



Danish National Strategy for Sustainable Construction

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**danish housing
and planning authority**

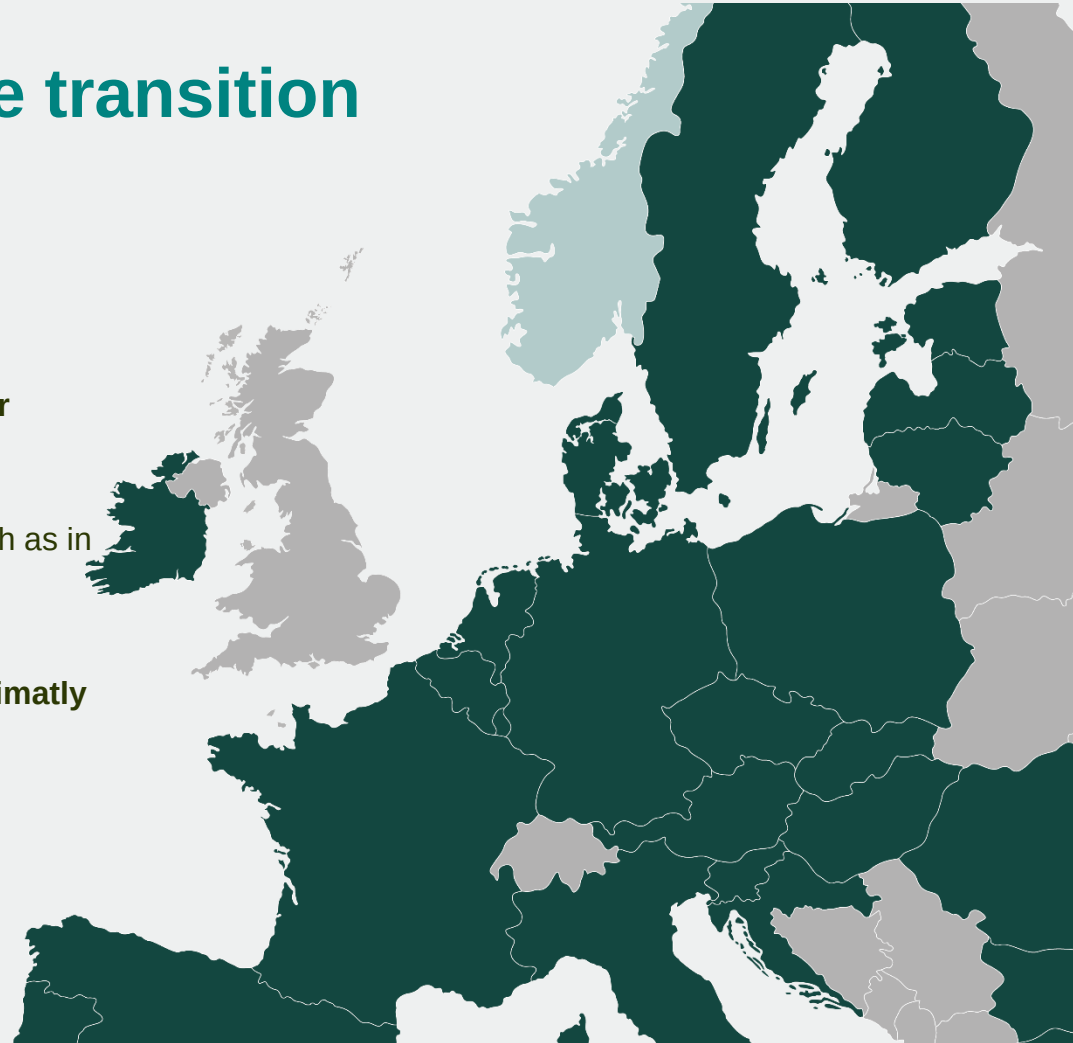
Why is a sustainable transition important?

