

MODULE 2

Strategic planning phase

Interreg
Baltic Sea Region



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SUSTAINABLE WATERS

NonHazCity 3

Contents of Module 2

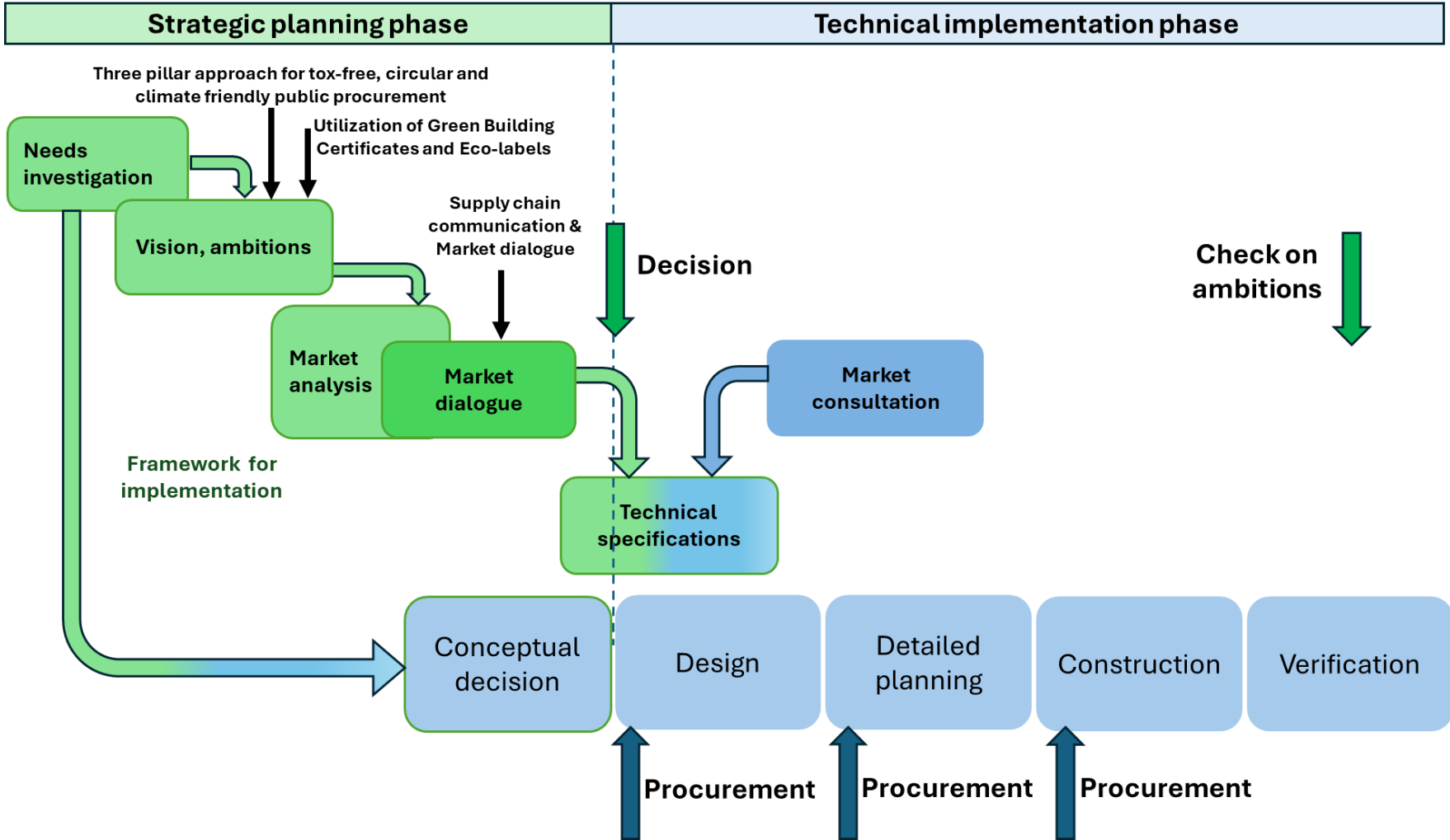
2.1. Strategic planning and conceptual decisions

