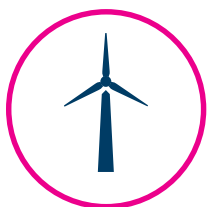# ZERO EMISSION NEIGHBOURHOODS

Kari Sørnes, SINTEF Building and Infrastructure

Energy and Environment, Researcher

Scandinavia's largest independent research organization

Renewable energy

Ocean space
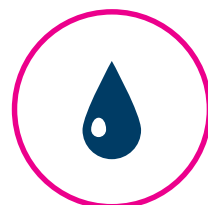
Industry

Buildings and infrastructure

Materials

Micro-, nano- and biotechnology

Climate and environment

Oil and gas

Health and welfare

Society
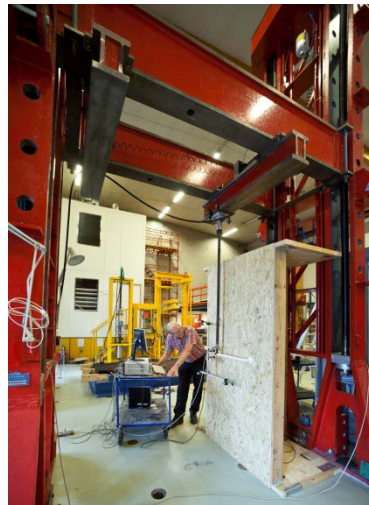
ICT

Transport

SINTEF

We create values for society and our customers through

Research and developement

Research based consultancy

Dissemination of knowledge

TREHUS
HÅNDBOK SINTEF BYGGFORSK 5

Product documentation and certification

SINTEF

ZEB
The Research Centre on
Zero Emission Buildings

The vision of The Research Centre on Zero Emission Buildings, ZEB, is to eliminate the greenhouse gas emissions caused by buildings.

