Smart Readiness Indicator (SRI)

The SRI platform
Plenary meeting #3

March 22nd 2023

European Commission

Welcome to the SRI platform meeting

Welcome ☺

- Some practicalities:
  - This meeting will be recorded

  - There are Q&A slots throughout the meeting
    → Please write down your questions in the chat.

Smart Readiness Indicator (SRI)

Welcome and Introduction

Brigitte Jacquemont
European Commission
DG ENER

Agenda

- Welcome and introduction
- SRI in EU policy
- Activities of the SRI support team
- Updates from the SRI platform working groups
- Break
- SRI LIFE Clustering activities
- Updates on the SRI assessment package
- Closing remarks

Smart Readiness Indicator (SRI)

SRI in EU policy

Stefan Moser
European Commission
DG ENER

Smart Readiness Indicator (SRI)

Q&A

Smart Readiness Indicator (SRI)

Activities of the SRI technical support team

Birgit Vandevelde

SRI Support Team
VITO/EnergyVille

SRI Technical support team

- SRI support team: 2 year service contract by the European Commission
- **Main aim:** provide technical assistance to the European Commission services and to Member States in the first phases of the testing and implementation of the SRI.
- **Consortium:** VITO (Belgium), Waide Strategic Efficiency Europe (Ireland), Research to Market (R2M) Solution (France) and LIST, the Luxembourg Institute of Science and Technology
- **Timeline:** May 2021 – end of April 2023

Aims of the SRI Technical support contract

- TASK 1: Ongoing support for testing and implementation of the SRI.
- TASK 2: Support for the establishment and operation of the SRI platform.
- TASK 3: Technical assistance for the preparation of EU guidance on the implementation of the SRI.
- TASK 4: Investigation of additional EU support for the roll-out of the SRI.
- TASK 5: Awareness raising and dissemination.

Overview of some SRI Support team activities

Set up and update of web resources

10,000+ visitors

Set up and management of an SRI helpdesk

731 questions received and answered

Provision of trainings and webinars

6 trainings and webinars (EN x3 + FR, IT, ES)

Provision of an SRI assessment package

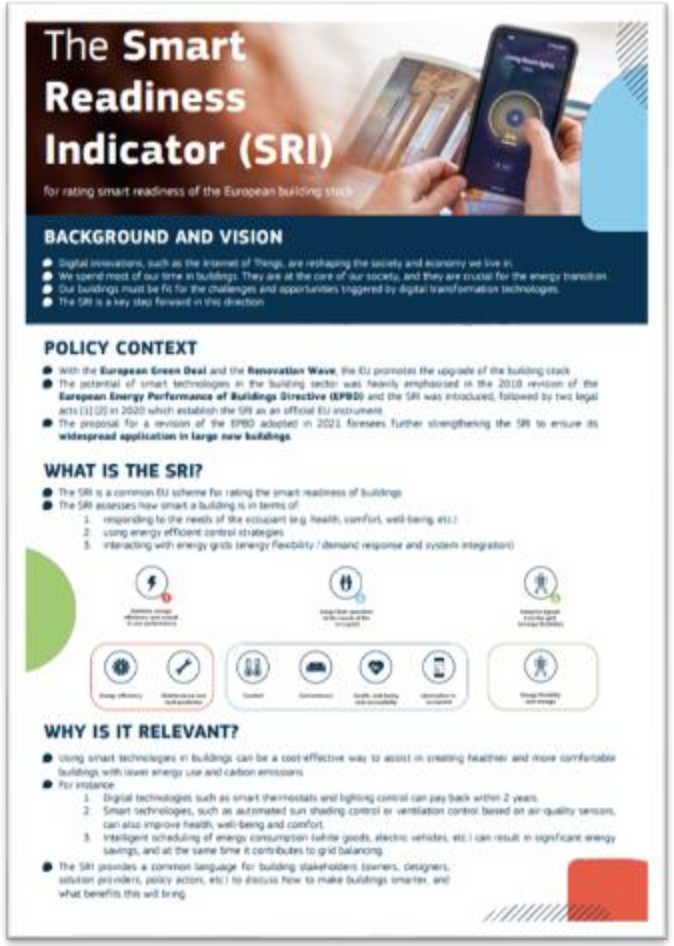
643 requests for the SRI assessment package

EC SRI Newsletter

12 newsletters sent, currently 1275 unique subscribers

Overview of some SRI Support team activities

- Introductory brochure



The **Smart Readiness Indicator (SRI)**

for rating smart readiness of the European building stock

BACKGROUND AND VISION

- Digital innovations, such as the Internet of Things, are reshaping the society and economy we live in
- We spend most of our time in buildings. They are at the core of our society, and they are crucial for the energy transition
- Our buildings must be fit for the challenges and opportunities triggered by digital transformation technologies
- The SRI is a key step forward in this direction

POLICY CONTEXT

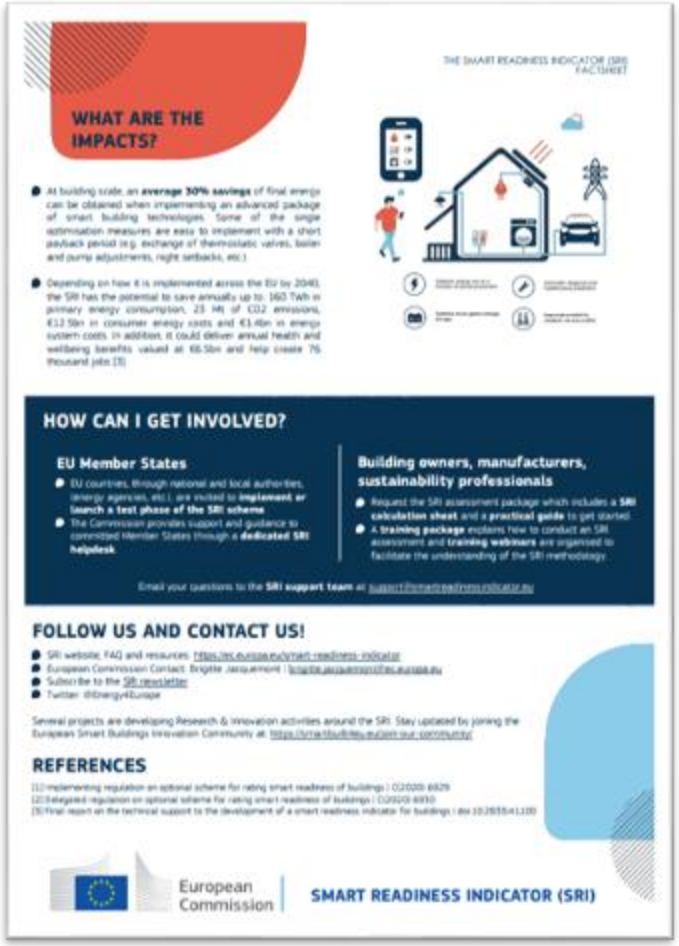
- With the **European Green Deal** and the **Renovation Wave**, the EU promotes the upgrade of the building stock
- The potential of smart technologies in the building sector was heavily emphasised in the 2018 revision of the **European Energy Performance of Buildings Directive (EPBD)** and the SRI was introduced, followed by two legal acts [1] [2] in 2020 which establish the SRI as an official EU instrument
- The proposal for a revision of the EPBD adopted in 2021 foresees further strengthening the SRI to ensure its **widespread application in large new buildings**

WHAT IS THE SRI?

- The SRI is a common EU scheme for rating the smart readiness of buildings
- The SRI assesses how smart a building is in terms of:
  1. responding to the needs of the occupant (e.g. health, comfort, well-being, etc.)
  2. using energy efficient control strategies
  3. interacting with energy grids (energy flexibility / demand response and system integration)

WHY IS IT RELEVANT?

- Using smart technologies in buildings can be a cost-effective way to assist in creating healthier and more comfortable buildings with lower energy use and carbon emissions
- For instance:
  1. Digital technologies such as smart thermostats and lighting control can pay back within 2 years
  2. Smart technologies, such as automated sun shading control or ventilation control based on air quality sensors, can also improve health, well-being and comfort
  3. Intelligent scheduling of energy consumption (white goods, electric vehicles, etc.) can result in significant energy savings, and at the same time it contributes to grid balancing
- The SRI provides a common language for building stakeholders (owners, designers, solution providers, policy actors, etc.) to discuss how to make buildings smarter, and what benefits this will bring



THE SMART READINESS INDICATOR (SRI) FACTSHEET

WHAT ARE THE IMPACTS?

- At building scale, an **average 30% savings** of final energy can be obtained when implementing an advanced package of smart building technologies. Some of the single optimisation measures are easy to implement with a short payback period (e.g. exchange of thermostatic valves, boiler and pump adjustments, night setbacks, etc.)
- Depending on how it is implemented across the EU by 2040, the SRI has the potential to save annually up to: 160 TWh in primary energy consumption, 23 Mt of CO2 emissions, €12.5bn in consumer energy costs and €1.4bn in energy system costs. In addition, it could deliver annual health and wellbeing benefits valued at €6.5bn and help create 76 thousand jobs [3]

HOW CAN I GET INVOLVED?

EU Member States

- EU countries, through national and local authorities, (energy agencies, etc.), are invited to **implement or launch a test phase of the SRI scheme**
- The Commission provides support and guidance to committed Member States through a **dedicated SRI helpdesk**

Building owners, manufacturers, sustainability professionals

- Request the SRI assessment package which includes a **SRI calculation sheet** and a **practical guide** to get started
- A **training package** explains how to conduct an SRI assessment and **training webinars** are organised to facilitate the understanding of the SRI methodology

Email your questions to the **SRI support team** at support@smartreadinessindicator.eu

FOLLOW US AND CONTACT US!

- SRI website, FAQ and resources: https://ec.europa.eu/smart-readiness-indicator
- European Commission Contact: Brigitte Jacquemont | brigitte.jacquemont@ec.europa.eu
- Subscribe to the SRI newsletter
- Twitter: @Energy4Europe

Several projects are developing Research & Innovation activities around the SRI. Stay updated by joining the European Smart Buildings Innovation Community at: https://smartbuildings.eu/join-our-community/

REFERENCES

[1] Implementing regulation on optional scheme for rating smart readiness of buildings | C(2020) 6929
[2] Delegated regulation on optional scheme for rating smart readiness of buildings | C(2020) 6930
[3] Final report on the technical support to the development of a smart readiness indicator for buildings | doi:10.2833/41100

European Commission | SMART READINESS INDICATOR (SRI)

Overview of some SRI Support team activities

- Factsheets for technical domains

European Commission

SMART READINESS INDICATOR (SRI)

A FOCUS ON DYNAMIC BUILDING ENVELOPE SYSTEMS

SRI is a common EU scheme for rating the smart readiness of buildings.

Dynamic building envelope is one of the **nine technical domains** addressed by the SRI.

A building envelope encompasses the entire exterior of the building system and serves to protect the interior while facilitating climate control of a building. This includes windows, roof, doors, floor, foundations, and insulation.

Buildings represent roughly 40% of energy consumption and 36% of energy-related CO2 emissions in the EU. Building envelope performance improvements are critical to reducing thermal losses and operational CO2 emissions.

Dynamic building envelope technologies include for instance dynamic shading systems, or advanced smart windows such as electrochromic glazing. They provide a reliable means for reduced annual energy demands, improved control over the indoor climate, as well as an increased comfort and convenience for building occupants.

AN EXAMPLE OF SMART-READY SERVICE

The SRI implements a catalogue of smart-ready services. The next page provides one example of smart-ready service categorised under the dynamic building envelope technical domain. An example of a full Smart-ready-services catalogue can be obtained by requesting the SRI assessment package at:
https://ec.europa.eu/eusurvey/runner/SRI-assessment-package

Control
dow open/closed control, with HVAC system

Open/closed detection to shut down heating or oling systems	Level 1 + Automised mechanical window opening based on room sensor data	Level 2 + Centralized coordination of operable windows
1	2	3 (maximum smartness)

Functionality Level

VELS CORRELATION WITH SRI IMPACT CRITERIA

of a given smart-ready service has corresponding individual en impact criteria addressed by the SRI, as illustrated below.

0	0	0	0	0	0
0	1	1	0	0	0
0	2	1	1	0	0
0	2	2	1	0	0

ection to shut down heating or cooling systems – offers gher level of comfort and convenience for building

ed mechanical window opening based on sensor data - fort, convenience, and improved health, well-being and upants.

lized coordination of operable windows (e.g to control combines energy efficiency with a high level of comfort as improved health, well-being and accessibility for

regulation, Member States shall make available at least be used by experts as the basis for identifying and Smart-ready service catalogue includes the list of smart- ed for calculating the smart readiness score, related esponding individual scores for the impact criteria. o make available several smart-ready catalogues, for ypes.

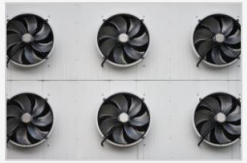
ernational associations to learn further about dynamic de: E.D.S.F (European Door and Shutter Federation e.V.), Organisation), EuroWindoor, Glass for Europe

so EuroWindoor GLASS FOR EUROPE

CT US

and resources: https://ec.europa.eu/smart-readiness-indicator
ct: Brigitte Jacquemont: ENER-BUILDINGS@ec.europa.eu
martReadinessIndicator

Research & Innovation activities around the SRI.
opean Smart Buildings Innovation Community at:
ur-community



A focus on ventilation systems (June 2022)

A focus on lighting systems (August 2022)

A focus on electric vehicle charging systems (October 2022)

A focus on cooling systems (February 2023)

A focus on dynamic building envelope systems (February 2023)

A focus on heating system (December 2022)

Overview of some SRI Support team activities

- SRI case studies

European Commission

SMART READINESS INDICATOR (SRI)

Case study n°1

THE BUILDING:

Building type	Non-residential (office building)		
Location	Bettembourg, Luxembourg		
Surface area	2200 m²	**Construction year**	2014
Specificities	The NeoBuild building is a pilot project for environmental performance and renewable energy production. It allows testing novel technologies, materials and building components		

MAIN TECHNICAL CHARACTERISTICS:

- EPC* class A
- Heat pumps (ground to water & air to air)
- Solar panels (thermal & PV) on the roof and on several sides
- Energy storage on site
- No active cooling

** EPC = energy performance certificate*

HOW THE SRI WAS ASSESSED:

Assessment carried out by LIST. Use of the detailed service catalogue available in the SRI assessment package (available on request at https://ec.europa.eu/eusurvey/runner/SRI-assessment-package).

OUTCOMES OF THE SRI ASSESSMENT:

Overall SRI score: 67%

Scores per impact criteria:

Energy efficiency	81%
Maintenance and fault prediction	52%
Comfort	75%
Convenience	61%
Health, well-being and accessibility	62%
Information to occupants	59%
Energy flexibility and storage	68%

Scores per technical domains:

Heating	74%
Cooling	-
Domestic hot water	57%
Ventilation	60%
Lighting	85%
Dynamic building envelope	45%
Electricity	43%
Electric vehicle charging	0%
Monitoring and control	60%

FOCUS ON ONE SERVICE:

DE-4 "Reporting information regarding the performance of dynamic building envelope systems"

The building is equipped with a weather station and sensors providing real-time information. Therefore, the functionality level for this service is 3.

Functionality level 0 *(non-smart default)*	**Functionality level 1**	**Functionality level 2**	**Functionality level 3**	**Functionality level 4** *(smartest level)*
No reporting	Position of each product & fault detection	Position of each product, fault detection & predictive maintenance	Position of each product, fault detection, predictive maintenance, real-time sensor data (wind, lux, temperature…)	Position of each product, fault detection, predictive maintenance, real-time & historical sensor data (wind, lux, temperature…)

ASPECTS POSITIVELY IMPACTING THE EVALUATION:

- Heating control by zone
- Variable velocity circulation pump and smart control
- Predictive control of hot water storage (for heating)
- Smart DHW management in conjunction with PV generation
- Air quality indicators per zone
- Lighting: smart actuation with presence sensors
- Smart blinds system management and fault detection
- Smart electric energy storage, optimisation of self-consumption
- Photovoltaic production
- Energy reporting via a common application
- Single platform for smart management of HVAC, blinds & lighting

** DHW = domestic hot water*
** HVAC = heating, ventilation and air conditioning*

IMPROVEMENT POTENTIAL:

To increase the overall SRI score from 67% **to** 91% **:**

DECISIONS	Smart grid implementation: building systems responding to electric grid signal	Intelligent charging stations on at least 10% of parking spaces (user indication of charge and control at vehicle level)	Predictive management & occupant feedback for blinds, heating, DHW, ventilation and battery charging. Smart control depending on occupancy and weather conditions
ACTIONS	Involvement of the DSO and configuration of systems	Installation of a sufficient number of adequate EV charging stations	Data analysis and prediction models to develop and deploy
IMPACTS	Increased energy flexibility and storage	Better convenience, improved information to occupants, increased energy flexibility and storage	All SRI impact criteria improved by such a broad action

FOLLOW AND CONTACT US!

- SRI website, newsletter, FAQ and resources: https://energy.ec.europa.eu/smart-readiness-indicator
- European Commission Contact: Brigitte Jacquemont: ENER-BUILDINGS@ec.europa.eu
- Twitter: @Energy4Europe #SmartReadinessIndicator

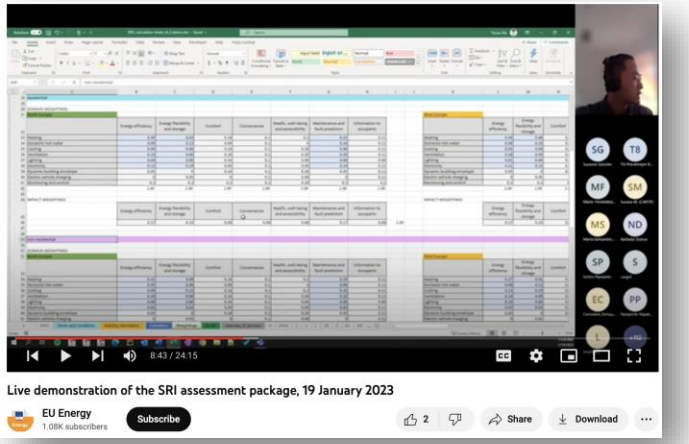
Looking for more information?

- Web resources
  https://energy.ec.europa.eu/smart-readiness-indicator
  - Introductory video to the SRI
  - FAQ
  - Recording of webinars
  - Training material
  - Video demonstration of the SRI calculation tool
  - Form to request assessment package
  - …

- Helpdesk: support@smartreadinessindicator.eu

Energy4Europe
@Energy4Europe

#SmartReadinessIndicator



TASK 2: SRI platform

Multi-stakeholder SRI platform

> *This platform shall be a permanent forum to allow all interested parties (the Commission Services, Member States representatives, stakeholders) to exchange information and good practices on testing and implementation of the SRI.*

- Today: 3rd 'plenary' meeting of the SRI platform
- 3 Thematic SRI Platform Working Groups:
  - *Working Group 1 - Member State SRI test phase*
  - *Working Group 2 - Maintenance & potential extension of the SRI calculation methodology*
  - *Working Group 3 - SRI value proposition and supporting measures*

Important – please complete the EUSurvey on the needs of MS for the SRI

- To help provide support to Member States who opt to test or implement the SRI we are running an online survey via the EUsurvey platform
- Please take 10 minutes to share your views on what support would be most useful for them at the following link:
- https://ec.europa.eu/eusurvey/runner/MemberStateSRI

(also, shown in the chat)

- Your input is both very important and greatly appreciated – thank you!

