



The slide features a dark blue background on the left and a light beige background on the right, separated by a wavy line. A green abstract shape is on the right side. The title 'Limit values in the Nordic countries' is in large white text. Below it, the date '27 September 2021', event 'Nordic Climate Forum for Construction', and speaker 'Matti Kuittinen, Ministry of the Environment, Finland' are listed. The Finnish Ministry of the Environment logo is in the top right corner. The date '24.9.2021' and page number '1' are in the bottom right corner.

Limit values in the Nordic countries

27 September 2021
Nordic Climate Forum for Construction
Matti Kuittinen, Ministry of the Environment, Finland

Ympäristöministeriö
Miljøministeriet
Ministry of the Environment

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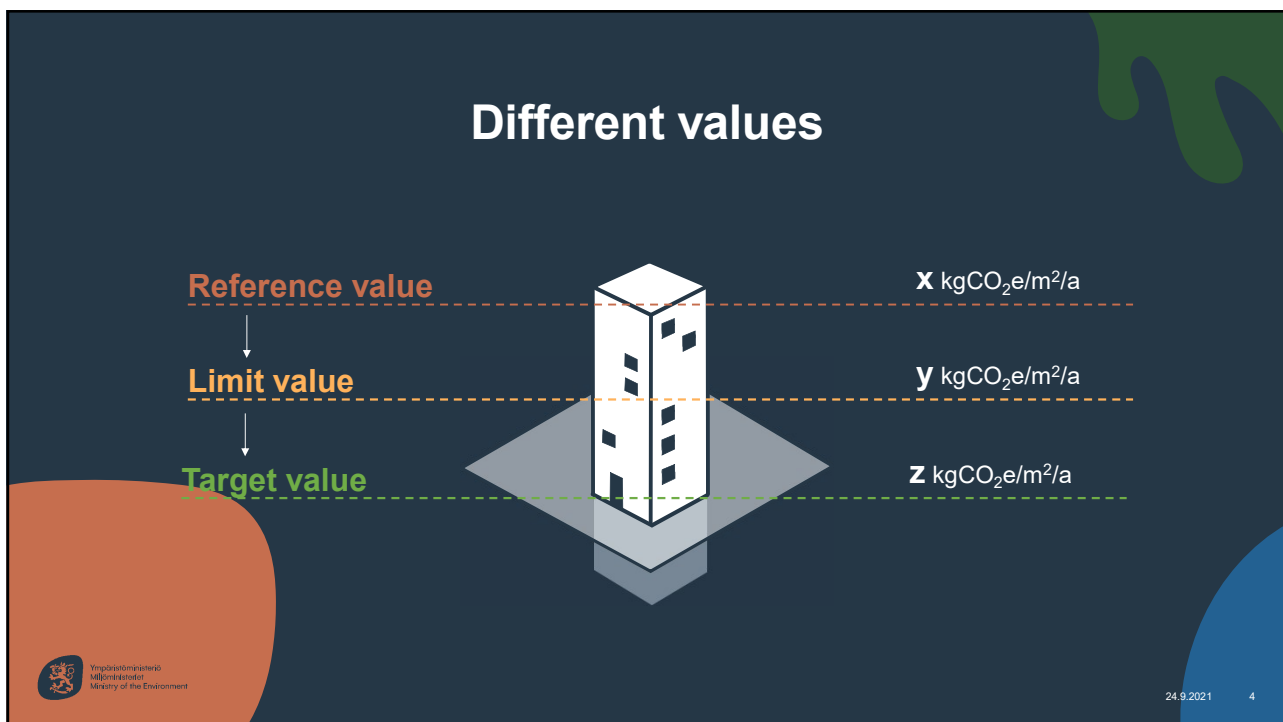
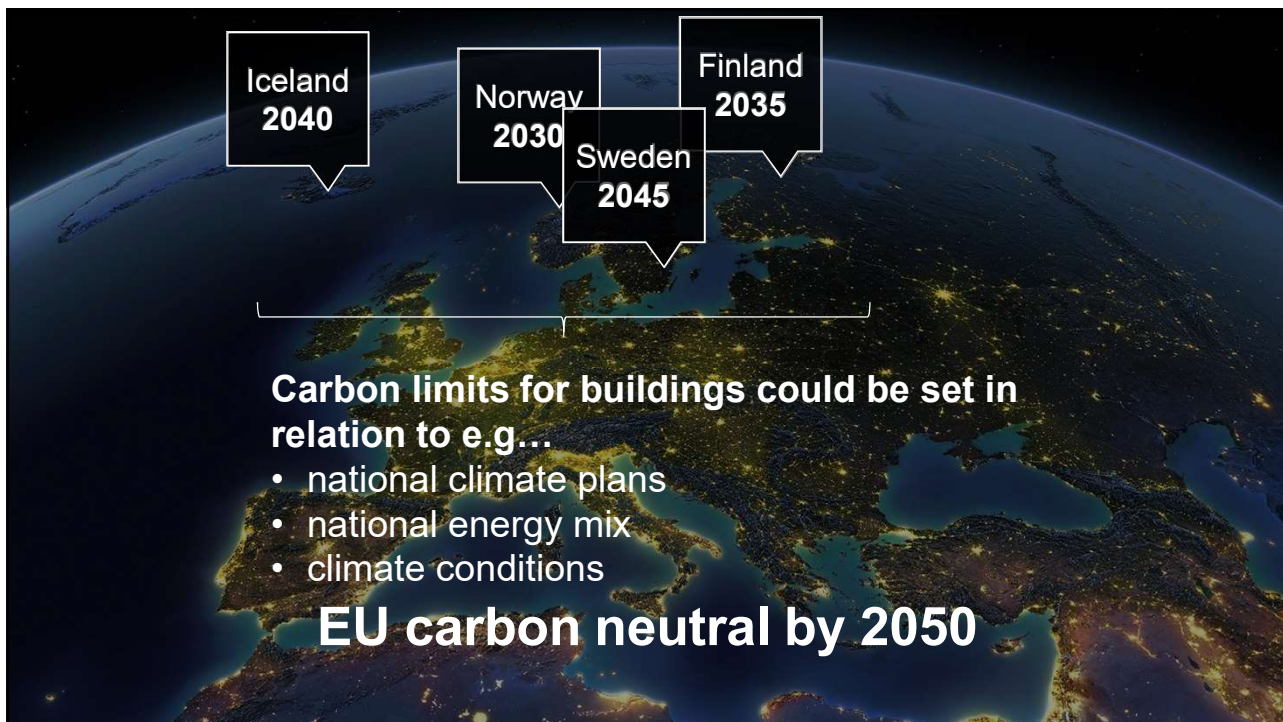


