

Welcome


**SUSTAINABLE
PLACES 2020**

October 27-30, 2020
DIGITAL EVENT

 | Horizon 2020
European Union funding
for Research & Innovation

Smart Buildings Workshop

Chaired by

 **ECTP**
INNOVATIVE BUILT
ENVIRONMENT

 **Smart
Built4EU**

 **TABEDE**
Towards buildings ready
for Demand Response

 **SRI**

 **domOS**

interconnect

B-LOG **PHENIX**

Presentation of ECTP

- **Umbrella association:** ~140 Members (large companies, SMEs, universities, RTOs, associations), 27 countries.
- **Construction** sector and the whole supply chain of the **Built Environment**.
- Leading organization **promoting & influencing** the future of the Built Environment in EU & beyond.
- Develop new **R&D&I strategies** to improve competitiveness, meet societal needs & take up environmental challenges through an Innovative Built Environment.
- **6 expert Committees:**
 - Active Ageing & Design
 - Energy Efficient Buildings
 - Digital Built Environment
 - Heritage & Regeneration
 - Infrastructure & Mobility
 - Materials & Sustainability



Alain ZARLI



Secretary General
alain.zarli@ectp.org

Alexis DAVID



Project & policy officer
alexis.david@ectp.org

Sylvie CORRADO



ECTP Secretariat
secretariat@ectp.org

Agenda

Session	Speaker	Time
Introduction	Alexis DAVID, ECTP	9:00-9:10
Political context of the EU and R&I funding opportunities	Sylvain ROBERT, EASME	9:10-9:20
Overview of EU actions in the field of digitalization of construction	Ilektra PAPADAKI, EC - DG GROW	9:20-9:35
Project SmartBuilt4EU	Alain ZARLI, ECTP	9:35-9:50
Presentation of the SRI	Stijn VERBEKE, VITO	9:50-10:05
Project InterConnect	David RUA, INESC TEC	10:05-10:25
Project TABEDE	Emmanuel ONILLON, CSEM	10:25-10:45
<i>BREAK</i>		<i>10:45-11:00</i>
Project PHOENIX	Antonio SKARMETA, University of Murcia	11:00-11:20
Project domOS	Dominique GABIOUD, HES-SO	11:20-11:40
Presentation of B-LOG	Sophie DOURLENS, R2M	11:40-11:55
Discussion, Q&A	<i>Moderator: Alexis DAVID, ECTP</i> <i>Regis DECORME, R2M</i>	11:55-12:20
Closure of the workshop	Alexis DAVID, ECTP	12:20-12:30



The Smart Buildings community

Project presentation

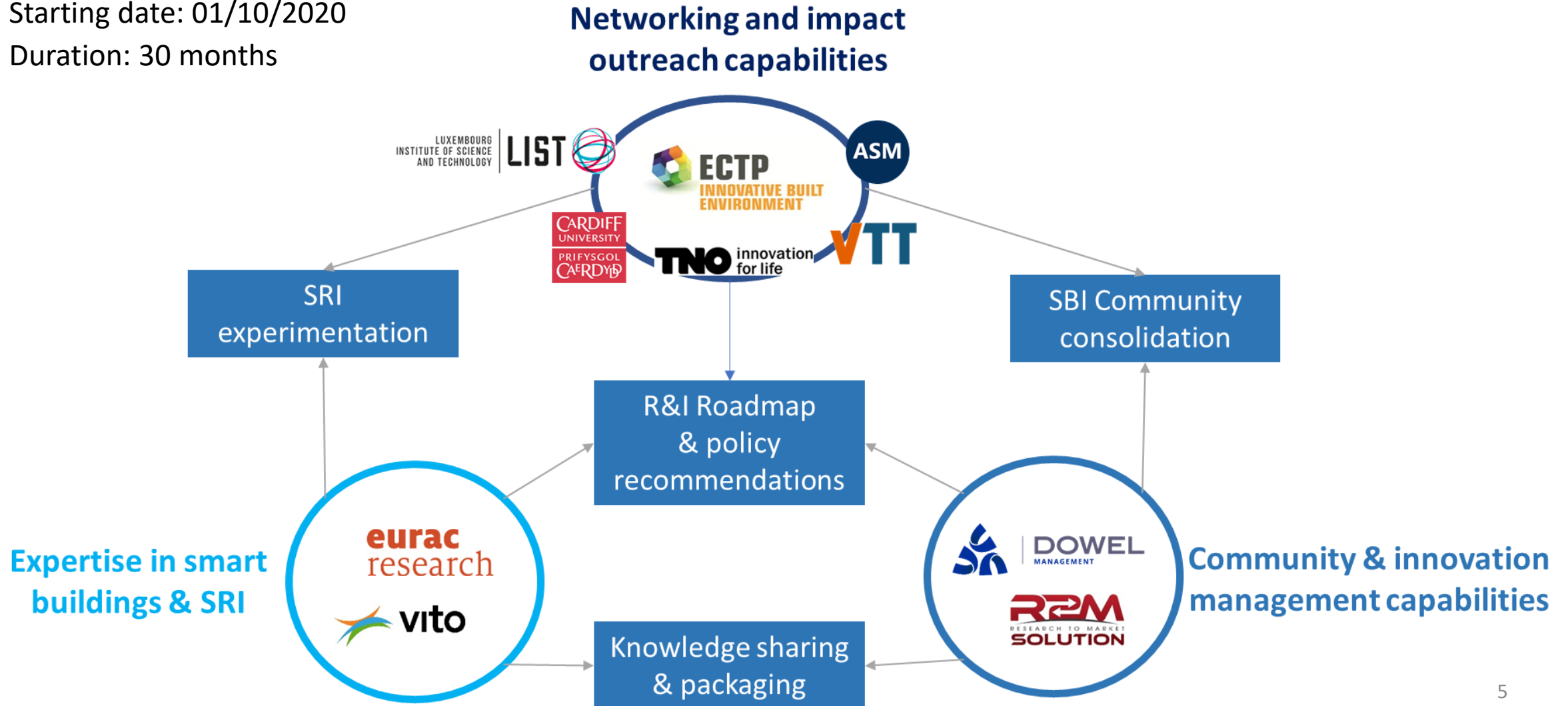
Alain ZARLI, ECTP



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 956936.

