- BUILD START 2020 -

HOPPET

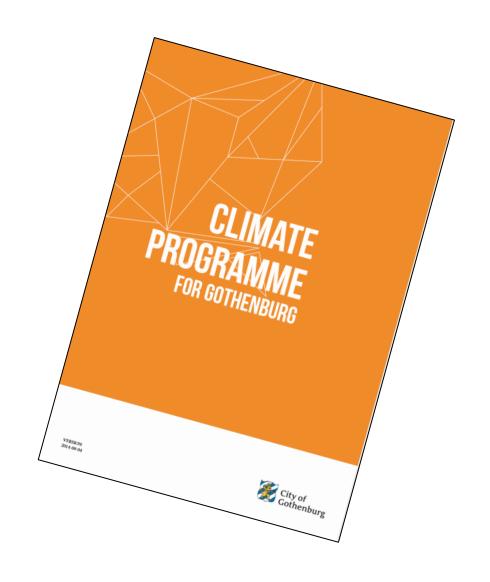
- the first fossil-free preschool

Maria Perzon
Hanna Ljungstedt
Trondheim, 6 november 2019

Movie

The City of Gothenburg will be one of the world's most progressive cities in addressing climate and environmental issues.

Local Premises Administration's goal: Net zero emissions of greenhouse gases by 2030







Political decision:

"The City of Gothenburg is to build a preschool which, as far as possible, is fossil-free at all stages - from raw material extraction via transport and manufacturing to the construction site and the finished building.

Any climate impact should be compensated for."





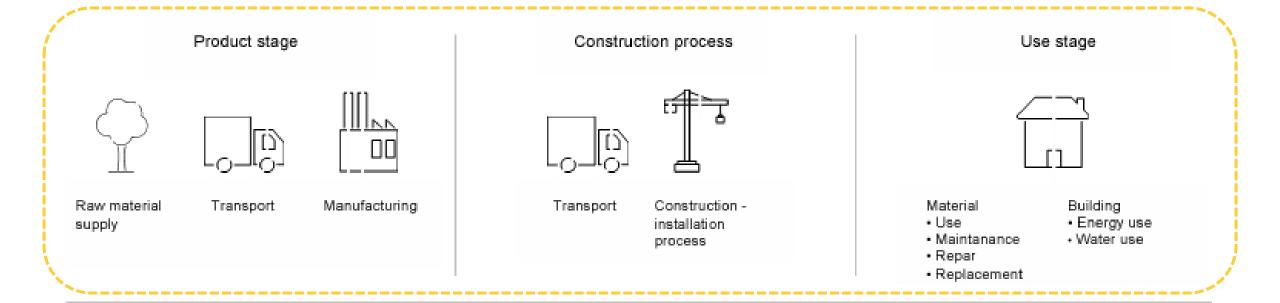
Climate impact from the Swedish construction sector

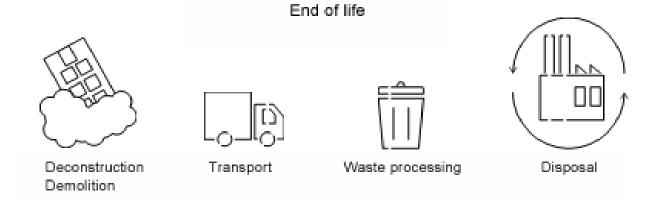
(kilo tonnes CO₂-eqv.) Halved emissions 1993-2015: Imported goods **Energy efficiency** Renewable energy **Excluding** 25000 imported goods 20000 15000 10000 5000 ■ Construction Imported goods Heating





