

Criteria for avoidance of hazardous substances

Experiences and findings from NonHazCity 3 project

Case Riga: renovation of social housing

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Riga State City Municipality
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Interreg
Baltic Sea Region



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SUSTAINABLE WATERS

NonHazCity 3

70% of residents in Riga live in housing built in Soviet times



Riga's vision for sustainable construction

- Riga City Council aims
- to develop a sustainable, environmentally friendly, and energy-efficient city.
- there is an emphasis on sustainability as a guiding principle in municipal projects and renovations. .
- Additionally, the role of international and national frameworks is highlighted in municipal planning.



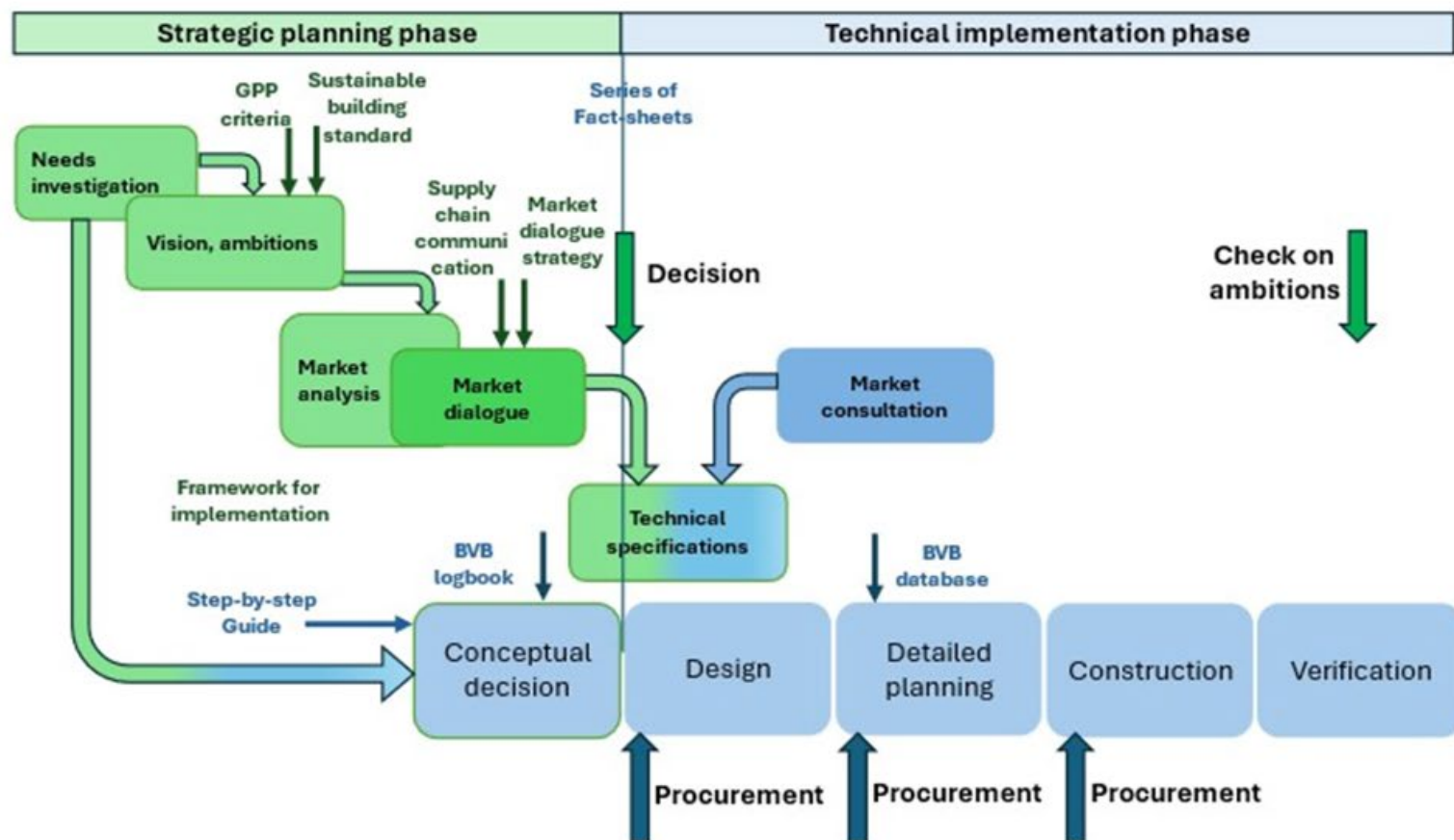
Municipal projects to promote sustainability

- Lead partner in the Interreg project NonHazCity3
- Project objectives:
 - Reduce hazardous substances in construction to:
 - ✓ Preserve aquatic environment
 - ✓ Protect human health
 - ✓ Promote sustainable construction
- Municipal priorities for buildings:
 - ✓ Non-toxic
 - ✓ Healthy
 - ✓ Climate neutral



NonHazCity3

NonHazCity3 offers a comprehensive range of guidelines, information materials, tools and training courses for the entire process from planning, procurement and construction to certification.