Smart Readiness Indicator (SRI)

Updates from the SRI Platform working groups

Smart Readiness Indicator (SRI)

Working Group 1: Member States SRI test phases

Nicolas Cabassud – WG1 cochair

Annabelle Walgraffe – WG1 cochair

Sophie Dourlens-Quaranta – SRI support team

22 March 2023

European Commission

Agenda

- WG1 activities
- Overview of the ongoing national test phases
- National test phases in the spotlight:
  - *Czech Republic*
  - *France*
  - *Croatia*
- Next steps of the WG1

Members of the WG1

- Austria
- Belgium / Flanders
- Croatia
- Cyprus
- Czech Republic
- Denmark
- Finland
- France
- Germany
- Greece
- Italy
- Poland
- Slovakia
- Slovenia
- Spain

- Secretariat:
  - SRI support team
- Other members:
  - European Commission, DG Energy
  - BBRI / EPBD Concerted Action coordination team

WG1 meetings

- 7 July 2022:
  - Kick-off meeting
- 23 September 2022:
  - Discussion on the preliminary results of the first test phases
- 18 January 2023
  - Need to identify exemplary buildings
  - Need to work on recommendations about how to improve buildings' smartness

Agenda

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  - *France*
  - *Croatia*
- Next steps of the WG1

Overview of the ongoing test phases

A first call for expressions of interest was sent by the EC to all Member States in October 2021

Four countries volunteered:

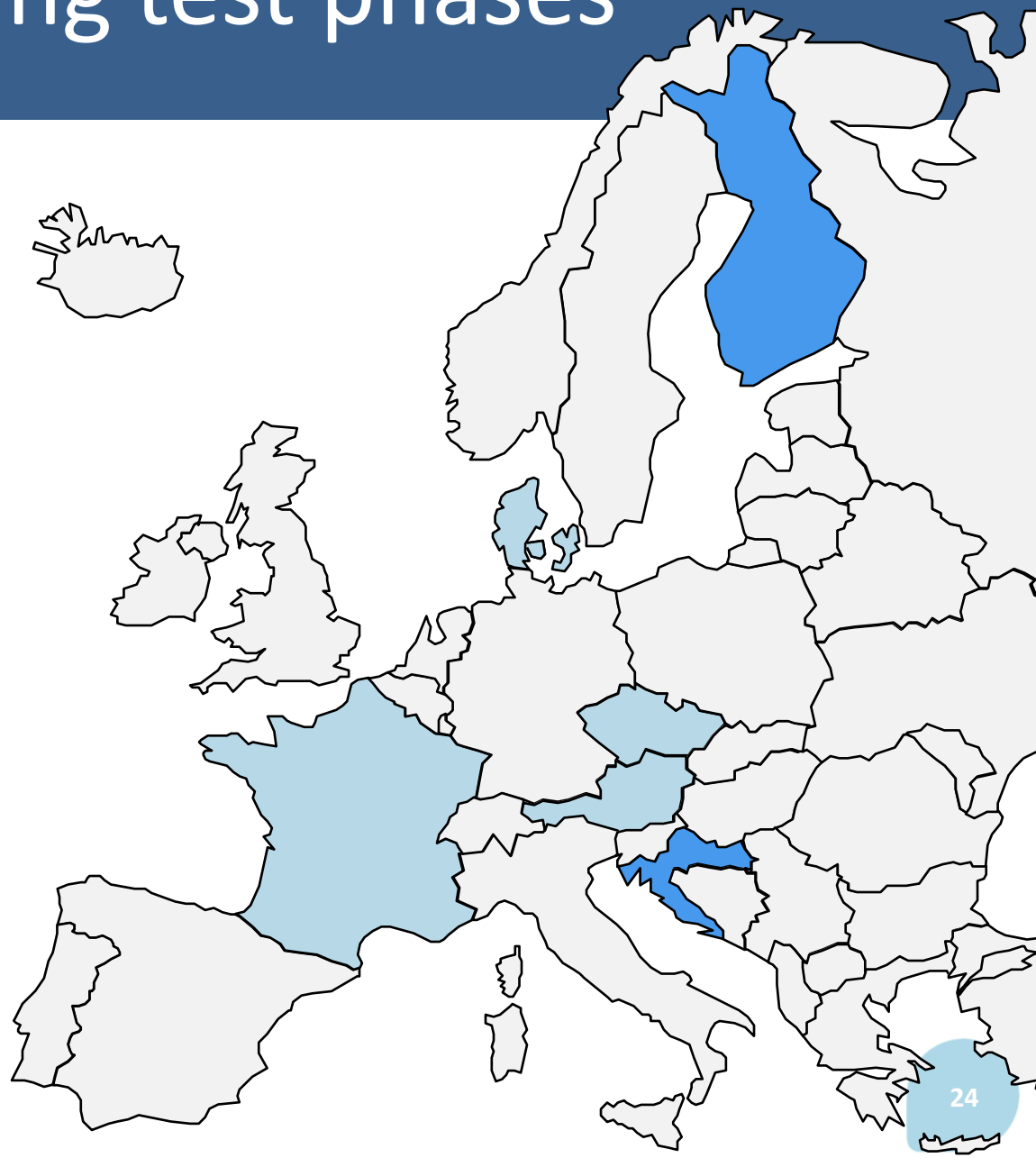
- **Austria**
- **Czech Republic**
- **Denmark**
- **France**

Overview of the ongoing test phases

A second call for expressions of interest was sent by the EC to all Member States in June 2022

Two other countries volunteered:

- **Croatia**
- **Finland**



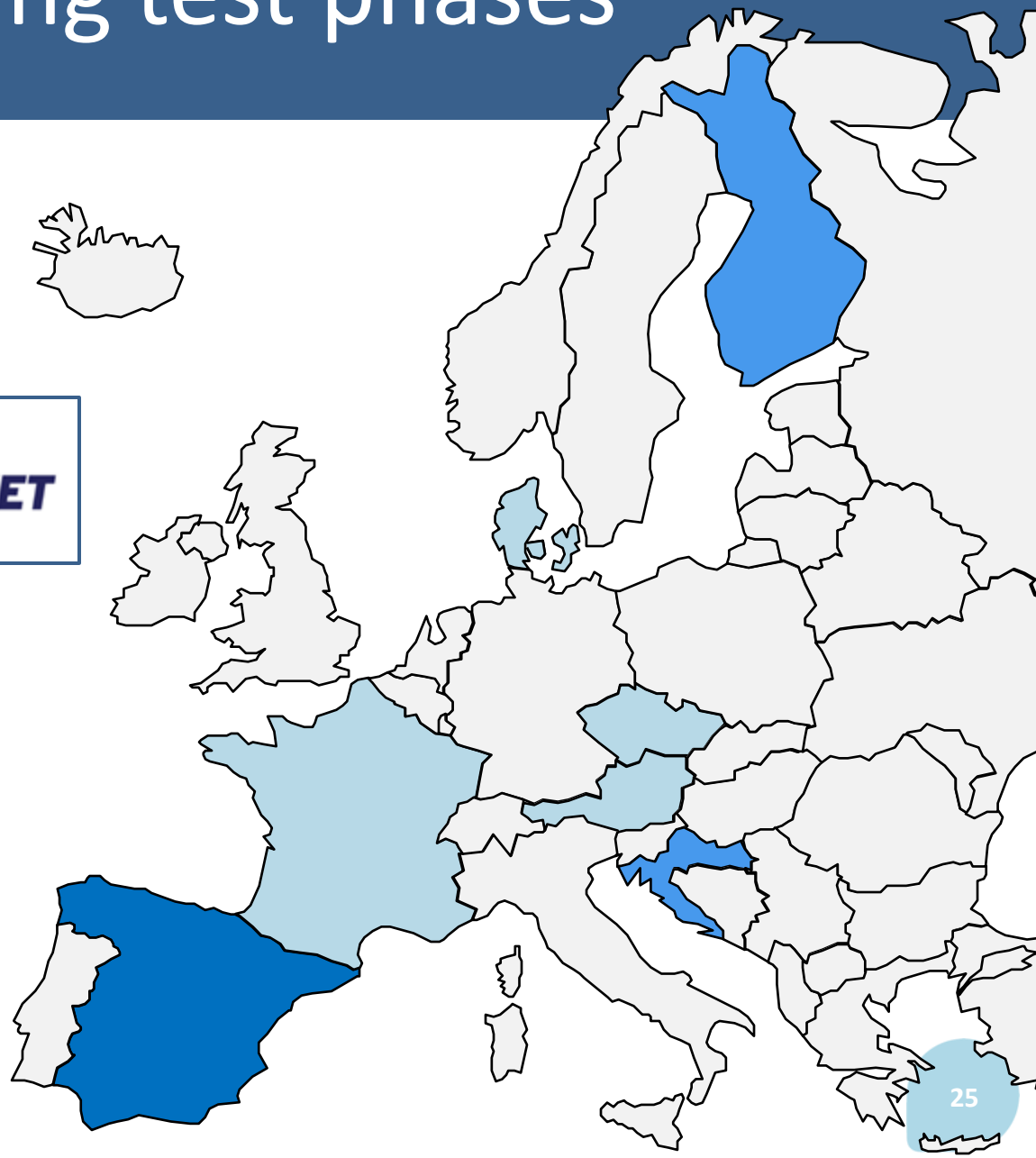
Overview of the ongoing test phases

Recent launch of LIFE21-CET-SMARTREADY projects

easy SRI | SMART2 | SRI-ENACT Co-creating Tools and Services for Smart Readiness Indicator Uptake | SRI2MARKET

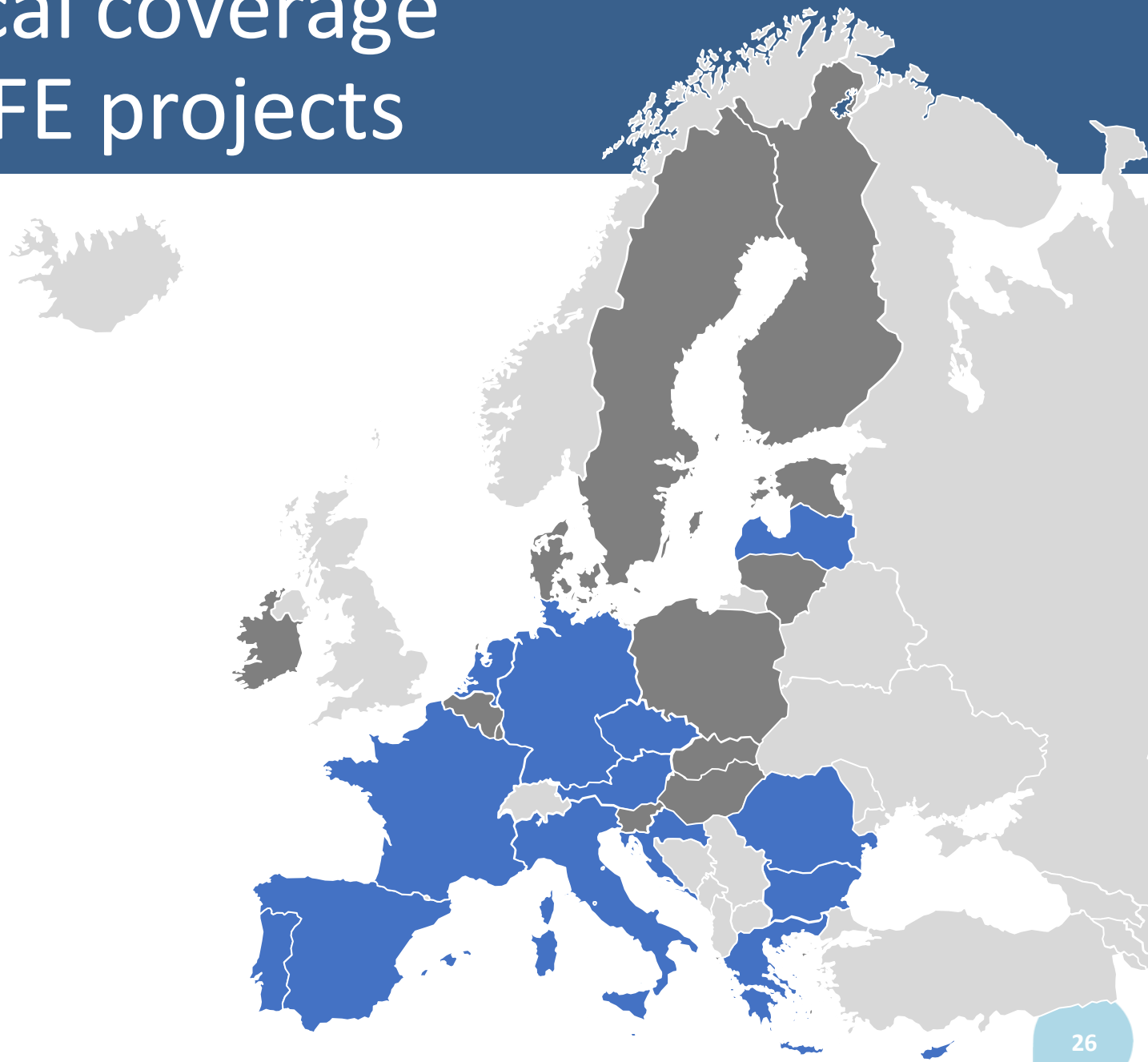
One other country volunteered (more may be expected):

Spain



Geographical coverage of the 4 LIFE projects

EU countries	Number of projects
Austria	3
Bulgaria	2
Croatia	2
Cyprus	3
Czech Republic	1
France	1
Germany	1
Greece	4
Italy	2
Latvia	1
Netherlands	1
Portugal	1
Romania	2
Spain	3



SRI test phases: Different stages and approaches

Assessments conducted by technical partners, preliminary results obtained

Denmark

Test phase completed

Austria

Czech Republic

Test phases still ongoing

External assessors being recruited, longer process implemented

France

Finland

Conducted with the support of one or several LIFE projects

Croatia

Spain

Test phase nearly to be launched

Agenda

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  - *Croatia*
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Czech Republic

Karel Kabede, Czech Technical University (online)

SRI WG 1
SRI TEST PHASE
Czechia
march 2023

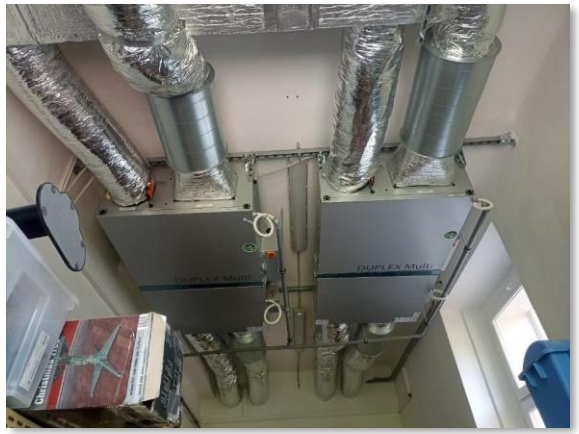
prof. Ing. Karel Kabele, CSc.
Czech Technical University in Prague
Faculty of Civil Engineering
Dept of Indoor Environmental and Building Services Engineering

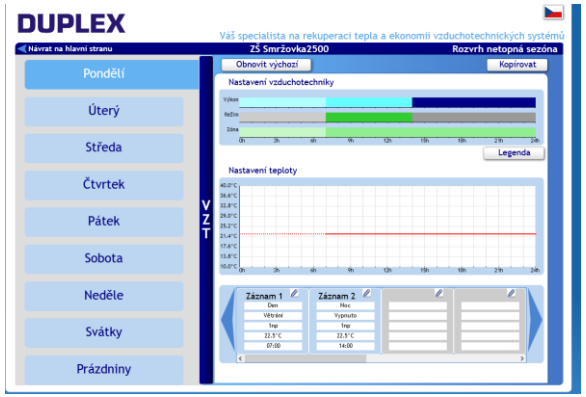
FACULTY OF CIVIL ENGINEERING CTU IN PRAGUE

SRI Testing objects

- S1 Refurbished primary school North Bohemia

- Mechanical ventilation in each classroom , CO2 sensors
- Central gas condensing boiler, water heating, radiators, thermostatic valvess
- Control is via computer interface by FM
- Central production DHW.





HAIEQ

INDOOR ENVIRONMENTAL QUALITY AUDIT

FACULTY OF CIVIL ENGINEERING
CTU IN PRAGUE

SRI Testing objects

- S1 Refurbished primary school North Bohemia

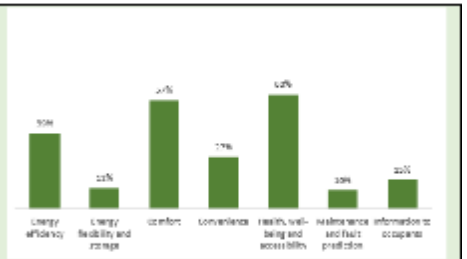
Key functionality 3 - grid 11%

	Key functionality 1 - building	Key functionality 2 - user
Heating	21%	41%
Domestic hot water	17%	17%
Cooling	0%	0%
Ventilation	44%	52%
Lighting	67%	51%
Dynamic building envelope	0%	0%
Electricity	0%	0%
Electric vehicle charging	0%	0%
Monitoring and control	17%	38%

TOTAL SRI SCORE 24% **SRI CLASS** F

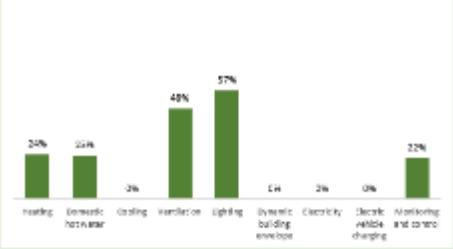
IMPACT SCORES

Energy efficiency	39%
Energy flexibility and storage	11%
Comfort	57%
Convenience	27%
Health, well-being and accessibility	60%
Maintenance and fault prediction	10%
Information to occupants	15%



DOMAIN SCORES

Heating	24%
Domestic hot water	23%
Cooling	0%
Ventilation	48%
Lighting	57%
Dynamic building envelope	0%
Electricity	0%
Electric vehicle charging	0%
Monitoring and control	22%



DETAILED SCORES

	Energy efficiency	Energy flexibility and storage	Comfort	Convenience	Health, well-being and accessibility	Maintenance and fault prediction	Information to occupants
Heating	42%	9%	60%	38%	67%	0%	0%
Domestic hot water	33%	33%	0%	33%	0%	0%	0%
Cooling	0%	0%	0%	0%	0%	0%	0%
Ventilation	38%	0%	40%	40%	60%	60%	67%
Lighting	67%	0%	60%	60%	33%	0%	0%
Dynamic building envelope	0%	0%	0%	0%	0%	0%	0%
Electricity	0%	0%	0%	0%	0%	0%	0%
Electric vehicle charging	0%	0%	0%	0%	0%	0%	0%
Monitoring and control	25%	11%	67%	18%	50%	9%	11%

SMART READINESS INDICATOR

RESIDENTIAL CERTIFICATE

Certificate ID: **ZŠ Smržovka**

Date of issue: 26.6.2022
Assessor's references: SRI_CZ_2026_T1

Address: Komenského,Smržovka, Czech Republic

Type of assessment: B (Detailed method)
Dwelling type: non-residential - educational
Total floor area: 500 - 1.000 m²
Year of construction: 1960 - 1990

The Smart readiness indicator (SRI) is a common EU scheme for rating the smart readiness of buildings. Using smart technologies can increase buildings' performances, in particular regarding **(1)** their energy efficiency & overall in-use performance, but also **(2)** their ability to adapt their operation to the needs of the occupant and **(3)** their ability to adapt to signals from the grid (energy flexibility). The SRI raises awareness of the benefits promised by smart building technologies by evaluating the buildings' smart readiness.

24%

1 Optimise energy efficiency and overall in-use performance	25%
2 Adapt its operation to the needs of the occupant	40%
3 Adapt to signals from the grid (energy flexibility)	11%

IMPACTS

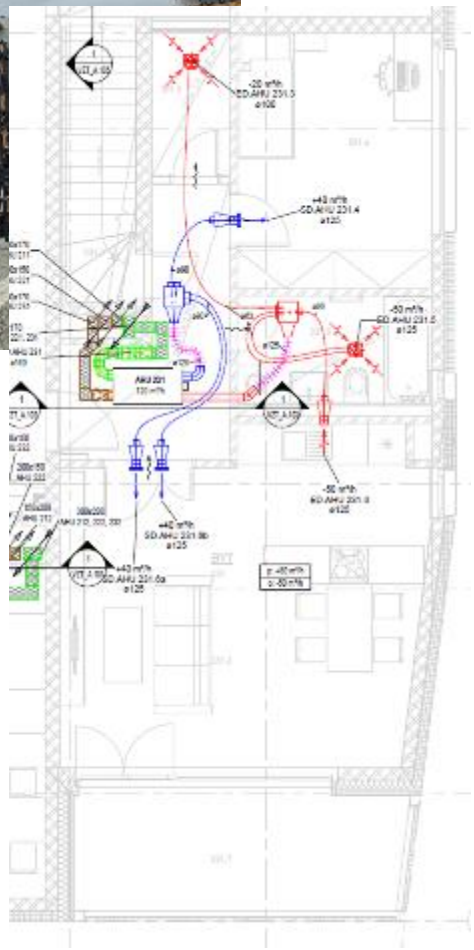
DOMAINS	1 Energy efficiency	1 Maintenance and fault prediction	2 Comfort	2 Convenience	2 Health, well-being & accessibility	2 Information to occupants	3 Energy flexibility & storage	SRI
Total	39%	10%	57%	27%	60%	15%	11%	24%
Heating	42%	0%	60%	38%	67%	0%	9%	24%
Domestic hot water	33%	0%	0%	33%	0%	0%	33%	23%
Cooling	0%	0%	0%	0%	0%	0%	0%	0%
Ventilation	38%	50%	40%	40%	60%	67%	-	48%
Lighting	67%	0%	60%	60%	33%	0%	-	57%
Dynamic building	0%	0%	0%	0%	0%	0%	-	0%
Electricity	0%	0%	-	-	-	0%	0%	0%
Electric vehicle charging	-	0%	-	0%	-	0%	0%	0%
Monitoring & control	25%	9%	67%	18%	50%	11%	11%	22%

Stránka 1

FACULTY OF CIVIL ENGINEERING CTU IN PRAGUE

SRI Testing objects

- S2 Residential project Branik
  - Ventilation of all apartments is mechanical, individually controlled, each apartment is served by a ceiling HVAC unit with a double rotary heat recovery exchanger located in the hallway.
  - Central, hot water, underfloor heating + heating ladder in the bathroom.
  - Control is via wall-mounted controller - "touch tablet".
  - Central production DHW.
  - Automatic / manual control of external blinds.