The slide shows a low-angle view of a modern building with a blue facade and many windows, reaching towards a blue sky with clouds. A red dashed line is drawn across the middle of the building. To the left of the line, the text 'Climate declarations for buildings' is written in red. Above the building, four dark blue speech bubbles contain the following information:

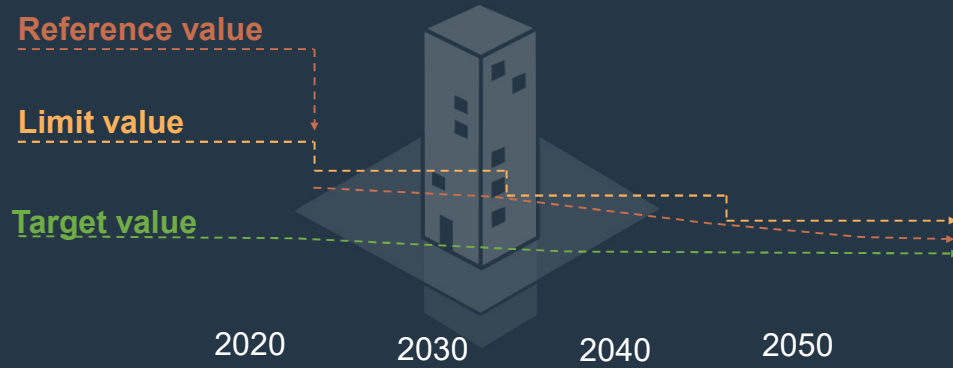
Country	Declaration Year
Sweden	2022
Norway	2022 (?)
Denmark	2023
Finland	< 2025

