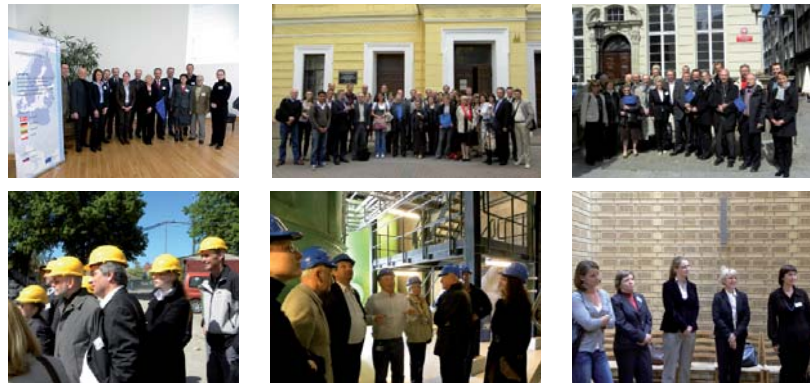


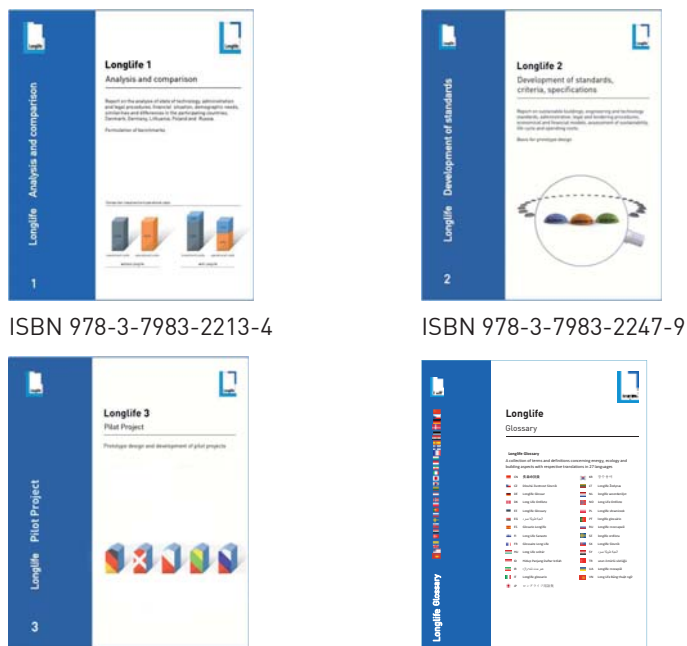
Emotions



Events

- 08.11.11 Longlife Workshop, Potsdam
- 09.11.11 Longlife International Final Conference, Berlin
- 10.11.11 Kick Off Workshop Cluster Energy, Berlin

Publications



ISBN 978-3-7983-2213-4

ISBN 978-3-7983-2247-9

Project Partners

- Berlin Technical University
- Center of Competence for Major Housing Estates
- Municipality of Roskilde
- Building Association of Zealand
- Gdansk University of Technology
- Vilnius Gediminas Technical University
- Certification Center of Building Products
- Building Planning Systematics Centre

Associated Organisations

- St. Petersburg State University of Architecture and Civil Engineering
- Hypothecary Agency of Leningrad Oblast
- AVOK North-West Engineers for Ventilation, Heating, Air-Conditioning, Heat Supply and Building Thermal Physics
- City of Gdynia
- Federal Ministry of Transport, Building and Urban Development (BMVBS)
- Berlin Brandenburgische Treuhandgesellschaft
- Municipality of Potsdam

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www.longlife-world.eu

Longlife

Sustainable, energy efficient and resource saving residential buildings in consideration of unified procedures and new and adapted technologies

Longlife - Europe Strategy 2020

During the last three years the project Longlife, cofunded through the Baltic Sea Region Programme 2007-2013, optimized the energy performance in new residential buildings in the project partner countries (Germany, Denmark, Poland, Lithuania and Russia) within the framework of Europe Strategy 2020. In December 2011 the project Longlife complete its work and will publish its final results. The optimisation is achieved through the more integrated approach in the design process focusing on ecological, social and economical aspects.

