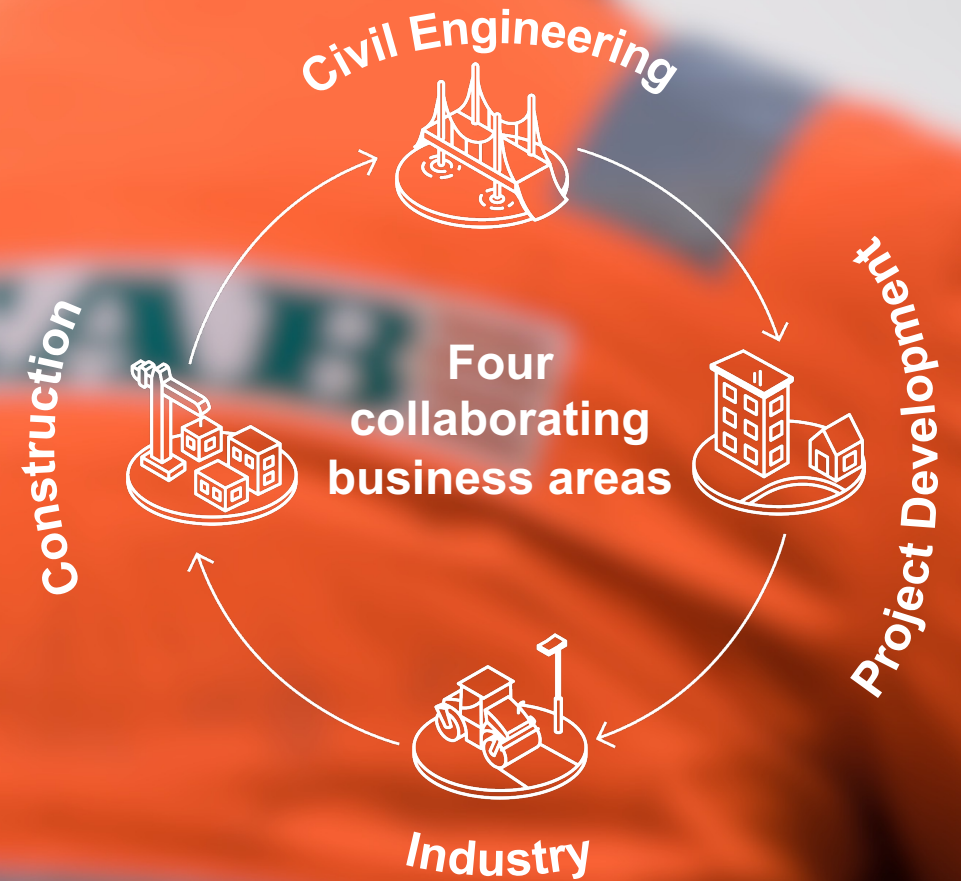
**18,000** customers



# Our Business

## Four collaborating business areas:

- Construction
- Civil Engineering
- Industry
- Project Development



# We take responsibility for our environmental impact

## 2030

Year 2030 we will have phased out environmentally and health hazardous products



## 2040

Year 2040 our business will be 100% resource efficient



## 2045

Year 2045 we will be climate neutral





# Materials are our primary source of CO<sub>2</sub>-emissions

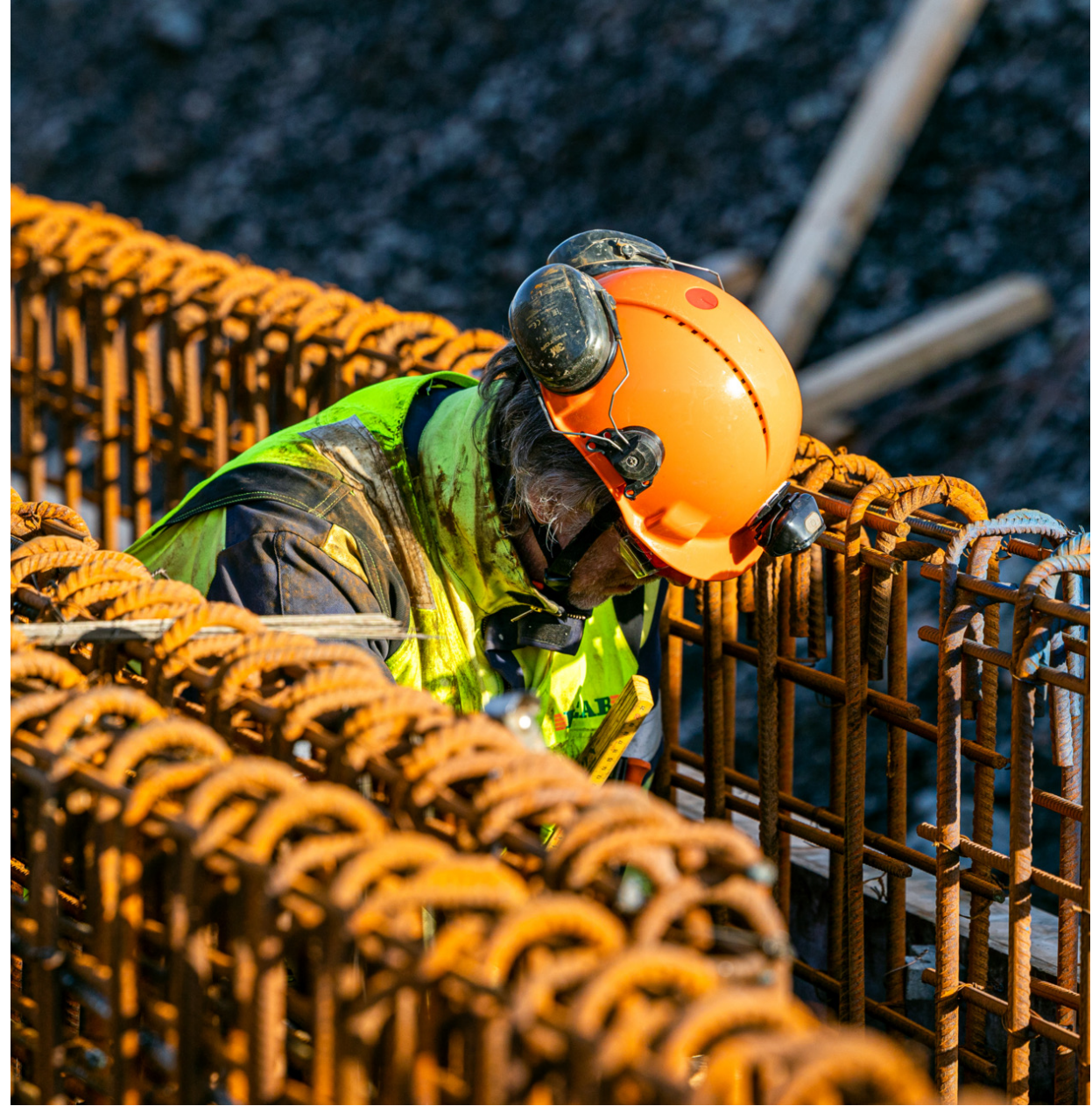
- More than 50% of Peabs CO<sub>2</sub> emission comes from materials
- Around 70% of the CO<sub>2</sub> emission from traditional buildings (new construction) comes from the usage of **concrete** and **steel**





# Measures to reduce the impact of materials

1. Choice of material
2. Material efficient solutions and work methods
3. Recycling/reuse







## Reducing the impact: Concrete

### ECO-Betong™

Today, concrete is the world's most used building material. In our ECO-Betong™ (ECO-Concrete), we have replaced part of the cement with slag – a byproduct from the steel industry. This way, the climate impact of the concrete can be reduced by up to 50%. This is a well-proven technology that also offers many technical advantages.





# Reducing the impact: Steel

## Industry unique partnership since 2021

Peab is the first Swedish construction and civil engineering company to enter a partnership with SSAB regarding fossil-free steel. The partnership means that as of 2026, Peab will start using fossil-free steel in construction and civil engineering projects.



