3rd Online Mini Workshops Series
Renovation Wave: Enablers and Accelerators for Ambition

1st Webinar
Digital is the New Green: How will the ICT sector help roll out the Renovation Wave

5th of October 2020 (16:00-17:15 CEST)
Via GoToMeeting

EuroACE
Energy Efficient Buildings

For more information:
eva.brardinelli@euroace.org
Moderated by:

Adrian Joyce
EuroACE Secretary General
Instructions

• You are kindly asked to remain muted
• No cameras for the whole duration of the webinar
• Only speakers and moderator will stay unmuted
• A 20-25 minutes Q&A session will follow the presentation
• Ahead and during the Q&A session, questions will have to be sent to “Everyone” in the GoToMeeting chat box.
• Questions should be as concise as possible
• The moderator will group questions and then address them to the speakers
• If time does not allow to cover all questions, they will be forwarded to the speaker for later response
• The PowerPoint presentation and questions will be shared with you in due course
• The European Alliance of Companies for Energy Efficiency in Buildings
• Formed in 1998 by Europe’s leading companies involved with the manufacture, distribution and installation of energy saving goods and services
• A business association working together with the European institutions to help Europe move towards an efficient use of energy in buildings (new and renovated)
EuroACE – Energy Efficient Buildings

** More than 200,000 employees & more than 900 production facilities and office locations in the EU **

Our specificity: our cross-sector representativeness
We represent all energy efficient technologies
>>> heating & cooling equipment, insulation, lighting, maintenance regimes and controls, ventilation equipment & windows
We believe that improving the energy efficiency of buildings, especially renovating existing buildings, is the most cost-effective method of:

• Creating employment and securing economic growth
• Alleviating energy poverty on the long-term
• Providing people with comfortable and healthy homes
• Meeting carbon reduction targets
• Achieving energy security
EU-wide political communications campaign
Focuses exclusively on ambitious energy renovation of the building stock, motivating EU and national institutions to take action
45 partners, including 17 at national level
High political support with the Champions Together for Renovation

#PrioritisePeople
#AccelerateRenovation
Introduction

Julie Kjestrup
EuroACE President
“The Energy Efficiency Indicator, tracking investments in energy efficiency and smart buildings technologies”

Clay Nesler
Vice President, Global Energy and Sustainability, Johnson Controls
Energy Efficiency Indicator

Europe Regional Survey Highlights
The 2019 Energy Efficiency Indicator Study surveyed 1,400 energy and facility management executives from ten countries, 300 from France, Germany, UK, and Ireland.

**FRANCE, GERMANY, UK, AND IRELAND SURVEY SECTORS**

- Commercial: 17%
- Industrial: 28%
- Institutional: 31%

**FRANCE, GERMANY, UK, AND IRELAND SURVEY PERSONNEL**

- C-Level: 15%
- Vice President / Director: 48%
- Manager: 37%

- Brazil
- China
- France
- Germany
- India
- Indonesia

- Japan
- Mexico
- UK/Ireland
- United Arab Emirates
- United States
Investment in energy efficiency, renewable energy, and smart building technology is expected to increase globally.

Organizations increasing investment in energy efficiency, renewable energy or smart building technology over the next 12 months.
Energy cost savings is the greatest driver of energy efficiency investments regionally and globally.

Organizations rating as very or extremely significant:
- Energy cost savings: 88%
- Improving life safety and security: 75%
- Improving operational efficiency: 71%
- Greenhouse gas footprint reduction: 68%
- Increasing energy security: 70%
- Increasing resilience: 66%
- Enhanced brand or reputation: 69%
- Increasing energy security: 71%
- Minimize use of fossil fuel in space and water heating: 62%
- Improving occupant health and wellness: 63%
- Europe: 68%
- Global: 67%
## Renovation-related investments in Europe