HAIEQ

INDOOR ENVIRONMENTAL QUALITY AUDIT

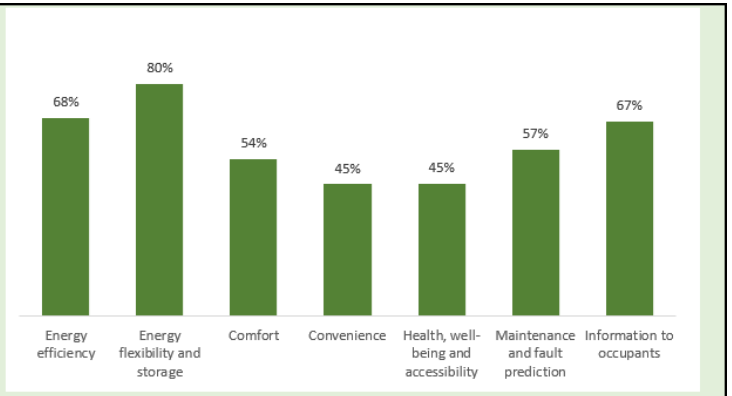
FACULTY OF CIVIL ENGINEERING CTU IN PRAGUE

SRI Testing objects

- S2 Residential project Branik (A)

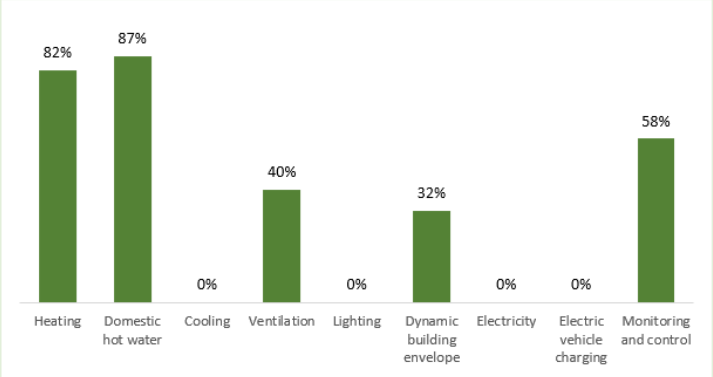
IMPACT SCORES

Energy efficiency	68%
Energy flexibility and storage	80%
Comfort	54%
Convenience	45%
Health, well-being and accessibility	45%
Maintenance and fault prediction	57%
Information to occupants	67%



DOMAIN SCORES

Heating	82%
Domestic hot water	87%
Cooling	0%
Ventilation	40%
Lighting	0%
Dynamic building envelope	32%
Electricity	0%
Electric vehicle charging	0%
Monitoring and control	58%



SMART READINESS INDICATOR

RESIDENTIAL CERTIFICATE

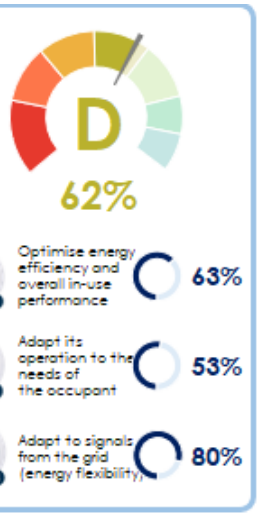
Certificate ID: **Bytový dům A Braník**

Date of issue: 14.10.2022
Assessor's references: 0

Address: Vrbova, Ke Krči,Praha 4 Braník

Type of assessment: A (Simplified method)
Dwelling type: residential - large multi-family house
Total floor area: 10.000 - 25.000 m²
Year of construction: > 2010

The Smart readiness indicator (SRI) is a common EU scheme for rating the smart readiness of buildings. Using smart technologies can increase buildings' performances, in particular regarding **(1)** their energy efficiency & overall in-use performance, but also **(2)** their ability to adapt their operation to the needs of the occupant and **(3)** their ability to adapt to signals from the grid (energy flexibility). The SRI raises awareness of the benefits promised by smart building technologies by evaluating the buildings' smart readiness.



DOMAINS	1 Energy efficiency	1 Maintenance & fault prediction	2 Comfort	2 Convenience	2 Health, well-being & accessibility	2 Information to occupants	3 Energy flexibility & storage	SRI
Total	68%	57%	54%	45%	45%	67%	80%	62%
Heating	88%	50%	100%	80%	100%	100%	0%	82%
Domestic hot water	100%	50%	0%	67%	0%	100%	100%	87%
Cooling	0%	0%	0%	0%	0%	0%	0%	0%
Ventilation	33%	50%	33%	33%	50%	33%	-	40%
Lighting	0%	0%	0%	0%	0%	0%	-	0%
Dynamic building envelopes	33%	50%	33%	25%	0%	33%	-	32%
Electricity	0%	0%	-	-	-	0%	0%	0%
Electric vehicle charging	-	0%	-	0%	-	0%	0%	0%
Monitoring & control	25%	75%	0%	43%	0%	67%	67%	58%

FACULTY OF CIVIL ENGINEERING CTU IN PRAGUE

SRI Testing objects

S2 Residential project Branik (A)

Code	Service group	Smart ready service	Existing solution	Required to achieve SRI 100%
H-1a	Heat control - demand side	Heat emission control	Individual room control with communication between controllers and to BACS	Individual room control with communication and occupancy detection
H-3	Information to occupants and facility managers	Report information regarding heating system performance	Central or remote reporting of current performance KPIs and historical data	Central or remote reporting of performance evaluation including forecasting and/or benchmarking; also including predictive management and fault detection
DHW-1b	Flexibility DHW production facilities	Control of DHW storage charging	HW storage vessels available	Automatic charging control based on local availability of renewables or information from electricity grid (DR, DSM)
DHW-3	Information to occupants and facility managers	Report information regarding domestic hot water performance	Actual values and historical data	Performance evaluation including forecasting and/or benchmarking; also including predictive management and fault detection
V-1a	Air flow control	Supply air flow control at the room level	Clock control	Local Demand Control based on air quality sensors (CO2, VOC,...) with local flow from/to the zone regulated by dampers
V-6	Feedback - Reporting information	Reporting information regarding IAQ	None	Real time monitoring & historical information of IAQ available to occupants + warning on maintenance needs or occupant actions (e.g. window opening)

FACULTY OF CIVIL ENGINEERING CTU IN PRAGUE

SRI Testing objects

S2 Residential project Branik (A)

Code	Service group	Smart ready service	Existing solution	Required to achieve SRI 100%
L-1a	Artificial lighting control	Occupancy control for indoor lighting	Manual on/off switch	Automatic detection (manual on / dimmed or auto off)
DE-1	Window control	Window solar shading control	Motorized operation with manual control	Predictive blind control (e.g. based on weather forecast)
DE-4	Feedback - Reporting information	Reporting information regarding performance of dynamic building envelope systems	No reporting	Position of each product & fault detection
MC-13	Feedback - Reporting information	Central reporting of TBS performance and energy use	Central or remote reporting of realtime energy use per energy carrier, combining TBS of at least 2 domains in one interface	Central or remote reporting of realtime energy use per energy carrier, combining TBS of all main domains in one interface
MC-25	Smart Grid Integration	Smart Grid Integration	Demand side management possible for (some) individual TBS, but not coordinated over various domains	Coordinated demand side management of multiple TBS
MC-30	Single platform	Single platform that allows automated control & coordination between TBS + optimization of energy flow based on occupancy, weather and grid signals	Single platform that allows manual control of multiple TBS	Single platform that allows automated control & coordination between TBS + optimization of energy flow based on occupancy, weather and grid signals

Testing objects

Done:

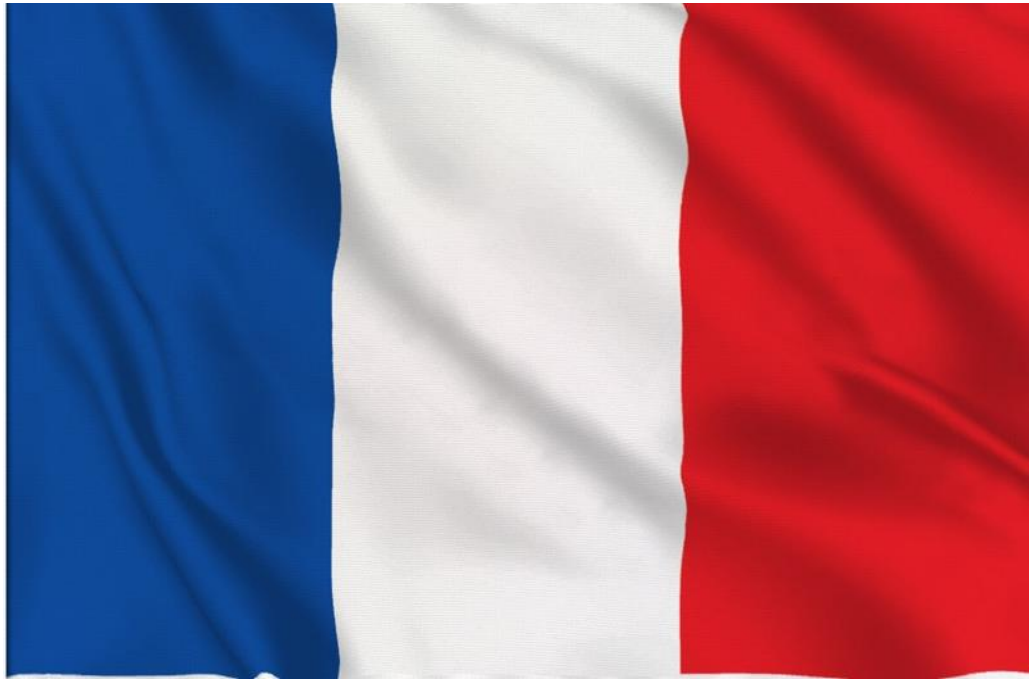
- 2 family houses
- Experimental high-tech object Prvok
- Office Building of CVUT
- Residential project Branik

In the pipe:

- Residential project Karlin

Thank you for your attention

Karel Kabele



France

Annabelle Walgraffe – Ministry of Ecological Transition (online)

Nicolas Cabassud – CEREMA

Reminder of how the French test works

- SRI carried out by certified assessors
- Non-funded assessment (assessment is done through a contract between assessor and applicant)

Target of 30 building assessments for the experiment

Overview of the buildings in the test phase

Description	Type	Info	Advancement
Bulding office	Non residential	Basic bulding (Cerema bulding)	0
Head office of a training center	Non residential	Basic bulding	0
Head office of a company	Non residential	Energy distribution company	1
Head office of a company	Non residential	Energy distribution company	2
Restaurant bulding	Non residential	Building restauration of Energy's company	2
3 apartments	Residential	Experimental apartment (EPC recast)	2
Head office of a company on lifts	Non residential	Major company on lifts	3
Severals single family home	Residential	Major French house builder	4
Single family home	Residential	Experimental house	4
Office bulding	Non residential	Real Estate manager	5
Office bulding	Non residential	Real Estate manager	5

- Feedback
  - Training issues with assessors
  - Funding issues with building owners
  - 12 certified assessors to cover the territory

Assessment of the 2 sites

CEREMA Méditerranée

Description

- Group of separate buildings supplied by a collective boiler room. 95% offices and 5% test room (laboratory)

Energy profile

- EPC label: not known
- Heating by gas boiler, remote controlled device "WIT remote control".
- Cooling by air/water heat pump
- Ventilation: Single flow (DF on 10% of the surface)
- Dynamic envelope: none
- Electricity: no PV, standard subscription, EV charging point

Category	
Typology	Offices
Year of construction	[1970-1980]
Surface	13 772m²
Occupation	Working day

THE SITE IN PICTURE

Cerema's Score

- SRI Score: 39% ↔ Classe B
  - Score in line with average office buildings in France

- Suggested improvements :
  - Dynamic envelope, no equipment to take advantage of the external climate *(external protection with automatic management according to the periods of occupancy or solar protection managed according to the sunshine)*
  - Lighting, no automatic management of artificial lighting
  - Ventilation, basic on most of the site →example of very efficient equipment and often remotely controllable: air handling units with exchanger, bypass, night over-ventilation, ...
  - Electricity, absence of renewable production and no intelligent communication with the electrical network (micro grid)

MINISTÈRE DE LA TRANSITION ÉCOLOGIQUE
Liberté Égalité Fraternité

INDICATEUR DE POTENTIEL D'INTELLIGENCE

CERTIFICAT POUR UN BATIMENT NON RESIDENTIEL

Certificat n°: 2023-2-CANI22-01

Date de délivrance:	03/02/2023
Date d'expiration:	03/02/2033
Adresse:	Pôle d'activités Les Milles - avenue Albert Einstein - CS 70499 - 13593 AIX-EN-PROVENCE
Type d'évaluation:	Méthode détaillée
Type de bâtiment	Non résidentiel - bureaux
Surface de plancher nette:	13,772 m²
Année de construction:	1980-1990

B
39%

Optimiser son efficacité énergétique et ses performances globales en phase d'utilisation	44%
Adapter son fonctionnement pour répondre aux besoins des occupants	54%
S'adapter aux signaux du réseau (flexibilité énergétique)	21%

L'indicateur de potentiel d'intelligence (*smart readiness indicator* ou *SRI* en anglais) est un système commun de l'Union européenne pour évaluer le potentiel d'intelligence des bâtiments.
L'utilisation de technologies intelligentes permet en effet d'accroître la performance des bâtiments, notamment concernant **(1)** leur efficacité énergétique, mais aussi **(2)** leur aptitude à répondre aux besoins des occupants et **(3)** leur capacité à contribuer à la flexibilité du système énergétique au niveau national. Le SRI contribue à cet essor en établissant un état des lieux du potentiel d'intelligence des bâtiments.
Le SRI complète les diagnostics de performance énergétique (DPE) et contribue à l'objectif d'amélioration de la performance des bâtiments.

IMPACTS

DOMAINES	1 Efficacité énergétique	1 Maintenance et prévision des pannes	2 Confort	2 Aspect pratique	2 Santé, bien-être et accessibilité	2 Information des occupants	3 Flexibilité et stockage de l'énergie	SRI
Total	44%	44%	45%	56%	48%	66%	21%	39%
Chauffage	60%	25%	63%	50%	67%	67%	0%	35%
Eau chaude sanitaire	67%	100%	0%	67%	0%	100%	33%	63%
Refroidissement	44%	25%	50%	50%	67%	67%	22%	38%
Ventilation	21%	0%	53%	53%	34%	0%	-	23%
Eclairage	18%	0%	22%	22%	0%	0%	-	16%
Enveloppe dynamique du bâtiment	0%	0%	0%	0%	0%	0%	-	0%
Electricité	0%	0%	-	-	-	33%	67%	35%
Recharge de véhicules électriques	-	0%	-	100%	-	67%	25%	44%
Suivi et contrôle	38%	64%	67%	65%	100%	78%	44%	57%

RECOMMENDATIONS:

Les domaines suivants sont ceux qui méritent la plus grande attention afin d'améliorer le potentiel d'intelligence du bâtiment:
Ventilation: potentiel d'intelligence de 23% seulement. Eclairage: potentiel d'intelligence de 16% seulement. Enveloppe dynamique du bâtiment: potentiel d'intelligence de 0% seulement.

Note sur les pondérations: *Les 7 critères d'impact ont la même pondération dans le calcul de la valeur totale du SRI. La fonctionnalité "Optimiser son efficacité énergétique et ses performances globales en phase d'utilisation" (correspondant à 2 critères d'impact) compte donc pour 2/7 de la valeur totale; la fonctionnalité "Adapter son fonctionnement pour répondre aux besoins des occupants" (correspondant à 4 critères d'impact) compte pour 4/7 de la valeur totale; et la fonctionnalité "S'adapter aux signaux du réseau (flexibilité énergétique)" (correspondant à 1 critère d'impact) compte pour 1/7 de la valeur totale.*

INFORMATION EVALUATEUR:

Organisation:	CEREMA Méditerranée	Numéro de certificateur:	CANI22
Nom de l'évaluateur:	CABASSUD	Téléphone (facultatif):	0
Courrier électronique:	nicolas.cabassud@cerema.fr		

Ce certificat reflète le potentiel d'intelligence du bâtiment à la date de délivrance. Toute modification importante apportée au bâtiment et à ses systèmes aura une incidence sur le potentiel d'intelligence et imposera par conséquent une mise à jour des informations figurant sur ce certificat.

CMVRH Aix-en-Provence

Description

- Building consisting of offices and training rooms (training centre). Adjacent to an occupied building (ENTE)

Energy Profile

- EPC label: not known
- Heating and cooling by a reversible heat pump for the majority of the building. (8% of the surface is heated by the ENTE's gas boiler and air-conditioned with individual splits)
- Ventilation: double flow HVAC
- Envelope: automatic external protection
- Electricity: no PV, standard subscription, EV charging point

Category	
Typology	Offices
Year of construction	[1970-1980]
Surface	1847m²
Occupation	Working day

THE SITE IN PICTURE

CMVRH's score

- Score SRI : 38% ↔ Class B
  - Score in line with average office buildings in France

- Suggested improvements :
  - Domestic hot water production, no real issue in this area → note that the production of DHW is basic
  - Lighting, no automatic management of artificial lighting
  - Electricity, absence of renewable production and no intelligent communication with the electrical network (micro grid)

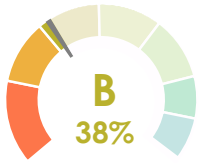
MINISTÈRE DE LA TRANSITION ÉCOLOGIQUE
Liberté Égalité Fraternité

INDICATEUR DE POTENTIEL D'INTELLIGENCE

CERTIFICAT POUR UN BATIMENT NON RESIDENTIEL

Certificat n°: 2023-2-CANI21-01

Date de délivrance:	03/02/2023
Date d'expiration:	03/02/2033
Adresse:	Rue Albert Einstein - 13100 Aix-en-Provence
Type d'évaluation:	Méthode détaillée
Type de bâtiment	Non résidentiel - bureaux
Surface de plancher nette:	1,847 m²
Année de construction:	1972



1 Optimiser son efficacité énergétique et ses performances globales en phase d'utilisation	45%
2 Adapter son fonctionnement pour répondre aux besoins des occupants	44%
3 S'adapter aux signaux du réseau (flexibilité énergétique)	18%

L'indicateur de potentiel d'intelligence (*smart readiness indicator* ou *SRI* en anglais) est un système commun de l'Union européenne pour évaluer le potentiel d'intelligence des bâtiments.
L'utilisation de technologies intelligentes permet en effet d'accroître la performance des bâtiments, notamment concernant **(1)** leur efficacité énergétique, mais aussi **(2)** leur aptitude à répondre aux besoins des occupants et **(3)** leur capacité à contribuer à la flexibilité du système énergétique au niveau national. Le SRI contribue à cet essor en établissant un état des lieux du potentiel d'intelligence des bâtiments.
Le SRI complète les diagnostics de performance énergétique (DPE) et contribue à l'objectif d'amélioration de la performance des bâtiments.

IMPACTS

DOMAINES	1 Efficacité énergétique	1 Maintenance et prévision des pannes	2 Confort	2 Aspect pratique	2 Santé, bien-être et accessibilité	2 Information des occupants	3 Flexibilité et stockage de l'énergie	SRI
Total	57%	33%	56%	40%	43%	38%	18%	38%
Chauffage	74%	46%	75%	62%	67%	92%	17%	50%
Eau chaude sanitaire	0%	0%	0%	0%	0%	0%	0%	0%
Refroidissement	80%	50%	75%	63%	67%	67%	17%	50%
Ventilation	29%	0%	50%	50%	33%	0%	-	24%
Eclairage	15%	0%	12%	12%	0%	0%	-	11%
Enveloppe dynamique du bâtiment	40%	0%	20%	33%	25%	0%	-	20%
Electricité	0%	0%	-	-	-	33%	0%	3%
Recharge de véhicules électriques	-	0%	-	83%	-	0%	25%	31%
Suivi et contrôle	50%	27%	100%	29%	50%	44%	22%	39%

RECOMMENDATIONS:

Les domaines suivants sont ceux qui méritent la plus grande attention afin d'améliorer le potentiel d'intelligence du bâtiment:

Eau chaude sanitaire: potentiel d'intelligence de 0% seulement. Eclairage: potentiel d'intelligence de 11% seulement. Electricité: potentiel d'intelligence de 3% seulement.

Note sur les pondérations: *Les 7 critères d'impact ont la même pondération dans le calcul de la valeur totale du SRI. La fonctionnalité "Optimiser son efficacité énergétique et ses performances globales en phase d'utilisation" (correspondant à 2 critères d'impact) compte donc pour 2/7 de la valeur totale; la fonctionnalité "Adapter son fonctionnement pour répondre aux besoins des occupants" (correspondant à 4 critères d'impact) compte pour 4/7 de la valeur totale; et la fonctionnalité "S'adapter aux signaux du réseau (flexibilité énergétique)" (correspondant à 1 critère d'impact) compte pour 1/7 de la valeur totale.*

INFORMATION EVALUATEUR:

Organisation:	Cerema	Numéro de certificateur:	CANI21
Nom de l'évaluateur:	CABASSUD	Téléphone (facultatif):	0
Courrier électronique:	nicolas.cabassud@cerema.fr		

Ce certificat reflète le potentiel d'intelligence du bâtiment à la date de délivrance. Toute modification importante apportée au bâtiment et à ses systèmes aura une incidence sur le potentiel d'intelligence et imposera par conséquent une mise à jour des informations figurant sur ce certificat.