Globally the construction sector accounts for
40 percent of CO₂ emissions

The next 40 years we are going to build as much as in
the entire history of mankind

In Europe construction accounts for approximately

33 percent of water use
40 percent of material consumption
40 percent of energy use





The road to the new national strategy for construction

2019

Paper between new government and support parties with i.a. climate law, climate action plan, including a strategy for sustainable construction

March 2020

Recommendations from the Climate Partnership for the building and construction sector

December 2020

Publication of proposals for a national strategy for sustainable construction

December 2020 til march 2021

Political negotiations

5. march 2021

Broad political agreement

Voluntary sustainability standard 2020-2022

First steps towards sustainability

- Two years of test periode with the industry, to collect experience and evaluate the use of sustainability criteria (2020-2022)
- The goal is to implement the criteria's within sustainability in the national Building Code, from 2023
- Not all will necessary be implemented
- With the national strategy for sustainable construction is it decided that the criteria for LCA will be part of Building Code from 2023
- Requirements aligned with Level(s)



Room acoustics in housing



Life cycle cost analysis – the total climate footprint of the building



Resource-use on the construction site



Noise from ventilationsystems in housing



Overall economic analysis - Expenses for construction, operation and maintainance



Detailed demonstration of the daylight level



Operation and maintainance plan for securing indoor climate



Emissions from building materials for the indoor climate



Documentation of problematic sustances



National strategy for sustainable construction

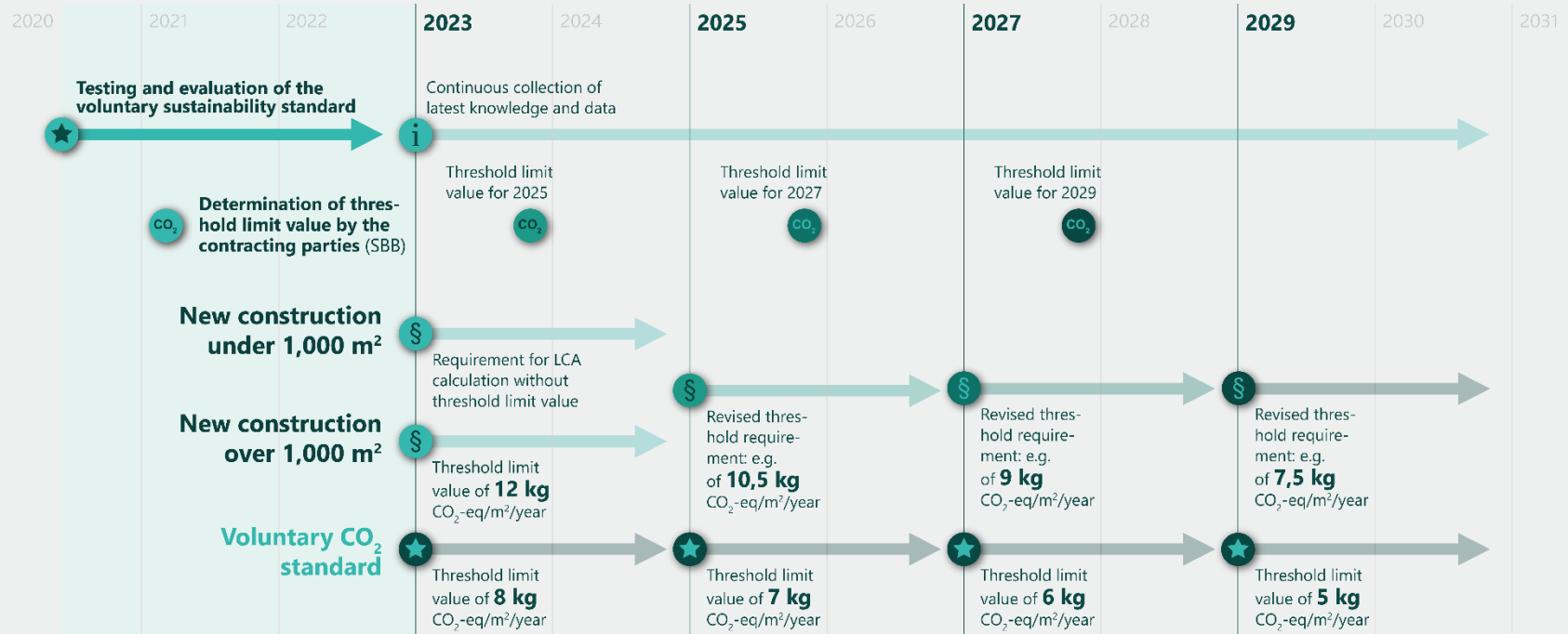
5 focus areas and 21 initiatives must support the construction's green transformation



