EU SUSTAINABLE ENERGY WEEK

FROM HERE TO THERE,
THE PATH TO FOLLOW

Leading on national long-term renovation strategies to upgrade our buildings

LEAD THE CLEAN ENERGY TRANSITION
#EUSEW18
Introduction by the Moderator

Adrian JOYCE
Secretary General, EuroACE
Keynote Speech

Leading as Legislators
The view of the European Parliament

MEP Peter KOUROUMBAŞHEV (S&D, BG)
Session I: leading on renovation strategies
– who, why, and how?

Leading Locally - Cities & Regions at the heart of the governance for renovation
Frank MISCHLER, GIZ
H2020 EMBUILD project coordinator
Developing a sound renovation strategy...

...and getting it implemented

A tale of two H2020 projects: EmBuild and PUBLENEF
Achieving this

Impossible without improving our buildings

2030 Framework for Climate and Energy

-20% Greenhouse Gas Emissions
20% Renewable Energy
20% Energy Efficiency
10% Interconnection

New governance system + indicators

BUILDINGS =

40% OF TOTAL EU ENERGY CONSUMPTION
36% OF THE CO2 EMISSIONS
EmBuild Goal:
100+ Local renovation strategies influenced
(Bulgaria, Croatia, Germany, Serbia, Slovenia and Romania)

Compliant with EED Art 4
1. accurate overview of building stock
2. cost-effective approaches to renovations
3. policy recommendations
4. Increase public and private investment
5. wider benefits
Welcome to the EmBuild Final Conference!

Energy efficient buildings - Plan. Invest. Renovate!

7 June 2018, 9.00 to 16.00 CET, Belgrade City Hall
Dragoslava Jovanovića 2, 11000 Belgrad, Serbia

ENERGY DAY WITHIN:

In cooperation with:

http://embuild.eu/
Project approach in a nutshell:

- Identify needs from national, regional and local authorities for the implementation of EE policies
- Collect best practices and tools for overcoming these needs
- Build and strengthen existing networks of policy makers enabling knowledge exchange
- Develop roadmaps and enhance the process of successful implementation of policies
"Assisting national, regional, and local authorities in EU Member States in implementing effective energy efficiency policies."

This project has received funding from European Union’s Horizon 2020 research and innovation programme under grant agreement No 869023.
This project receive funding from the Horizon 2020 European Union Research and Innovation Programme under Grant Agreement No 95169 and 695923 respectively
Session I: leading on renovation strategies – who, why, and how?

Leading for the Greater Good - a fair & just energy transition

How to alleviate energy poverty and target worst performing buildings in the national long-term renovation strategies?

Dr. Ingrid VOGLER, Vice-Chair of the Working Committee on Energy, Construction & Standardisation, Housing Europe
Facts about energy efficiency in the social, cooperative and public housing sector:

- Energetic retrofitting is always undertaken in the course of a substantial renovation project (every 30 – 40 years)
- The average energy performance is better than the total average, i.e. Fr 190 / 250 kWh/m²a, Ge 130 / 155 kWh/m²a
- In most of the cases, major renovations and the related rent increase need the agreement of the tenants, however this is not always the case.

Conclusion:
What is the best approach for a fair energy transition?
Seeking the right balance between energy reduction and clean energy production.

http://www.housingeurope.eu/
Potsdam Drewitz – an example for best practise for affordable renovation, energy saving and climate protection

Fotos: Ulf Böttcher
## Potsdam Drewitz Results and Conclusion

<table>
<thead>
<tr>
<th>Not modernised</th>
<th>Maximal insulated, common district heating</th>
<th>Optimal insulated, green district heating</th>
</tr>
</thead>
<tbody>
<tr>
<td>180 kWh/m²a</td>
<td>50 kWh/m²a</td>
<td>80 kWh/m²a</td>
</tr>
<tr>
<td>gross rent: 7.2 EUR/m²</td>
<td>gross rent: 8.6 EUR/m²</td>
<td>gross rent: 7.9 EUR/m²</td>
</tr>
</tbody>
</table>