Delimitations

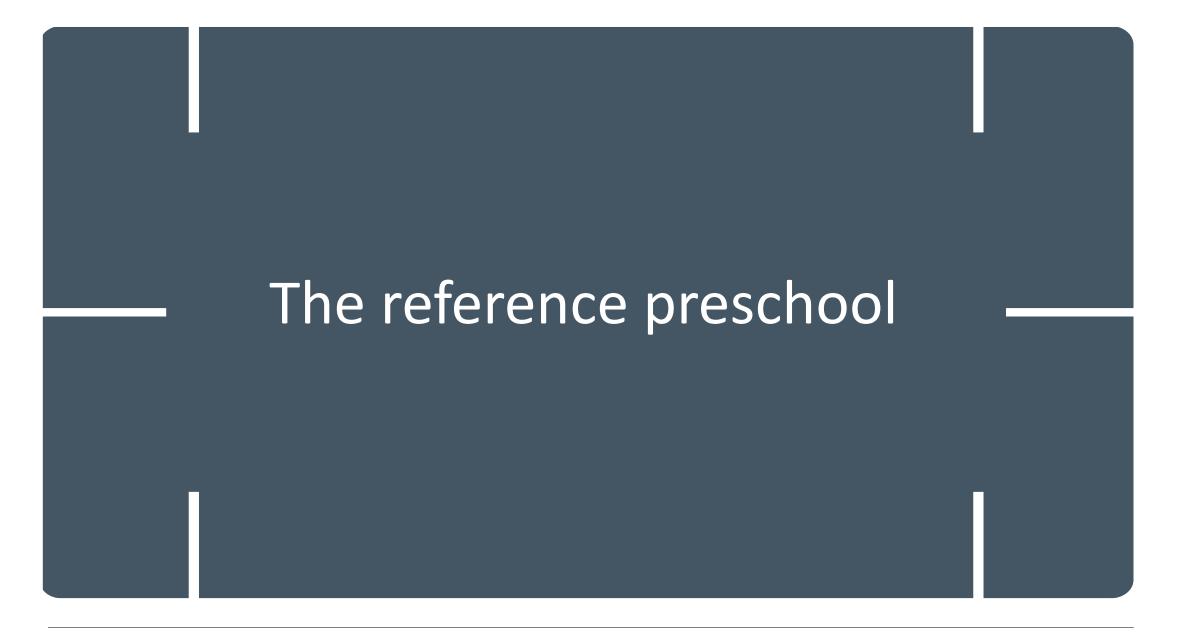








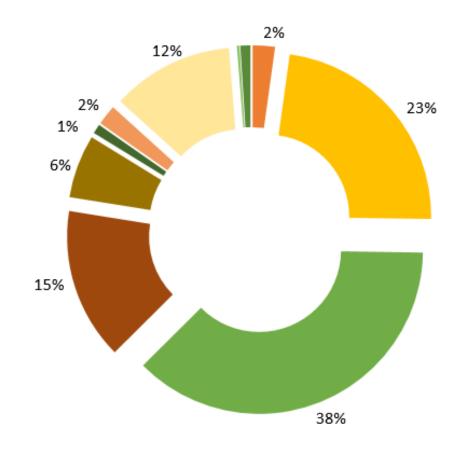








Climate impact from a traditionally built preschool



- Foundation reinforcement
- Foundation
- Outer walls, roof, load bearing constr.
- Internal framework
- HVAC, piping etc.
- Electrical and communication
- Surface material





Strategies for fossil-free construction

Biobased

Reused and recycled

Exclude and minimize

Life cycle perspective

Fossil free construction site





Is it just a preschool?