General information

- Call: H2020-LC-SC3-EE-2020-1
- Topic: LC-SC3-B4E-9-2020, support to the coordination of European smart buildings innovation community
- Starting date: 01/10/2020
- Duration: 30 months



Context - Smartness in the construction sector (1/2)

Buildings & Construction sector

- Key enablers for achieving low carbon economy goals for 2050
- 40% of Europe's energy consumption & 36% of GHG emissions
- 97% energy inefficient housing stock

Needs

- From passive isolated elements to smart-grid ready buildings
- Buildings acting as active nodes, integrated to the energy grids & other infrastructures
- Buildings answering occupants needs (comfort, safety, etc.)

Initiatives and plans

- Europe climate neutrality by 2050
- Green Deal – Renovation wave
- EPBD (EU's legislation for reducing the energy consumption of buildings) promotes:
 - Use of ICT and smart technology in buildings
 - Zero-emission building stock target by 2050
 - Smart Readiness Indicator (SRI)
 - Rollout of e-mobility infrastructure
 - Mobilisation of public & private financing for renovation to tackle energy poverty
 - Improve the way energy is used in buildings

Context - Smartness in the construction sector (2/2)

R&I

- Most of the technical barriers have been or are being tackled (R&I projects, national initiatives, EU funded projects ...)
- Developing and demonstrating innovative solutions:
 - Can improve the smartness & performance of the EU building stock
 - Many topics covered
 - Smart technologies play an essential role

Main challenge

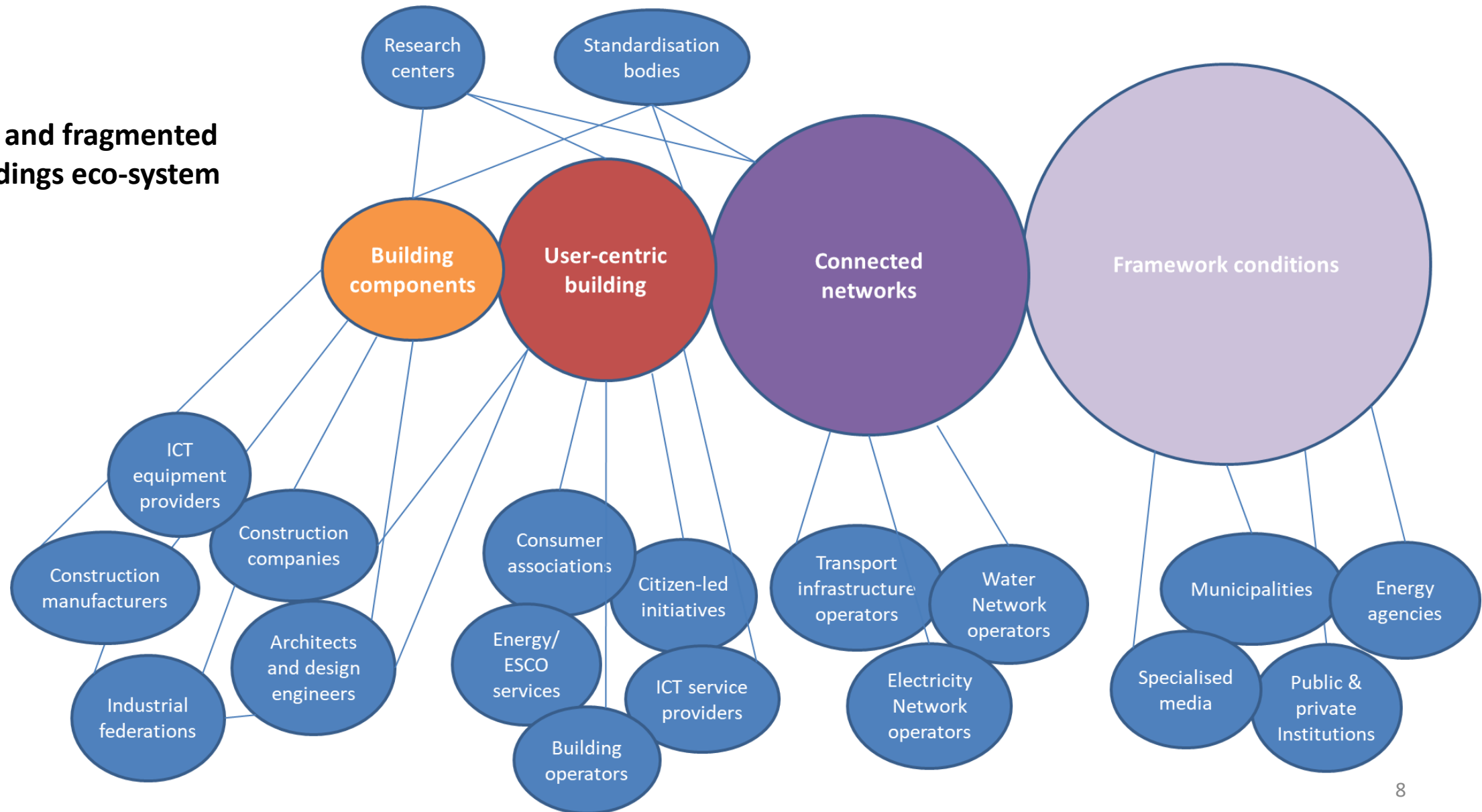
- Slow market uptake & wide-scale roll-out of these solutions