Organizations that invested in the following measures in the past 12 months

<table>
<thead>
<tr>
<th>Measure</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building controls improvements</td>
<td>72%</td>
</tr>
<tr>
<td>Heating, ventilation, and air conditioning (HVAC) improvements</td>
<td>71%</td>
</tr>
<tr>
<td>Upgraded building controls before end of life</td>
<td>42%</td>
</tr>
<tr>
<td>Replacement of fossil fuel space / water heating with heat pump technology</td>
<td>37%</td>
</tr>
<tr>
<td>Replacement of HVAC equipment before end of life</td>
<td>36%</td>
</tr>
<tr>
<td>Building envelope improvements</td>
<td>24%</td>
</tr>
</tbody>
</table>
Building management system and controls installations in Europe

Organizations that invested in the following measures in the past 12 months

- **Standalone controls / thermostats**: 65%
- **On-site building management system**: 57%
- **Enterprise-wide building management system**: 52%
- **On-site integrated building management system**: 40%
- **Cloud-based building system applications**: 30%
Systems integration investments in Europe

Organizations that invested in the following measures in the past 12 months

- Security systems with other building systems: 83%
- Fire / life safety systems with other building systems: 70%
- Lighting system integration: 51%
- Building management system integration: 41%
- Smart equipment integration: 39%
- DER integration: 33%
- Energy analysis software: 28%
- Grid integration: 25%
Uncertainty regarding savings/performance was rated as the top barrier to energy efficiency investments regionally.
Performance benchmarking and certifications are viewed as the most important policy for improving energy efficiency in buildings.

Organizations in Europe rating as very or extremely significant:

- Performance benchmarking and certifications: 97%
- Building owner and occupant partnerships: 82%
- Building energy codes and product performance standards: 77%
- Financial incentives and programs: 76%
- Utility data access: 67%
- Private sector engagement: 66%
- Government leadership: 65%
- Building efficiency targets: 63%
Energy Efficiency Indicator

For more information, please visit: https://www.johnsoncontrols.com/insights/2020/featured-story/2019-energy-efficiency-indicator
“Digital mapping tools in support of the Renovation Wave: IMOPE geo-service “

Jonathan Villot
Co-Founder, IMOPE -URBS
Urban Retrofit Business Services

Bâtiment des Hautes Technologies
20 Rue Pr. Benoît Lauras, 42000 Saint-Etienne
www.urbs.fr
contact@urbs.fr
Short presentation

Jonathan VILLOT Ph.D

- Since 2019: **Co-founder** of U.R.B.S.

- Since 2014: **Scientific manager** of the Advanced Master in Energy Efficiency in Buildings Renovation

- Since 2012: **Tenured Assistant Professor** at Mines Saint-Etienne
• **Two facts**
  - To attend climate objectives we must massify the renovation of building stock
  - The intention is there but the results not → Theory VS reality

• **Why ? One explanation !**
  - The majority of public action is driven by communication and sensibilization (Radio, TV spot, incentive, …)
  - Or no segmentation is proposed. We have the same message for all. But we have a sum of individuality. Not a homogeneous population (building and people)
  - Only a few parts of the population is touch by sensibilization and a major part is not aware of financial aids

**Conclusion:** Incentive is not sufficient and not efficient in its current declination
The idea

• **Stop « wait-and-see » ! Be proactive**
  - If you can have information at building scale (address) for all the stock, you can adapt your strategy by segment and contact directly the people with a first proposition relevant to their situation.

• **How to do that ?**
  - Regroup all private and public data in the respect of GDPR at the scale of the buildings (households)
  - Make simple access to information to all actors of a territory from the decision-maker to field actors.

Our solution
THE STORY

2015
✓ Development of IMOPE and test on the first territory
  ➢ Finance by ANRU in a project focus on sustainable city

2016
✓ First prototype and first presentation of the results
  ➢ Strong interest from many public actors
  ➢ Launch of the entrepreneurial project

2017
✓ Challenge Data City PARIS
  ➢ Communication / requests / enhances reputation
  ➢ Industrialization accelerator

2018 – 2020
✓ U.R.B.S. is officially created
  ➢ Scaling: Today we are operational on more than 75 territories (1 200 000 people)
THE CORE BUSINESS OF U.R.B.S.