NonHazCity3 – our products



Guidances



The **Strategic Guide for Local Authorities** contains recommendations for the development of customized strategic solutions to increase the efficiency of administrative processes.



The **step-by-step guide for process management** provides recommendations for the selection and application of various methods and tools in all construction phases.



The **Do-it-yourself guide for citizens** enables the realization of the building turnaround for do-it-yourselfers



Info Materials

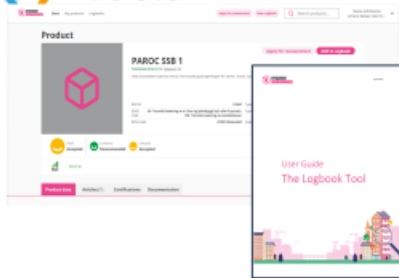


The **catalogue** offers a collection of building materials and their hazardous components to help planners and builders with product selection.



The **NHC3 fact sheets** for construction professionals have been created to increase their knowledge of chemical aspects and relate them to the circular economy of materials and the energy efficiency of buildings.

NonHazCity3 – more products....



The **BVB database of assessed building products** shows the impact of the products on people and the environment. The user can search for specific products or for an entire product group and thus make a sustainable product selection. The logbook tool enables construction projects to document the products used.

CHECKED

Endocrine Disruptors (EDs) exposure analyzer



1. Report the 5 reasons to fix a Check(ED) Plan
2. Knowledge: Endocrine Disruptors and how they get into your home to help the [CHECKED](#)
3. How: Protect your health. [CHECKED](#)
4. Reduce: Protect the health. [CHECKED](#)
5. Economy: Save money. [CHECKED](#)
6. Intuitive: Using CHECKED is easier than you think. [CHECKED](#)

Strong health
focus

The **web app "Check(ED)"** enables an assessment of exposure to endocrine disruptors in the home environment and at the workplace and offers advice on reducing exposure through renovation.

Coming soon



The modular **training programme** for experts from public authorities and the construction industry offers systematic, comprehensive training on our 3-pillar approach and the concepts and methods.

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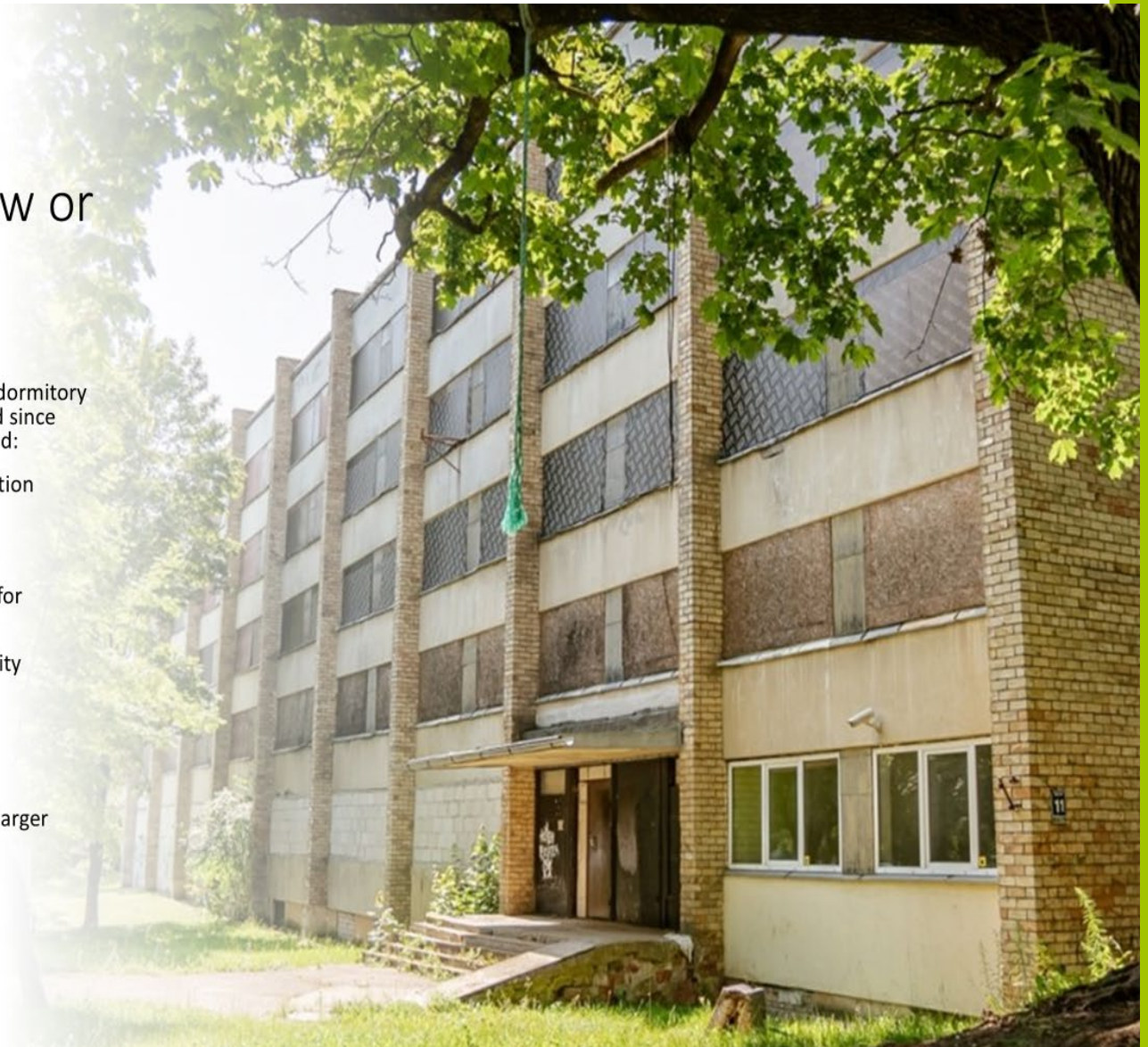
Ziepju street 11 - Dilemma: Build new or renovate?