Targets

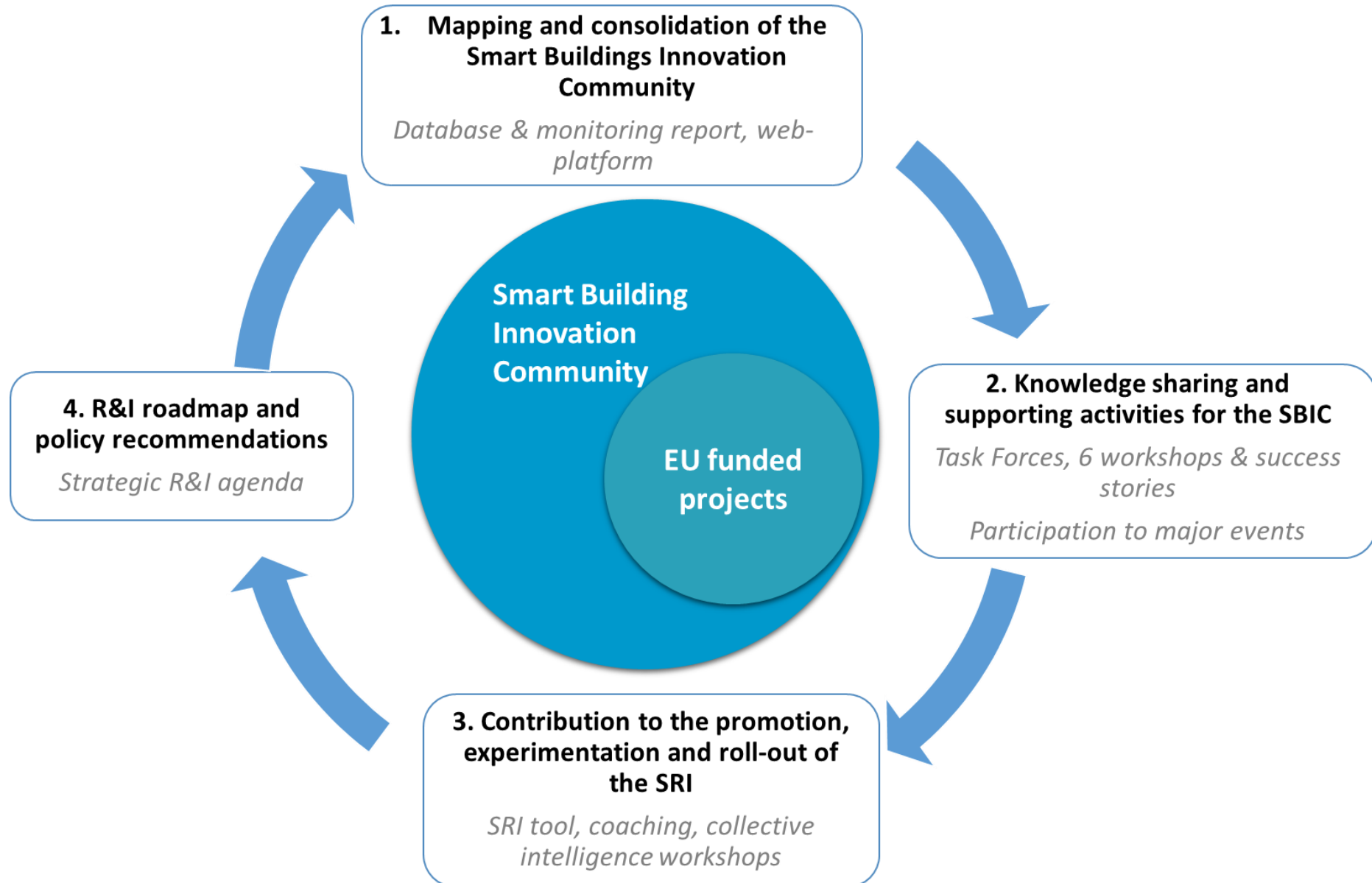
- Connect & manage various devices and systems
- Engage building occupants
- Achieve optimal building operation
- Integrate buildings to energy markets
- Break silos
- Share information
- Bridge the gaps between innovation, markets and policy.
- **Remove the last barriers slowing down the improvement of the energy performance of buildings**