DATA FOR ENERGY TRANSITION

• Helping and supporting smart cities in:
  • Sustainability
  • Energy efficiency

• Improving their knowledge of:
  • Buildings
  • Households
OUR SERVICES

• **Big data and analytics solution**
  • Data mining: key indicators and data intelligency
  • Machine learning: improving data with models and algorithms

• **Customized Web Geo Services**
  • Intuitive and user-friendly
  • Multiple actors
OUR VALUE

• **Data easy to read and manipulate**
  - Centralize and share information
  - Increase individual and collective knowledge

• **An optimized business process**
  - Manage an entire territory
  - Follow action plans with dynamic assessment

• **Facilitated and active implementation**
  - Identify and target priority buildings and households
  - Scale and consolidate renovation actions
  - Propose purchasing group to massify the renovation of identical buildings
OUR REFERENCES

• Working with first network of academic incubators of first group of A+ Schools of Engineering in France

• Partner with the leader of Smart Grid in Europe

• Operational on more than 75 territories (1 200 000 people)
Contact me

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• jonathanvillot@urbs.fr

And also on 🌐LinkedIn

Web Site
• www.imope.fr
“How the EU Digital Policy can help the Renovation Wave“

Ilektra Papadaki
Policy Officer, DG GROW (C.1)
How can digitalization contribute to the Renovation Wave?
Ilektra PAPADAKI, Policy Officer, European Commission
A climate neutral Europe by 2050

EU fit for the digital age
“Renovation Wave”

Green and Digital Transition, Resilience

- Create demand for construction activities in green terms
- Support and prepare the construction sector to deliver
- Digitalise the construction sector as well as the processes
- Minimise the use of resources, move towards a circular economy
- Support for the weakest groups and social infrastructure
Every thematic objective is supported by a stakeholder thematic group meetings and the High Level Forum. The European Construction Sector Observatory collects and analyses useful information for the construction sector in thematic, national and EU level.
Digitalisation of construction

- Digital Building Logbook
- Building Information Modelling (BIM)
- Digital Platforms
- Construction Specific Digital Technologies

Modernising the processes

Supporting the sector
Digital Building Logbooks

All data, information and documents for a building in one place

A dynamic tool that keeps a record of all events in the life of a building

Transparency, trust, informed decision-making and exchange of information

A secure tool that allows data owners to have control over them
The DigiPLACE consortium is working towards setting a **Reference Architecture Framework for Digital Platforms of Construction**, focusing further on the following areas:

- common language, interoperability, standards;
- regulations, public services;
- data and knowledge sharing;
- environmental performance;
- business, market and collaboration.
BIM is not obligatory, but it is suggested in the EU Directive for Public Procurement in 2014. For public works contracts and design contests, Member States may require the use of specific electronic tools, such as building information electronic modelling tools or similar.

The Commission is encouraging the use of BIM through “soft-policy” and close collaboration with the EU BIM Task Group.

- **Handbook for the introduction of BIM in Public Procurement** available at 21 languages.
- **Training of 250 public procurers in BIM**.
- **Ad-hoc support to 6 MS through Structural Reform Funds**.
- **EU Methodology for Cost-Benefit Analysis for the use of BIM in individual projects**.

BIM becomes the norm for public procurement in construction.

BIM facilitates the digitalization of permits and other administrative procedures, as well as different construction operations, such as renovation.

From the money spend in construction are public authorities in the EU procure for construction.

From the money spend in construction are public authorities in the EU procure for construction.

>30%
TUESDAY 17 NOVEMBER

Digital Building Logbook

Stakeholder workshop

THURSDAY 3 DECEMBER

Construction 2020

Thematic Group Meeting

Innovation and Digitalisation

WEDNESDAY 14 OCTOBER

Communication and Action Plan

“Renovation Wave” initiative
Thank you!

Ilektra PAPADAKI
Ilektra.PAPADAKI@ec.europa.eu

Useful links

- EU BIM Task Group [www.eubim.eu](http://www.eubim.eu)
- DigiPLACE Project- Towards a Framework for a Digital Platform for Construction [https://www.digiplaceproject.eu/](https://www.digiplaceproject.eu/)
Please be patient while Adrian Joyce reads your questions to the speakers.
Conclusions

Julie Kjestrup
EuroACE President
Thank you!