

Danish National Strategy for Sustainable Construction

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Why is a sustainable transition important?

Globaly 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 approximatly
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 ٠ 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 ٠
- With the national strategy for sustainable ٠ construction is it decided that the criteria for LCA will be part of Building Code from 2023
- Requirements aligned with Level(s) ٠





Resource-use on the construction site



Overall economic analysis -Expenses for construction, operation and maintainance



Detailed demonstration of the daylight level

Noise from

ventilationsystems in housing





Emissions from building materials for the indoor climate

Operation and maintainance plan for securing 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.

				2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	More climate friendly		Regulation based on the voluntary sustainability standard										
	buildings and construction		Phasing in a threshold limit value for the climate footprint of buildings										
		3.	Further development of life-cycle assessment and total economic calculationsfor design tools										
		4.	Coordination committee for sustainable construction										
		5.	Enhanced Nordic cooperation in the area of sustainability										
		6.	Work for sustainability in the revision of the Construction Products Regulation										
		7.	Promote fossil-free construction sites										
DKR	Durable, high quality buildings	8.	Investigate the possibility of introducing CO ₂ reduction considerations into tenders										
		9.	Analysis of potential for more sustainable constructions (green check of Eurocodes)										
		10.	Safe and healthy recycling in construction										
		11.	Promote climate-friendly building materials										
		12.	Development of more accurate environmental data on materials										
		13.	Holistic assessments for refurbishments										
	Resource efficient buildings	14.	Strategic survey and investigation of flaws and deficiencies										
		15.	Less waste of materials on construction sites										
		16.	Collation of examples of cheap sustainable construction										
		17.	Proposals for reduced requirements for the establishment of parking areas										
		18.	Clarification of the possibilities of expanding special transport regarding modular construction										
	Energy efficient, healthy buildings	19.	Targeted energy efficiency efforts										
		20.	Subsidies for energy savings in households and businesses										
<u>,</u>	Digitally supported	21.	The public housing sector as a frontrunner for digitization of the entire building life cycle										

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





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Preparation for the CO₂-regulation

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

- The knowledge and calculation basis for future determinaton 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 excisting 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 declation on emission free construction sites Task 2 – Clarifying definitions, boundries 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, communcation 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

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Nordic

Innovation

Thank you for your attention.