2.2. Verifying hazardous substances in construction materials

2.3. Ecolabels and ecocertification of buildings

2.4. Introduction to Life Cycle Analysis (LCA) and Life-Cycle Costing (LCC)





2.1. STRATEGIC PLANNING AND CONCEPTUAL DECISIONS

Planning strategically for sustainable builds

- A. Municipality goals and ambitions
- B. Needs assessment
- C. Market dialogue
- D. Conceptual plan - decision-making
- E. Setting targets
- F. Roles and responsibilities
- G. Documentation of the building process and selected materials



Planning strategically for sustainable builds

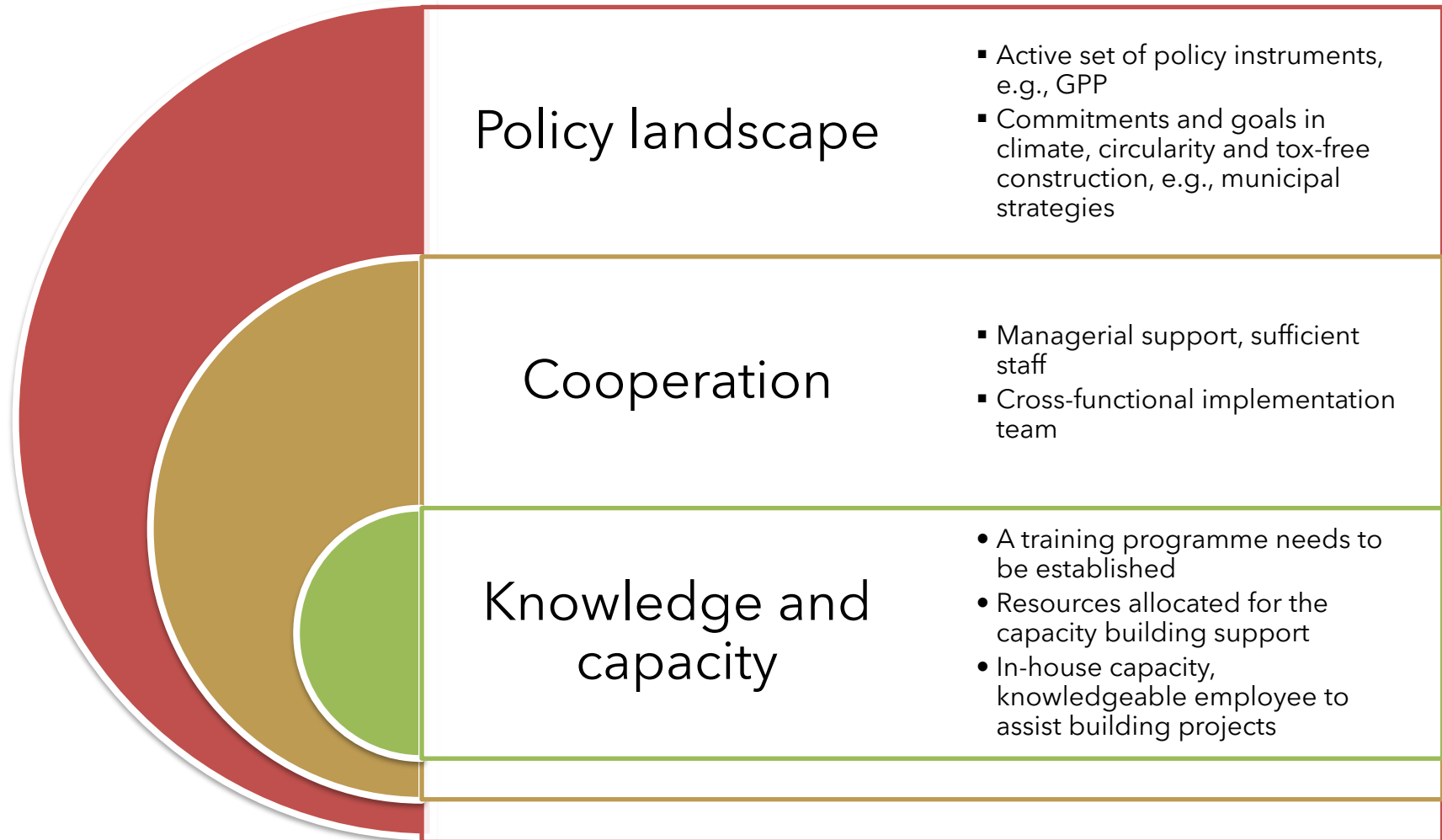
- Municipalities can drive sustainable construction investment
- **Incentives** to drive innovative solutions
- Strategic planning sets out ambitions before the tender
- Align strategy, priorities & delivery roadmap