### Operating Cost (heat recovery)
- Not modernised: 80 kWh/m²a
- Maximal insulated: 60 kWh/m²a
- Optimal insulated: 40 kWh/m²a

### Energy Cost
- Not modernised: 0.2 t CO₂ per unit
- Maximal insulated: 0.9 t CO₂ per unit
- Optimal insulated: 3.2 t CO₂ per unit

### Net Rent
- Not modernised: 7.2 EUR/m²
- Maximal insulated: 8.6 EUR/m²
- Optimal insulated: 7.9 EUR/m²

### Other Running Cost
- Not modernised: 1 EUR/m² and month
- Maximal insulated: 2 EUR/m² and month
- Optimal insulated: 3 EUR/m² and month

### Conclusion

- **Way so far**: 0.2 t CO₂ per unit
- **Way proposed**: 0.9 t CO₂ per unit

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GdW Bundesverband deutscher Wohnungs- und Immobilienunternehmen e.V.
1892 e.G. - an example for best practise
Part of the Dreeam-Project

164 apartments, 10.850 m² living space, construction years 1956/1975

- Renovation of bathrooms, pipes in all empty flats, electro in all flats
- Window replacement for energetic reasons
- Renewal of roof-, basement ceiling and terrace insulation
- Renewal of the lifts, Revision of the stairwells
- Renovation of the heating system is not required
- Energetic improvement of the overall facade is not required - U-value: 0,55 W/(m²K) remains

\[ qE \text{ before: } 92 \text{ kWh/m}^2\text{a} - \text{gross rent } 8,47 \text{ EUR/m}^2 \]
\[ qE \text{ after: } 72 \text{ kWh/m}^2\text{a} - 8,72 \text{ EUR/m}^2 + \text{solar upgrade} \]
Which strategy contributes to the alleviation of energy poverty?

<table>
<thead>
<tr>
<th>Example</th>
<th>Type of rent increase after an energetic modernization</th>
<th>Alleviation of energy poverty</th>
<th>Non-increasing gross rent</th>
<th>Economical efficiency for landlords</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy</td>
<td>Rent increase during 1st and 2nd term of the rental contract is not possible</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>France</td>
<td>Rent increase up to half of the operating cost savings</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
</tr>
</tbody>
</table>

Quelle: Mietrecht und energetische Sanierung im europäischen Vergleich. BBSR-Online-Publikation Nr. 13/2016
Achieving the optimum: reducing CO\textsubscript{2} emissions socially compatible, i.e. affordable

- Countries with an allowed increase in rents after energetic measures prefer optimal (instead of maximum) modernisation + optimal share of renewable energy for affordable climate protection.

- In countries where rent cannot (or not sufficiently) be increased, energetic measures can only be implemented with serious public support.
"Member States should seek a cost-efficient equilibrium between decarbonising energy supplies and reducing final energy consumption."
Session I: leading on renovation strategies
– who, why, and how?

Leading Together – an inclusive energy transition

*How can stakeholders participate to the implementation of the national long-term renovation strategies?*

Audrey NUGENT, Senior Policy Advisor, World Green Building Council
1 World Green Building Council
5 Regional Networks
74 Green Building Councils
914 full / part-time employees
32,000 member companies
Millions of lives changed
World’s largest collaborative project on building renovation

Brought together over 2,000 organisations, across 13 countries, at over 100 events in 2016-17.

Facilitate a renovation revolution across Europe by helping countries to deliver strategies for renovating their existing buildings.
CO-CREATING AN AMBITIOUS NATIONAL RENOVATION STRATEGY

BUILD UPON
CONSULTATION PROCESS
APRIL 2015 - FEB 2017

A FULLY decarbonised BUILT ENVIRONMENT

A DECLARATION

VISION

5 LARGE SCALE WORKSHOPS

A COMMUNITY of STAKEHOLDERS

JOIN US!

ONLINE CONSULTATION

DRAFT

RECOMMENDATIONS

A COMMUNITY that CONTINUES to WORK TOGETHER

FINAL WORKSHOP

FINAL

APRIL 2015 - FEB 2017
Key Recommendations

Renovation of buildings can mitigate against energy poverty and the health and well-being of end-users. The renovation strategy should be used as a tool to address all these issues together.

