

Renovation and circular economy

Materials at the heart of the transition
towards a sustainable buildings

Brussels' Green Journey: Strategies to Minimise Environmental Footprint in Building Initiatives





BARBARA DEWULF

DIRECTOR GENERAL



INDEX

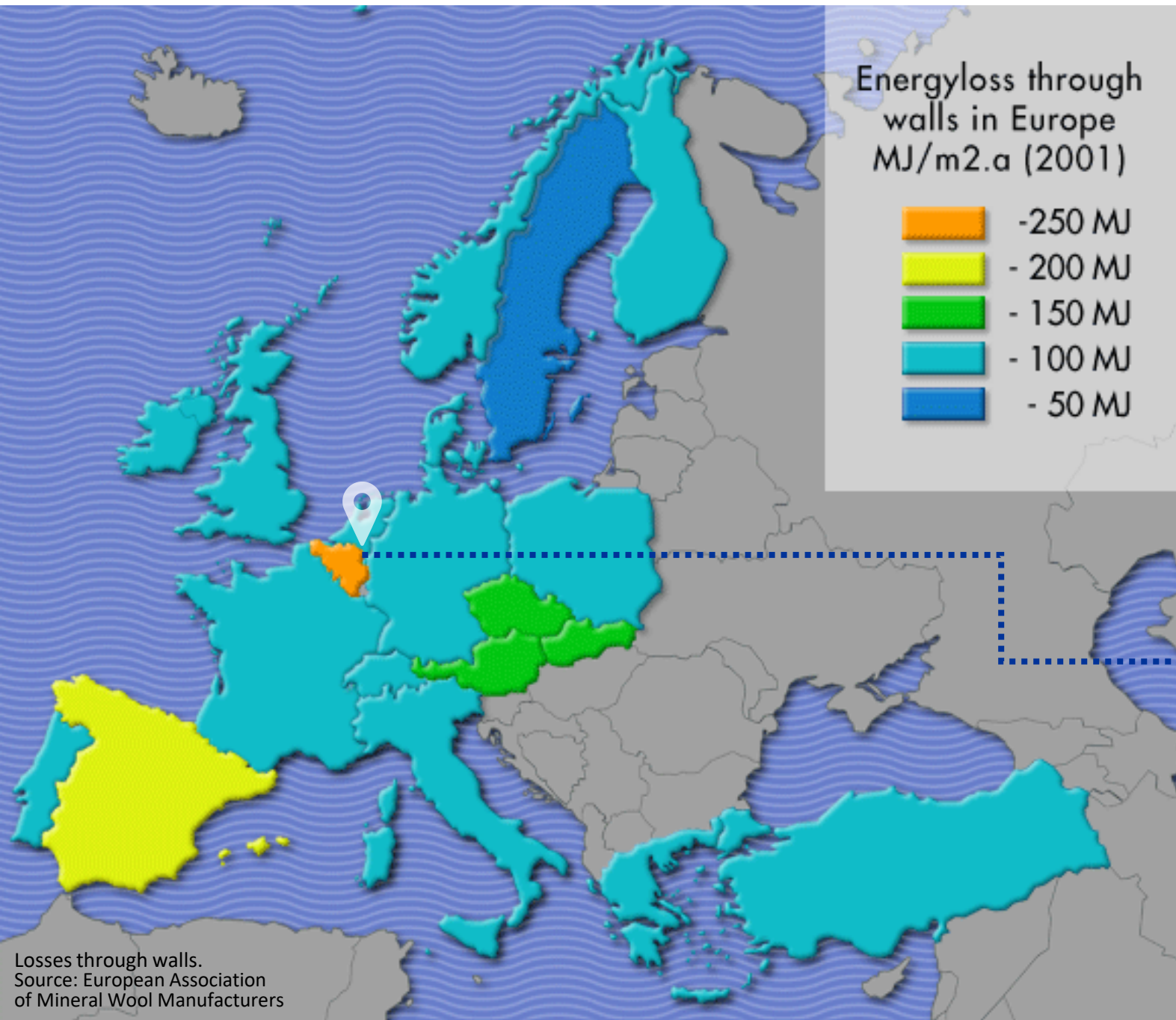
1. *2001 - Energy, greenhouse gases, materials and resources report*
2. *2004 - Information and training*
3. *2007 - Call for projects*
4. *2008 - EPB Regulation*
5. *2010 - Employment-Environment Alliance*
6. *2016 - Circular construction sites and RENOLAB*
7. *2020 - Renovation Strategy*
8. *AIR-CLIMATE-ENERGIE Plan*
9. *Conclusion*



