# Development of a Nordic generic database

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- Schedule and organisation
- Contents of the database
- Development project
- Ongoing technical development

# The role of a Nordic generic database

Harmonisation of buildings climate regulation and assessment methods

Integrated markets, also in the construction sector

Important for setting and calculating the limit values

Benefits for the industry

Improving the transparency

Common dataset for reporting on buildings climate impact

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# Current status

## Denmark

- German Ökobaudat database in use
- Data and tool are integrated, free for everyone
- Reuse and recycling in lifecycle perspective

## Finland

- Development of a generic database going on
- First version available from 2021
- Predefined building elements to be developed
- Joint datasets with infrastructure works
- Very small number of EPDs available

## Iceland

- Foreign databases in use
- EPD Norge and Environdec being used
- Interest for a joint Nordic database

## Norway

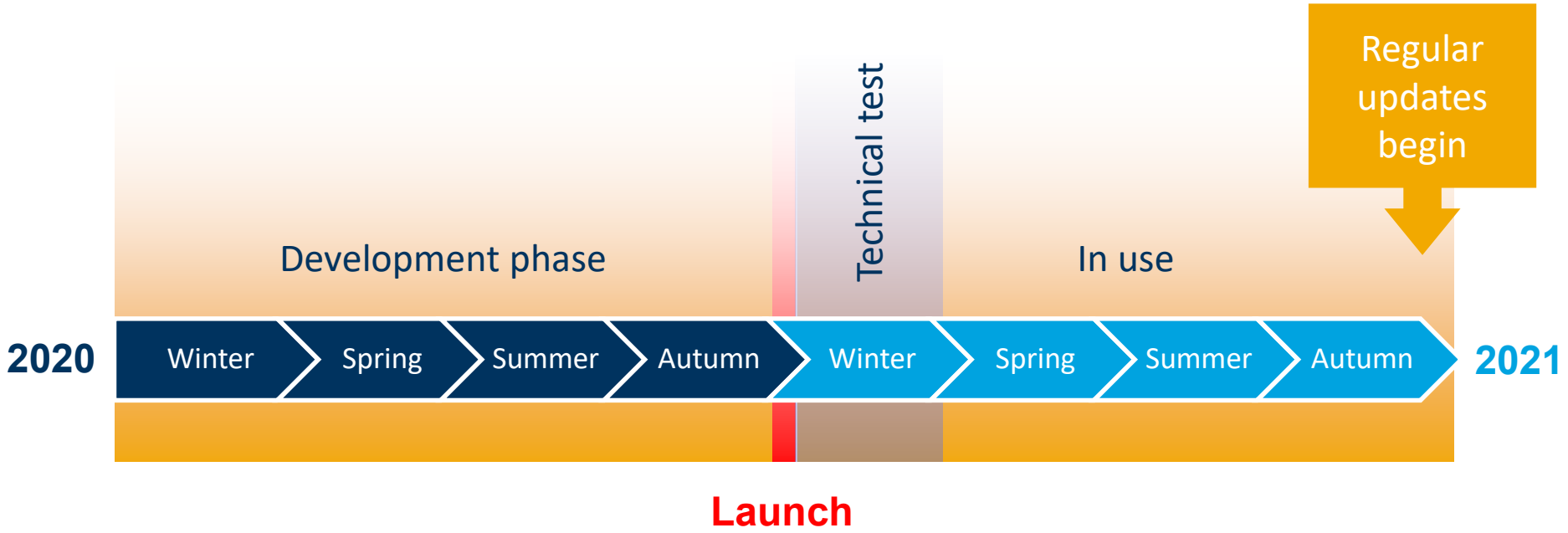
- No generic database
- Klimagassregnskap now closed, OneClick used instead
- Emphasis on EPD´s
- Research initiatives going on (Norsus)

## Sweden

- Development of a generic database going on
- First version available from 2021
- Mandatory if not using EPD:s

Represents an understanding of the status in May 2020. Verify facts and check details from your local authorities.

# Schedule

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# One possible future: Joint Nordic Database

- Joint processes for data collection & maintenance
- Joint quality criteria and inspection
- Representative generic values for different Nordic countries and regions
- Fluent integration into Building Information Modelling tools

# Conditions

- The Nordic Council of Ministers encourage Nordic harmonisation.
- Finland and Sweden are the first Nordic countries with legalisation on climate declarations and has agreed on a joint work.
- All the Nordic countries has insight into the project.