# Peab and SSAB's work group consists of wide expertise

## Specialist groups:

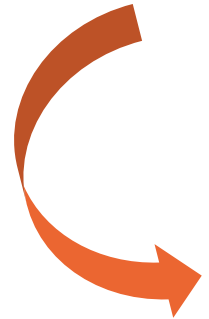
- Technology
- Environment and climate
- Communications





# Indicative studies on steel frames

- Which steel profiles can be replaced by fossil-free steel?
- Rough estimates of the future CO<sub>2</sub>-emissions from fossil-free steel



**Reduced climate impact when using fossil-free steel in the building frame**





# Indicative results – steel frame

Amount of replaced steel

Reduction in CO<sub>2</sub>e



98 %

70 %



90 %

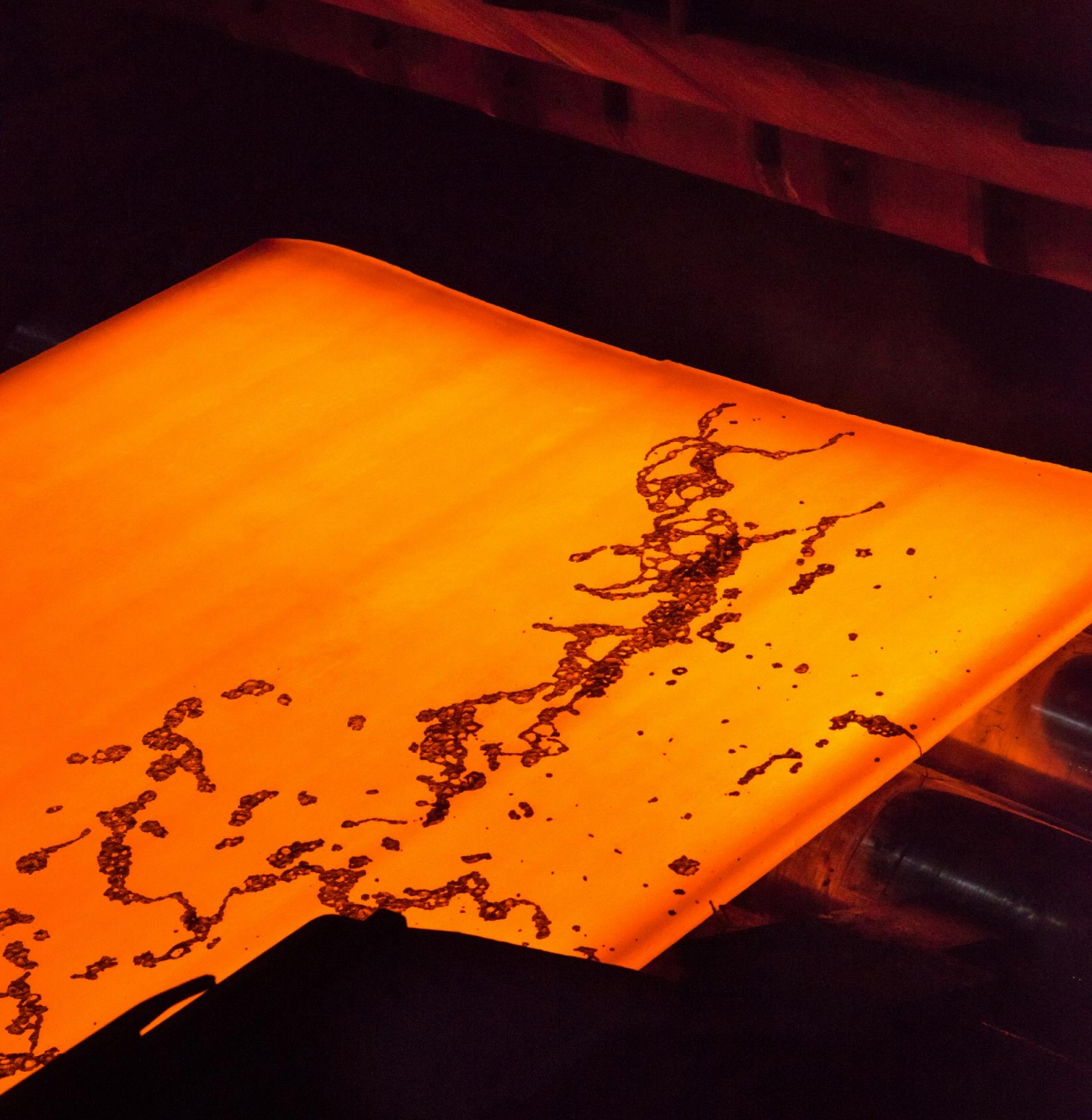
66 %



94 %

73 %





## Joint research project

The research project aims to explore:

- The reduced climate impact when using fossil-free steel in construction and civil engineering projects.
- The potential climate reductions in the construction and civil engineering industry when using fossil-free steel

Funded by *The Development Fund of the Swedish Construction Industry*





# Phase 1: Climate assessment on product level

- A life cycle assessment (GWP only) for fossil-free steel, based on best available information.
- LCA models for SSAB's existing EPDs form a foundation and are modified to reflect the new production technology to be applied for fossil-free steel.
- Exploratory calculations (pilot plant).