1 2001 - Energy, greenhouse gases, materials and resources report



2001 - ENERGY REPORT



-250 MU
Worst performer in Europe

WHERE SUPPLY AND DEMAND MEET

Stimulating demand



- Financial aid
- Services and guidance
- Setting an example

Stimulating supply



- Consultation with the sector
- Feedback

Stimulating knowledge



- Training for excellence
- Training the sector
- Adapting the technical framework



Government commitment plans / Regulations

- Adapting legislation

MATERIALS AND RESOURCES REPORT

Brussels-Capital Region:

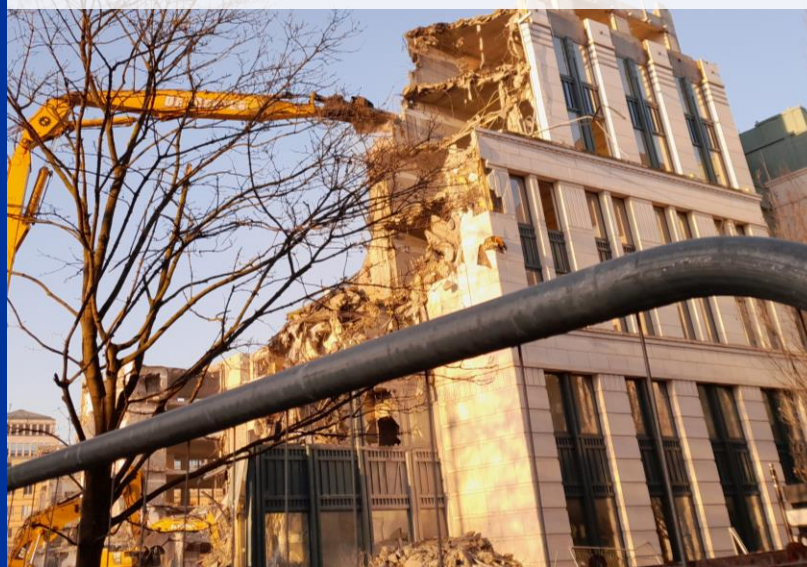
> **50%** of direct emissions,
BUILDINGS are
the prime culprits