Smart building ecosystem

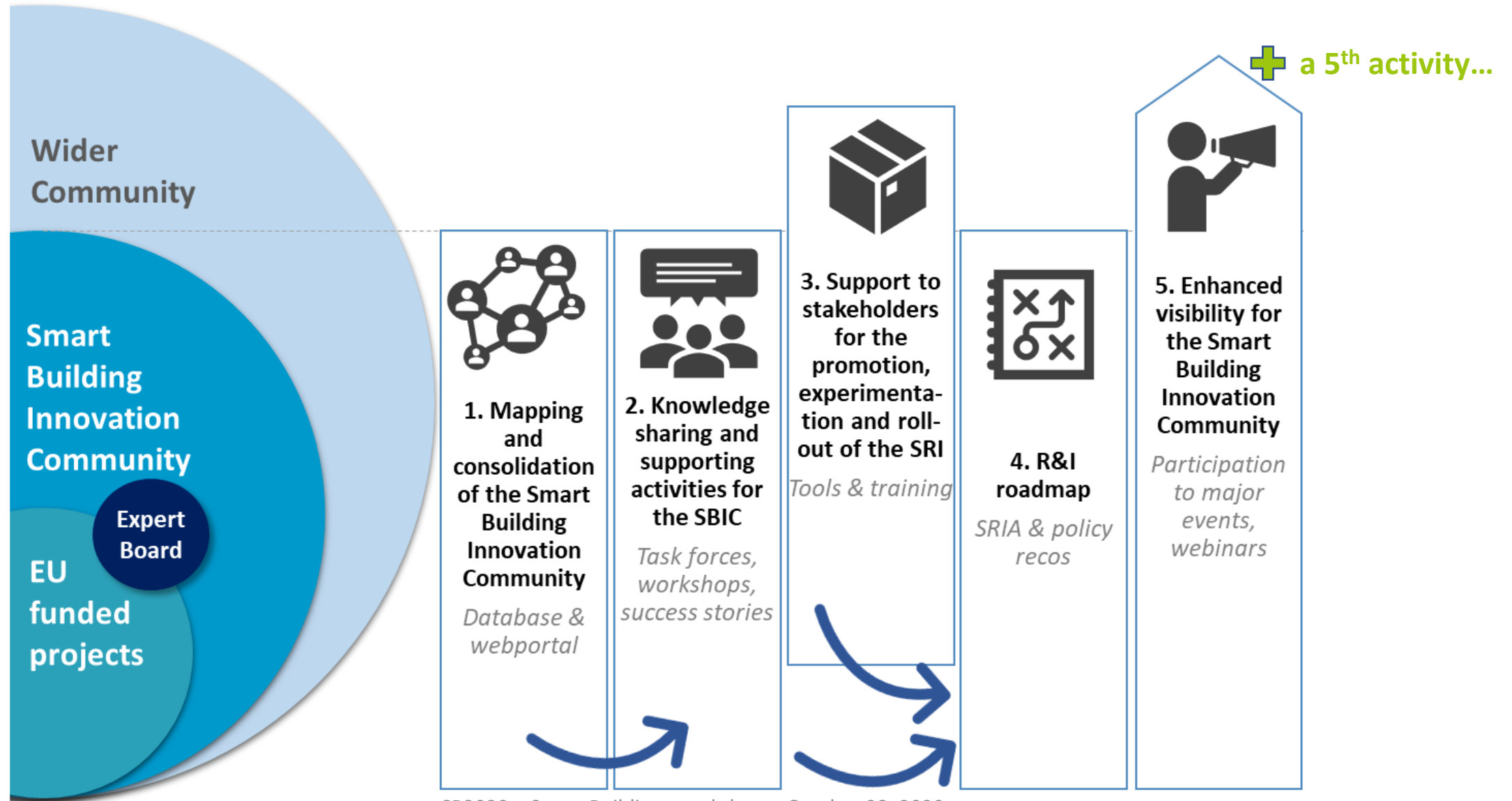
**A complex and fragmented
smart buildings eco-system**



Project's objectives

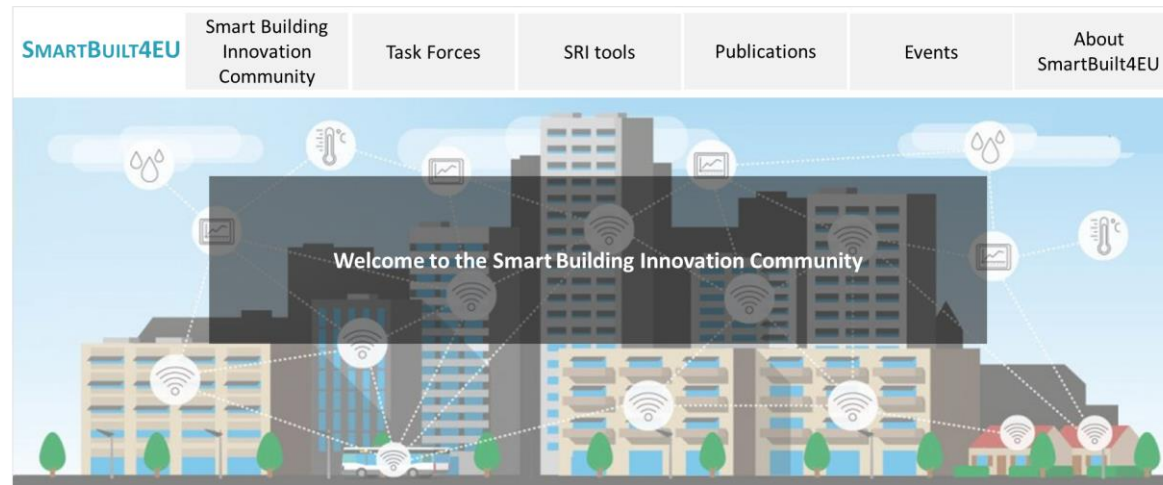


Project's activities



Activity 1 (1/2)

- Identify **innovation leaders** and **replicators**
- Assess their potential to become active **partners of the SBIC** & SmartBuilt4EU activities
- Targets: **EU-funded projects & consortia**, and beyond the EU 'sphere'
- **Foster interactions** at all levels (European, trans-national, national, regional)
- **Inform: web portal** integrating and building on existing web resources (BUILD-UP, ECTP projects DB, Innovation Radar platform)
- **Maximise synergies** with existing web resources already in place