- More climate friendly building and construction
- Durable, high quality buildings
- Ressource efficient buildings
- Energy efficient, healthy buildings
- Digitally-supported construction

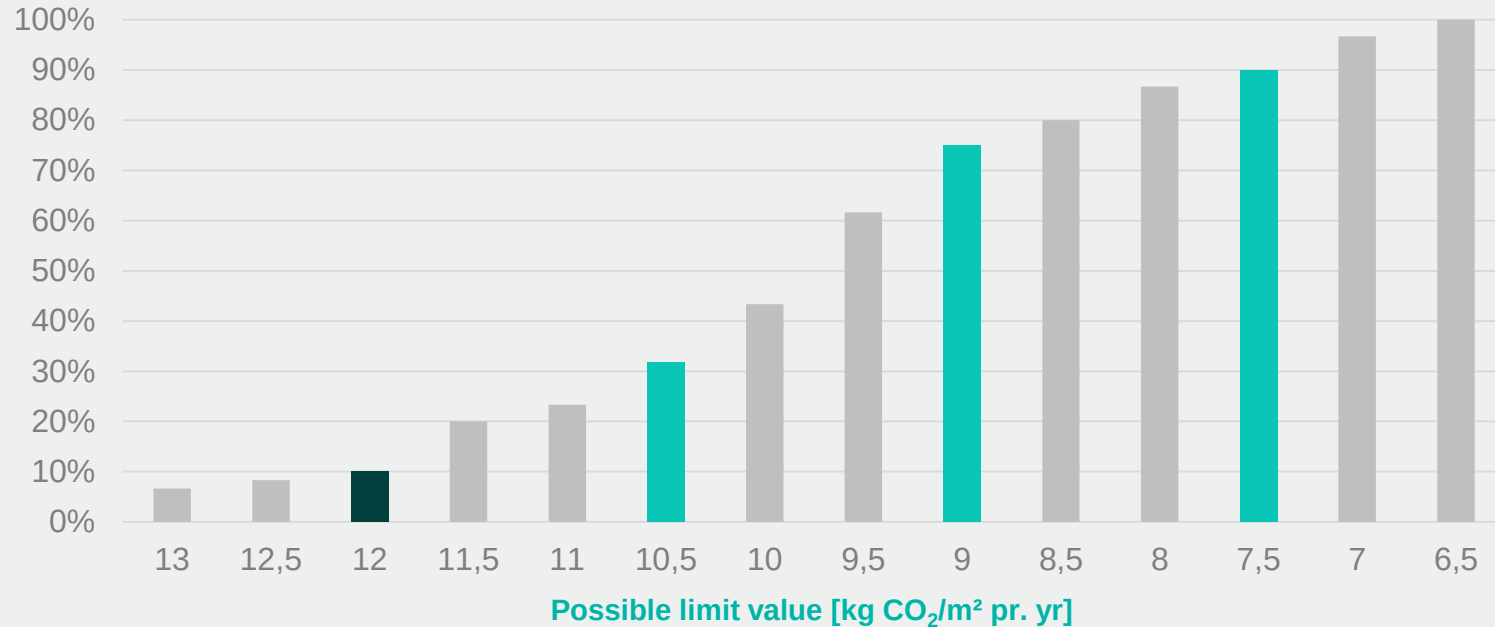
LCA and limit values are some of the main initiatives in the strategy.