Registered in the International EPD® System, [www.environdec.com](http://www.environdec.com) and [www.ssab.com](http://www.ssab.com)



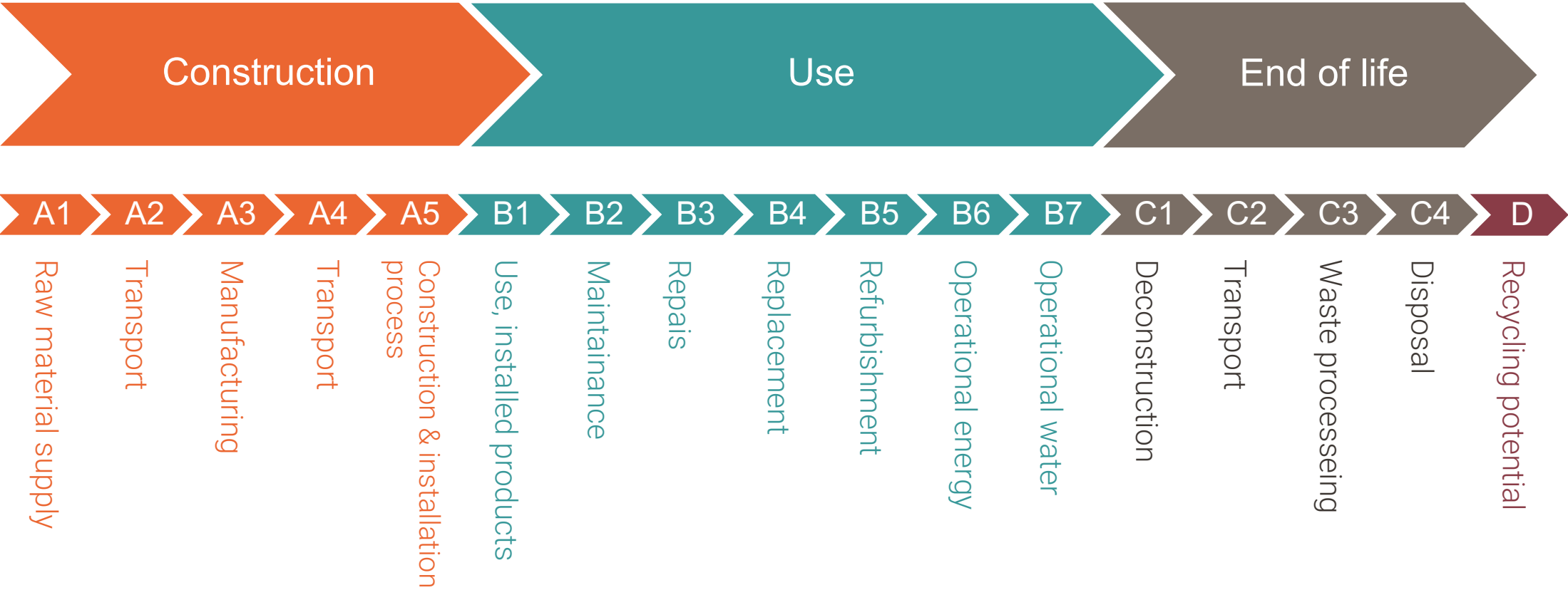
## Phase 2: Climate calculations on project level

- Four construction and civil engineering projects
- Calculation of the reduction in climate impact from the use of fossil-free manufactured steel
- The selected projects contain a significant proportion of steel





# Lifecycle modules – EN 15978





## Phase 3: Climate assessment on a national level

Scaling up the results from phases 1 and 2, with the help of industry statistics for construction and/or civil engineering projects.

- Available industry statistics
- Possible future scenarios regarding compensation levels for fossil-free steel





# Results

- Climate impact at product level for SSAB's product range.
- Reduction of climate impact at project level for construction and civil engineering projects, when using fossil-free manufactured steel.
- Potential reduction of climate impact at a national level for the construction and civil engineering industry as a whole.





# Thank you!



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