RESOURCE CONSUMER



**1/3 of incoming
resources**

WASTE GENERATOR



1/3 of waste
Non-household

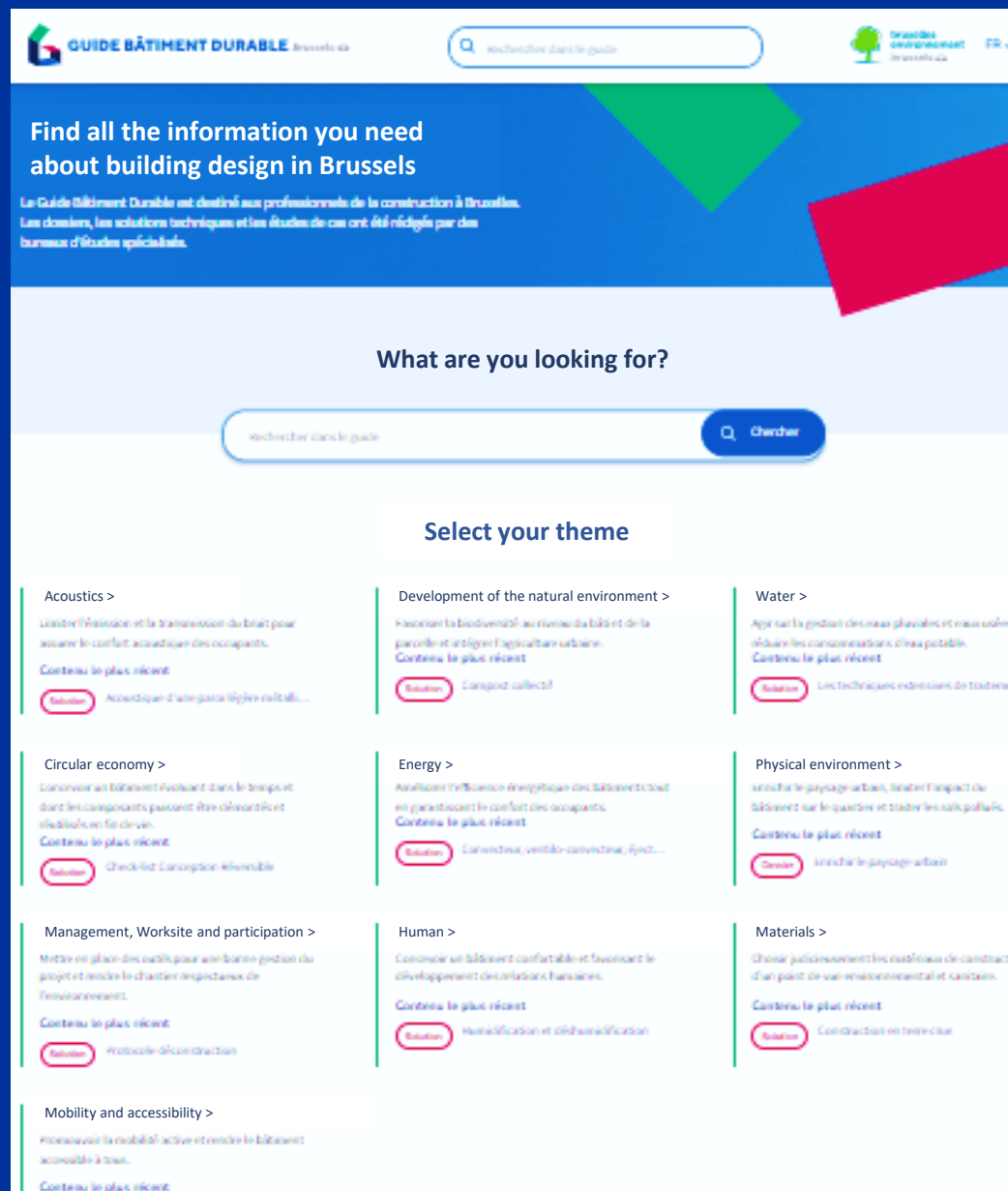


02 2004 - Information and training



TARGETS

- Specializing in sustainable construction
- Providing practical help for professionals
- Being inspired by Brussels' expertise
- Planning visits of construction sites
- Networking with other professionals



RESULTS

Sustainable Building Guide

- 10 themes: Acoustics; Development of the natural environment; Water; Circular economy; Energy; Physical environment; Management, Worksite and participation; Human; Materials; Mobility and accessibility

Sustainable Building Seminars & Trainings since 2004

- +/- 60 days/year
- More than 1,000 participants/year

03 2007 - Call for projects



TARGETS

- Promote and encourage construction and renovation
- Develop a stock of buildings with high environmental performance, in particular with high energy performance (HEP)
- Encourage Brussels' residents to build sustainably
- Demonstrate technical and economic feasibility

Knowledge

Demand

Supply

EXEMPLARY BUILDINGS SUCCESS STORIES [FROM BRUSSELS]

