Industrialisation and prefabrication of building systems for retrofitting

Global missions of Innoviris

Competences des chercheurs → techtransfer → Besoins des entreprises

Figures 2014

<table>
<thead>
<tr>
<th>Bedrag</th>
<th>Aantal projecten</th>
<th>Toegekende subsidies</th>
</tr>
</thead>
<tbody>
<tr>
<td>€ 11,391,469 (OF)</td>
<td>38</td>
<td>198</td>
</tr>
<tr>
<td>€ 6,412,060 (OF)</td>
<td>38</td>
<td>64</td>
</tr>
<tr>
<td>€ 7,180,973 (OF)</td>
<td>38</td>
<td>42</td>
</tr>
<tr>
<td>€ 4,091,556 (OF)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>€ 1,087,363 (OF)</td>
<td></td>
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<tr>
<td>€ 22,930,167</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

283 nieuwe aanvragen
198 toegekende subsidies
298 lopende dossiers
581 behandelde dossiers
441 gefinancierde banen
32,70 Mio€ vastgelegd
Industrialisation and prefabrication of building systems for retrofitting

It started with...

It came to...
BRUSSELS RETROFIT XL

• Goal of the innovIRIS Strategic Platform Environment 2012
  • to promote and coordinate research on retrofitting of the built environment (housing) within the Region of Brussels,
  • with the aim of
    • extending the knowledge base on building retrofitting actions,
    • stimulating renovation initiatives and
    • mapping retrofitting opportunities for the Brussels context.
• Prioritised research areas

RETROFITTING OF THE BUILT ENVIRONMENT (HOUSING)

Energy and Comfort improvement
Sustainable Materials, Components & Concepts
Application and Industrialisation
Socio-economical aspects

BRUSSELS RETROFIT XL

• Multidisciplinary platform
• 13 Brussels’ research teams
• 4 universities or research centres

Lab SCO
Lab LMA
Lab REN
bбри.be
Lab MeMC
TranS
ULB
MeMC
UCL
ReUse
Vrije Universiteit Brussel
BAtir
Brussels School Economics & Management
Industrialisation and prefabrication of building systems for retrofitting

BRUSSELS RETROFIT XL

Y1
2013
• Eleven research projects
• Research activities for various retrofitting aspects

Y2
2014

Y3
2015
• Valorisation research
• Demonstration
• Prototyping

RETROFITTING OF THE BUILT ENVIRONMENT (HOUSING)

Energy and Comfort
Improve

Sustainable Materials,
Components & Concepts

Application and
Industrialisation

Innoviris
Strategic coordination

INNOVIRIS
Platform coordination

BBRI

SCO

LightCamp
Design of lightweight building components

Inno-ETICS
High performance insulation systems

RAM-ES
Industrialised envelope systems

Meso
Micro energy storage

WINTEGRA
Wind energy

W&J

RetroCo
Benefit of post-war
Plopping

UC-BUILD
Life cycle perspective

LC-BUILD
Life cycle perspective

BRB-EU
Socio-economic concerns

Sce
Socio economical aspect

Socio economical aspects
Industrialisation and prefabrication of building systems for retrofitting

**RESEARCH PROJECTS (I)**

**RetroCo**
Understanding and conserving the post-war housing stock in Brussels (1945-1975). Retrofit for continuity!

**B³ RETROTOOL**
Sustainable retrofit of urban blocks and buildings in Brussels Capital Region

**Wintegrate**
Wind energy and wind conditions in the built environment

**MESB**
Micro Energy Storage in Buildings

**RESEARCH PROJECTS (II)**

**SHARC**
Self-Healing coatings in Architecture

**INNOV-ETICS**
ETICS: Technical investigations on high performances emerging innovative solutions for the retrofitting of housing

**LightComp**
Design of lightweight building components for the renovation and reconversion of existing buildings
Industrialisation and prefabrication of building systems for retrofitting

3 December 2015

Brussels Retrofit XL: Retrofitting Thursdays

RESEARCH PROJECTS (III)

DYNSTRA
Dynamic Reuse Strategies for the retrofitting of post-war housing in Brussels

AIM-ES
Experience-based guidelines for Architectural Industrialized Multifunctional Envelope Systems

IRHis
Integrated approach to support and develop economic activities in the Brussels Renovation sector of Housing

LCBUILD
Evaluation of retrofitting concepts from a life cycle perspective

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Brussels Sustainable Research

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Industrialisation and prefabrication of building systems for retrofitting

26 November 2015 | Sustainable energy in the city
→ Session postponed to January / uitgesteld / postposé

3 December 2015 | Industrialisation and prefabrication of building systems for retrofitting

10 December 2015 | Book launch | Post-war building materials in housing in Brussels (1945-1975)

January 2016 | Sustainable energy in the city

January 2016 | Launch webtool B³-RetroTool
→ more information on the website soon.
Industrialisation and prefabrication of building systems for retrofitting

RETROFITTING THURSDAYS

INDUSTRIALISATION AND PREFABRICATION OF BUILDING SYSTEMS FOR RENOVATION

- Speed
- Accuracy
- Flexibility
- Ease of use

- Systems manufactured off-site
- Demountable systems
- Lightweight systems
- Flexible systems
- ...

PROGRAM

13.30 Welcome coffee

14.00 Introduction
   Sebastian Serrano, InnovIRIS & Lisa Wastiels, BBRI

14.10 Dynamic walls: towards reusable partition systems (NL)
   Anne Paduart & Stijn Elsen, VUB

14.30 Lightweight, modular and prefab formwork for renovating floors (NL)
   Svetlana Verbruggen & Sven De Sutter, VUB

14.50 Prefabrication: challenges and opportunities (FR)
   Benoit Parmentier, BBRI-CSTC-WTCB

15.10 Industrialising façade retrofitting systems (FR)
   Samuel Dubois & Michael de Bouw, BBRI-CSTC-WTCB

15.30 Coffee break
Industrialisation and prefabrication of building systems for retrofitting

PROGRAM

15.30 Coffee break

15.50 Case study 1
Lusambo 76: Sustainable renovation techniques to achieve a passive building (FR + NL)
Arnaud Bertrand, Matriciel & Heidi Cuypers, Tecnibo

16.10 Case study 2
Use of prefabricated façades in a social housing project (FR + NL)
Philippe Veevaete, Le Foyer Bruxellois & Bart Cobbaert, denc-studio / DEWIL architecten / Ney&Partners / Boydens

16.30 Panel discussion (EN)

17.00 Networking drink

WWW.BRUSSELSRETROFITXL.BE

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