# Contents of the database

- Sweden
  - Modules A1-A5 of the standard EN 15978
  - Structual components, climate screen and interior walls.

- Finland
  - Modules A1-A5, B3-B4, B6, C1-C4, D
  - Almost everything exept low voltage system, interior finish, kitchen and bath appliances and yard materials.

# Collaboration

- A joint work on definitions, methods, templates on generic values.
- A joint work on authority level as well as on consultant level.
- Collaboration on the technical system.
- Collaboration with the industry in Finland and Sweden.
- Frequent meetings with the Nordic countries

# Development of the generic databases

Boverket

Nordic Climate Forum for Construction on August 27th
Tarja Häkkinen (consultant for SYKE), Martin Erlandsson (IVL)

- Material groups
- Indicators
- Defining a “generic” value
- Issues that affect carbon footprint
- Process for validating and updating the data

# Material groups, other groups

- Insulation and water proofing products
- Metallic products
- Solid wood products, impregnated and glued (CLT, LVL, glulam etc)
- Construction boards (gypsum, fibreboards etc)
- Mineral products (bricks, mortars etc excluding concrete)
- Concrete products
- Infra/yard
- Supplementary products
- Products related to HVAC and electrical installations
- Energy services
- Transportation services
- Construction services

# Indicators

## GWP

- Excluding biogenic
- Covering A1 – A3
- In Sweden A4 considered separately and resource specifically, In Finland A4 is considered on building scale
- A5 considered on building-scale

## Carbon handprint

- Only Finland
- Carbon sequestration (as CO2) in wooden and concrete products
- Benefit beyond the system boundary (D) / recycling of metals

## Supplementary information

- Only Finland
- Waste at building site (%) (also Sweden)
- Content of renewable materials (%)
- Content of recycled materials (%)
- Content of substances of very high concern (when >0.1%)
- Technical service life (when <50 years) (also Sweden)
- End of life scenario (reuse / recycling / incineration / disposal (%)

# Defining generic value

1)Generic value – basic value representing the carbon footprint of products that provide a major share in the market

2)Thus, the generic value (basic value) will often represent domestic / Nordic products

3)This is believed to be acceptable approach because

1) the degree of domestic manufacture is high in building products market
2) there are imports especially from near-by countries such as Baltic, Russia, and Poland; the availability of EPDs is low

4)The generic (basic) value is based on publicly available good-quality and relevant data. In practice, this means mostly verified EPDs for relevant specific products and relevant generic EPDs for these products

5)Calculating building-scale results with the help of generic (basic) values will support the building authorities to define reference values /categories / limit values for buildings

1) Embodied emissions represent what is typical and achievable with the help products available in the market
2) Embodied emsissions are in right balance with operational emssions

# Use of conservative values

When conservative values are asked, those will be added/formulated separately with the help of conservative factors (keeping the basic value visible).

These will probably be applied to create incentives for formulating more EPDs

To create pressure for additional EPDs, the factor much be high enough but not too high

- “worst manufacturers” will probably publish EPDs only when it is mandatory
- small factor will not give pressure even for those whose products are a bit worse compared to the BASIC value

# Issues affecting the carbon footprint

Boverket

Sources of energy in manufacturing process

Energy efficiency in maniufacturing process

Types of cements used in concrete technology

(Transportation distancy)

Nordic products compared to imported products

# Process of validating and updating data

The database will be formulated now quickly and with the help of best possible publicly available and relevant data

Important to report the justification for the selection of the value and information about the collected data.

- Product name in Swedish, Finnish, English
- Relevant classification
- Relevant hEN standard
- Background related to market
- Background related to issues that siginificantly affect carbon footprint
- Sources of information
- Collected data in accordance with sources and with using the agreef indicators
- Proposal for the product name(s) and generic valu(s)

Validation is based on transparency, use of verified data, launching the database for comments during a test period, collaboration of the expert group

# Questions to discuss on the round table

Boverket

1. How could a generic database help in the life cycle assessment of construction?
2. Should we develop a generic database for different structure types?
3. Should a Nordic database describe the climate profiles of generic products from outside of the Nordics?
4. How should the database be designed to help the digital life cycle assessment (i.e digital format)?
5. What should the main purpose with the database be?