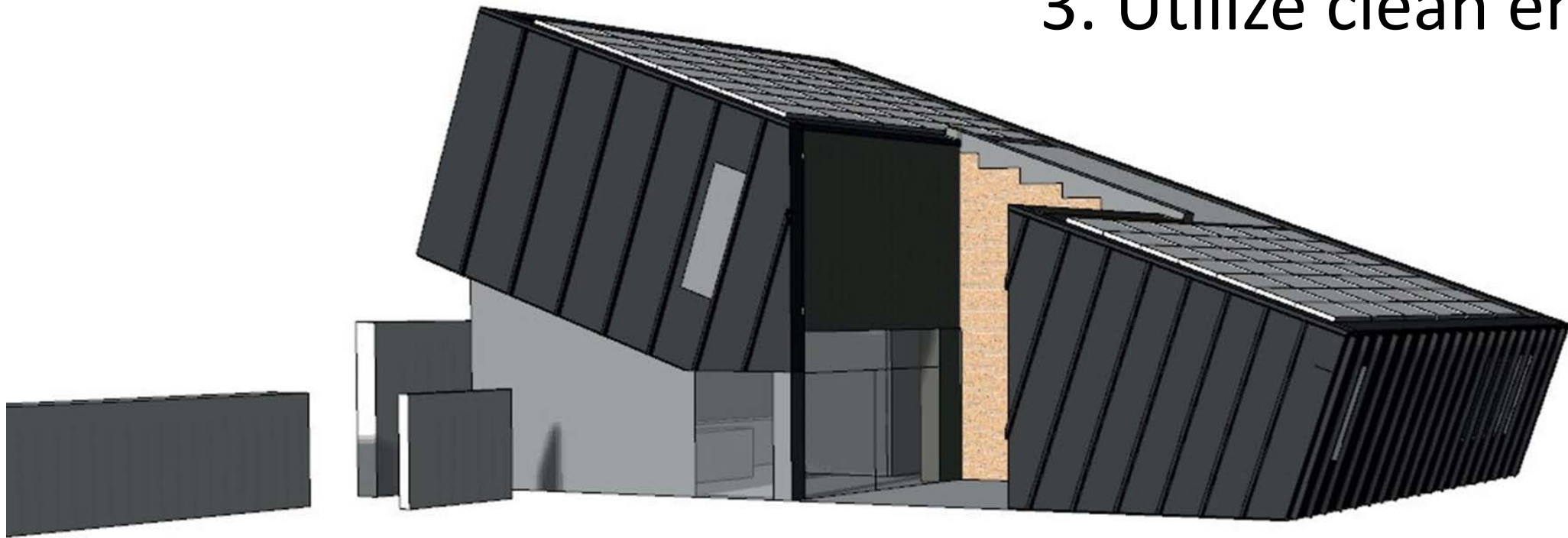The Centre encompasses both residential and commercial buildings, as well as public buildings.
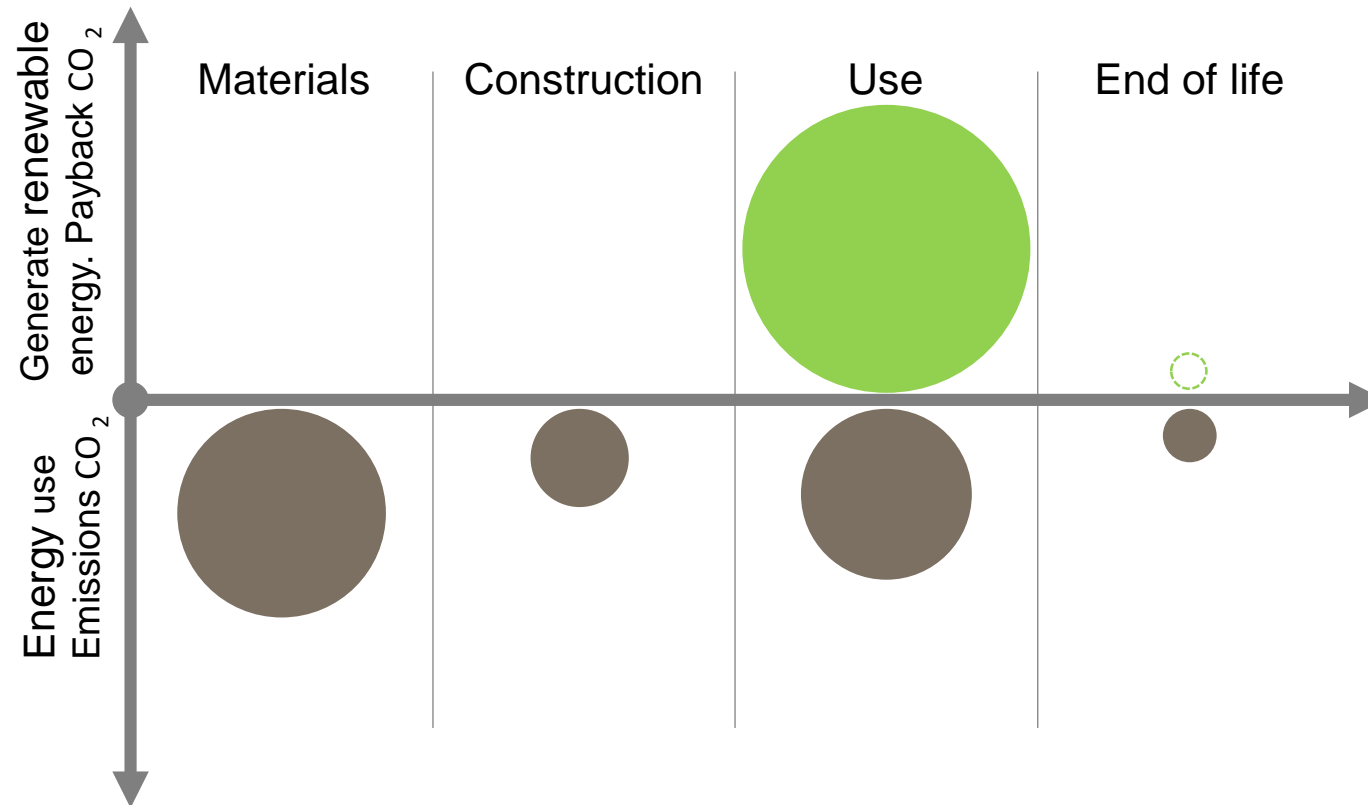
www.zeb.no