Three competence teams created a comparative overview about the existing building standards in the five partner countries. On the basis of this outputs the new standards for energy efficiency and sustainability, as well as harmonized legal procedures and financial models were developed.

The composed standards are implemented by the designing pilot projects in each partner country. The key aspect in the design process was to invest more during the planning level in order to save operational costs considering the whole life cycle of the building. The results of each workpackage of the project are published in three Longlife Reports - Longlife 1 „Analysis and Comparison“, Longlife 2 „Development of standards“ and Longlife 3 „Energy Efficient Design“.

Longlife International Final Conference

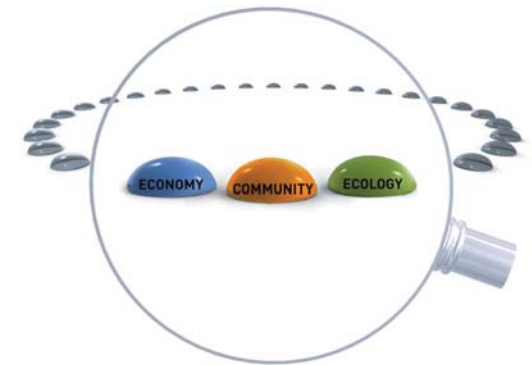
Longlife will present the results of the project at the International Final Conference in November 2011 in Berlin. During the conference project partners will give an overview about the outputs and will present national pilot projects. The next topic of the Conference will be the intersection between partner projects and the future objectives.

The Final Conference will take place in:

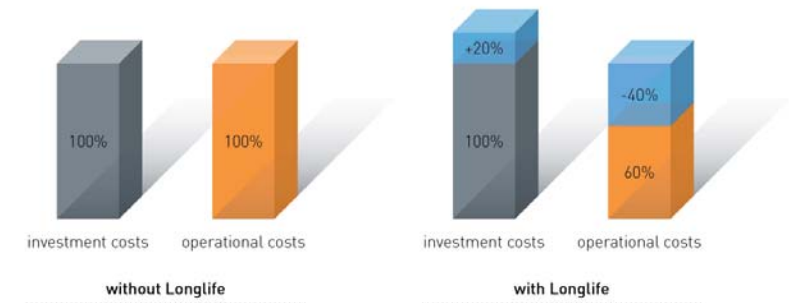
Federal Ministry of Transport, Building and Urban Development

Invalidenstrasse 44,
Berlin, Germany

9 November 2011
from 11 am to 6 pm

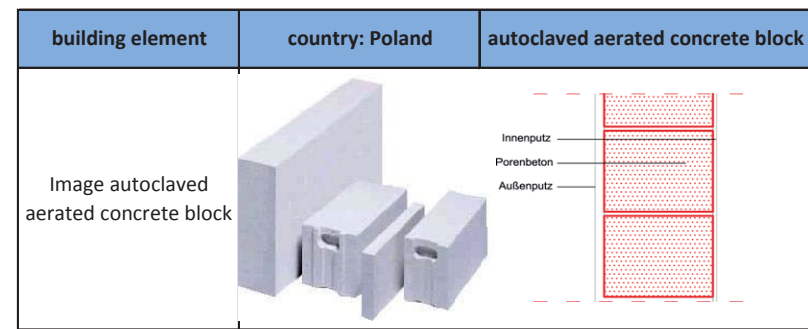
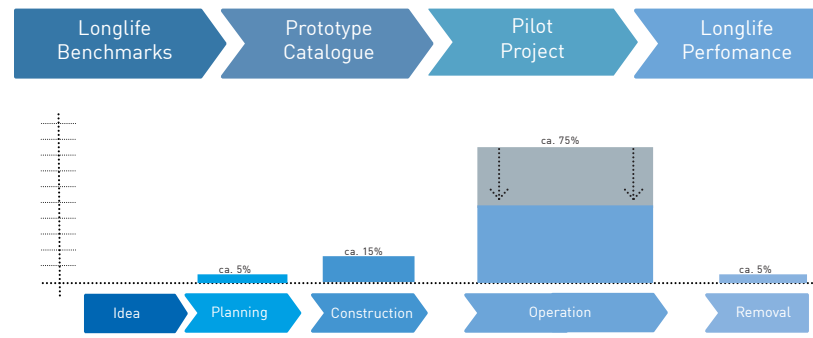