Racine

RESULTS

- 243 winning projects across 6 calls for projects
- 621,000 m²
- Single + multiple dwellings = 57% of applications
- Offices and shops = larger surface areas (minority of applications but the majority of the surface area)
- 27% of winning projects concern a renovation

04 2008 - EPB Regulation



TARGETS

- Reduce primary energy consumption
- Reduce CO₂ emissions linked to the operation of buildings
- Guarantee occupant comfort
- 2015 - New requirements:
 - Passive standard for all new buildings
 - Very low energy standard for all major renovations

RESULTS

- Sector feedback
- Adaptation of the Regulation and calculation methods
- 99% compliance rate with the requirements set by the Region.
- Before the EPB 2015 regulation came into force
 - average consumption of new buildings (for all uses): around 90 kWh/m²
- Thanks to the new regulation,
 - average consumption: around 50 kWh/m², and less than 45 kWh/m² for residential buildings

05 **2010 -
Employment-Environment
Alliance**



TARGETS

- Mobilise and coordinate public, private and associative actors around concerted actions
- Closely involve all stakeholders to achieve a genuine collective and individual commitment to work together.
- Stimulating demand and helping companies to acquire sufficient expertise in sustainable construction: two ways of increasing the number of sustainable buildings

RESULTS

- 2,550 potential new jobs or jobs to be adapted
 - bricklayers, floor layers, facade builders, roofers, joiners, glaziers, heating engineers (installation and maintenance), sanitary fitters, HVAC installers (installation and maintenance), electricians, architects, technical and engineering studies.
- 80,000 hours of sustainable construction training undertaken in 2011



06

2016 - Circular Construction Sites

2021 - Renolab



TARGETS

Contribute to the deployment of innovative solutions for the sustainable and circular renovation of buildings in Brussels.

- Circular construction site (Be.circular)
- RENOLAB.ID
- RENOLAB.B

RESULTS

be.circular

- 194 organisations: financial aid of €11.5 million
- 207 workshops organised: 5,500 participants
- 319 organisations have received non-financial business support
- 3,000 people have undergone training

RENOLAB ID

- 18 winning projects
- €4.5 million grant

RENOLAB B

- 98 winning projects
- €7 million grant





07 2020 - RENOVATION strategy



TARGETS

- Renovate better, more quickly and in many more buildings, to divide average energy consumption in housing by 3 and attain energy neutrality in the tertiary sector by 2050.
- Public-private sector alliance to determine objectives and the means of achieving them