Photo by Francie on Pexels



Framework supporting the implementation of strategic planning by municipalities:



Level of ambition drives solutions

The **level of ambition** by setting higher demands than those by national legislation

On construction materials:

- Ecolabel (Type 1), e.g., Nordic Swan (Nordic), the EU Ecolabel, and the Blue Angel (DE)
- Using assessed materials of various categories: load bearing, non-load bearing, finishing materials

On buildings:

- Intention for an Eco-certification BREEAM (UK), LEED (US), DGNB (DE), Milio Byggnad (SE), Nordic Swan Ecolabel buildings (Nordic)
- Intended objectives on **tox-free, circular** and **climate** aspects



Preconditions for achievement

Financial capacity: Legal prescription, political decisions, participation in projects, financial incentives

Market availability: Market dialogue, supply of materials, company services

Political support: Commitment from top management, front-runner role, election promises

Social aspects: Awareness of users, behaviour, readiness to embrace sustainability

Financial aspects

Aspect to consider	Priority	Challenge
Are there support programmes (EU funding, national, local) for tox-free, circular and climate friendly construction?		
Is tox-free, circular and climate friendly construction envisioned/planned in the municipal budget?		
Is the desired result in line with strategic development programmes at the municipality?		
Is there an option to avoid use of the lowest price as the decisive criterion for awarding the contract?		
Is it possible to impose a requirement to use assessed construction materials as a benchmark at the municipality?		
Other aspects...		



Political support

Aspect to consider	Priority	Challenge
Is there an understanding of tox-free, circular and climate friendly construction at top management level?		
Does the Mayor of your municipality support tox-free, circular and climate friendly construction ?		
Is tox-free, circular and climate friendly construction set as a priority in strategic documents at the municipality?		
Does top management support hiring competent experts for decision-making in relation to construction?		
Does the municipality intend to play a 'front-runner' role for tox-free, circular and climate friendly construction?		
Other aspects...		



Market availability

Aspect to consider	Priority	Challenge
Are there defined procedures for evaluation of market availability of tox-free, circular and climate friendly materials?		
Are there cooperation practices with architects for market evaluation of construction materials?		
Is there a practice to prioritise tox-free, circular and climate friendly materials from local/regional producers?		
Are market dialogue or market consultation procedures applied in relation construction projects at the municipality?		
Other aspects...		



Social aspects

Aspect to consider	Priority	Challenge
Are there procedures for mapping of end-user needs for tox-free, circular and climate friendly construction?		
Is there a strategy for regular capacity building of municipal staff involved in construction projects?		
Are tox-free, circular and climate friendly construction aspects considered in the municipal capacity building programme?		
Are tox-free, circular and climate friendly construction aspects communicated to society?		
Are tox-free, circular and climate friendly construction aspects communicated to end users/ tenants?		
Other aspects...		



A. Municipality goals and ambitions

Municipalities may set higher standards with respect to tox-free, circularity and climate neutrality aspects.

Examples:

- In **Sweden**, (Stockholm, Västerås) the Miljöbyggnad Silver standard is the base target set by a political decision.
- In **Denmark**, (Holbæk) DGNB-certification shall be applied for building projects exceeding 1000 indoor square meters.
- **Finland**, (Helsinki) has its own criteria for ecological construction.