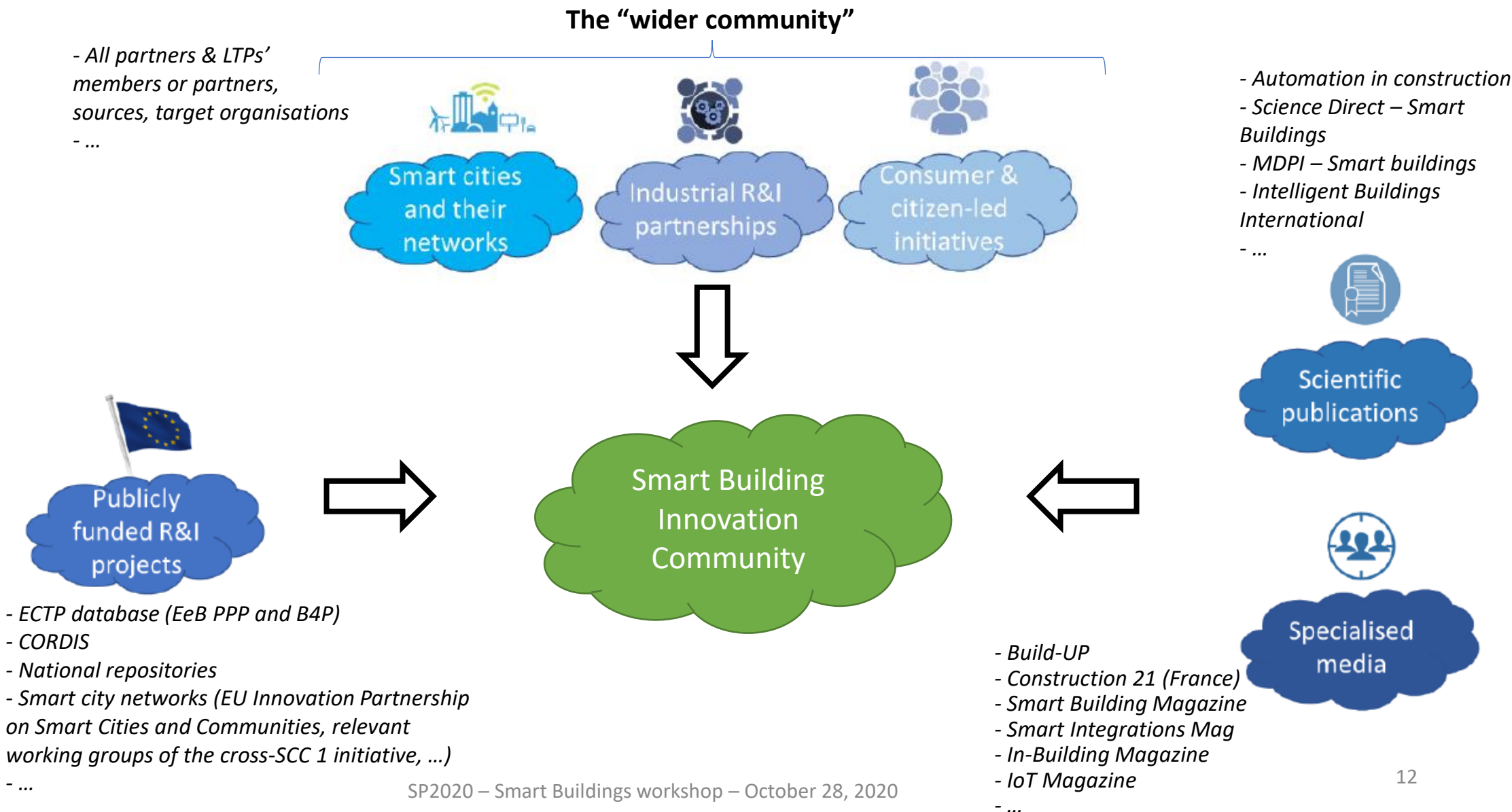


Activity 1 (2/2)