Staged phasing and tightening of the CO₂-criteria



Limit value

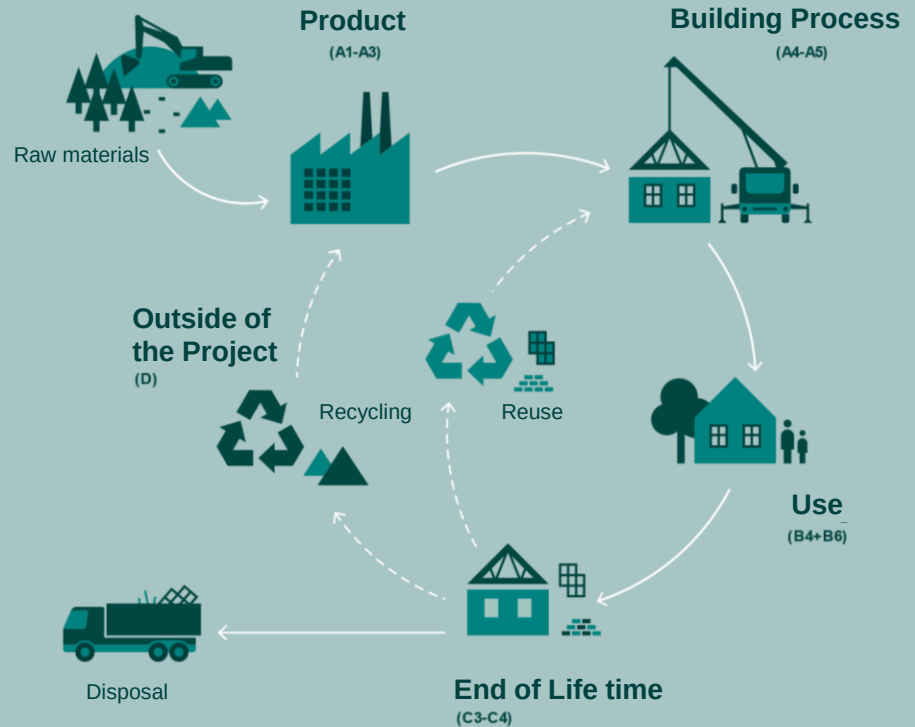
Amount of new building, which are over the limit value from 2023 and possible limit values



Preparation for the CO₂-regulation

Data collection for more data for upcoming LCA-regulation and limit value

- The knowledge and calculation basis for future determination of limit values will be expanded in the upcoming years
- Experience and data is analyzed
- Definition for system boundary
- Certain building types
- Development and LCA tool
- Define the upcoming LCA criteria



Nordic Sustainable Construction 2021- 2024

WP1

Life cycle assessment and data
(Ministry of Environment, Finland)

Task 1 – Nordic LCA practices (compatibility and facilitating harmonisation)
Task 2 – Database and scenarios (joint processes to gather data and setting LCA scenarios)
Task 3 – Digitalisation of LCA (BIM-based LCA and learning tools)
Task 4 – Limit values (Process for setting limit values and following decarbonisation)
Task 5 – Acceleration programme to support sustainability in public construction projects

WP2

Circular business models and procurement
(Nordic Innovation)

Task 1 – Circular Business models in the construction industry (Nordic circular economy playbook, workshops, construction of pilot within datasharing)
Task 2 – Public procurement & Knowledge exchange and requirements (focus on municipalities procurement of circular buildings and use of Nordic Smart City Networks)

WP3

Sustainable construction materials and architecture
(Form / Design Center)

Task 1 – Focus on sustainable construction materials as an alternative to existing construction and architecture approaches
Task 2 – Strengthen and increase sustainable materials in nordic constructions

WP4

Emission free construction sites
(Ministry of Infrastructure, Iceland)

Task 1 – Nordic declaration on emission free construction sites
Task 2 – Clarifying definitions, boundaries and terminology
Task 3 – Value chain and ecosystem co-operation
Task 4 – Rules, standards, and legislation, including developments in the EU

WP5

Program secretariat and capacity building
(Danish Housing and Planning Authority)

Task 1 – Secure cohesion, communication and coordination
Task 2 – Capacity building activities in the nordic countries to support a sustainable transition of the construction sector
Task 3 – Secure stakeholder involvement and anchoring of the programme in the sector

Thank you for your attention.