First conclusions

Preliminary feedback

- Competence and contractual issues
  - Difficulty in contracting the evaluation
- Evaluation accompanied by the flow manager
  - Allows access to technical premises
  - Saves time in the evaluation

  →The evaluation is actually carried out by asking the manager questions about the operation of the building in all the areas of evaluation, and then the visit allows doubts to be removed and the evaluation to be finalised
- Several services in the regular service catalogue need to be adapted
  - Services of the Monitoring & Control domain will have to be simplified to be better understood by French evaluators
  - Explanations and illustrations are needed for the different functionality levels in order to facilitate and make reliable the assessors' evaluations
- Recommendations should be developed to improve the SRI score
  - In a first stage, the focus should be on describing the most common smart technologies for the 3 domains with the lowest scores

Croatia

Diana Horvat (online)

Croatia – brief update of testing phase

- Timeline in line with 2 LIFE projects – SRI2MARKET and SRI-ENACT
- Cooperation with EIHP and REGEA (partners from Croatia on 2 LIFE projects)
- At this point in time - preparatory phase: national context and national stakeholders

In 2023 preparatory phase will be finished with the development of SRI calculation tools within LIFE projects

Croatia – brief update of testing phase

- Development of educational materials in to be finished in Q1 2024
- Training of trainers in 2023
- From 2024 to 2025 training of experts
- SRI calculation on selected pilots - 8 buildings in 2023

Croatia – brief update of testing phase

- SRI calculation - large scale rollout in 2024 and 2025
- Methodology for calculations – final recommendations in 2025
- Recommendations for SRI national implementation by the end of 2025

200 + 250 buildings assessed by the end of 2025 (SRI pilots)

200 + 25 experts trained by the end of 2025

Agenda

- WG1 activities
- Overview of the ongoing national test phases
- National test phases in the spotlight:
  - *Czech Republic*
  - *France*
  - *Croatia*
- Next steps of the WG1

Next steps of the WG1

- Next meeting on 5 April
- Discuss the (preliminary and final) results of the test phases
- Exchange with ongoing LIFE projects to assess how they can support ongoing and future test phases
- Intensify the exchanges with WG2 in order to anticipate future changes in the technical parameters of the methodology
- Identify exemplary buildings to support communication activities (link with WG3)

Smart Readiness Indicator (SRI)

WG2: Maintenance & potential extension of the SRI calculation methodology

Bonnie Brook – WG2 Chair

March 22nd 2023

European Commission

SRI WG2 Scope

"The scope of the working group on ***maintenance & potential extension of the SRI calculation methodology*** *comprises all aspects related to the maintenance and potential extension of the methodology of the SRI as described in the delegated act on the SRI, such as the process for updating the scoring, the weighting and the service catalogue. The purpose is to discuss and report on these methodological aspects, e.g. streamlining a common EU approach and defining a process for keeping the SRI catalogues and scoring matrices up to date."*

WG2 Current activities

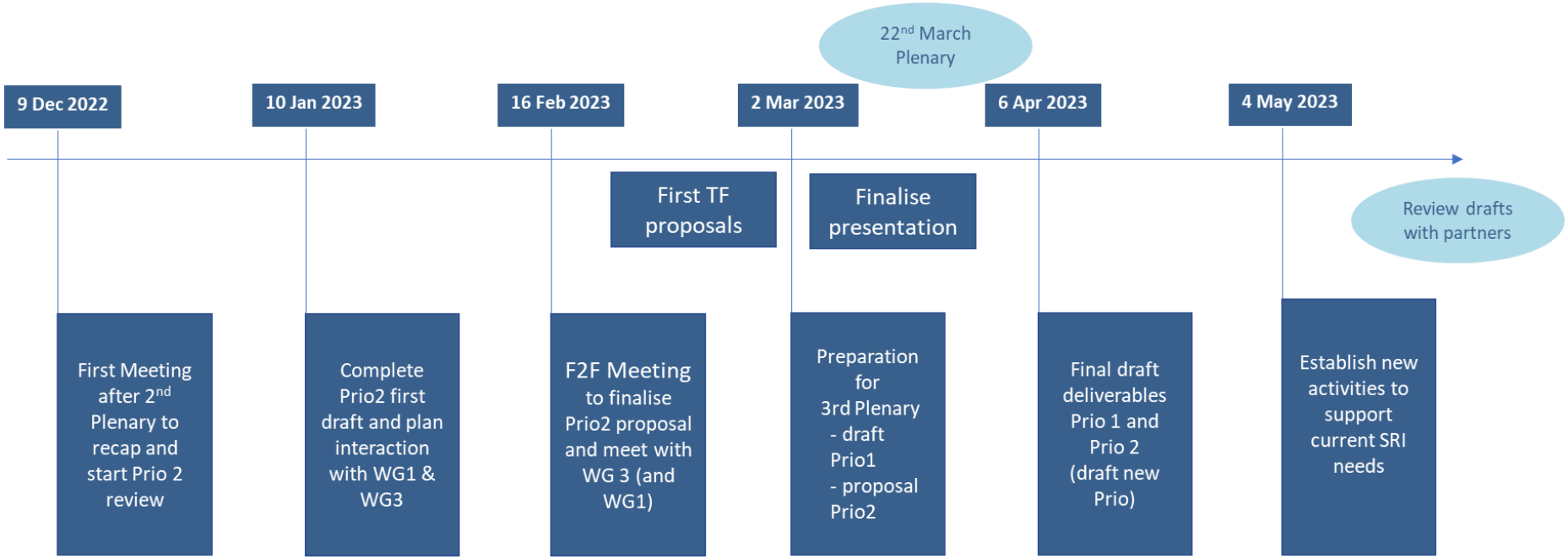
- Two priorities being tackled:

	TOPICS	FINAL PRIO
1	Streamlining a common EU approach (common x localization, what is important to have common and what can be localized). Variability of the SRI Methodology (Regions, Building Type, Building Age etc.). Impact of Piloting Results on SRI Progression.	1
2	Transparent change management process (reflect future process in case of calculation methods get changed). How to request for changes on the SRI? 1- How to maintain and update the Service Catalogue. Input: SRI to have a link with indoor environmental quality / occupant expectation/comfort. Consider the standards available. 2- How to maintain the Scoring and Weighting 3- Process of maintenance for the common part within EU	2
	Assessment and Certification Process (e.g. timeline, duration until reassessment). SRI Certificates (WG3): possible expansion with additional information. Timing / Duration of SRI: IF the SRI method gets updated over time, how will this affect scoring of buildings assessed prior? Is the score only valid for a few years? Is the year of assessment explicitly included in the certificate? Should it somehow be dynamically updated? (Re-write to better understand it, Discuss with WG3)	3
	Link to the standards.	4
	Coupling SRI with EPC	5
	Review the need for specific SRI service catalogues for specific building types	6

Prio add	Analysing typical SRI results from test phases in MSs, discussing the SRI scoring and improvement measures and feeding-back the conclusions in the streamlined methodology

WG2 Activity plan after Nov'22

- WG2 Activity Plan established for period December '22 to Jun '23:
- 5 x virtual meetings, 1 x in-person meeting (Brussels)



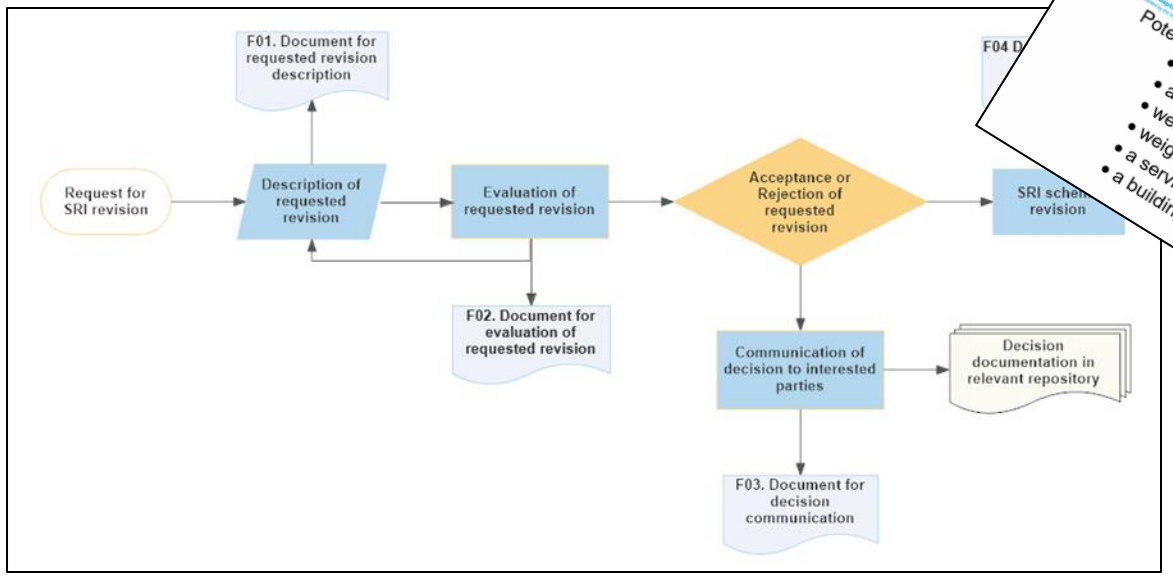
WG2 Plan needs to continue further to deliver suggestions/conclusions on all topics which were raised as priorities for the working group.

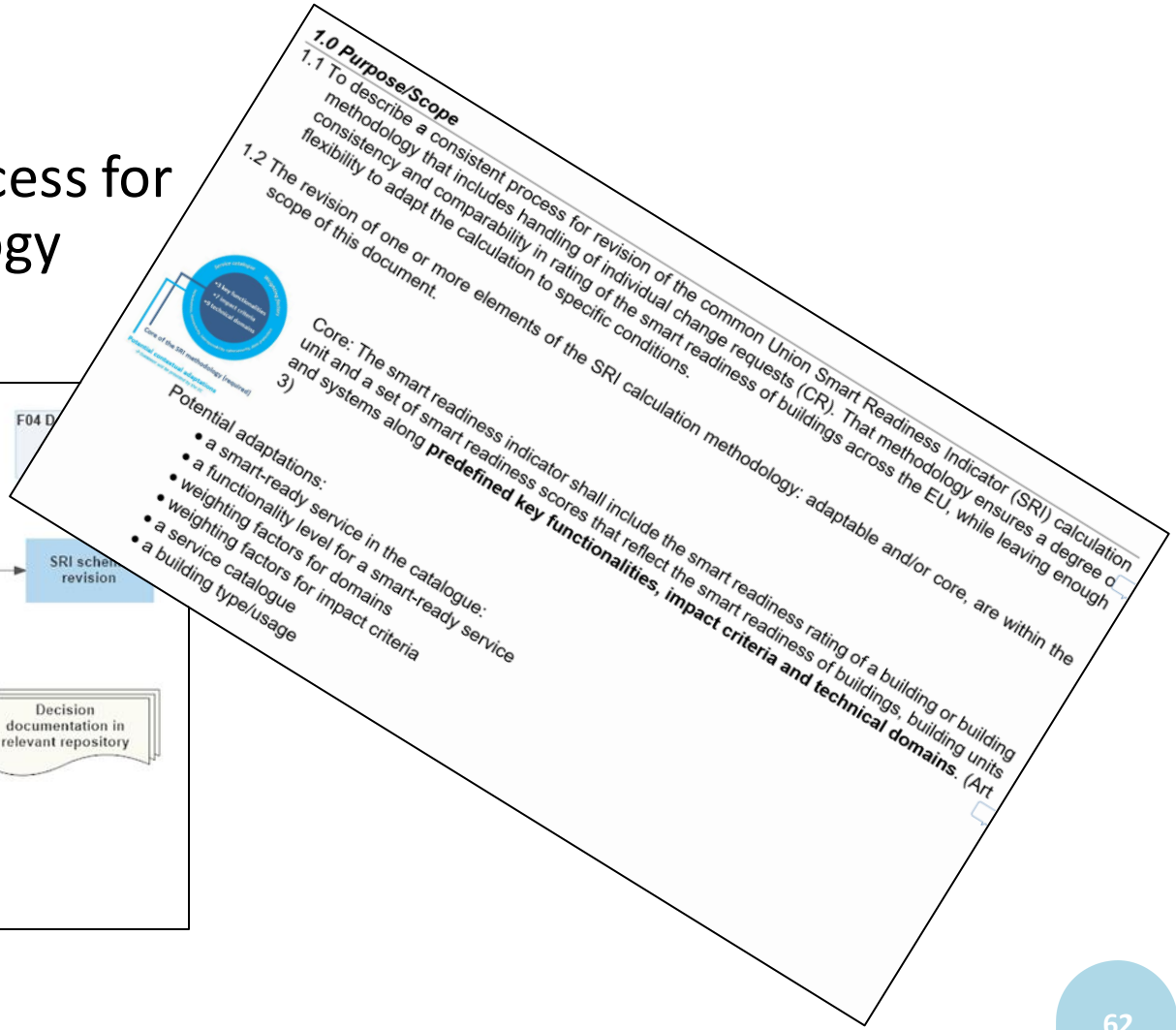
Prio 1: Streamlining a common approach

- SRI has potential to accelerate the **sustainable transformation** of the EU building stock
- **Improvement measures** derived from the SRI assessments are **crucial** for this transformation
- SRI WG2 members strongly advise to have a **common pan-European approach** enabling the comparison and monitoring of the **transformation across the EU building stock** and **efficient exchange of best practices**
- Various adaptations to the methodology are possible. Therefore, WG2 recommends to **keep the comparability** of assessment results with the common EU methodology

Prio 2: Change Management Process

- Progress made with WG2 Priority 2 – Developing a change management process for the common SRI calculation methodology





1.0 Purpose/Scope

1.1 To describe a consistent process for revision of the common Union Smart Readiness Indicator (SRI) calculation methodology that includes handling of individual change requests (CR). That methodology ensures a degree of consistency and comparability in rating of the smart readiness of buildings across the EU, while leaving enough flexibility to adapt the calculation to specific conditions.

1.2 The revision of one or more elements of the SRI calculation methodology: adaptable and/or core, are within the scope of this document.

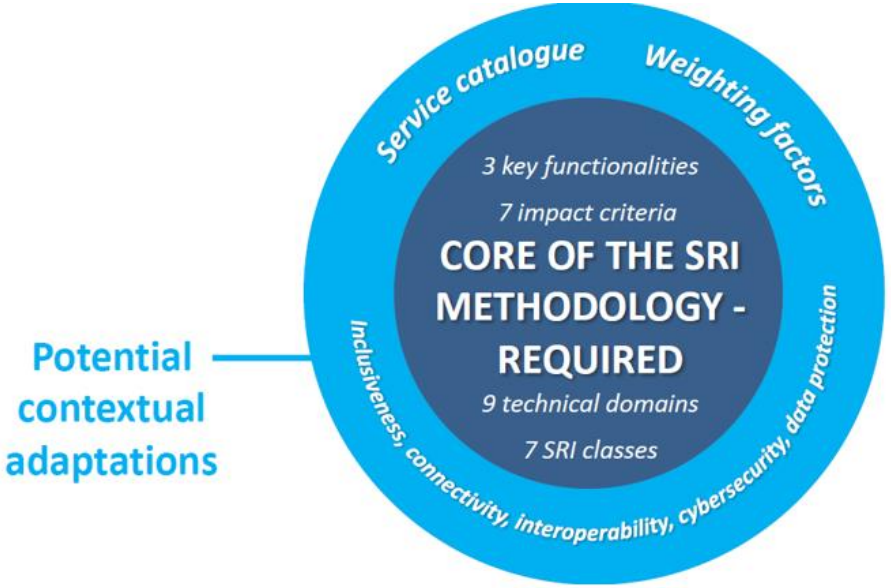
Core: The smart readiness indicator shall include the smart readiness rating of a building or building unit and a set of smart readiness scores that reflect the smart readiness of buildings, building units and systems along **predefined key functionalities, impact criteria and technical domains**. (Art 3)

Potential adaptations:

- a smart-ready service in the catalogue:
- a functionality level for a smart-ready service
- weighting factors for domains
- weighting factors for impact criteria
- a service catalogue
- a building type/usage

SRI WG2 Collaboration activities

- WG2 joined in Brussels by representation from EU Commission, WG3 co-chair and CINEA, LIFE Project Groups
- Clarifications gained on:
  - Adaptable and non-adaptable aspects of the SRI framework
  - Working Group time-span
- WG 3 questionnaire circulated amongst WG2
- WG1 presentation of feedback from SRI calculation tool users



Contact with LIFE projects

- 4 LIFE projects Groups presented summary of their activities and progress and agreed opportunities to collaborate with WG2

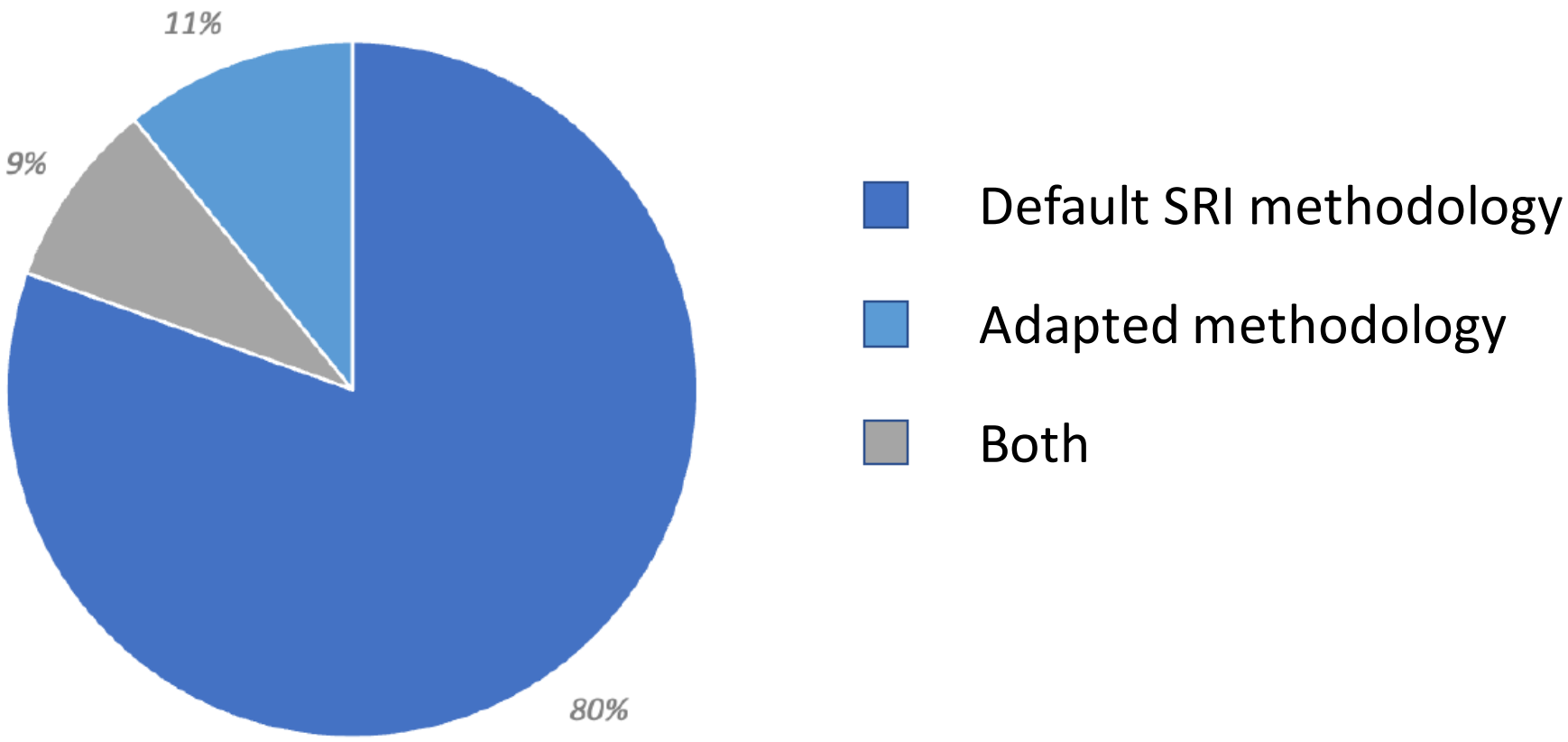
SRI-ENACT
Co-creating Tools and Services for Smart Readiness Indicator Uptake

SRI2MARKET

easySRI

SMART2
ENHANCING THE INTELLIGENCE OF BUILDINGS IN EUROPE

Use of SRI methodology in test phase

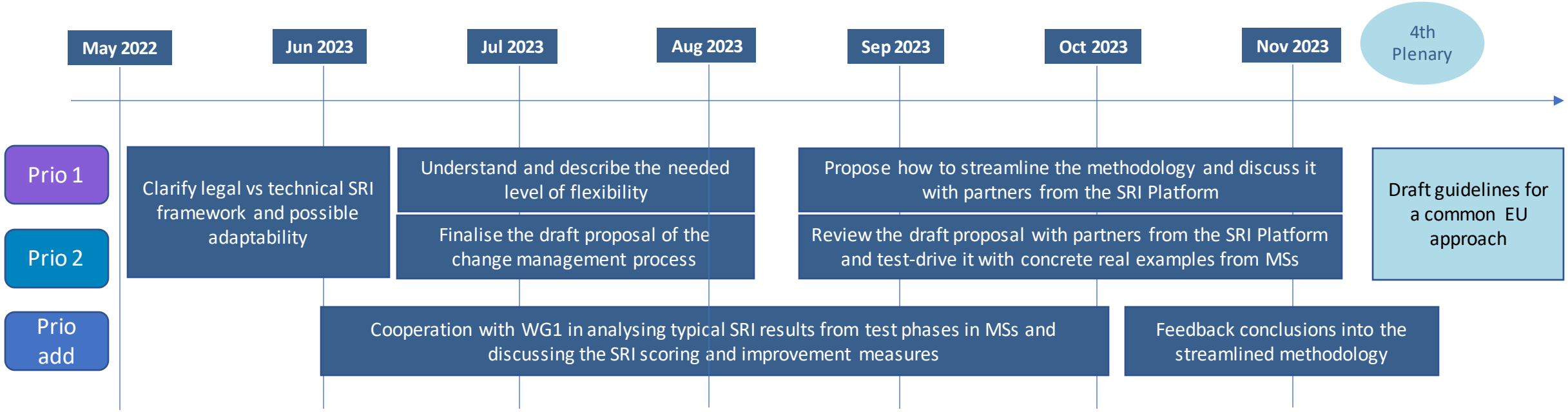


SRI WG2 Next activities

- Clarify legal vs technical framework in the SRI common methodology
- Draft a process document on how to submit, evaluate and manage change requests to the common methodology
- Analyse concrete examples from the test phase
- Understand the needed level of flexibility when implementing the SRI common methodology
- Consider possible “translation” of local SRI adaptations to the EU common methodology
- Exchanges with WG1, WG3 and LIFE projects

- SRI Support Team
- WG1
- WG3
- European Commission, DG ENER
- CINEA, LIFE projects

SRI WG2 Work plan 2023



WG2 Plan will continue beyond 2023 to deliver further conclusions/recommendations on all topics raised as priorities for the working group.