1. Mapping and consolidation of the Smart Building Innovation Community

Database & webportal

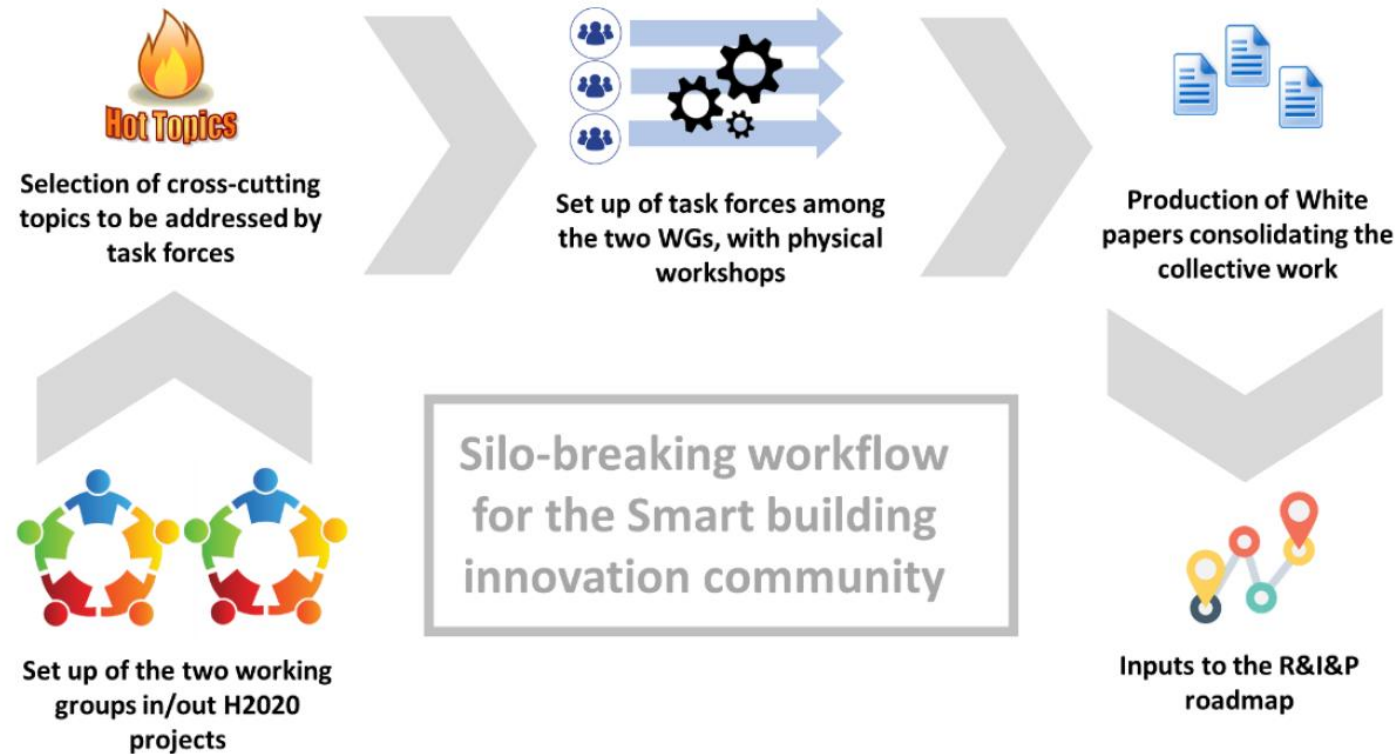


- Members of the SBIC should:
 - Gain from each other's experience and build collectively on successful innovations and best practices
 - Address transversal issues
- **“Silo-breaking” workflows** will be set up:



2. Knowledge sharing and supporting activities for the SBIC

Task forces, workshops, success stories



Activity 2 (2/2)



2. Knowledge sharing and supporting activities for the SBIC

Task forces, workshops, success stories

<div> <div>Inputs</div> <ul style="list-style-type: none"> - Experts from the working groups - Cross-cutting topics - Workshops </div>				
Task Forces (TF)	TF1: Engagement of building users and occupants	TF2: Integrating components and systems into smart buildings	TF3: Efficient Smart buildings within the Smart Built Environment	TF4: Strengthening the Smart Buildings ecosystem: business models, financing, education
Topic of semester 1 (M6-M12)	IT tools & approaches for smart buildings occupants (dashboards, education, etc.)	System integration, interoperability and communication, for an optimal building operation	Demand Side Management, data interoperability for flexibility & demand response	Marketplace clarity and transparency for the customers, and branding/labeling the smartness of technical building products (in relation to the SRI)
Topic of semester 2 (M13-M18)	Data privacy & protection	Data storage & management (incl. Digital Twins), cybersecurity	System integration, interoperability and communication (at grid scale)	Integration in curricula of academic and vocational education, structuration of the ecosystem
Topic of semester 3 (M19-M24)	Smartness for increased indoor environmental quality (and other co-benefits)	Improved maintenance and fault prediction	From smart buildings to smart clusters (communities)	New services and business models (incl. Building as a Service)
Other potential topics	...	Assessing operational smartness vs smart readiness

Tbd during the Q&A session today

Outputs

- White papers
- Inputs to the R&I&P roadmap
- “Success stories”
- Technology packages for SBs

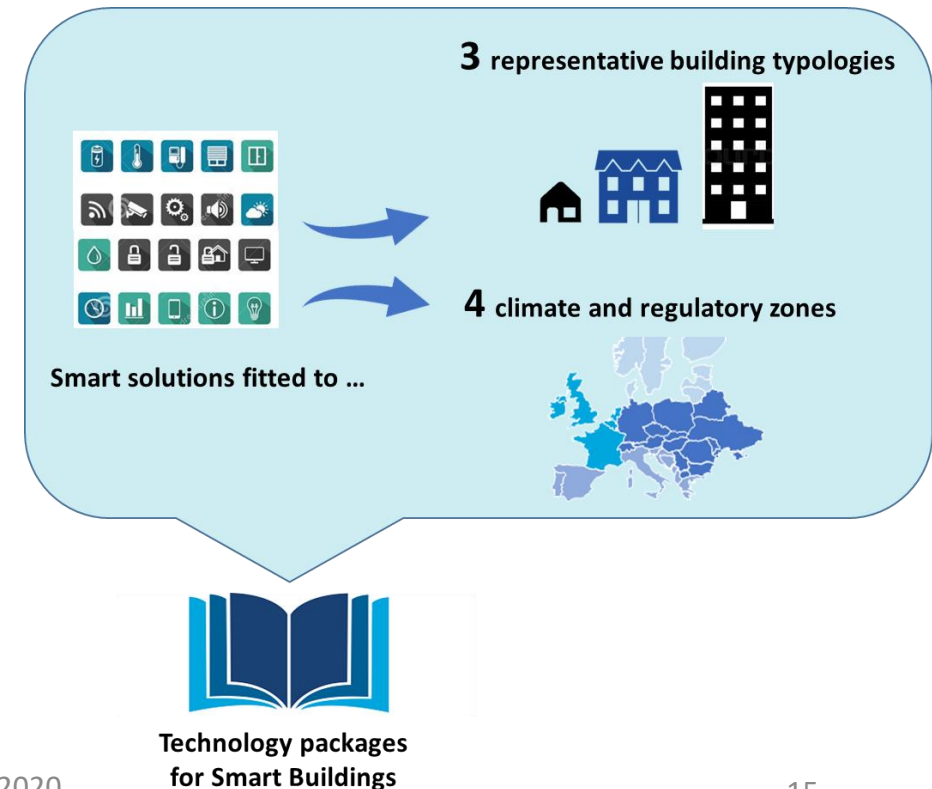
- **Build on the last SRI developments and findings**
 - > Define an approach to support the adoption & uptake of the SRI across Europe