Climate declarations for buildings

Sweden 2022
Norway 2022 (?)
Denmark 2023
Finland < 2025

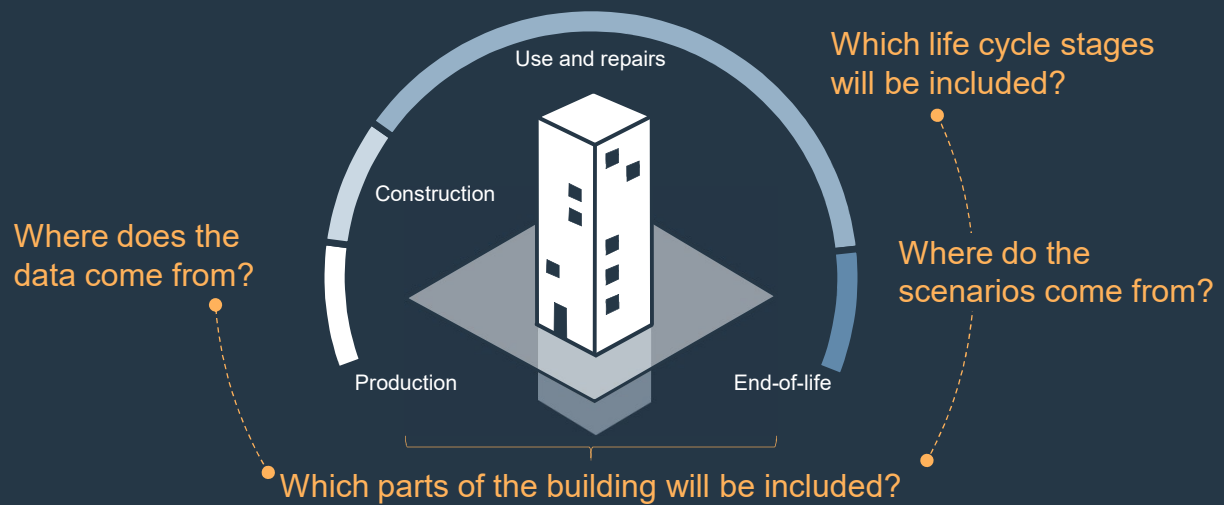


Different values



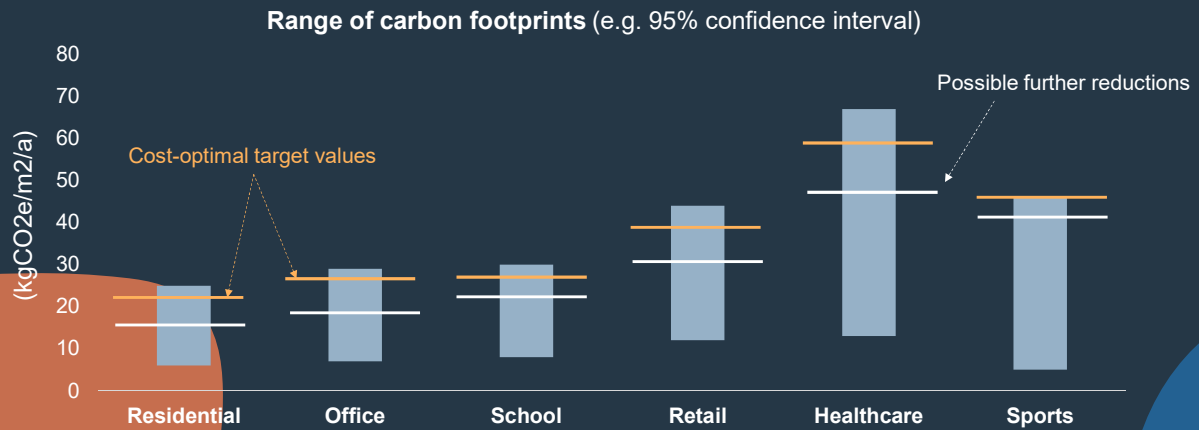
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Defining the limit values