B. Investigating needs for construction

- The needs of the municipality in the realm of construction can be linked to other areas:
 - social,
 - health,
 - well-being.
- New construction needs may arise from policy objectives, standards, and regulations that municipalities are obliged to comply with.
- The user needs mapping in communication with departments, end users.
- **Keep in mind the «Reality check»** (feasibility).



Photo by Jovydas Dobilas on Pexels



C. Market dialogue

A **market dialogue** is a process which aims at the interaction between contracting authorities and suppliers before the start of public procurement procedures.



Image by Tung Lam from Pixabay



Purpose and benefits of market dialogue

For Contracting Authorities

- **Improved Market Knowledge**

Helps authorities gain insights into latest products, services and technologies.

- **Identifying Innovation Gaps**

Authorities can spot products or services not yet standardised or widely available and adjust procurement accordingly.

- **Fostering Transparency**

Dialogue with suppliers ensures clear communication of public sector needs, promoting transparency and collaboration.

For Suppliers and Stakeholders

- **Understanding Public Sector Needs**

Helps suppliers to grasp evolving public sector priorities in sustainability and innovation.

- **Aligning Products with Procurement**

Suppliers can align product development with future procurement needs.

- **Showcasing Innovation and Feedback**

Enables suppliers to present innovations and receive valuable feedback for improvement.

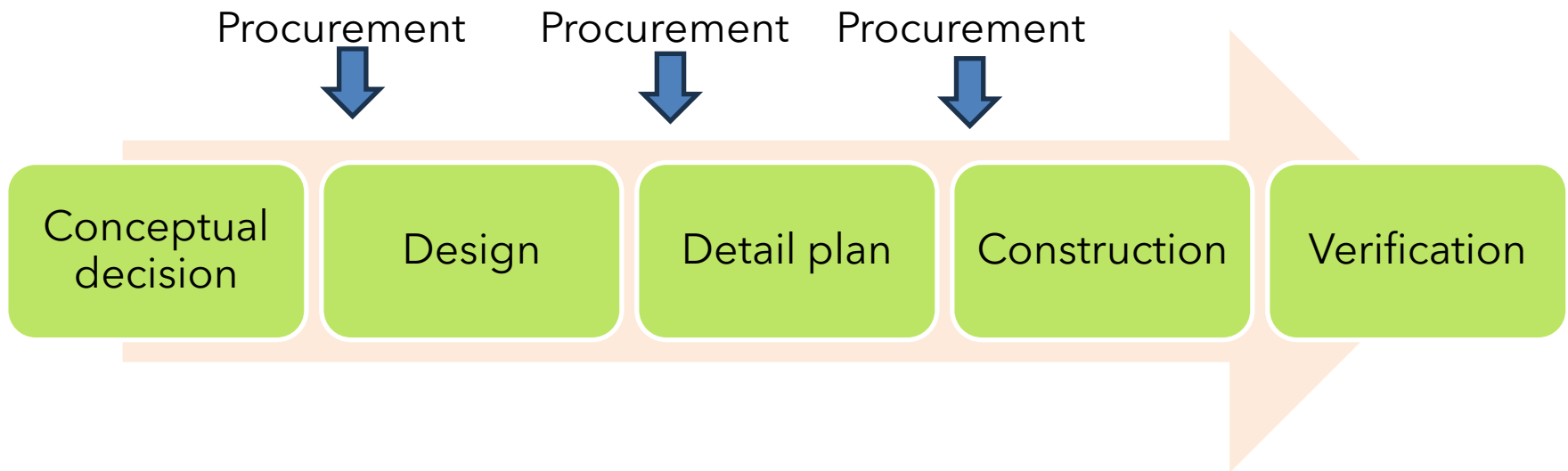
- **Promoting Sustainable Practices**

Stakeholders raise awareness and help to adopt sustainable construction practices through collaboration.