3. Support to stakeholders for the promotion, experimentation and roll-out of the SRI

Tools & training

- Address the **lack of clarity** in the marketplace about the **benefits** of smart services/technologies
- Develop:
 - List of **co-benefit indicators** associated to smart buildings (e.g. energy efficiency, comfort, flexibility...)
 - Set of **technology solution packages** for smart buildings with a performance assessment (in terms of SRI and co-benefits) -> Demonstrate the added value of smart buildings; Promote a consistent business case; Foster the market uptake.
 - **Training material** and **workshops** on the SRI and practical testing

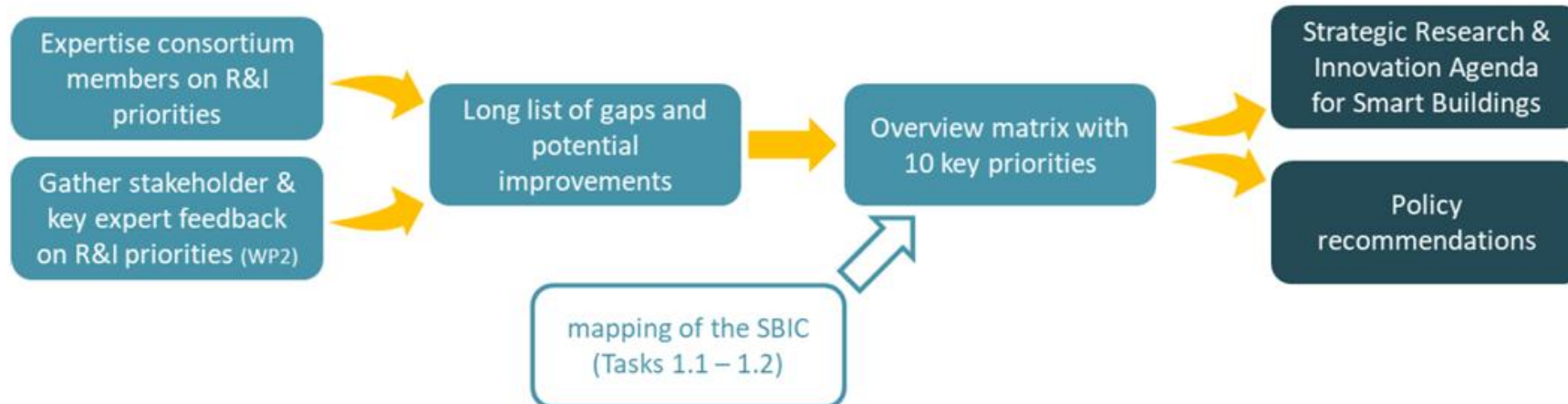




4. R&I roadmap

SRIA & policy
recos

- Development of a **Research, Innovation and Policy roadmap**
 - Support the EC and MS gaining a better understanding of the state of play of the SBIC needs
 - Identify & tailor key priorities for EU support to research, innovation & market uptake in smart buildings
- **SRIA for smart buildings**
 - Specify how the identified R&I priorities can be implemented and fostered within an EU R&I framework
 - Give a view where to put efforts in the EU R&I agenda (HEu and other EU initiatives)
 - Policy recommendations.
- **Increase the implementation potential and chances for success** of the priority actions, through the synergies SB4EU's larger framework of EU and international initiatives



- **Among the dissemination and exploitation activities:**



5. Enhanced
visibility for
the Smart
Building
Innovation
Community

*Participation
to major
events,
webinars*

→ **Participations to 6 key events of the sector:** Smart Buildings Alliance (SBA) annual event, Smart Building Show, Smart City Expo, MIPIM, Integrated Systems Europe, Intelligent Building Systems, EUSEW, EUW, ...

→ **4 webinars** organised in partnership with BUILD-UP and Leonardo Energy

- **Join our “Smart Buildings Innovation Community” and actively contribute to the SmartBuilt4EU project’s activities!**

Click on the [Registration page](#)
or use the QR code



- **Contacts:**

- Alexis David: alexis.david@ectp.org
- Alain Zarli: secretariat@ectp.org



The Smart Buildings community

Questions ?



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 956936.