Thanks for your attention!

Contact: support@smartreadinessindicator.eu

Web: https://ec.europa.eu/smart-readiness-indicator

#SmartReadinessIndicator

Smart Readiness Indicator (SRI)

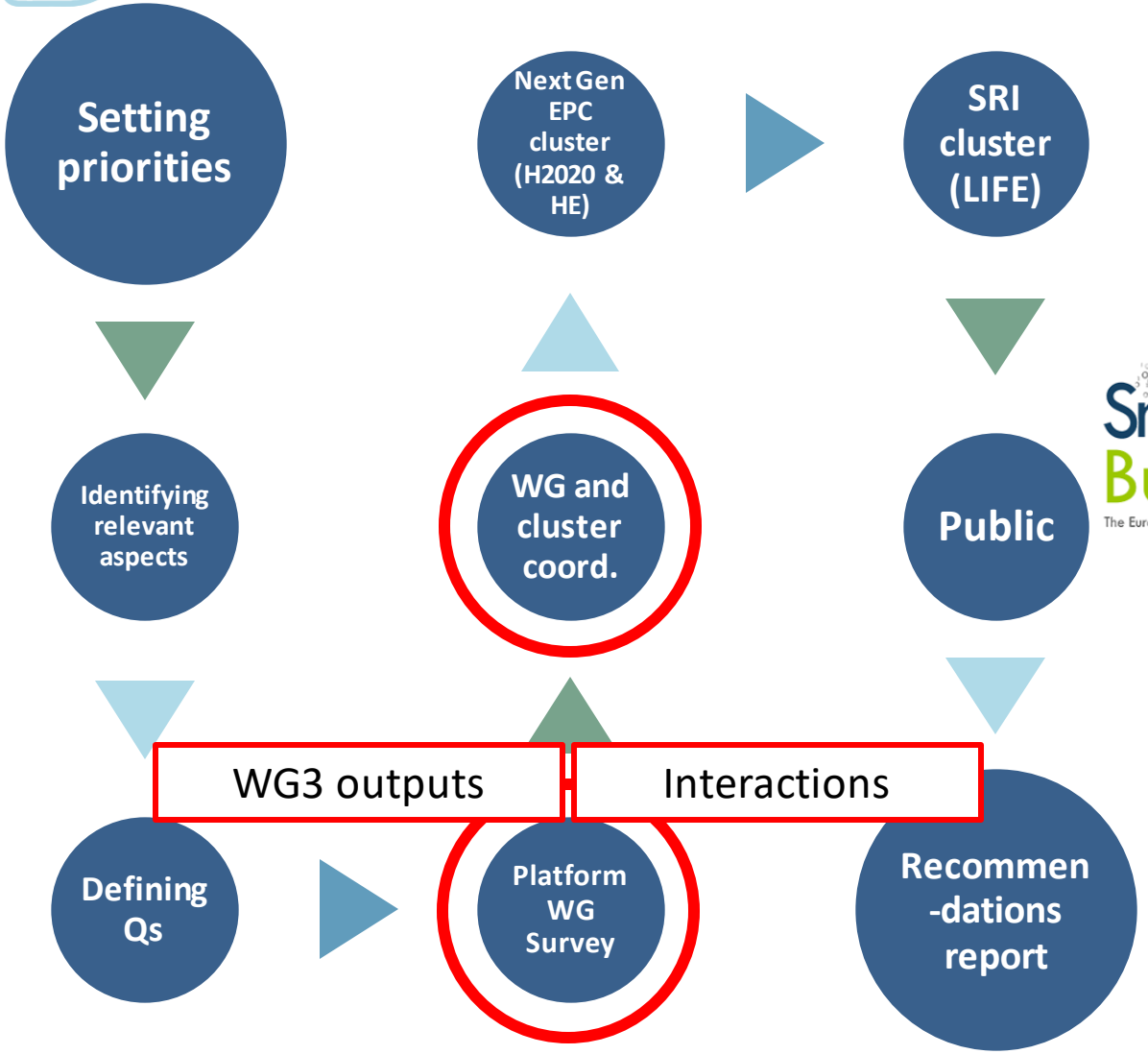
SRI Platform
Working Group 3
Plenary meeting 22/03/2023

European Commission

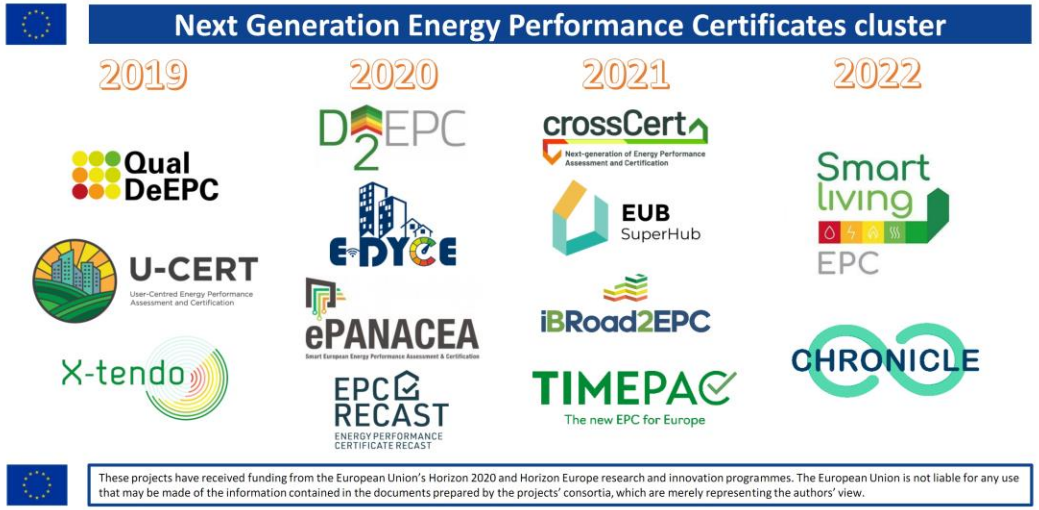
Agenda

- Welcome
- Process and outcome
- Objectives and results
- Value creation
- Next steps

SRI WG3, Process and outcome



Smart Built4EU
The European Smart Buildings Community



LIFE SRI cluster

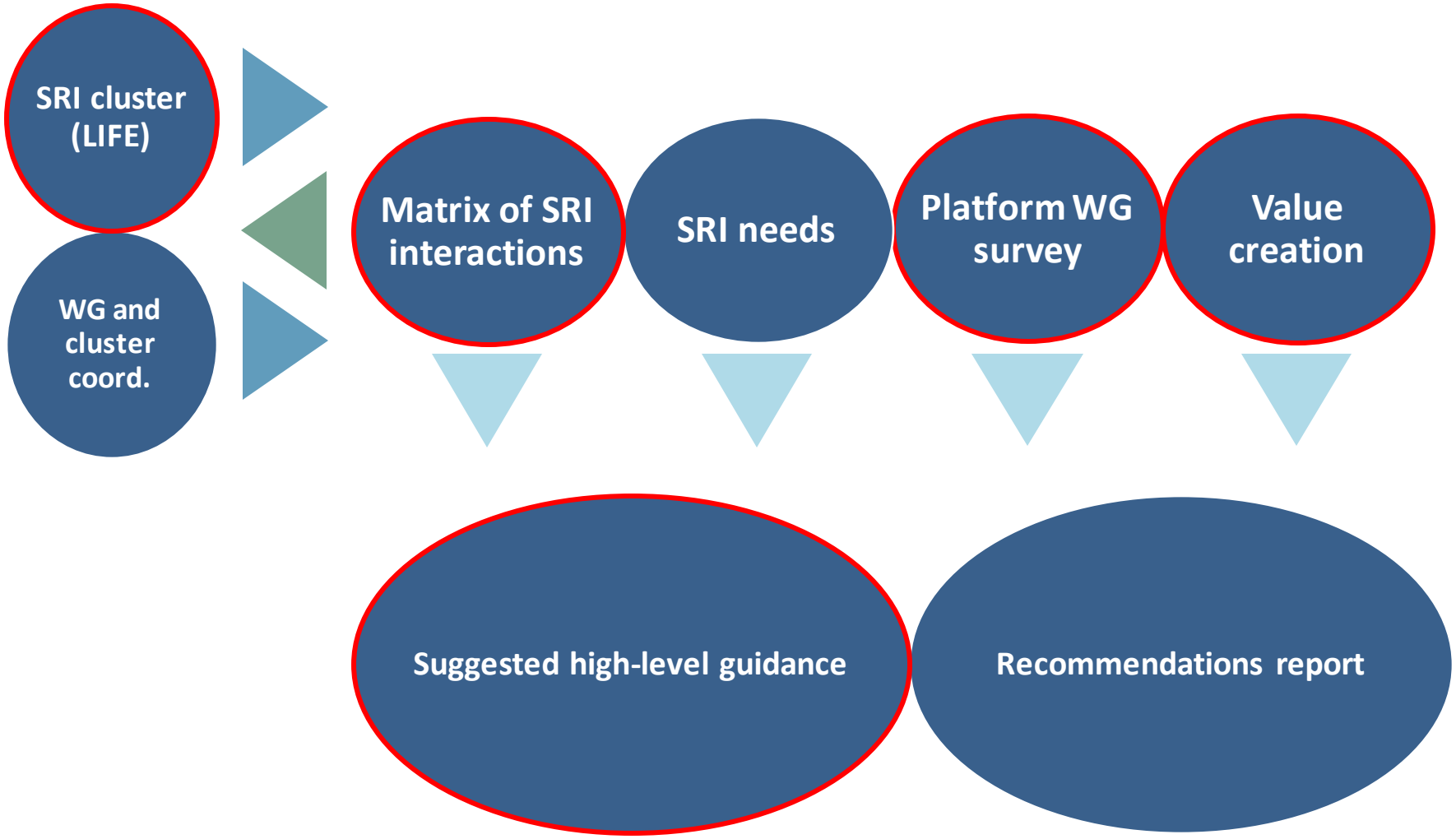
SRI-ENACT
Co-creating Tools and Services for Smart Readiness Indicator Uptake

SRI2MARKET

SMART2
ENHANCING THE INTELLIGENCE OF BUILDINGS IN EUROPE

easy SRI

SRI WG3, Objectives



SRI Platform, WG3 Survey

- **The survey addresses numerous topics related to:**
  - Users of the SRI
  - Features of an SRI assessment tool
  - Users of an SRI assessment tool
  - Interoperability
  - Integration options
  - Data management and benchmarking
  - Operational ratings
  - Communication of the results
  - SRI benefits
  - etc.

SRI Platform, WG3 Survey

- **How will the results be prioritised in WG3 outputs?**
- All survey options which score above 50% will be taken into account for the development of WG3 outputs
- Options that reached 65% will be included as the main focus for the development of these outputs
- These options are considered to be the most critical ones for consideration when elaborating WG3's suggested guidelines, recommendations and principal outputs
- The following slides, show some examples of the survey results

Survey results

Which stakeholders are most relevant for the communication of the SRI results?			
	Score	Above 65%	Above 50%
Property Owner	85.7%	Most relevant	Yes
Facility/Property Managers	78.6%	Most relevant	Yes
Engineers / Consultants	64.3%	-	Yes
Policy makers	35.7%	-	-
ICT Product Manufacturer	35.7%	-	-
Energy, Sustainability Managers	78.6%	Most relevant	Yes
Consultants/3rd party Experts	28.6%	-	-
Site Manager	71.4%	Most relevant	Yes
No Answer	0.0%	-	-
What will be the main benefit of the SRI? *(focus on Commercial/Tertiary actors)*			
	Ratio	Above 65%	Above 50%
Value for renovation	57.1%	-	Yes
Better attractiveness of buildings	57.1%	-	Yes
controlling OPEX costs	28.6%	-	-
Increasing sustainability	64.3%	-	Yes
Identifying areas for improvement	50.0%	-	Yes
No Answer	0.0%	-	-

Survey results

This table summarizes the most relevant interactions between SRI impacts and building actors/users in the opinion of the WG2 and WG3 members

The results shown in this table will help prioritize the development of recommendations and guidance on the areas which are expected to have the greatest content and impact

	Energy Efficiency and Flexibility	Maintenance & Fault prediction	Comfort / Convenience	Health & Well-being	Accessibility & Security
Building Owner	76%	63%	63%	63%	72%
Asset Manager	66%	68%	68%	68%	63%
Property Manager	80%	85%	85%	85%	74%
Facility Manager	80%	93%	93%	93%	82%
Site Manager	64%	70%	70%	70%	70%
Energy Manager	85%	64%	64%	64%	60%
Tenant / Employee	58%	47%	47%	47%	74%
Deliveries, Visitors	29%	25%	25%	25%	45%
Others	11%	11%	11%	11%	31%

Survey results

The results reveal that the main objective / feature for all the different type of building is Energy Efficiency and flexibility. Additionally, office buildings and hotels are expected to meet more objectives compared to the other building types

	Energy Efficiency and Flexibility	Maintenance & Fault prediction	Comfort / Convenience	Health & Well-being	Accessibility & Security
Healthcare	64%	67%	67%	67%	75%
Public Sector	80%	67%	67%	67%	64%
Office Building	85%	73%	73%	73%	64%
Hotels	85%	76%	76%	76%	73%
Others	80%	60%	60%	60%	72%

SRI WG3, Value creation

SRI STAKEHOLDERS

POTENTIAL & MAP

VALUE & IMPACT CREATION

Workshops with WG members:

Goal: Extend the current SRI "Why is this relevant" & "What are the impacts" message

- Identify stakeholders with potential value creation in relation to SRI
- Identify values created and map to stakeholders
- Quantify/Explain direct and indirect potential in values
- Suggest one ore many methods to share the insights to stakeholders in EU
- Report result as a PowerPoint slide deck and/or infographics

SRI WG3, Next steps

- More internal work to clarify the value creation aspects of the SRI
- On-going work on the matrix of SRI interactions
- On-going liaison with the other platform WGs and the LIFE projects
- Drafting of a short report on guidance and recommendations with aim to complete a first draft by the summer

Thank you for your attention & further engagement!

WG3 co-chairs Christophe Grabielle & Andrei Vladimir Lițiu

direction@grabielle.ch & avl@rehva.eu

WG3 SRI Support Team Paul Waide paul@waide.co.uk

Contact support@smartreadinessindicator.eu

Web https://ec.europa.eu/smart-readiness-indicator

#SmartReadinessIndicator

Smart Readiness Indicator (SRI)

Q&A

Smart Readiness Indicator (SRI)

Break

Smart Readiness Indicator (SRI)

SRI LIFE Clustering Activities

European Commission

LIFE CET

Update on LIFE SRI projects clustering activities

CINEA – LIFE Climate & Energy Unit
Sylvain Robert, Project Adviser

SRI Platform Plenary Stakeholders meeting

22 March 2023

European Climate, Infrastructure and Environment Executive Agency

LIFE Clean Energy Transition 2021 'SMARTREADY' topic

- Implementation of the Smart Readiness Indicator
- Market up-take of the Smart Readiness Indicator
- Rollout of ICT and smart-ready technologies
- Protection of privacy and cybersecurity of smart buildings
- Reduction of energy consumption linked to the use of digital technologies

Facts & figures

- LIFE Clean Energy Transition
- SRI – 'Global improvement of smart readiness of European buildings'
- 8 million € EU funding
- 4 projects

European Commission

LIFE SRI projects – facts & figures

4 projects

EasySRI
SRI-Enact
SRI2Market
Smart²

3 years

Q4 2022 – Q3 2025

42 partners

Energy agencies, policy & regulation consulting, standards, certification, R&I, IT companies

16 Countries

AT, BE, BG, CY, CZ, EL, ES, DE, FR, HR, IE, IT, LV, NL, PT, RO

European Commission

LIFE SRI projects – main activities

SRI policy support

- Policy dialogue
- Recommendations, guidance

Digital tools

- Web interface
- Cloud-based platform
- SRI scores calculation

SRI calculation framework

- Assessment / evaluation on real buildings
- Feedback and recommendations

Smart capabilities

- AI-based generation of recommendations
- Self-assessment of smart readiness (real data)

Capacity building / market uptake

- Helpdesks & training
- Demonstration & testing

European Commission

Clustering of LIFE SRI projects (1/2)

- Objective: bridging the 4 LIFE SRI projects' developments and the SRI policy implementation agenda
  - Ensuring communication and consistency between projects - clustering
  - Contribution to the SRI platform / coordination with EC DG Energy's service contract
  - Links with / support to Member States' authorities and relevant initiatives (e.g. CA EPBD)
- Steered by DG ENERGY and CINEA
- 3 workshops (Nov 2022, Dec 2022, Feb 2023)

Clustering of LIFE SRI projects (2/2)

- 4 strands of action / working groups:
  - SRI uptake in targeted countries and liaison with Authorities (Lead: SRI2Market)
  - Design and development of SRI tools (Lead: EasySRI)
  - Improvement of the smart-ready service catalogue and standardisation (Lead: Smart^2)
  - Common communication and dissemination actions (Lead: SRI-Enact)
- Examples of action (ongoing / foreseen):
  - Coordinated coverage of EU countries / liaison with Authorities, involvement in SRI platform's WGs,
  - Common use cases for SRI tools, exploring a common reference architecture,
  - Joint assessment of lessons learnt from SRI catalogue's national adaptations,
  - EUSEW 2023's session, joint involvement in national co-creation SRI workshops

Keep in touch with us

Any questions on LIFE Clean Energy Transition call topics? Email us on:
CINEA-LIFE-CET@ec.europa.eu

https://cinea.ec.europa.eu/life_en

LIFE Programme

@LIFEprogramme
@CleanEnergy_EU

LIFE Programme

LIFE Programme

@LIFEprogramme

LIFE Newsletter
Clean Energy Newsletter

30 years of bringing green ideas to LIFE

European Commission

Smart Tools for Smart Buildings: Enhancing the intelligence of buildings in Europe – Smart²

SRI Platform, #3 Plenary Meeting
European Commission, 22 March 2023, Brussels/online