Market dialogue - when?

- **Pre-tender stage**
- **Tendering stage**



Market dialogue before tender

1. Early engagement
2. Request for information
3. Seek feedback, check feasibility
4. Promote innovation
5. Document everything



1. Early engagement

- Find the right expertise
- Evaluate service providers
- Communicate aspirations early
- Ensure fairness & transparency



Photo by RDNE Stock project



2. Request for information

- Contact service providers with a brief description of your project with the **aim of sustainable construction**.
- Request **specific information** on availability of tox-free materials, circular and low GHG footprint materials, design solutions, etc.
- Gather **technical data** and information on **chemicals**.
- Obtain preliminary **cost** information.
- Identify **potential challenges** in your project.

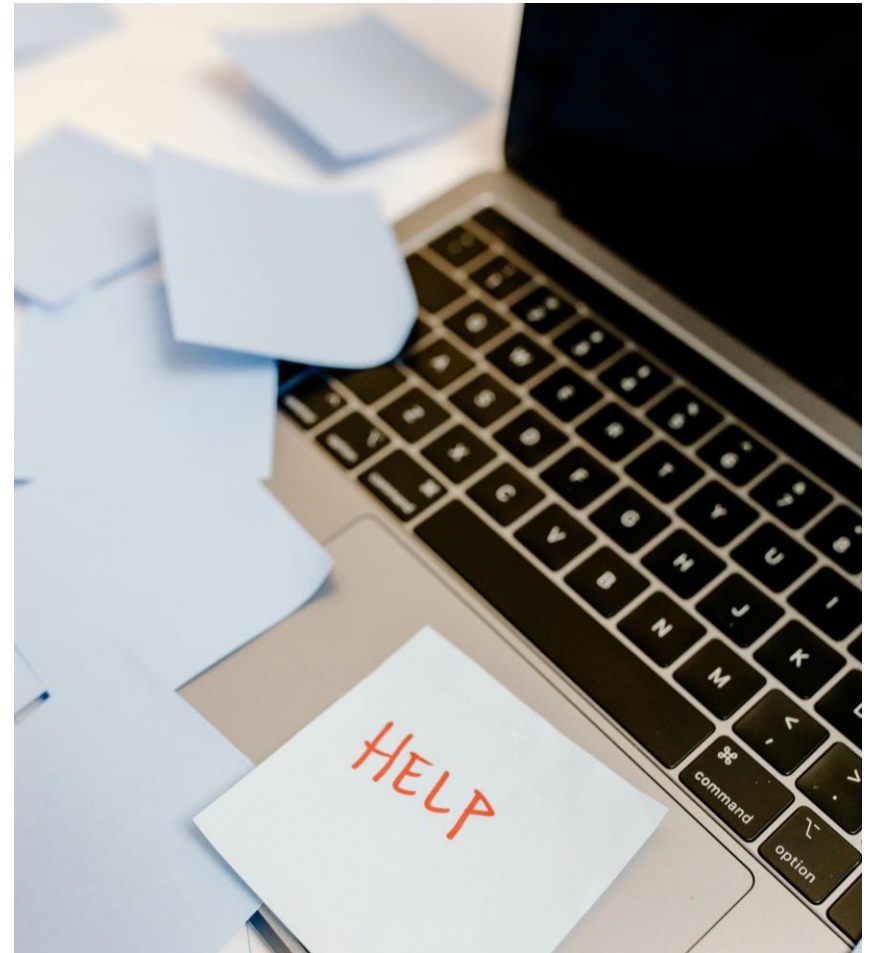


Photo by Tara Winstead



3. Seek feedback, check feasibility

- Share your **draft specification** with stakeholders (service providers) and request feedback.
- **Compile a questionnaire** aiming to pin-point challenges, risks of the project, as well as to weigh up the capabilities of service providers.
- Based on feedback, **re-assess your project feasibility**, address potential challenges and iterate the project specification.



4. Promote innovation

Take the time to promote the importance of sustainable construction practices using tox-free, circular and low GHG footprint building materials and their benefits.