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Example: Setting the limit values

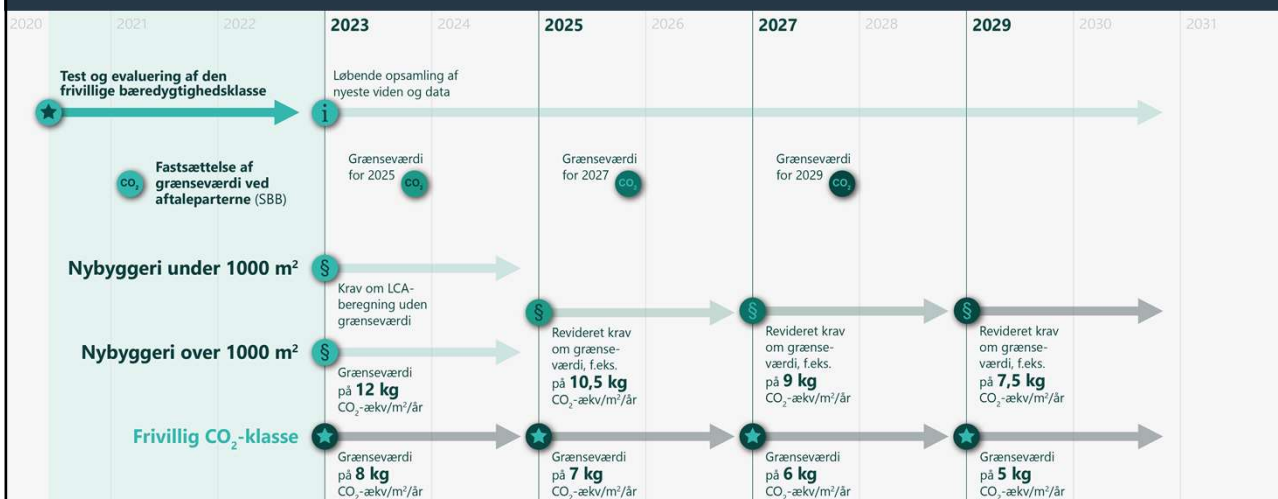


Note: This example describes one possible theoretical approach to setting the limit values. Does not represent average values or decided limit values.

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Denmark

Source: Inrednings og boligministeriet, 2021: National strategi for bæredygtigt byggeri



Sweden

Source: Boverket, 2020: Utveckling av regler om klimatdeklaration av byggnader - förslag på färdplan och gränsvärden.

Gradual approach

- 2022 Climate declaration, no limit values
- 2027 Limit value for production and construction phases of new buildings