Discussion and Q&A session

Topics to discuss

- Common definition of Smart Buildings
- Your views and potential involvement in SmartBuilt4EU's task forces
- Questions from the panel and audience

Common definition of Smart Buildings

“Smart Buildings” is a frequently used but ill-defined term that cuts across several themes including:

- ICT
- energy efficiency
- renewable energy technologies
- design and construction techniques
- the dynamic interaction of a building with its occupants

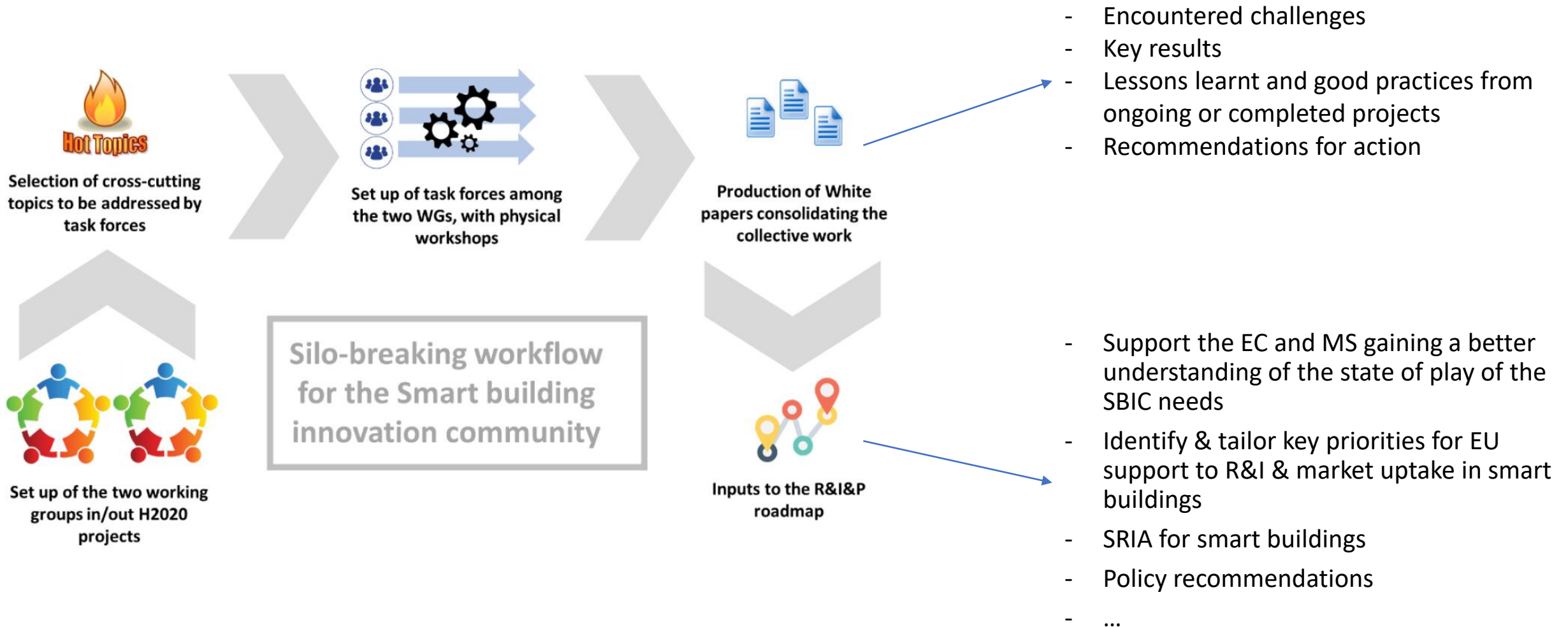
SmartBuilt4EU is based on the definition proposed within the SRI Technical Study (VITO, 2018*):

“The smartness of a building refers to the ability of a building or its systems to sense, interpret, communicate and actively respond in an efficient manner to changing conditions in relation the operation of technical building systems or the external environment (including energy grids) and to demands from building occupants.”

→ Based on your experience and projects, do you agree with this definition?

→ Other aspects to add? Need to extend the definition? Process needed to reach a common definition?

SmartBuilt4EU's Task Forces (1/2)



SmartBuilt4EU's Task Forces (2/2)

Task Forces (TF)	TF1: Engagement of building users and occupants	TF2: Integrating components and systems into smart buildings	TF3: Efficient Smart buildings within the Smart Built Environment	TF4: Strengthening the Smart Buildings ecosystem: business models, financing, education
Topic of semester 1 (M6-M12)	IT tools & approaches for smart buildings occupants (dashboards, education, etc.)	System integration, interoperability and communication, for an optimal building operation	Demand Side Management, data interoperability for flexibility & demand response	Marketplace clarity and transparency for the customers, and branding/labeling the smartness of technical building products (in relation to the SRI)
Topic of semester 2 (M13-M18)	Data privacy & protection	Data storage & management (incl. Digital Twins), cybersecurity	System integration, interoperability and communication (at grid scale)	Integration in curricula of academic and vocational education, structuration of the ecosystem
Topic of semester 3 (M19-M24)	Smartness for increased indoor environmental quality (and other co-benefits)	Improved maintenance and fault prediction	From smart buildings to smart clusters (communities)	New services and business models (incl. Building as a Service)
Other potential topics	...	Assessing operational smartness vs smart readiness

- ***Your 'spontaneous' reactions to this 1st proposition of topics?***

- ***Coherence, explanations, ...?***

- ***Mostly: other potential topics to consider?***

- ***Ready to participate in the TF and selection of topics?***

SUSTAINABLE PLACES 2020

October 27-30, 2020
DIGITAL EVENT

Horizon 2020
European Union funding
for Research & Innovation

Smart Buildings Workshop

Chaired by

ECTP
INNOVATIVE BUILT
ENVIRONMENT

Smart Built4EU

SRI

domOS

TABEDE
Towards buildings ready
for tomorrow's demands

interconnect

B-LOG **PHENIX**

End of the workshop

Thank you for your participation!