2017

HOPPET

2018

2019

2020

2021

2021 OGÖTEBORG 1621-2021

Pre-study

Construction project - Design & production

Innovation project – R&D, investigate and follow up

Communication & Sharing of knowledge

Fossil-free Gothenburg



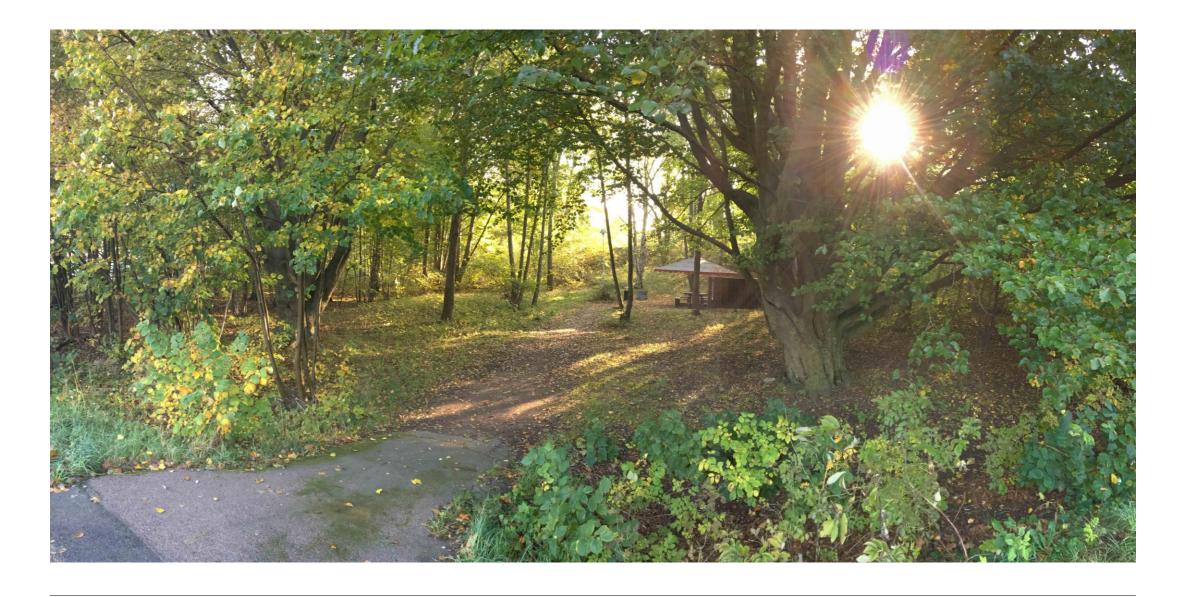


City Premises
Administration:
8 Billion sek 2020-2023
Framtiden contruction
development:
1400 apartments/year





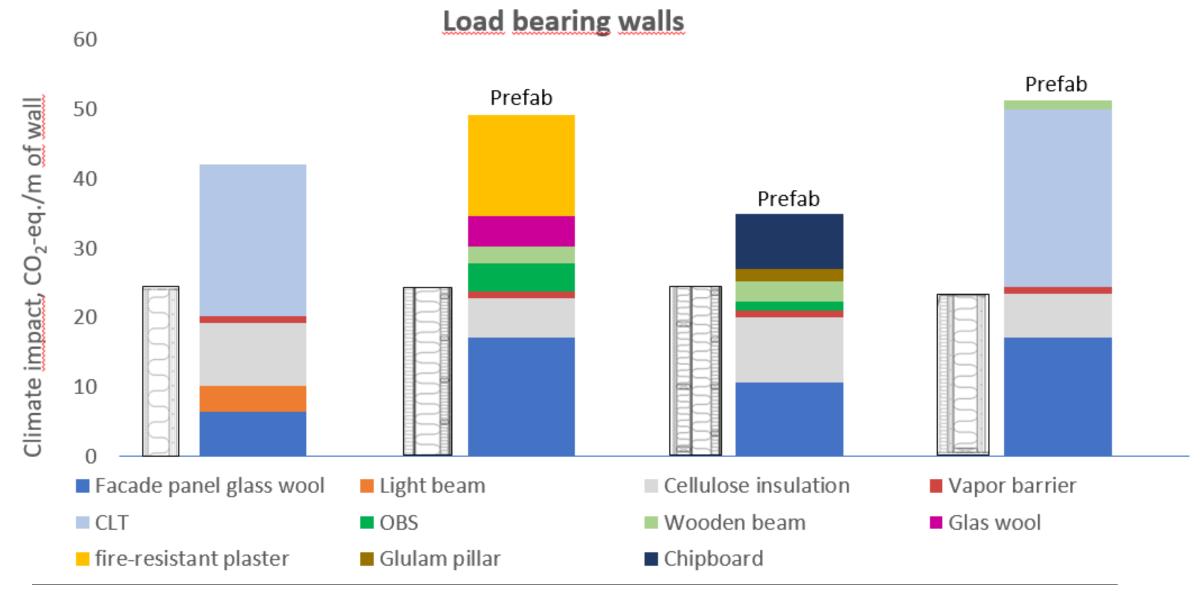


















Thanks for listening!

More information:

www.goteborg.se/buildfossilfree

Conference paper:

http://iopscience.iop.org/1755-1315/323/1/012159/pdf/1755-1315 323 1 012159.pdf



