

# ***Carbon goals in the building industry. A contractors perspective***

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# Big impact. Big responsibility.

NCC is one of the leading construction and property development companies in the Nordic region.

The Group had sales of SEK 57 billion in 2017, with approximately 16.300 employees.

# Construction and the build environment is a critical global CO2 source



# The full energy picture

**Construction**

**Operations of buildings**

40 % of worlds energy \*

\*Huang, Elsevier 2018, Renewable and Sustainable Energy Reviews

# What can we do to reduce the sectors CO2 emission?

# Attack the full energy picture !

Construction:

1. Energy required for the **on-site** operations
2. Energy required for **materials, products** and **services**

Operations:

3. Energy required for **heating, cooling, maintenance** and **demolition**

# Embedded energy

Construction:

1. Energy required for the **on-site** operations

2. Energy required for **materials, products** and **services**

Operations:

3. Energy required for **heating, cooling, maintenance** and **demolition**

23 % of worlds energy\*

\*Huangl, Elsevier 2018, Renewable and Sustainable Energy Reviews

# Embedded energy



Energy efficient construction and design



Low impact materials



# The next big leap towards reduction



Energy efficient construction and design



Low impact materials

- Realize the problem !
- Measurements needed !
- Regulations needed !
- Price on CO2 eventually needed !

# Embedded energy – a new paradigm in the sector

## Co-creation in the building industry:

*-knowledge sharing*

*-regulations (targets and measurements)*

## New EU leader ship:

*-regulations (targets and measurements)*