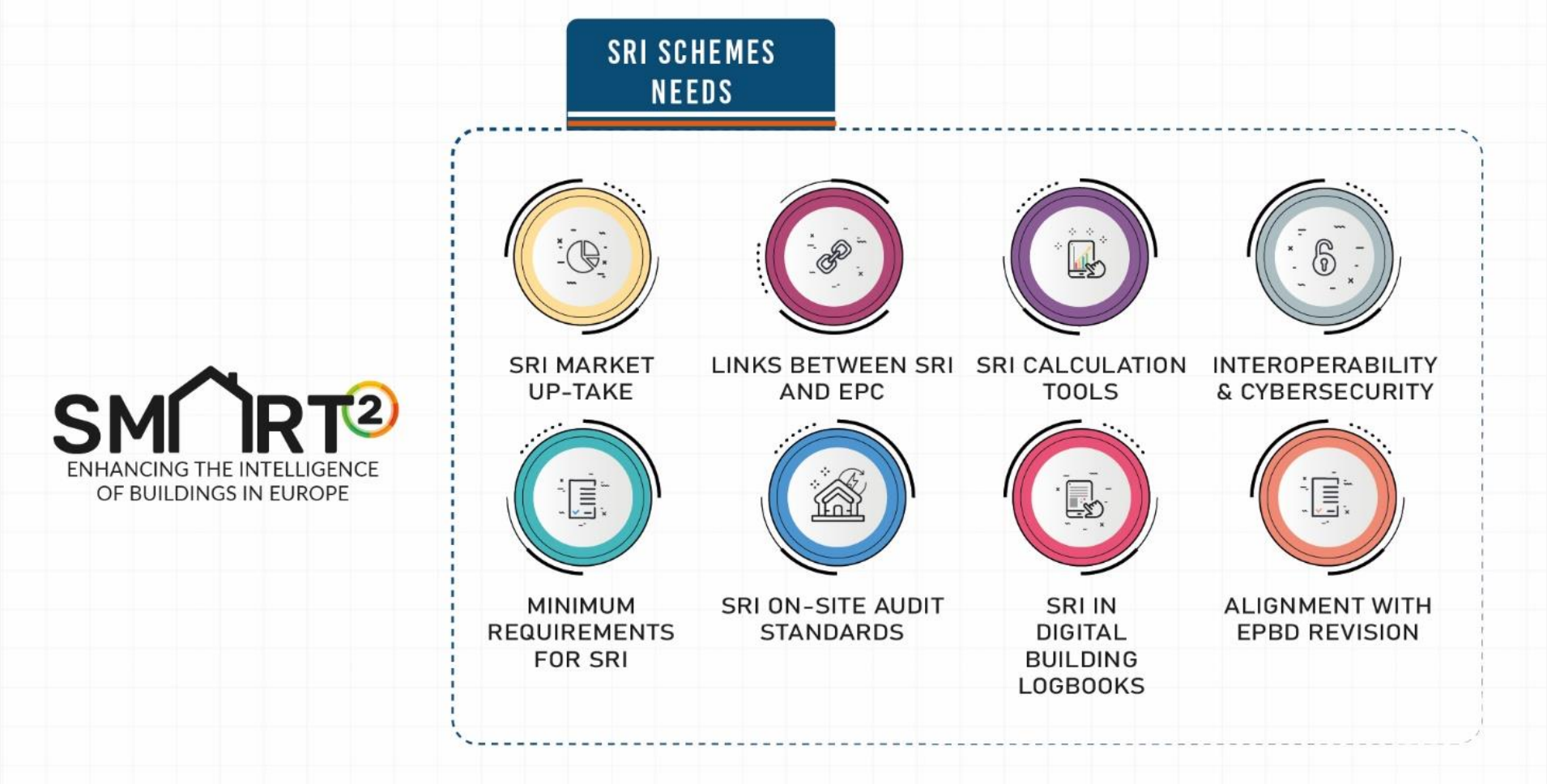
Smart² in a nutshell

Andrei Vladimir Liţiu
Building Performance Adviser / Executive Director
REHVA / EPB Center (avl@rehva.eu / avl@epb.center)

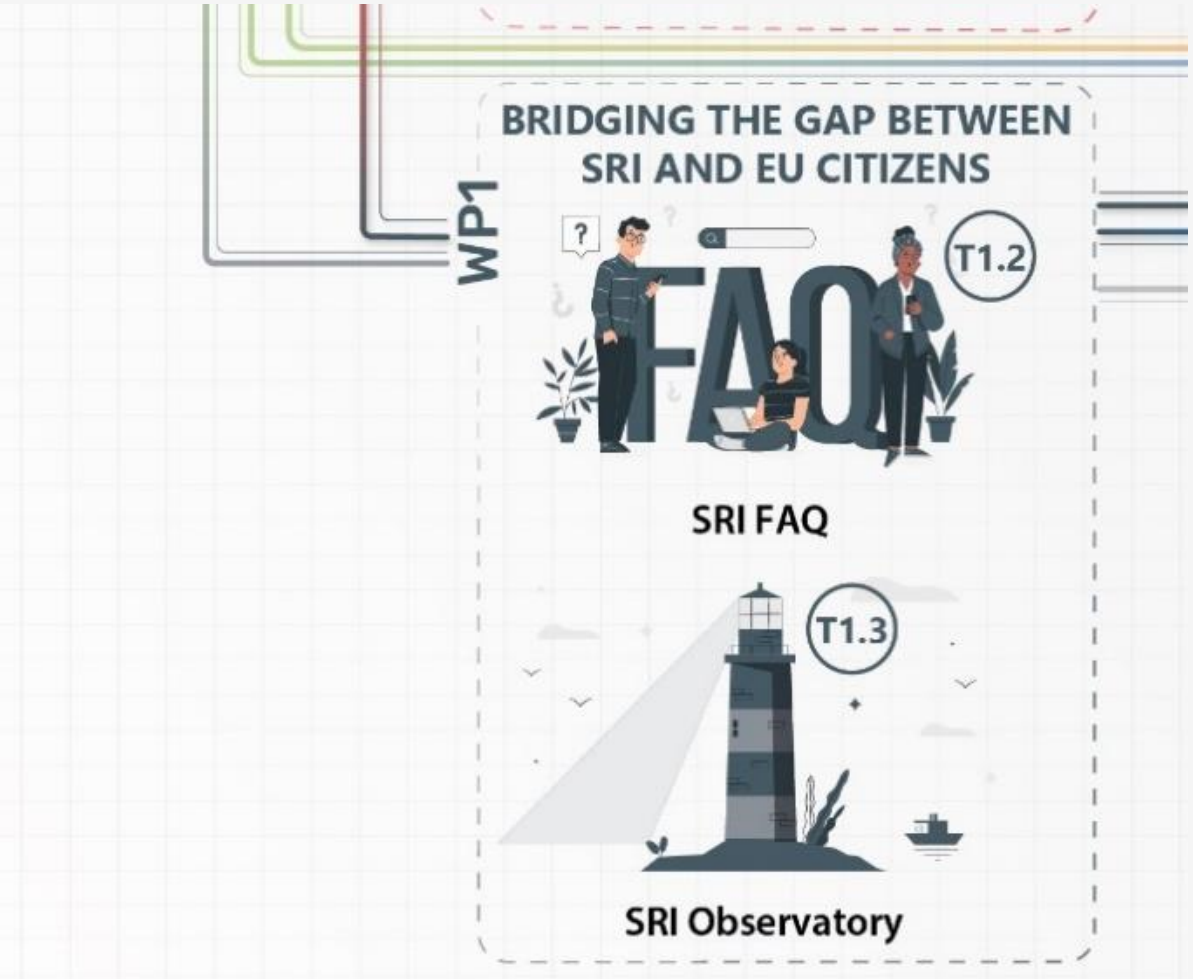
Funded by the European Union's LIFE programme, under the Grant Agreement Nº 101077241. Views and opinions expressed are those of the author(s) only and do not necessarily reflect those of the European Union or European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them.

Smart² - Team & network

Smart² - Needs and challenges

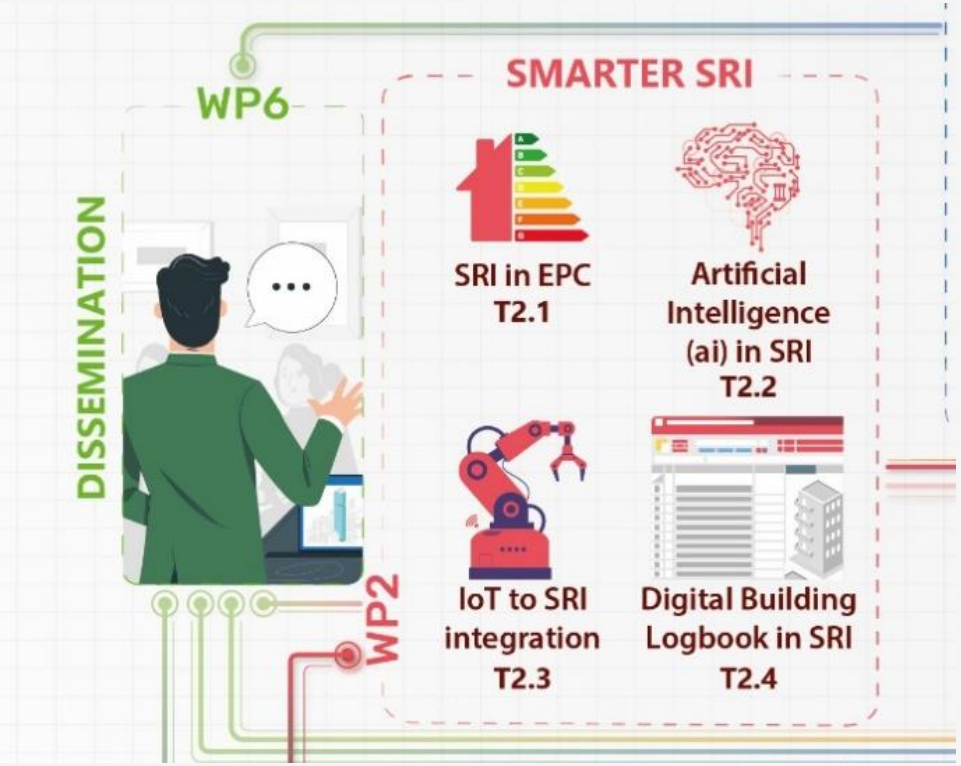


Smart² - Bridging the gap between the SRI & EU citizens



- Development of the SRI for Dummies initiative
- Establishment of the SRI Observatory – Annual SRI Outlook for 2023, 2024 and 2025

Smart² - Smarter SRI



- Aspects of integrating SRI into EPC (visual and methodological)
- Integration of AI practices in the calculation of the SRI
- Big data management practices for Method C
- Integrating of SRIs into DBLs

Smart² - SRI on-site audits

Smart² - Demonstration activities

SMART2
ENHANCING THE INTELLIGENCE OF BUILDINGS IN EUROPE

IMPACT AMBITION

3600

CALL CENTER

20x18x10 = 3600 SRI Certificates by the Call Center

4800

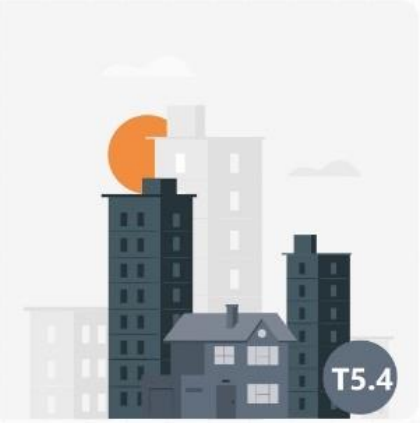
SRI DAYS

48x100 = 4800 SRI Certificates by the SRI Days

5000

VIRTUAL TRAINING CENTER SRI AUDITORS

1000x5 = 5000 SRI Certificates by the VTC SRI Auditors



20

SMART READY COMMUNITIES

20 Smart Ready Communities

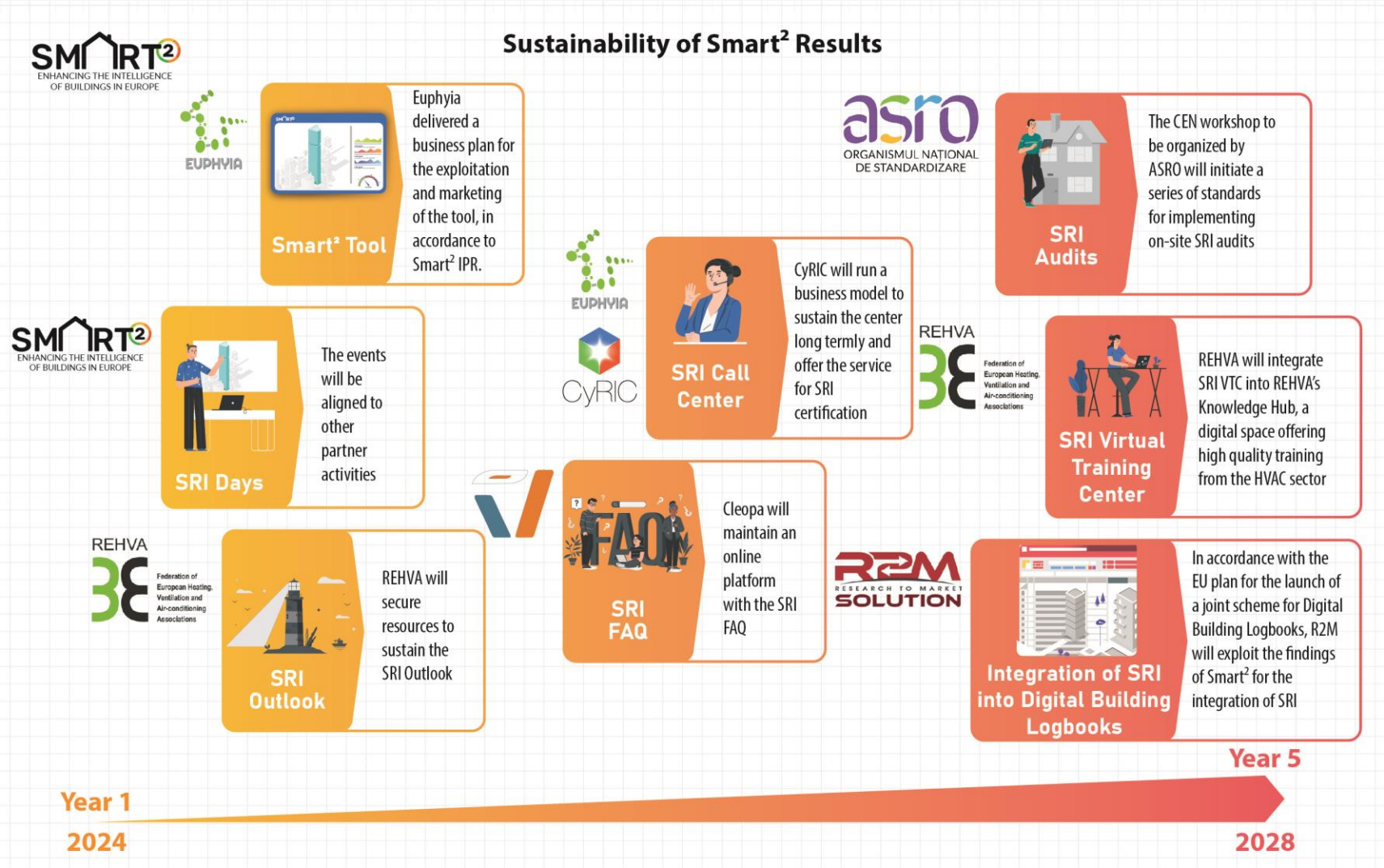
Smart² - Alignment with SRI developments

SMART2 ENHANCING THE INTELLIGENCE OF BUILDINGS IN EUROPE

	A Simplified method	B Expert SRI assessment	C In-use smart building performance
	Checklist approach with limited, simplified services list	Checklist approach, covering full catalogue of smart services	Measured / metered data (potentially restricted set of domains)
	WP3 SRI Smart² Platform		
Call Center Task 5.1 SRI Days Task 5.2	Online self-assessment by end-user (no certification)	Online self-assessment by end-user (no certification)	In-use buildings, metered data Part of the commissioning?
	OR	OR	
	WP4 SRI on-site Audits		
Virtual Training Center Task 5.3 Smart Ready Communities Task 5.4	On-site inspection by third-party qualified expert (formal certification)	On-site inspection by third-party qualified expert (formal certification)	TBS self-reporting their actual performance
	Up to one hour	1/2 day to 1 day, depending on the complexity	Gather data over a long period (e.g. 1 year)
	Residential buildings and small non-residential building (net surface floor area <500m²	Non-residential buildings (and residential buildings if desired)	Residential and non-residential Restricted to occupied buildings (not in design phase)

WP2 Smarter SRI

Smart² - Sustainability of Key Exploitable Results



Thank you for your attention and further engagement!

Go farther together, as opposed to fast alone!

Blagodarjá!
Hvala!
Děkuji!
Tak!
Dank je!
Thank you!
Aitäh!
Kiitos!
Merci!
Danke!
Efcharisto!
Köszönöm!

Go raibh maith agat!
Grazie!
Paldies!
Ačiū!
Grazzi!
Dziękuję!
Obrigado!
Mulțumesc!
Ďakujem!
Hvala!
Gracias!
Tack!

SRI-ENACT
Co-creating Tools and Services for Smart Readiness Indicator Uptake

SRI2MARKET

SMART2
ENHANCING THE INTELLIGENCE OF BUILDINGS IN EUROPE

easy SRI

SRI Platform
3rd Plenary meeting

Filippos Anagnostopoulos
Project Coordinator
IEECP

March 2023

Co-funded by the European Union under Grant Agreement no. 101077280. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them.

Paving the way for the adoption of the SRI into national regulation and market

SRI2MARKET supports Member States to apply the EU's Smart Readiness Indicator (SRI) to plan upgrades of their building stock, helping overcome regulatory and market barriers.

SRI2MARKET will use lessons learned by early adopter countries that are well advanced in rolling out SRI to support and inspire action among additional Member States.

SRI2MARKET

Geographical coverage

Countries with ongoing test phases

AUSTRIA AND FRANCE

SRI2MARKET will learn from their tests and provide complementary support to their activities.

Countries with active interest in SRI

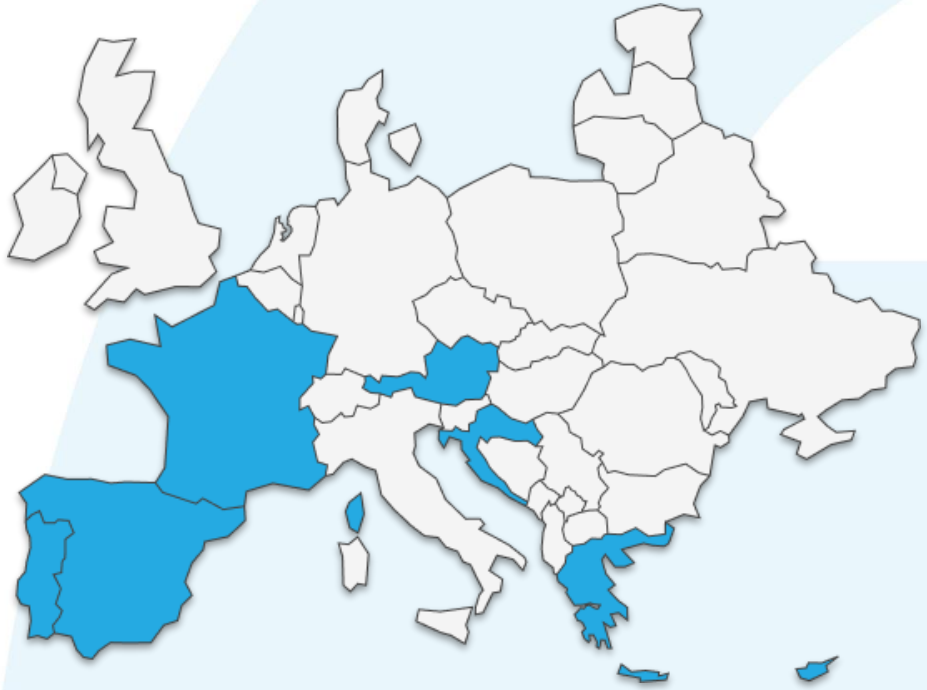
PORTUGAL AND SPAIN

SRI2MARKET will support with designing and implementing a testing phase, applying the lessons learnt from the first group.

Countries examining how to proceed

CROATIA, CYPRUS and GREECE

SRI2MARKET will engage national policy and market stakeholders to create interest in the SRI and the opportunities that emerge from it.



SRI2MARKET

Project outcomes

SRI assessment tool

The tool will provide a user-friendly interface for users to save their SRI assessments. The underlying calculation engine will adapt the assessment to national specificities and priorities.

The tool will also create dynamic scorecards according to pre-defined filters, and it will automatically compare SRI assessments of buildings situated in different countries.

E-learning platform

E-learning lessons on the SRI and its assessment methodology. The course will be structured in chapters and will rely on training materials such as videos and documents in every partner's national language.

The program will be mainly practical and based on examples / case studies. Participants will take a test at the end and receive an informal certification.

SRI2MARKET

Interaction with the SRI Platform

The **SRI Platform meetings and events** are intended to share knowledge, build relationships, and identify synergies.

- SRI2MARKET consortium partners have been attending the SRI platform plenaries (ADENE, CENER, R2M, AEE INTEC, BOKU, EIHP, CEA, HEBES, UPRC)
- SRI2MARKET is further promoting the SRI Platform messages through partner's channels (social media, newsletters) in AT, FR, PT, ES, HR, CY, GR
- SRI2MARKET partners are involved in the SRI Platform WGs
- Direct line of communication between SRI2MARKET and the SRI Platform consortium
- Communications follow-up from the SRI platform, including the newsletter and #SmartReadinessIndicator.

SRI2MARKET

Interaction with the SRI Platform

SRI2MARKET similarly aims to strengthen this engagement by **inviting members of the SRI Platform work groups to participate in its events and workshops**

- SRI2MARKET is planning to further link the SRI Platform discussions with the national expert panels and working groups (i.e. in HR, AT, PT, ES, CY)

SRI2MARKET also **invites feedback and contributions from the member of the SRI platform** to the structure and content of key outputs,

- SRI2MARKET will be requesting feedback from WG2 on the design of the SRI assessment tool

SRI2MARKET

Interaction with the SRI Platform

SRI2MARKET foresees participation in the **three working groups** of the SRI Platform to offer input on technical, regulatory, and implementation aspects of the SRI

- SRI2MARKET partners and Advisory Board members are participating in WG1 (R2M, OIB), WG2 (AEE INTECT, CENER) and WG3 (REHVA, HEBES)
- SRI2MARKET is intended to support the SRI testing phase of target Member States represented in WG1 of the SRI Platform
- For Portugal, ADENE, in cooperation with the Directorate-General for Energy and Geology, is evaluating the official participation of Portugal in WG1 of the SRI Platform, as well as in the launch of an official testing phase
- SRI2MARKET, with SRI-ENACT are intending to support Croatia in WG1
- The Focus of SRI2MARKET could extend to include additional MSs in WG1 that show interest in SRI.