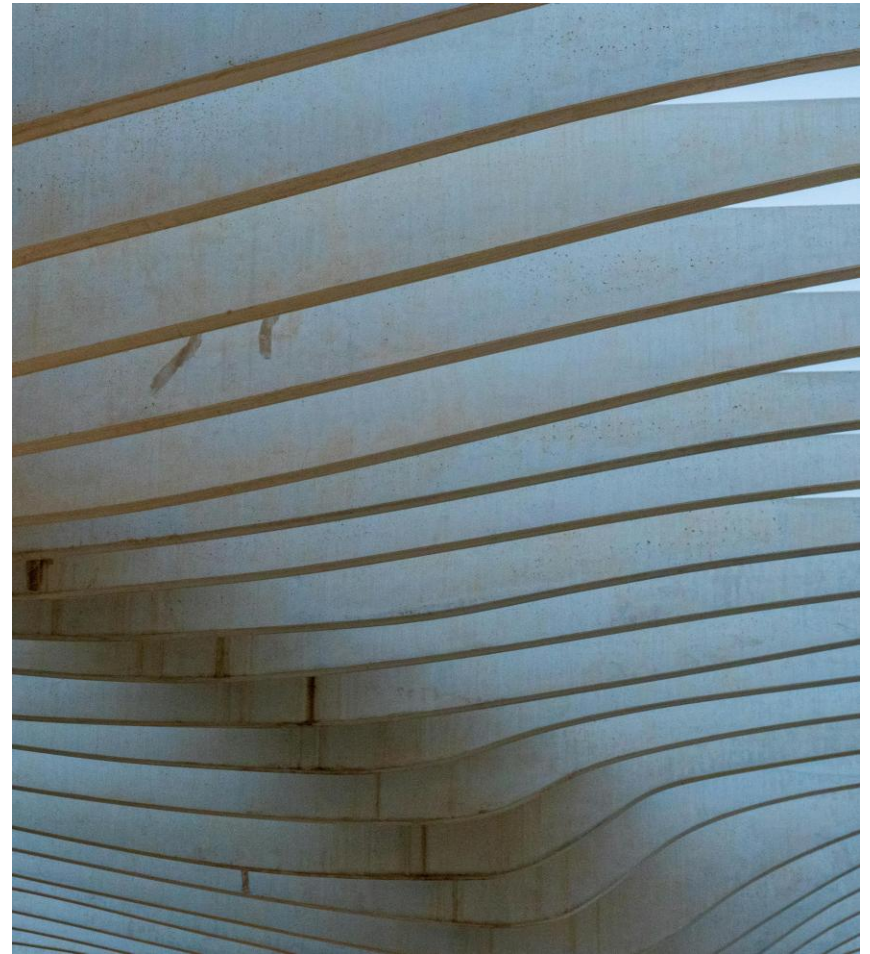


Photo by Ivan Vi



5. Document the process

- Document the process of engagement with stakeholders, including all communication, meeting records (for transparency and legal reasons)
- Knowledge of stakeholders, their capabilities, experience as well as technical information on materials may be useful for future projects.
- Useful for transfer of experience.



Photo by Tima Miroshnichenko



Market dialogue during tender stage

- Less opportunities to engage compared to pre-tender.
- Establish a possibility of receiving queries regarding the tender and providing replies.
- Organise workshops for potential bidders, where tender details and project goals are discussed.
- Gather feedback.



Photo by Tima Miroshnichenko



D. Conceptual plan - decision making

For new construction:

- details on building size (number of floors, etc.)
- layout
- no. of rooms, other facilities required
- structure and use of a building

For existing buildings:

- existing situation
- evaluation of possibilities
- requirements for energy performance
- circularity aspects
- re-use of the materials



E. Setting the targets

3 pillar approach	Decisions for new construction / extension / refurbishment
Tox-free	<ul style="list-style-type: none">▪ Local materials (e.g., wooden facades);▪ Avoiding (certain) hazardous substances (e.g. VOC).▪ Use of eco-certified materials.
Circular	<ul style="list-style-type: none">▪ Reusable, easy to repair construction elements.▪ Recycled/recyclable materials.
Climate neutral	<ul style="list-style-type: none">▪ Requirements for energy performance of buildings.▪ Application of renewable energy technologies.