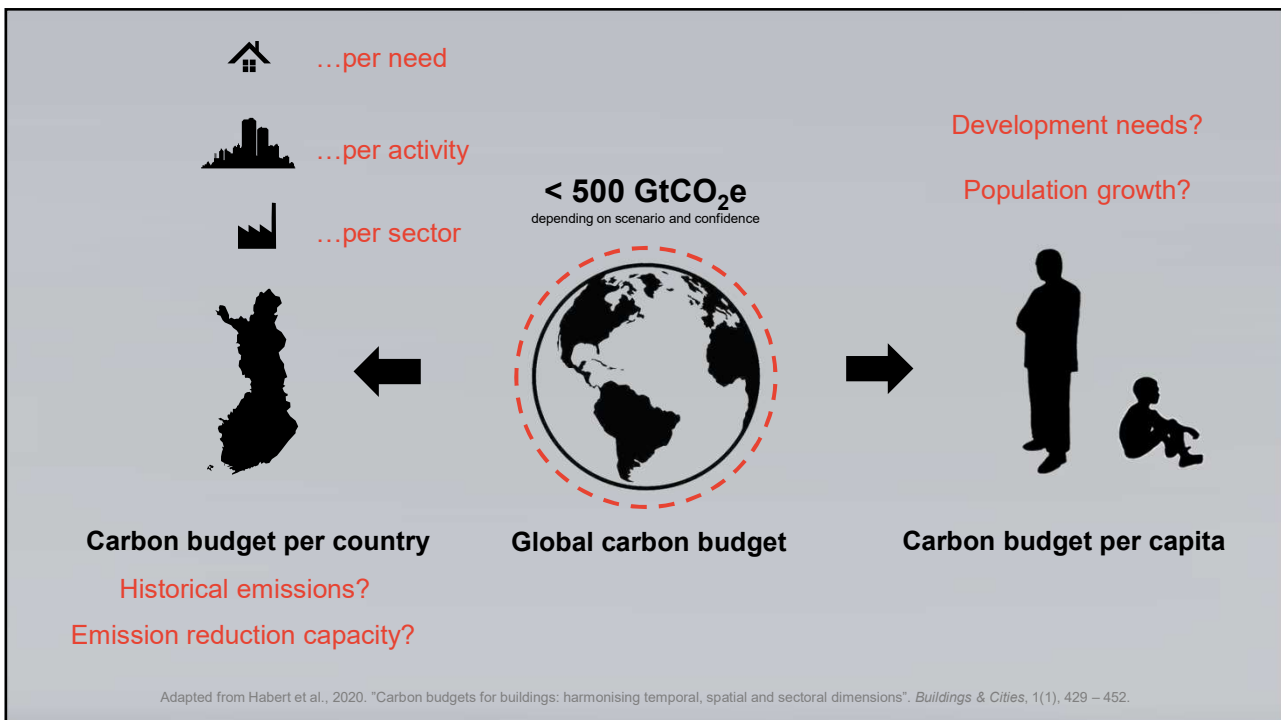
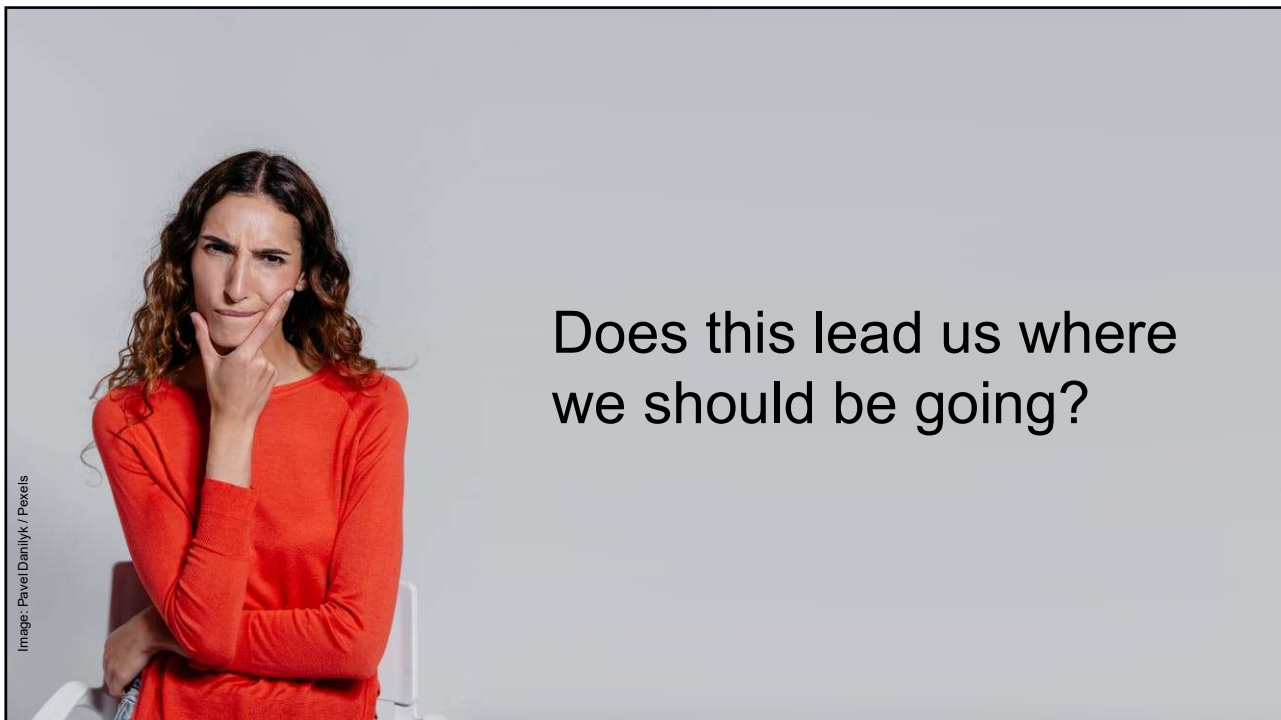
Reduction targets towards climate neutrality in 2045