SRI2MARKET

Interaction with DG ENER

SRI2MARKET is wishing to collaborate with **DG Energy** and secure mutual support with the **SRI platform** to promote the policy work and to ensure the effective implementation of the SRI

- Coordination to avoid overlaps and ensure complementarity with the material provided by the SRI platform (e.g. on training on SRI assessments)
- Multiple channels of information exchange available between the national and EU levels through organisations with wide presence in supportive roles in AT (AEE INTEC, BOKU), FR (R2M), HR (EIHP), CY (CEA) and the EU level (REHVA)

SRI2MARKET

Interaction with LIFE SMARTREADY

Clustering with the **LIFE CET SMARTREADY** projects working on SRI to exchange information and collaborate.

- Close coordination to jointly approach and support national ministries and stakeholders (e.g. CY, HR, ES, AT, GR)
- Clarification of contact points for each MSs, and designation of communication nodes to share information.
- Synergies foreseen with additional projects (e.g for the SRI module implementation in the iBRoad2EPC project, the final event of the SmartBuild4EU project)

SRI2MARKET

Ties among LIFE projects and the SRI Platform

To support the exchange of information and sharing of resources among the SRI Platform, its Working Groups, and the LIFE projects, there is a healthy degree of overlap in the role of consortium parties that offers resilience.

- SRI2MARKET partners are involved in the SRI Platform and/or other LIFE projects: R2M, REHVA, AEE INTEC and BOKU.
- The coordinators of LIFE projects and several project partners have shared working experience and can communicate effectively
- MSs targeted by SRI2MARKET are also covered by other LIFE projects, i.e. AT, HR, CY, GR, ES

SRI2MARKET

Consortium

IEECP INSTITUTE FOR EUROPEAN ENERGY AND CLIMATE POLICY

REHVA Federation of European Heating, Ventilation and Air Conditioning Associations

TEESlab University of Piraeus Research Center

HEBES

adene Agência para a Energia

AEE INTEC INSTITUTE FOR SUSTAINABLE TECHNOLOGIES

CENER NATIONAL RENEWABLE ENERGY CENTRE

EIHP ENERGY INSTITUTE HRVOJE POŽAR

Cyprus Energy Agency

BOKU UNIVERSITY OF NATURAL RESOURCES AND LIFE SCIENCES, VIENNA

R2M RESEARCH TO MARKET SOLUTION

efinovatic

SRI2MARKET

easySRI presentation:

SRI Platform 3rd Plenary Meeting

22/03/2023

This project has received funding from the European Climate, Infrastructure and Environment Executive Agency (CINEA) under grant agreement no 101077169.

Project Identity Card

Grant Number	**101077169**
Project name	Improving and demonstrating the potential of SRI
Project acronym	LIFE21-CET-SMARTREADY-easySRI
Call/ Topic	LIFE-2021-CET/ LIFE-2021-CET-SMARTREADY
Type of action	LIFE Project Grants
Granting authority	European Climate, Infrastructure and Environment Executive Agency
Duration	36 months
Starting date	**1 November 2022**
End date	**31 October 2025**
Total eligible costs (BEN and AE)	**€ 2,104,562.67**
EU contribution	**€ 1,999,334.53**
Partners	CERTH (EL), FREDU (CY), E@W (IT), SGS (ES), SERA (AT), CETMA (IT), WSEE (IE), DEMO (NL), ASI (AT), CRES (EL)

easySRI Vision & Objectives

- Develop **a customisable web platform** that will support stakeholders **understand** and **deploy the SRI methodology** and support Member States in the implementation of SRI in national context.

- Promote **user awareness** and **provide recommendations** towards optimising building performance and smartness.

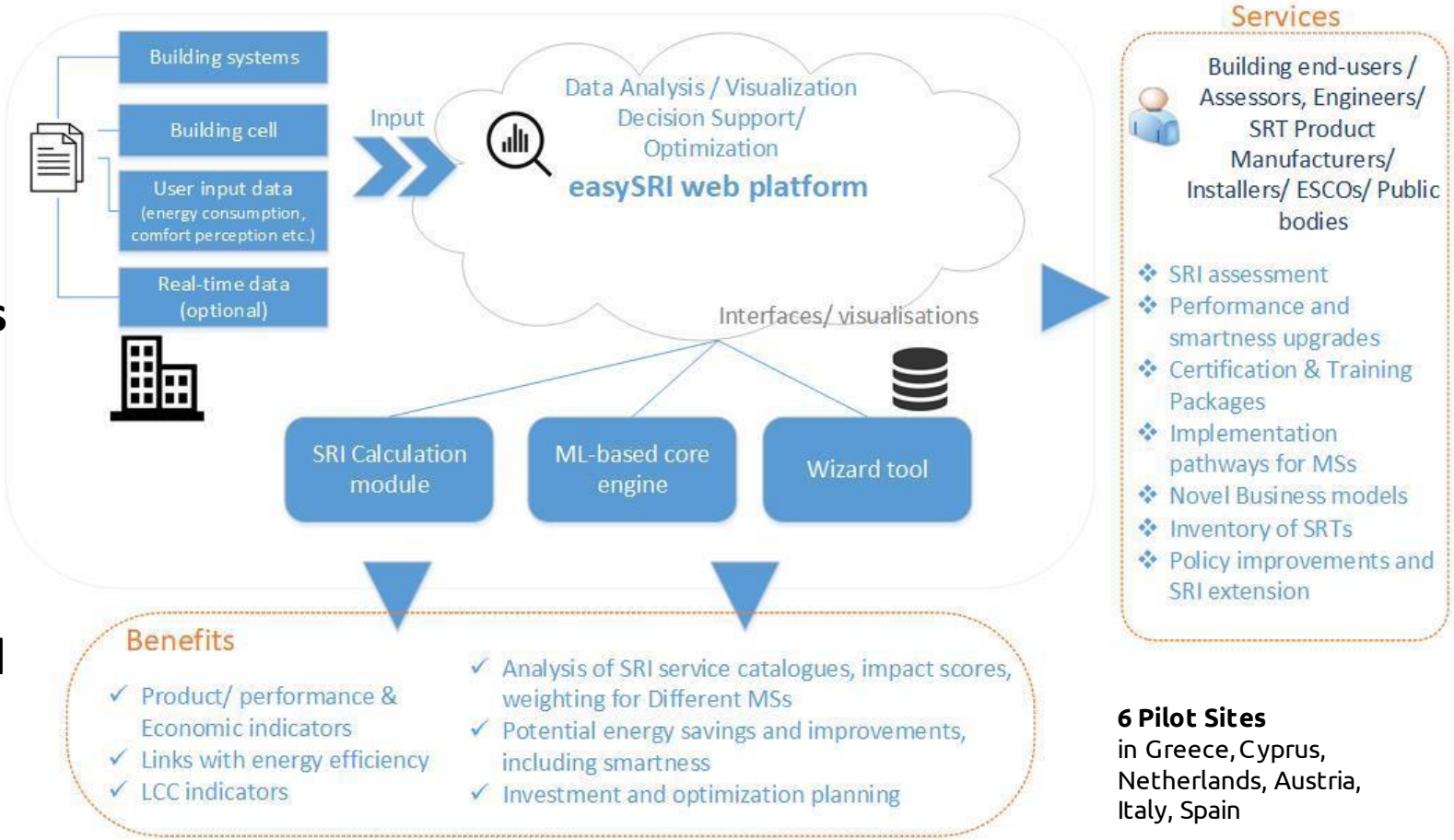
- Provide **training** and **certification packages** and develop novel business models for the uptake of SRI and smart ready technologies.

- Deliver **practical knowledge** for the improvement and extension of SRI into the national and European energy legislative framework.

easySRI core elements

The easySRI **core elements** include:

- **SRI calculation:** it will deliver the smart readiness of the building, based on the SRI methodology to issue SRI certificates.
- **Enhancement of the user-friendliness and the effectiveness of the SRI assessments.** Achieved by utilizing multiple indicators, like the energy efficiency of buildings and financial (LCC) performance, or related to human comfort aspects
- **ML services.** It will offer advanced computational intelligence that enables recommendations for performance and smartness upgrade



6 Pilot Sites
in Greece, Cyprus, Netherlands, Austria, Italy, Spain

easy SRI interaction with the SRI platform

Interactions/activities w/ SRI platform, aiming to support the testing and implementation of the SRI:

- Establish a **clear roadmap** for ensuring the best synergies w/ the SRI platform
- Communication & follow-ups w/ **SRI Technical support team** & **Working** Group
- Participation the **SRI platform's** meetings & events (where relevant)
- Dissemination & reporting activities on **related outcomes** of the project
- **Clustering** w/ other SRI-relevant projects
- **Contribute** to DG Energy additional requests **regarding the implementation** of the SRI.

SRI-ENACT

Co-creating Tools and Services for Smart Readiness Indicator Uptake

Project Pitch

Apostolis Arsenopoulos

The LIFE21-CET-SMARTREADY-SRI-ENACT project has received funding from the European Union's LIFE Programme under grant agreement N°101077201

Belgium

Czechia

Austria

Spain

Latvia

Bulgaria

Croatia

Romania

Greece

The LIFE21-CET-SMARTREADY-SRI-ENACT project has received funding from the European Union's LIFE Programme under grant agreement N°101077201

Interaction with Stakeholders at National and EU level

- 8 National Stakeholder Liaison groups in the 8 Pilot EU countries
- 1 EU Stakeholder Liaison Group coordinated by EHP (Planned Interaction with SRI platform)

Project month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Calendar month	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25
Establishment of the national liaison group	Identify and invite members																													
					Update the composition of the Group - e.g. new members																									
Tailoring of SRI methodology to country			Roundtables, interviews, focus groups with stakeholders																											
Find buildings for pilot SRI assessment					Group members contact building owners, managers, and users to participate in SRI assessment																									
Recruitment of SRI auditors					Group members identify and recruit SRI auditors to participate in training courses and pilot assessments																									
Promotion and dissemination					Promote Info Days, SRI-ENACT pilot assessments, auditor training opportunities																									
														Promote SRI-ENACT methodology and toolkit																

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Interaction with SRI Platform

Synchronize and align on activities related to:

- SRI methodology tailoring to national contexts
- Lessons learnt from pilot activities (8 countries, 120 auditors, 1200 buildings)
- Design of decision support tools to facilitate financing schemes for smartness upgrades

Upcoming Relevant Deliverables

D2.2	SRI-ENACT Methodology with national adaptations (1st Release)	M8/ July 2023	Report on the first release of the SRI-ENACT methodology and its national-specific adaptations in the eight pilot countries
D2.3	SRI-ENACT Methodology with national adaptations (2nd Release)	M13/ Dec 2023	Report on the second release of the SRI-ENACT methodology and its national-specific adaptations in the eight pilot countries

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SRI-ENACT

Co-creating Tools and Services for Smart Readiness Indicator Uptake

Thank you

Apostolis Arsenopoulos

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Smart Readiness Indicator (SRI)

Q&A

Smart Readiness Indicator (SRI)

Updates on the SRI calculation tool

Sophie Dourlens-Quaranta

SRI Support Team

R2M Solution

Agenda

- Feedback from SRI calculation tool's users
- Next release of the offline calculation tool
- SRI assessment online tools

Context

Feedback from the users of the SRI assessment package has been collected

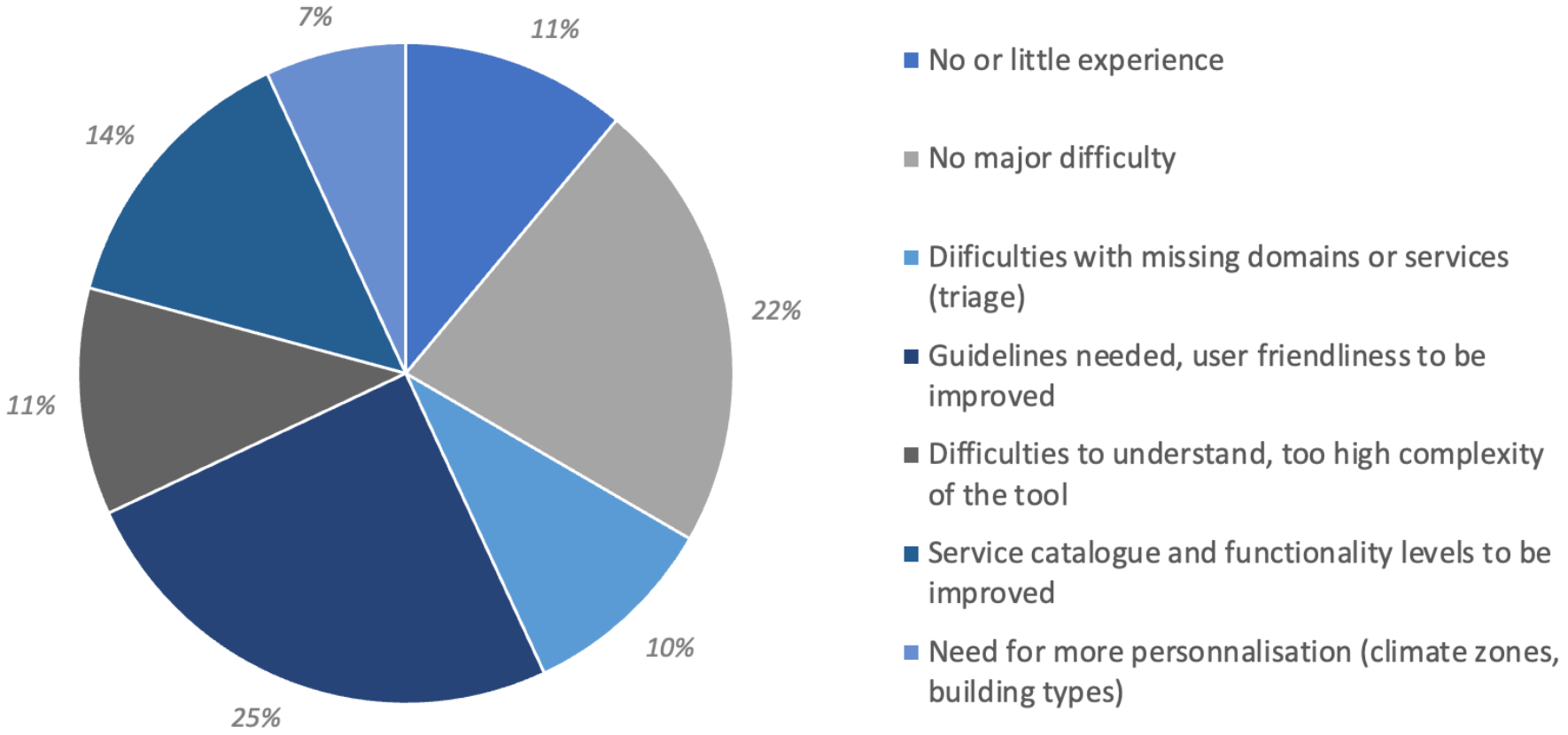
- To conduct statistical analyses on the testing of the tool
- To elaborate guidance and communication material by providing useful case studies

The survey is still active! Inputs are still welcome

https://ec.europa.eu/eusurvey/runner/SRI-assessment-feedback

Qualitative feedback from the first 46 answers received

- Assessment process: Have you faced difficulties in conducting assessments? What could be improved within your views?



Qualitative feedback from the first 46 answers received

- Some quotes about the assessment process

"The Excel tool is easy to use"

"Very long training period for first-time use"

"A clear definition of what is applicable or not should be defined. It has a large impact on scores"

"For buildings with deficient documentation, more time is needed (up to 2-3 days for an assessment of an average commercial building)"

"The difference between functionality level 0 and the absence of a service should be more consequent and coherent"

"It would be helpful to have a list with regard to the proper equipment for each Functionality Level"

"It would be better to clarify how to proceed when some systems are missing (for example summer cooling)"

"Add more practical and detailed information about each smart service proposed in the SRI assessment package, to avoid interpretation bias"

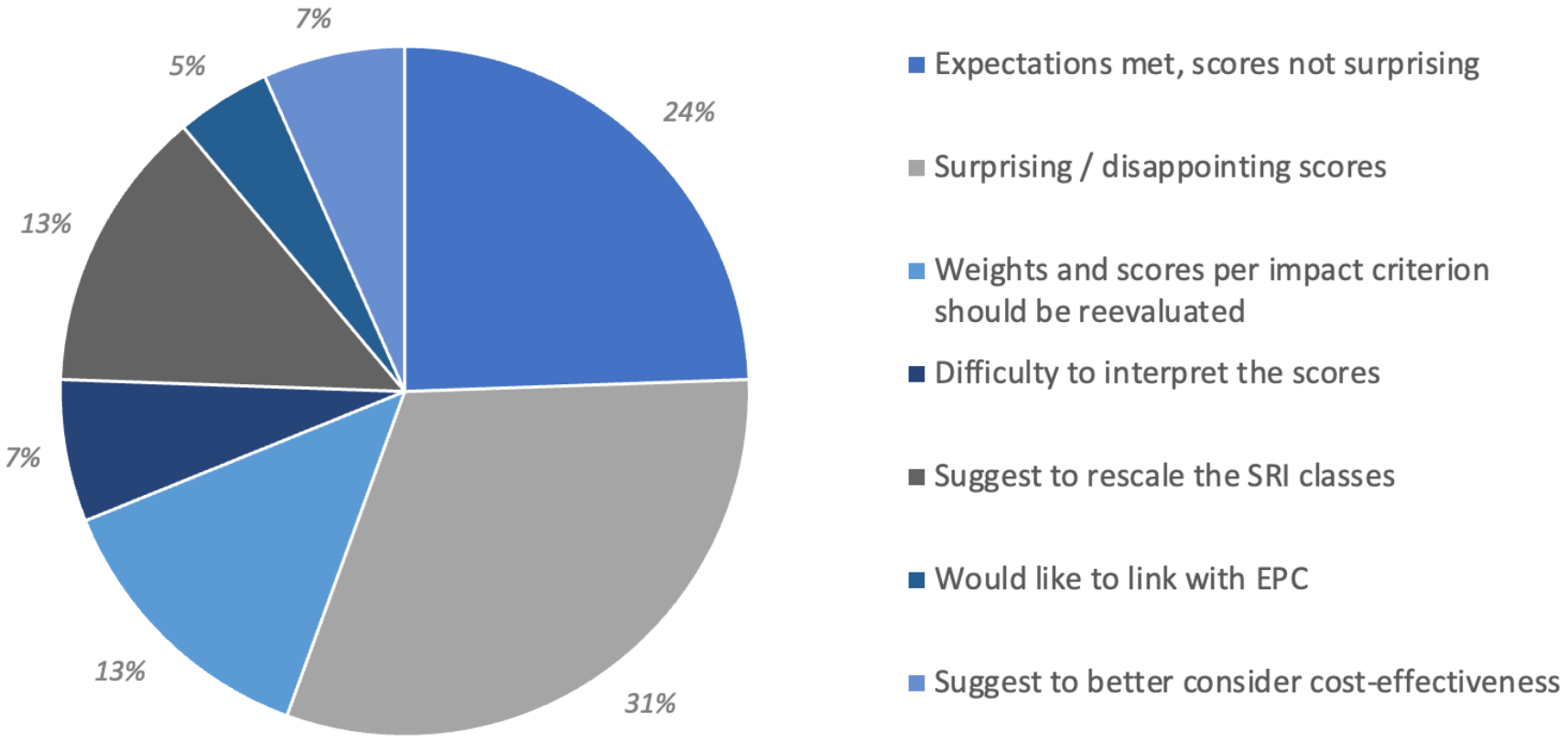
"Improve the spreadsheet with more granularity of the climatic zones that are specific for each country"

"The assessor needs a very broad and deep knowledge for the correct assessment of the different systems"

"Define an optimized catalogue of services for each specific type of buildings (i.e. schools, hospitals, offices, ...)"

Qualitative feedback from the first 46 answers received

- Scores obtained: Are they in line with expectations? What has surprised you the most?



Qualitative feedback from the first 46 answers received

- Some quotes about the scores obtained

"The SRI scores seem to be in line with expectations"

"After assessing a building, the client will ask questions how to score higher"

"What does Energy Efficiency x% means in practice? (the house's energy performance is class A)? What can be the conclusion, feeling and decisions knowing those scores?"