GBC Espana

The publication of the strategy should only be the beginning. An open and collaborative approach to its implementation is recommended to provide all key stakeholders with opportunities to engage.

Irish Green Building Council

Ambitious goals can be achieved by engaging stakeholders in the design and implementation of the strategy, and a stakeholder-led approach can help achieve a long-term continuity in strategy implementation.

Bulgaria GBC

Collaborative cross-sector platforms must be setup and enabled. These platforms should involve the public, private and third sector and support the development of policies and tools necessary to support implementation of the renovation strategy.

GBC Italia

The active participation of government stakeholders in the process will help accelerate market transformation. Government should embark on a strategy focused on the multiple benefits of renovation and pursue policies to support this agenda.

Latvia GBC

This can be achieved by facilitating better cooperation and dialogue via joint events, ensuring a high-quality platform for two way communication between institutions and building users.

Croatia GBC
What did we learn?

Government’s want to co-create strategies with key stakeholders.

People are at the heart of driving these renovation strategies – not just a technical challenge.

Community building is what spurs development and implementation of solutions.

Communities must be kept alive - further engagement is needed.

Not just design and delivery – implementation is key.
What Next?

Use new EPBD to mobilise stakeholders and start getting ready for V3 strategies

Develop stakeholder platforms

BUILD UPON 2 – multi-level governance approach
Session I: leading on renovation strategies
– who, why, and how?

Q&A Session
Session II: leading on renovation strategies by innovation

A digital energy transition

How to aggregate projects together, offer packaged solutions and upscale activity?

Susanne DYRBOEL, Director Group Public Affairs, ROCKWOOL | BetterHome initiative
A digital energy transition

How to aggregate projects together, offer packaged solutions and upscale activity?

Susanne DYRBØL, Director Public Affairs, ROCKWOOL Group | BetterHome
Why does a multi billion EUR refurbishment market not run by itself?

Home owners: “energy refurbishment is too complex”
What motivates Europeans to renovate their homes

- 75% of EUs building stock build before 1990
- <3% qualify for the A label
- We spent up to 90% of our life INDOORS
- 84 mill European lives in damp & unhealthy buildings

Source: BPIE and Active House Alliance

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A renovation process is often a hassle:

- Siloed offers
- Limited home-owner interaction
- Multiple payments
- Fragmented process
- ...

BOOSTING RENOVATION of single family houses – calls for a paradigm shift

Supply-side: more service-oriented
Demand-side: deeper awareness

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The foundation of BetterHome

• A partnership between 4 founding companies
• A VISION to create a “burden-free” experience for the home-owner making it easy to renovate their homes
• Offer costumer-focused holistic & sustainable solutions
• Delivers quality in products and workmanship
• Ensure overview of funding

300 years experience in developing solutions for saving energy and improving comfort in buildings.

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The solution

HOME-OWNER-CENTRIC RENOVATION JOURNEY

TRANSPARENT AND RELIABLE PROCESS

VALUE FOR MONEY

DIGITALISATION-DRIVEN

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How?

3 clicks on the BetterHome web platform

1. Energy check
2. “wishes”
3. Ask for installer

Match installer with home-owner

Decision support & Customized Proposal

Installation

Mastering touchpoints & Customized solutions

“How KNOWING THAT I WOULD GET GOOD PRODUCTS AND QUALIFIED INSTALLERS WAS THE REASON I CONTACTED BETTERHOME.”

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The BetterHome Process

“THE REAL INNOVATION WITH BETTERHOME IS HOW WE ARE TRAINED TO INTERACT WITH THE CUSTOMER: BECOMING MORE LIKE SALESMEN. NOT SELLING PRODUCTS, BUT THE VISION OF A MORE COMFORTABLE HOME.”
Last 12 month:
- 529 on-site visits
- 58% proposals
- 100% order
- €66,000 in average project size

A network of:
- 3,500 installers
- 5 banks
- 4 utilities

Total indirect turnover of ~ €34 million

A yearly 100% increase in number of projects

An average energy saving of approx. 30-70%

Lead the clean energy transition
#EUSEW18
Recommendations I

**Structure the supply-side**

With the use of innovative digital tools, building professionals can provide a smoother process, for themselves and for the building owner. Aligning with existing stakeholders on the market, including banks and mortgage providers, creates a constructive win-win situation.