Duration: 2009-2017

SINTEF

1. Reduce energy demand

2. Reduce greenhouse gas emissions from materials

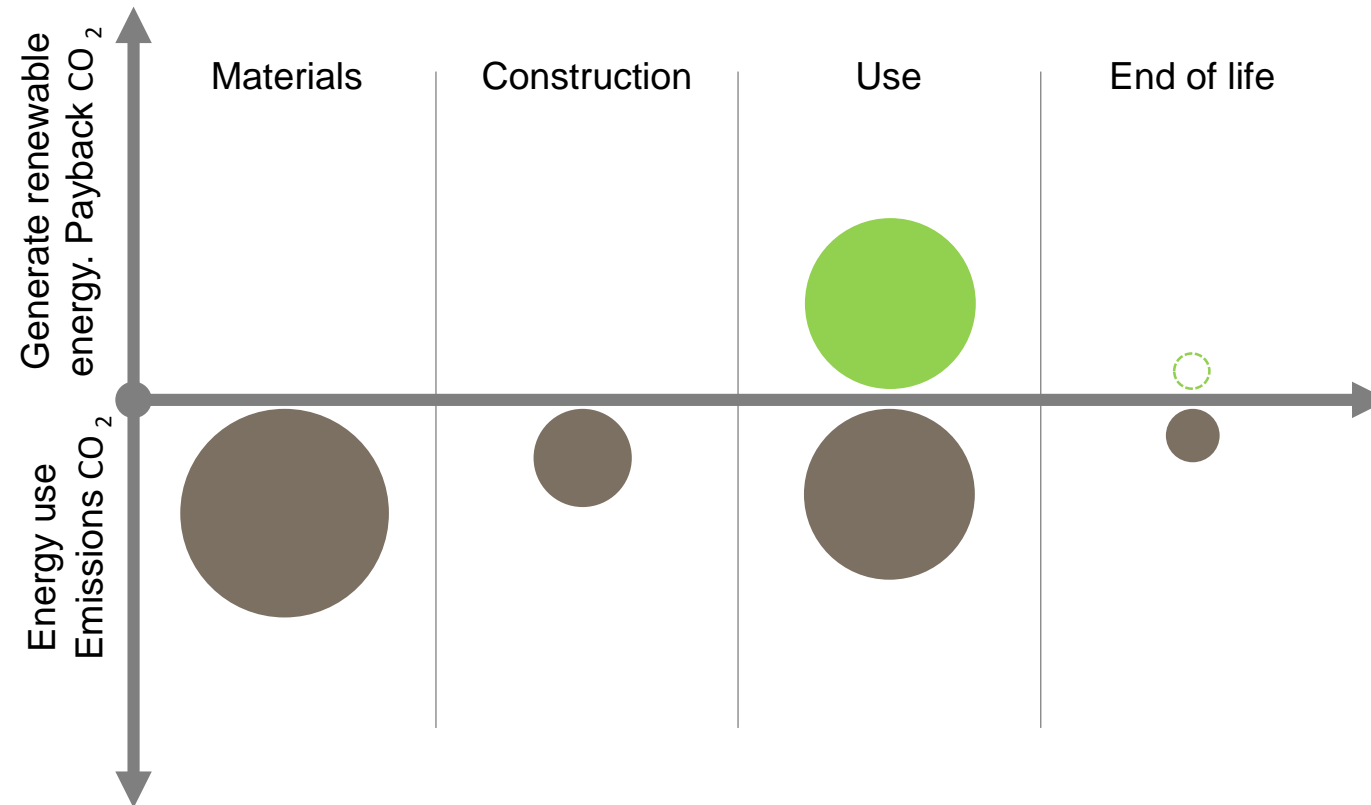3. Utilize clean energy

SINTEF

What is a zero emission building (ZEB)?

Materials   Construction   Use   End of life

Generate renewable energy. Payback CO_2

Energy use Emissions CO_2

SINTEF

ZEB-Operational (ZEB-O)

Research Centre on Zero Emission Neighbourhoods in Smart Cities (ZEN)

Duration: 2016 - 2024

SINTEF

THE NEIGHBOURHOOD DIMENSION

RESEARCH SCOPE

1 BUILDINGS

Resource efficient new and exisiting residential, commercial and public buldings.

2 USERS

Neighbourhhods for sustainable living with homes and places to socialize and work.

3 ENERGY SYSTEMS

Neighbourhood energy systems and their role in the larger energy systems.

4 DEMONSTRATION

Pilot projects and living labs as innovation hus and lighthouse projects.

SINTEF

https://www.sintefbok.no

WEB
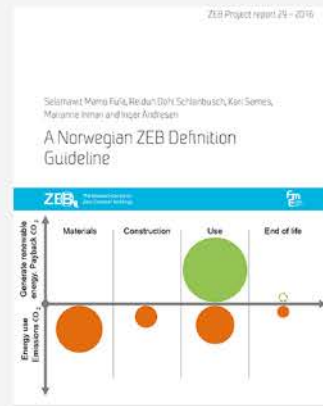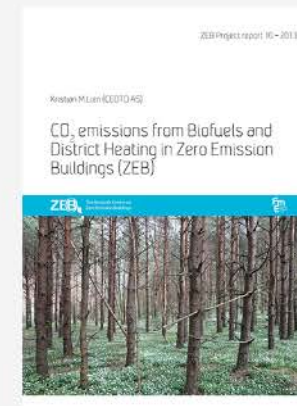
- SINTEF Building and Infrastructure: http://www.sintef.no/en/building-and-infrastructure/

- SINTEF Reports: https://www.sintefbok.no

- ZEN: https://www.ntnu.no/zen

- Pilot area Zero Village Bergen, Bergen: http://zerovillage.no/

Teknologi for et bedre samfunn