****Historical Background:**** The five-story dormitory was built in 1970 and has been uninhabited since 2018. If the existing building were renovated:

- Establish a foundation for new construction practices within the municipality.
- Develop a model procurement strategy.
- Provide shared green energy resources for tenants.
- -Create physically and socially high-quality premises and outdoor spaces.
- -Reduce maintenance costs.

After the reconstruction, it is possible to::

- Municipal rental apartments, including larger apartments for large families
- Two daycare centers



Renovation of apartments within the NonHazCity3 project

- **Department of Housing and Environment plan:**
- Renovate several vacant rental apartments owned by the municipality
- **Principles of restoration:**
- Emphasize circularity
- Use non-toxic and climate-neutral building materials.
- **Benefits for tenants:**
- Suitable for families with respiratory diseases (e.g. asthma)
- Longer lifespan of building materials.
- More convenient maintenance of living spaces in good technical condition



Old municipal apartment house at Ziepju 11 refurbishing Ambitions

Solar panels

Reuse materials as much as possible

Heat pumps

Sustainable, industrially produced insulation solutions

Wastewater heat recovery

- ✓ **Working together:** 6 municipal entities + project partners
- ✓ **Circular** materials and solutions
- ✓ **Material data** sheets
- ✓ **Tox-Free** materials – concrete, steel, wood without harmful coating, PVC windows without hazardous substances

Status of the development of the pilot

Preparatory work: comparison of 3 renovation scenarios (LCC/LCA for the 30-year period), architectural preliminary analysis, incl. material audit, development of the procurement

Procurement procedure - Contest dialogue

1st stage

- Anyone can apply
- Qualification and evaluation criteria
- Applicants do not see the technical specification
- Applicants submit the necessary documents for qualification and evaluation

2nd stage

- Only 5 best applicants of the 1st stage can participate
- Dialogue about the technical specification
- The final version of the technical specification
- The finalists submit their final offer, including financial offer



The stakeholders involved

- Housing and Environment department of Riga Municipality – the main customer, provides budget for the design work
- Riga Energy Agency – did a preliminary analysis, prepared the procurement
- Municipal real estate company «Rigas nami» - owner of the building, purchaser of design and reconstruction works
- City Development Department of Riga Municipality – supported the preparation of procurement
- Welfare Department of Riga Municipality – responsible for daycare centres and other social support in the city, minor customer
- The Latvian Association of architects – cooperation in the development of the procurement



Projects involved

- INTERREG BSR NonHazCity 3
- URBACT URGE (2021-2022)
- HORIZON DESIRE (2023-2024)



Solutions tested

- Implement green public procurement by including criteria for non-toxic materials, circularity, and climate neutrality in the technical specifications.
- Utilize a competitive dialogue as a tendering procedure to collaboratively develop the final technical specifications with the finalists.
- Use a BVB database to check for and identify non-toxic materials and products.



Municipal apartment for renovation at Zemes str. 4

- In the framework of the NonHazCity3 project, one of the rental apartments will be renovated (refurbished) by the Housing Department (with the support and involvement of NHC3 experts) according to circular principles and using non-toxic and climate-neutral materials. The apartment at 4-31 Zemes Street will be used as the project's pilot.



Municipal apartment for renovation at Zemes str. 4



Current situation, solution tested and first findings/challenges:

- Green public procurement is prepared, and the Department's procurement specialists and engineer estimator prepare the procurement documents. Project experts have been involved in this process, the BVB database is being tried. It is too early to speak about leanings – the work has only started.
- Top management leadership, their values, awareness and support is critical
- Get on board as much politicians as possible
- You can never know everything



More about NonHazCity 3

<https://interreg-baltic.eu/project/nonhazcity-3/>

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