A decision on certification of a building and application of eco certification of a building (e.g., Nordic Swan, BREEAM, LEED, DGNB) can also be taken.



Building a Nordic Swan certified Kindergarten Soittaja in Kannelmäki, Helsinki, Finland

- New kindergarten designed to meet **Nordic Swan ecolabel** criteria
- Learning spaces provided for 224 children
- **Architectural competition** and **feasibility study** conducted
- Materials assessed during **design and construction**
- **Recycling monitored and documented** throughout the process



Pictures: Kindergarten Soittaja - Architects Rudanko + Kankkunen

F. Roles and responsibilities

Cross-functional implementation team

Competence	Assigned: yes / no	Role
Project manager		
Top level management		
Medium level management		
End-user representative		
Experts from the municipality departments:		
Architect		
Construction expert		
Engineering expert		
Environmental expert		
Chemicals expert		
A procurement expert		
Other		



G. Documentation of the building process and selected materials

- Decisions on procedure and tools for documentation should be made at an early stage
- Helps to identify discrepancies early and maintain compliance
- Provides a traceable record for future repairs, replacements, or refurbishment
- Owner has information about the building



Image by Michal Jarmoluk from Pixabay



Minimum requirements for logbooks for new Nordic Swan Ecolabel buildings

- Product name
- Product type
- Name of producer
- Location of the product in the building (ceiling, walls and floor, the building's roof, or facade)



Byggvarubedömningen (BVB) logbook in Sweden

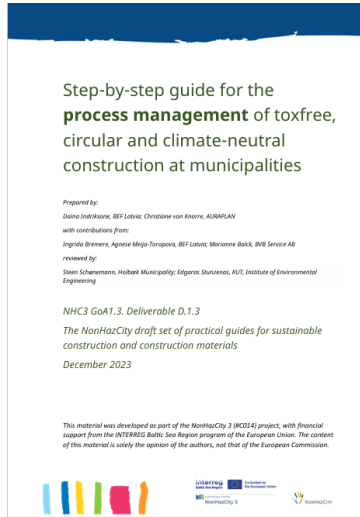
Key Features of the Logbook Tool:

- Collaborative platform
- Folder structure built according to the needs of your organization
- Automatic deviation management directly in the tool
- Export options
- Certification adaptations for systems like Miljöbyggnad and BREEAM

The screenshot shows the 'Logbook' interface for 'Project House 2'. At the top, there's a header with the project name and a progress chart showing 25% BREEAM, 100% Miljöbyggnad, and 50% BVB. Below this is a navigation bar with 'Products (0)', 'Participant (1/1)', and 'Deviation (0/0)'. A search bar is present, and there are buttons for 'New product', 'New folder', and 'New document'. The main area is a table with columns for 'Product name', 'Supplier', 'Folder in the Logbook', and 'Evaluation/Deviation'. The table contains three rows of data, each with a product name, supplier, folder, and a set of colored circles representing evaluation status.

Product name	Supplier	Folder in the Logbook	Evaluation/Deviation
None 1	Supplier 1	Folder in the Logbook 1	Dev. 1, Dev. 2, Dev. 3, Total 1, Deviation 1
None 2	Supplier 2	Folder in the Logbook 2	Dev. 1, Dev. 2, Dev. 3, Total 2, Deviation 2
None 3	Supplier 3	Folder in the Logbook 3	Dev. 1, Dev. 2, Dev. 3, Total 3, Deviation 3

Where to look further?



Step-by-step guide for the process management of toxfree, circular and climate-neutral construction at municipalities



The best practice cases and learnings



Thank you!

Explore further:
[NonHazCity 3 - Interreg Baltic Sea Region](#)



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