



#### Climate Change, Cultural Heritage & Energy Efficient Monuments

INTERREG IVb Baltic Sea Region

Tallinn, 22.5.2012









## **Overall goal of Co<sub>2</sub>olBricks**

#### **CO2** reduction and conservation of cultural heritage:

 How to reduce the energy consumption of historical buildings without destroying their cultural value?

2. Make technologies and results public











## Why energy efficiency in historic buildings?

- -Keep the historic buildings attractive to live in
- -Increased heating costs
- -Loss of characteristics of our cities
  - economic attractiveness
  - external insulation

Itic Sea Region

Programme 2007–2013















#### **Basic Data**

#### •Project runtime: December 2010 - December 2013

•18 Partners from 9 countries with 10 languages

•Projectvolume: 4,3 Mio. Euro

•Of that EU-funding: 75% / 85% /95%









#### Partnerstructure











#### Partnerstructure











#### **Results of Baselinestudy:**

- ightarrow Countries deal very carefully with historic buildings
- ightarrow All measures based only on theoretical calculations
- $\rightarrow$  No analysis before the refurbishment (material, real heat transmission etc.)

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- $\rightarrow$  No evaluation after refurbishment
- $\rightarrow$  Definition of cultural value of building before and after refurbishment







#### Researches

Aims:

- $\rightarrow$  Increase Know-How of Co<sub>2</sub>olBricks project partners
- $\rightarrow$  Investigation and development of innovative methods, technologies etc.
- ightarrow Implementation within pilot projects







Pilot project in Hamburg / Germany











Pilot project in Kohtla-Järve / Estonia











Pilot project in Malmö / Sweden











#### Pilot project in Riga / Latvia





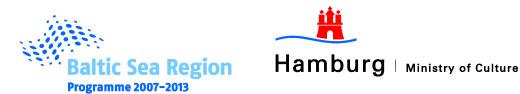






Aims of Pilot projects:

- $\rightarrow$  Implemention of innovative methods/ technologies into built reality
- $\rightarrow$  Increase Know-How of Co<sub>2</sub>olBricks project partners
- $\rightarrow$  Serve as best-practice examples (also after project end)







# Work package "Policy Development:"



- Clarify connections between energy efficiency and cultural heritage
- Lack of knowledge and competence for energy efficiency in historical buildings.
- Methods needed for working with energy efficiency in cultural heritage buildings.
- Discussion of effect of building regulations effect on cultural heritage
- Missing communication within the national authorities regarding subsidies.





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#### Work package "Education and economic promotion"

- Baseline study on educational situation in the participating countries almost finished
- Especially general public has a lack of knowledge
- Training material started to be prepared
- Target groups: Architects, building engineers, craftsmen, property owners, officials, energy auditors
- Other stakeholders





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### Topics to be covered in educational material:

- •Cultural heritage and historic constructions
- •Energy efficient refurbishment measures and technical services (heating, ventilation, indoor climate)
- •Quality Management and work planning
- Market opportunities







### Thank you very much for your attention!

Jan Prahm

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