**Use digital solutions to bring added value to the end-users**

BetterHome shows that digital solutions can help the construction industry become more consumer-centric and service-oriented.
**Recommendations II**

**Build awareness for the end-users**

Training the installers in order to sell the broader picture, including benefits (e.g. low interest rates, increase in property value, improvements to health of their children and comfort, as well as climate and environmental benefits). The installer is not just replacing the old building elements, but creating a better living environment.

**Safeguard the good reputation**

This is indispensable. In Denmark, the four companies behind BetterHome are highly respected and associated with quality. Through the cooperation in BetterHome, the companies have worked together to also raise the reputation of the installers.
Session II: leading on renovation strategies by innovation

Legal Issues of Decision-Making
A new approach in renovation strategies

How insights on property law translate into projects promoting renovation?

David WEATHERALL, Director, Future Climate
Property law and refurbishment in co-owned apartment buildings

David Weatherall
Director, Future Climate
Energy Efficiency Directive

Article 19

Other measures to promote energy efficiency

1. Member States shall evaluate and if necessary take appropriate measures to remove regulatory and non-regulatory barriers to energy efficiency, without prejudice to the basic principles of the property and tenancy law of the Member States, in particular as regards:

   (a) the split of incentives between the owner and the tenant of a building or among owners, with a view to ensuring that these parties are not deterred from making efficiency improving investments that they would otherwise have made by the fact that they will not individually obtain the full benefits or by the absence of rules for dividing the costs and benefits between them, including national rules and measures regulating decision-making processes in multiowner properties;
Apartment building ownership models in Europe

- **Unitary system** where the primary focus is on the collective which owns the building, with individual rights in apartments carved out from the collective.

- **A dualistic system** (often referred to as a condominium system), where the primary focus is on the individual rights of apartment owners, with a collective element adding to those rights where necessary.

- **Outlier systems** eg England where different arrangements prevail (in England, the building owner is usually non-resident and distinct from the owners of any of the individual flats).
How property law shapes refurbishment action

Law and legal agreements determine:

- The organisational structures that regulate whether (and how) co-owners organise themselves as a decision-making body;
- The powers of a single or a small minority of apartment owners to block improvements to individual apartments or the whole building;
- Whether building elements such as the roof, foundations and windows are common parts or are individually owned or controlled;
- Opportunities for accessing financing as a group;
- How costs of improvements are allocated;
- Who has the right to carry out works to which parts of the building.

Property law shapes but does not determine the practices of decision making between co-owners and managers.
A building governance perspective for refurbishment in co-owned apartment buildings

Drivers and barriers for refurbishment action

- Economic
- Technical
- Individual attitudes, knowledge & behaviours
- Energy efficiency regulations
## Priorities

<table>
<thead>
<tr>
<th>Policy makers</th>
<th>Energy Efficiency Agencies</th>
<th>Researchers</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Decision making rules &amp; majority voting</td>
<td>• Supporting group decision making processes</td>
<td>• Understanding the law!</td>
</tr>
<tr>
<td>• Access to finance</td>
<td>• Legal support</td>
<td>• Reality of title deeds &amp; legal agreements</td>
</tr>
<tr>
<td>• Regularising &amp; improving title deeds and building management practices</td>
<td>• Identifying and supporting principal actors in co-owned buildings</td>
<td>• Ownership and management in practice</td>
</tr>
<tr>
<td>• Reconsidering the balance between individual vs collective rights in co-ownership of buildings</td>
<td>• Financing models</td>
<td>• Cross-national studies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Understanding group decision making in apartment blocks</td>
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</tbody>
</table>
Thank you!

David Weatherall
david@futureclimate.org.uk
Session II: leading on renovation strategies by innovation

Q&A Session
Conclusions by the Moderator

Adrian JOYCE
Secretary General, EuroACE
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