08 2023 - Air-Climate-Energie Plan

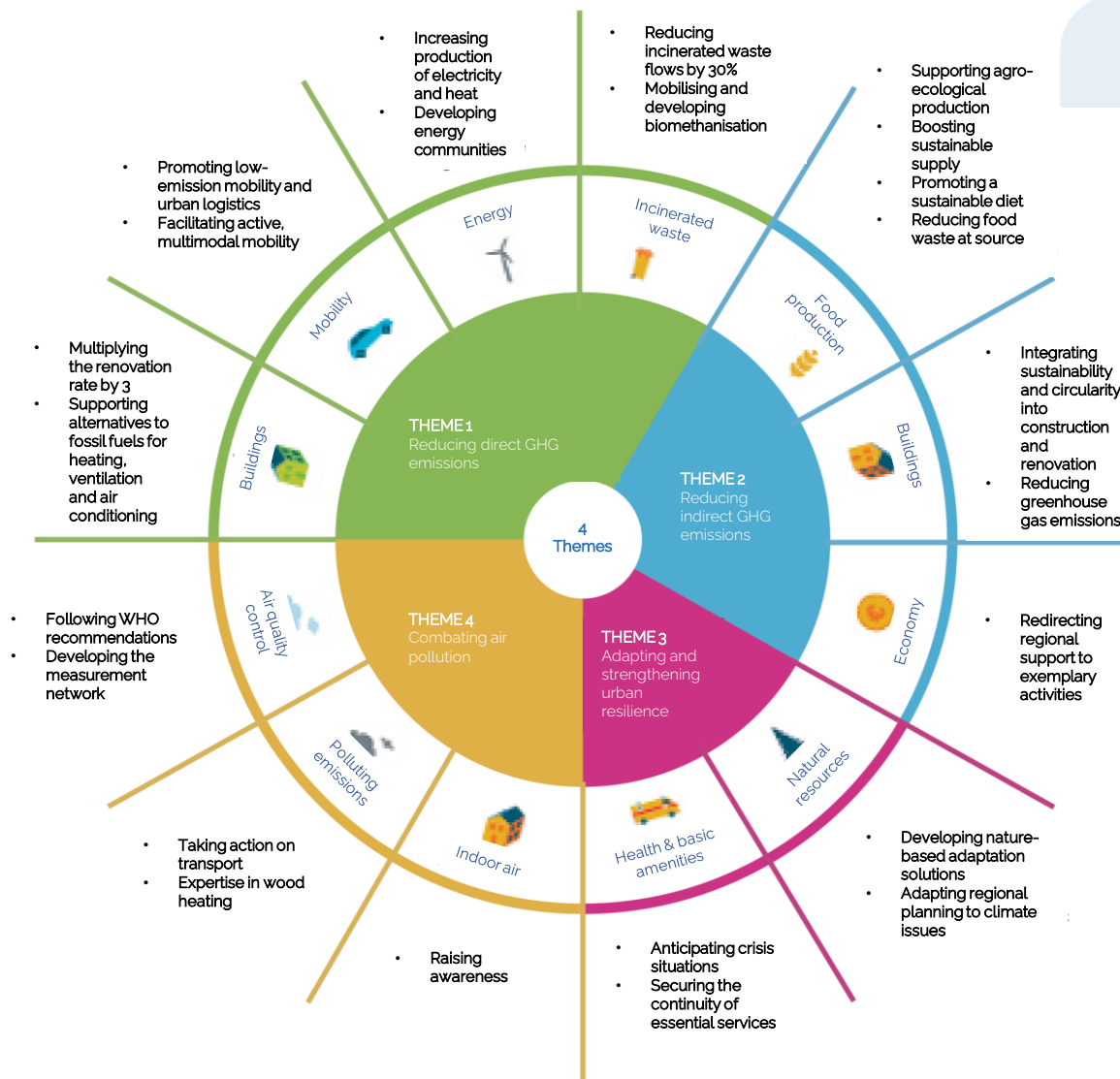


TARGETS

- Reduce regional greenhouse gas (GHG) emissions by 47% by 2030 (compared to 2005 levels)
- Have a sustainable building stock
- Low-carbon city by 2050

EXPECTED RESULTS

- 4 themes :
 - direct emissions, indirect emissions, urban resilience & air pollution
- Multiply the renovation rate by 3
- Support alternatives to fossil fuels for heating, ventilation and air conditioning
- Increase production of electricity and heat
- Develop energy communities
- Budget of €350 million



09 Conclusion



- Importance of **consultations** and cooperation between the public and private sectors
- Support to front runners (exemplary projects) to prove that it can be done
- RENOVATION strategy **socially 'fair'** and fundable
- **Training** for professionals in the sector
- **Long-term vision**: acting now for 2050
- **Progressive** action to give everyone the opportunity to adapt financially and practically

**THANK YOU FOR
YOUR ATTENTION**





Barbara DEWULF

- Director General

Brussels Environment,

the go-to environment and energy agency for residents and companies in the Brussels Capital Region

info@environnement.brussels

<https://environment.brussels/>



FOLLOW US ON OUR SOCIAL MEDIA



@EU2024BE



Permanent Representation of Belgium to the EU



@EU2024BE



@EU2024BE



@EU2024BE



www.belgium24.eu