Comparison investment and operational costs



Insight in the history...

Longlife - Process



description/ construction details				
components	gross density (kg/m³)	lifetime (years)	initial costs (€/m²)	construction time (h/reference unit)
internal plaster	1400	45	8 - 14	0,3 - 0,45
aac (Ytong P4)	350	60	35 - 45	0,9 - 1,41
external plaster	1400	45	8 - 14	0,3 - 0,45

ecological impact	
GWP 100 - kg CO2 äquiv.	83,67

life cycle costs	maintenance costs (% of constr. costs)	medium costs	maintenance costs (€/a)	dismantling costs
internal plaster	2,00%	11,00 €	0,22	2,00 €
aerated concrete	1,00%	40,00 €	0,4	5,00 €
external plaster	2,00%	11,00 €	0,22	2,00 €

Longlife - Benchmarks

The Longlife projects partners started with an Analysis and Comparison of existing engineering standards and technologies for buildings, permit and tendering procedures, project management and financing models. These results are published in the Report Longlife1 - Analysis and Comparison.

In the next workpackage the Longlife project partners developed standards, criteria and specifications as benchmarks for energy efficient and resource saving residential buildings in the Baltic Sea Region. An important step was the harmonization of the construction standards in the Baltic Sea Region. The Longlife partners have agreed on an annual final energy demand of 40 kWh/m² for heating, ventilation and domestic hot water. The developed benchmarks also concern the urban situation, the apartment sizes and appropriate building materials.

The developed standards and benchmarks are requirements for sustainable residential buildings and are published in the Report Longlife 2- Development of Standards.

Longlife - Prototype Catalogue

Project Longlife developed The Prototype Catalogue on the base of the Longlife benchmarks. The Longlife Prototype is a catalogue of materials, components and the key technologies which use renewable energies, reduce the CO₂ emissions and the primary energy consumption in the lifecycle of the building and reduce operational costs. The components of the Prototype Catalogue meet the minimum requirements of Longlife Project, e.g. final energy demand of 40KWh/ m² year.

Longlife - Pilot Projects

In the last step the Longlife project partners implement the developed standards as well as the Prototype Catalogue into five pilot projects in each partner country: Germany, Denmark, Poland, Lithuania and Russia. Building elements e.g. walls, roofs, slabs and technologies which fulfill Longlife benchmarks are selected from the Longlife Prototype Catalogue.

The design process is defined by the integrated, multidisciplinary planning approach with the goal to optimize the energy efficiency of the pilot projects. One of the keys of the architectural design is its flexible and adaptable structure allowing the intergration of the respective most effective materials and technologies into the future.

The Longlife Prototype Catalogue, the national pilot project as well as Glossary with the specific terms are published in the Report Longlife 3 - Energy efficient design.

Longlife - Performance

Longlife will demonstrate with the five national pilot projects that an extra effort in the integrated planning in order to minimize energy demand and operating costs of a building life cycle is worthwhile.

At the end of the planning process, the building will be certified with the Longlife Performance Pass. This Performance Pass includes measurable data of the building in the fields of energy, costs and qualities. The practical solutions and innovative technologies are also applicable to other building types.

The specially designed Longlife Performance Pass® is used for the certification of sustainable buildings.