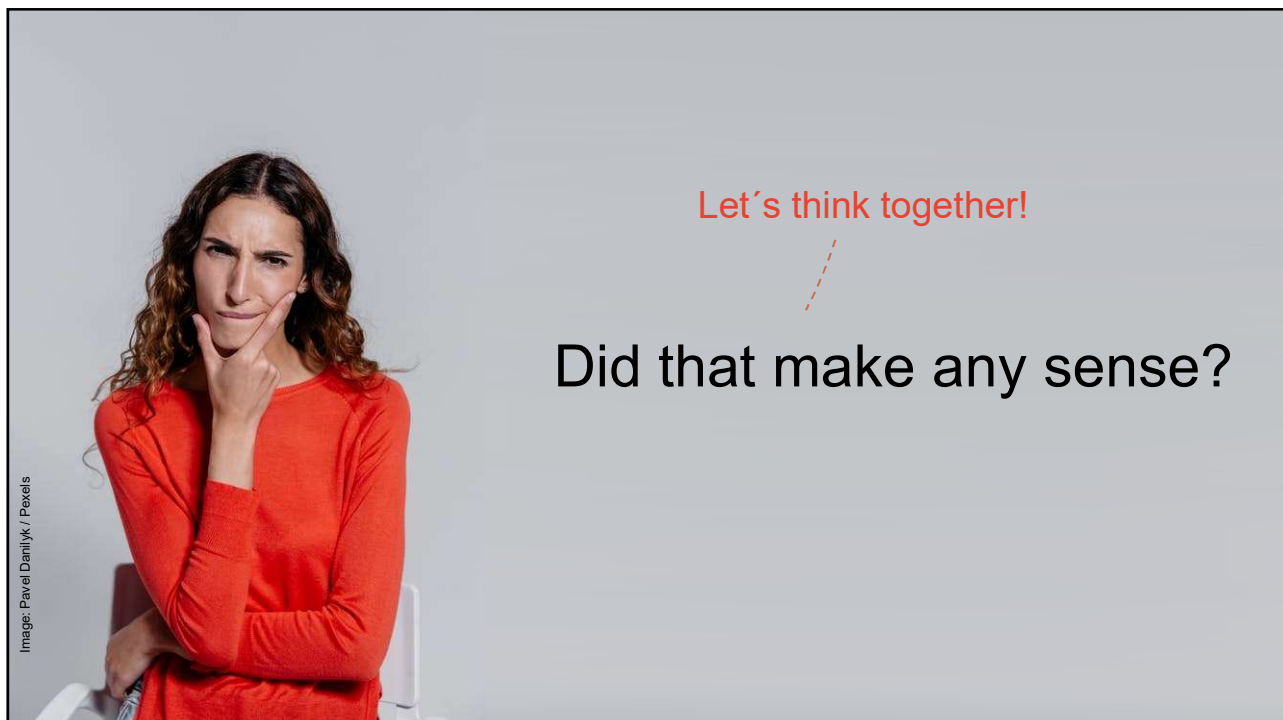
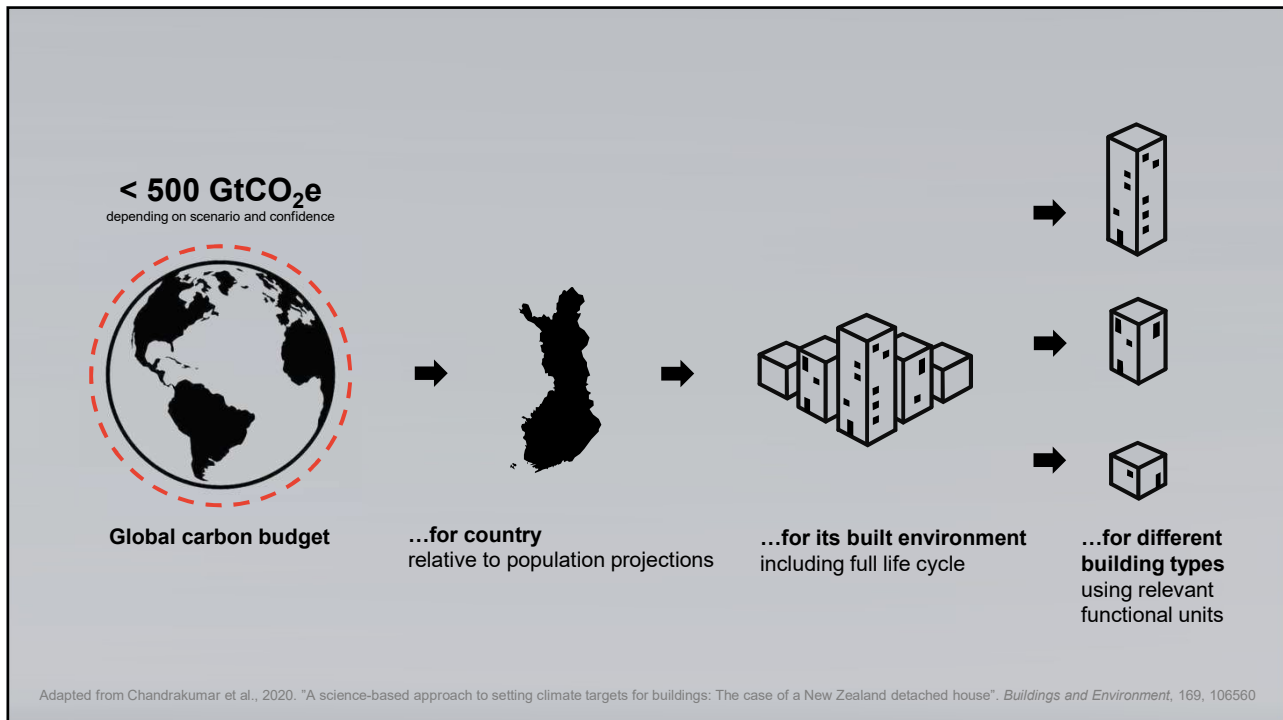
- 2027: - 20...30%
- 2035: - 40%
- 2043: - 80%

First studies for GHG limit values in Finland

Note: these are not government's proposals

Service buildings	14,0 kgCO ₂ e/m ² /a
Residential buildings	11,5 kgCO ₂ e/m ² /a
Schools	11,0 kgCO ₂ e/m ² /a
Offices	10,0 kgCO ₂ e/m ² /a
Commercial buildings	10,0 kgCO ₂ e/m ² /a





Project: Nordic harmonisation of life cycle assessment

- Funding from Nordic Innovation
- Authorities from all Nordic countries are participating

Nordic project
2021 – 2024

Task 1:
Strategy for
harmonisation

Task 2:
Data and
scenarios

Task 3:
Digitalising LCA

Task 4:
Limit values

- a) Proposal for a Nordic process for setting limit values
- b) Nordic impact assessment for different limit value scenarios
- c) Proposal for following the decarbonisation of the Nordic building stock
- d) Proposal for joint reporting process



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Defining a carbon budget for a building

Adapted and further developed from Habert et al., 2020.

Global carbon budget

- Warming of 1.5 degrees



Effort sharing

- Basic needs
- Historical emissions



Allocation

- Sector
- Activity
- Capita



Building

- Budget per m2
- Budget per service
- Budget per user



Life cycle

- Embodied emissions
- Operational emissions



Built environment

- Single building
- District / area
- Industrial sectors

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