"We regret that without a DSM the best score we obtained is around 60%"

"It was surprising how non-residential buildings that appear to have more readiness in some domains can score so much lower than residential buildings that seem to be in a less mature state"

"Buildings that are considered smart from other methodologies, have a really low score with SRI because of the really advanced services"

"52% seems not a lot for a building that's just 8 years old where already a lot of recent technological advancements are being applied"

"One surprise was that to achieve the maximum score, the SRI suggests implementing smart controllers for almost all domains. In reality or practicality, this is almost never the case as it would require extensive knowledge about the building and is highly costly"

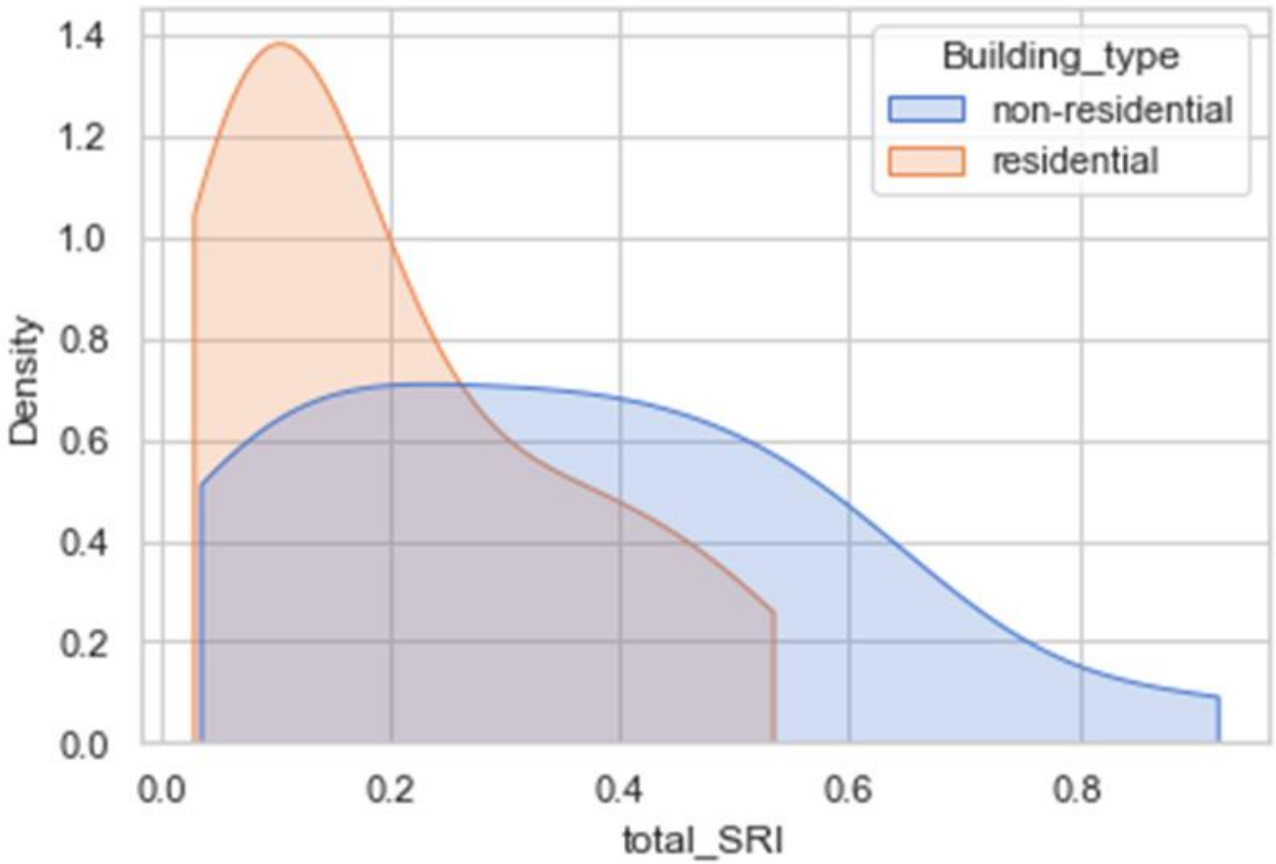
Analysis of SRI Assessment Spreadsheets

- Sample of 43 SRI assessment files
- Average total SRI score=27%
  - Residential 19%
  - Non-residential 34%
- Majority of total SRI scores ≤ 60%

- *Limited number of assessment spreadsheets in the sample*
- *Assessment spreadsheets have not been validated*

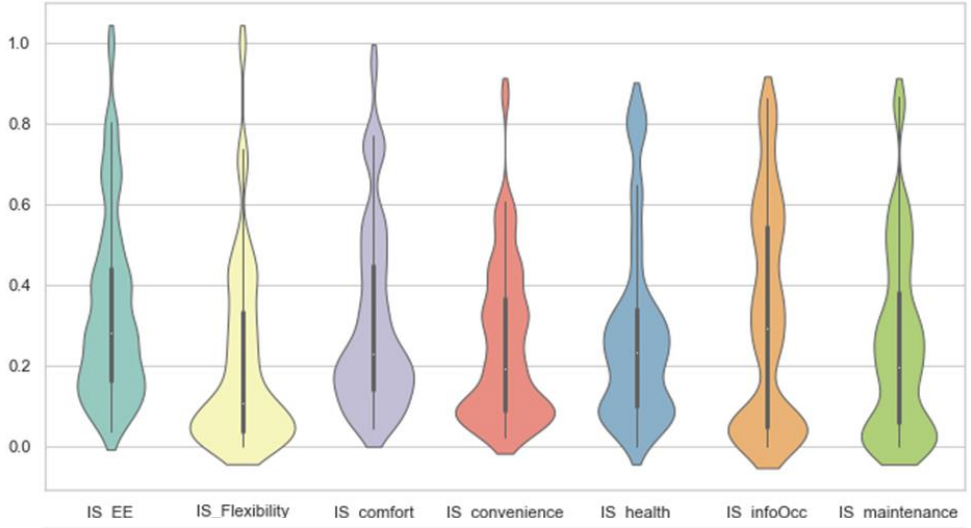
Analysis of SRI Assessment Spreadsheets

- Overall scores: Distribution (residential & non-residential)

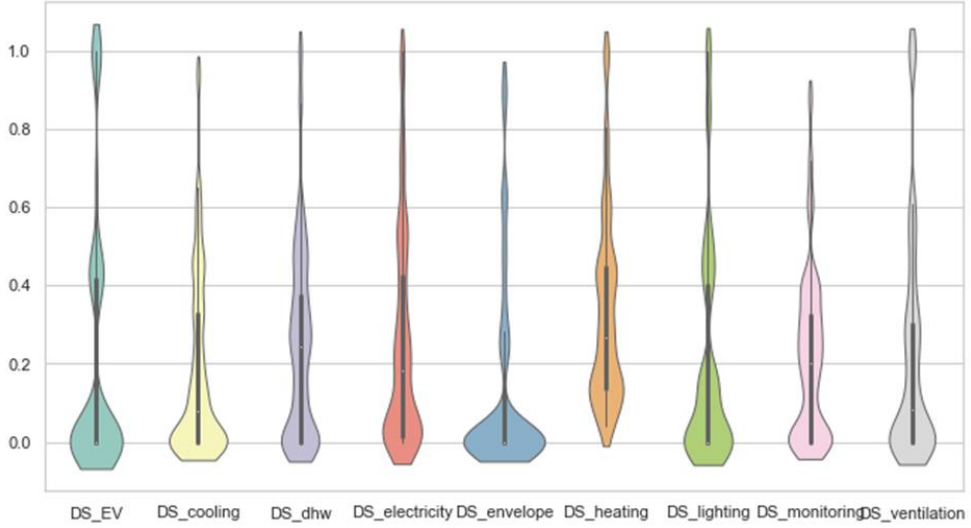


Analysis of SRI Assessment Spreadsheets

Impact Scores	Average
Energy Efficiency	34%
Info to Occupants	32%
Comfort	31%
Health	28%
Maintenance	25%
Convenience	25%
Flexibility and Storage	21%

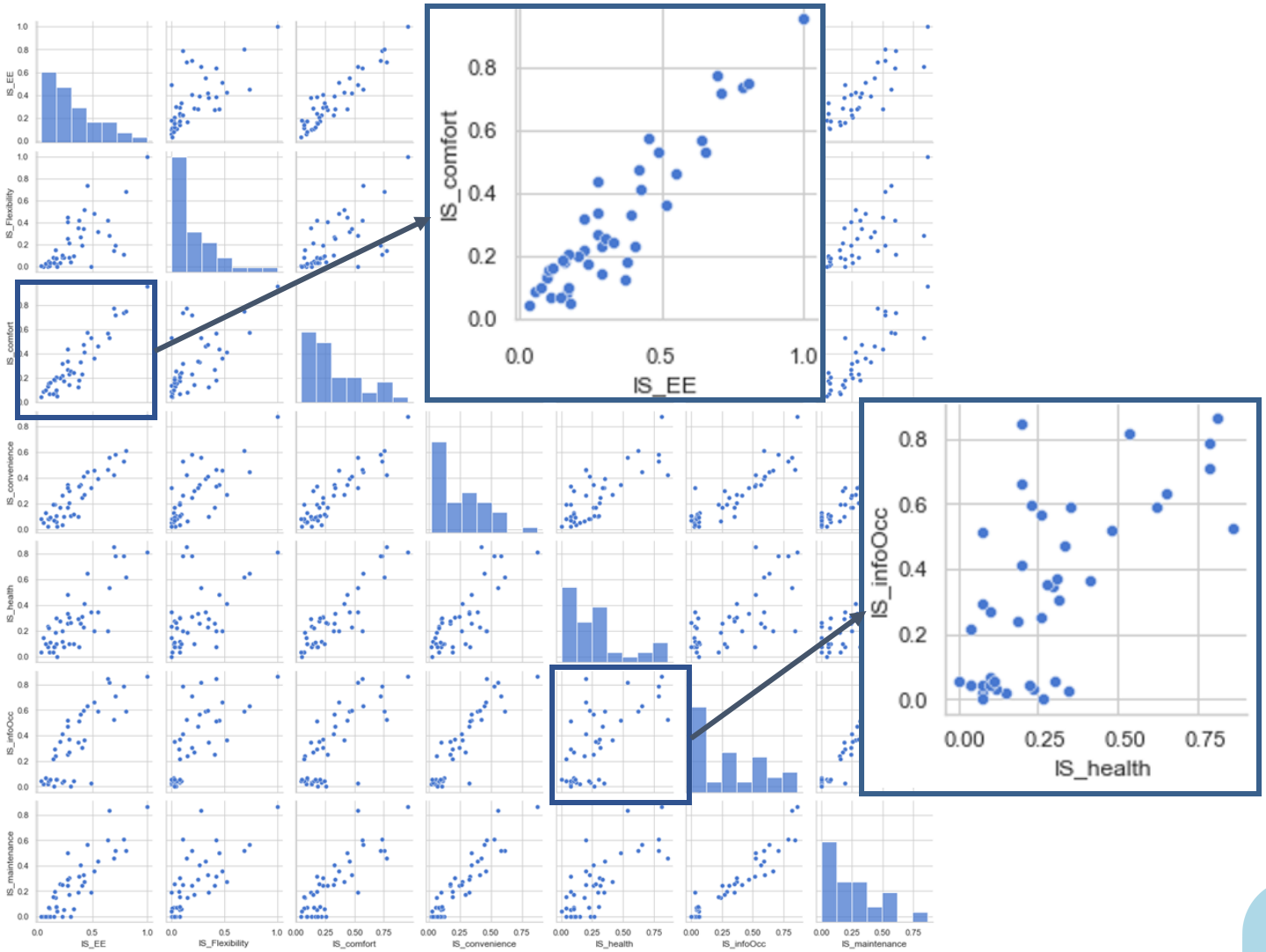


Domain Scores	Average
Heating	33%
Electricity	26%
Domestic Hot Water	25%
Monitoring	22%
Electrical Vehicle Charging	21%
Ventilation	21%
Lighting	20%
Cooling	17%
Envelope	13%



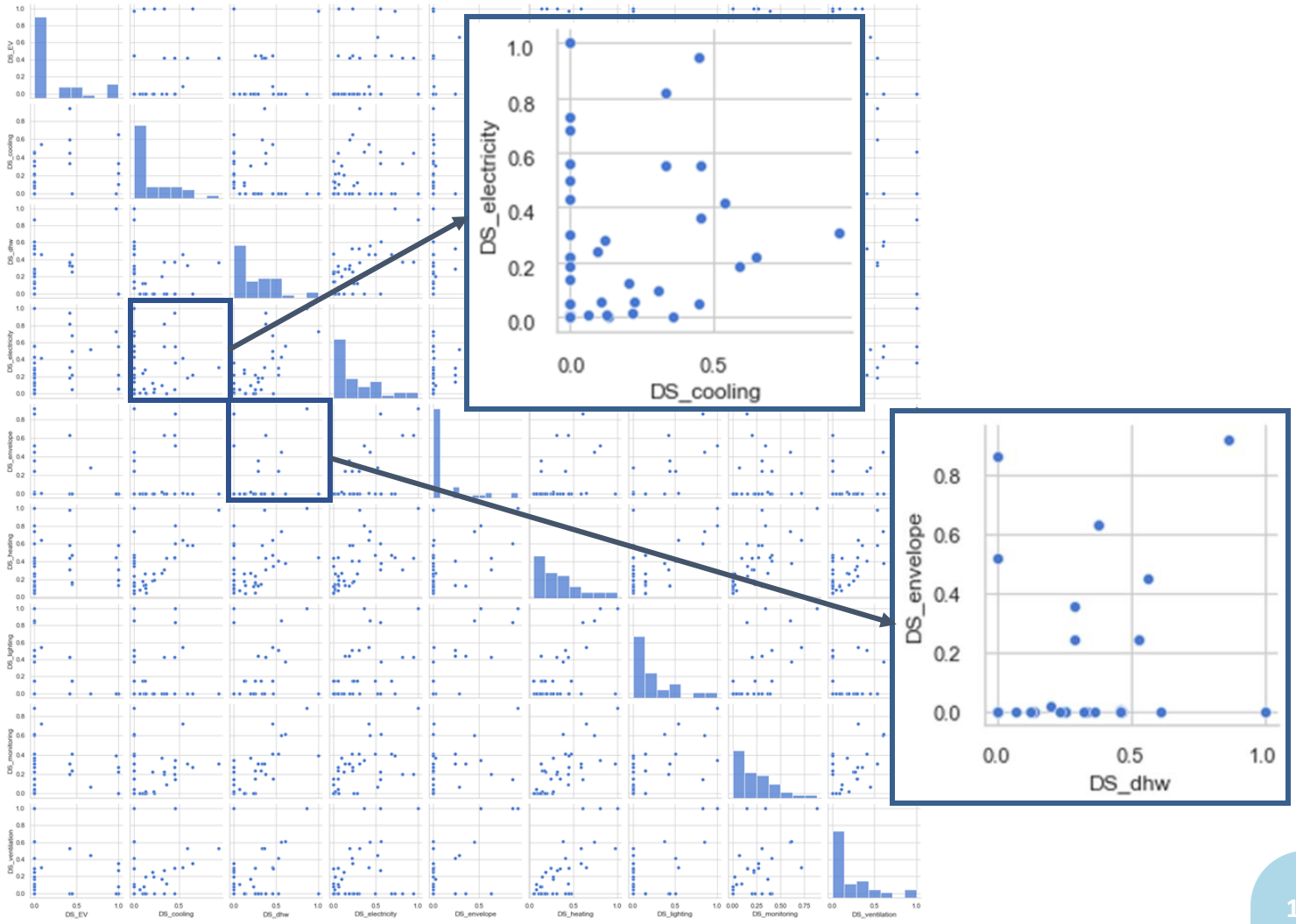
Analysis of SRI Assessment Spreadsheets

- Impact Scores
  - Energy Efficiency
  - Flexibility
  - Comfort
  - Convenience
  - Health
  - Info to Occupants
  - Maintenance



Analysis of SRI Assessment Spreadsheets

- Domain Scores
  - Electric Vehicle charging
  - Cooling
  - Domestic Hot Water
  - Electricity
  - Envelope
  - Heating
  - Lighting
  - Monitoring
  - Ventilation



Lessons learnt

- Results confirm premise of 'Low Total SRI scores'
- High potential for smart readiness improvements in all technical domains and impact criteria
  - Technical domains: highest potential for Dynamic Building Envelope, lowest for Heating
  - Impact criteria: highest potential for Flexibility and storage, lowest for Energy efficiency
- Nearly entire range of scoring is represented for all technical domains and impact criteria
- **The survey is still active! Inputs are still welcome**

https://ec.europa.eu/eusurvey/runner/SRI-assessment-feedback

Agenda

- Feedback from SRI calculation tool's users
- Next release of the offline calculation tool
- SRI assessment online tools

Current version v4.4

- Distributed to 643 stakeholders in 2 years

A practical guide (PDF)

A calculation sheet (Excel)

- [Video demo](#) of the tool available

Next version v4.5

- To be released in the coming days
- Main changes:
  - Stricter alignment with the different steps of the annex I of the Delegated Regulation (EU) 2020/2155 on the calculation of smart readiness scores
  - Removal of the correction towards zero of negative scores
  - Results page: letters for SRI classes replaced with range in order not to interpret the Regulation

Agenda

- Feedback from SRI calculation tool's users
- Next release of the offline calculation tool
- SRI assessment online tools

SRI assessment online tools

- Detailed description of 7 tools available on the SRI website

+ D^2EPC Building Performance Module-SRI Calculation Subcomponent
+ EPC-RECAST BIM supported SRI assessment tools
+ Smart-Ready-Go®
+ Smart2B Smart performance assessment & Advisor (SPA&A)
+ SRI2MARKET platform
+ SRI Calculator in IsZEB Certify
+ U-CERT Smart Readiness Indicator (SRI) digital tool

SRI assessment online tools

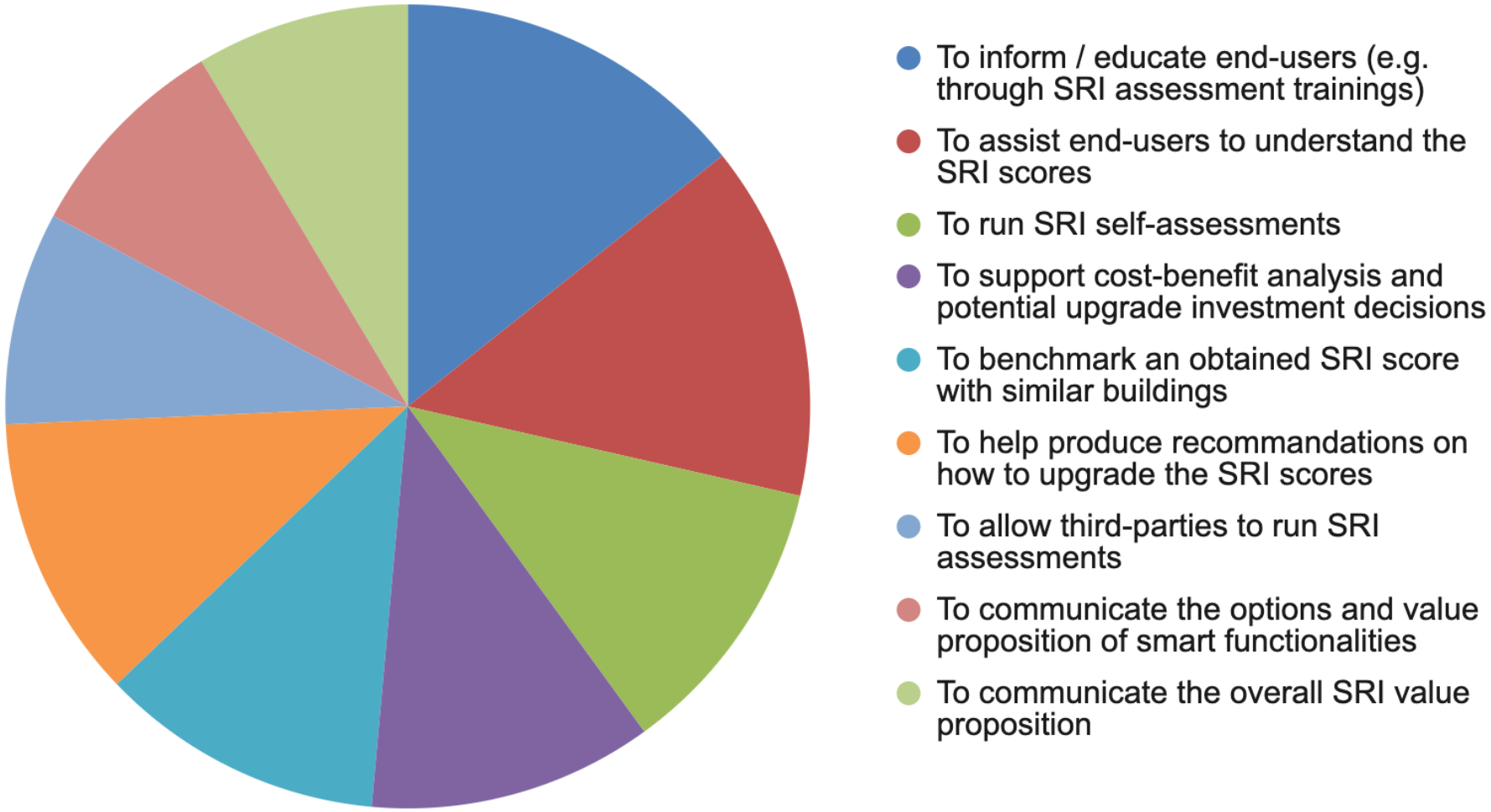
- Survey conducted amongst Member States to assess their opinions and needs about online tools
  1. *What an SRI calculation tool should be used for ?*
  2. *Who do you foresee will be the main users of the tool ?*
  3. *Question3. Should the tool be accessible: Online / Offline / Both Online and Offline*
  4. *Which stakeholders are more legitimate to lead the implementation and distribution of SRI calculation tools ?*

SRI assessment online tools

- Survey conducted amongst Member States to assess their opinions and needs about online tools
  1. What an SRI calculation tool should be used for ?
  2. Who do you foresee will be the main users of the tool ?
  3. Should the tool be accessible: Online / Offline / Both Online and Offline
  4. Which stakeholders are more legitimate to lead the implementation and distribution of SRI calculation tools ?

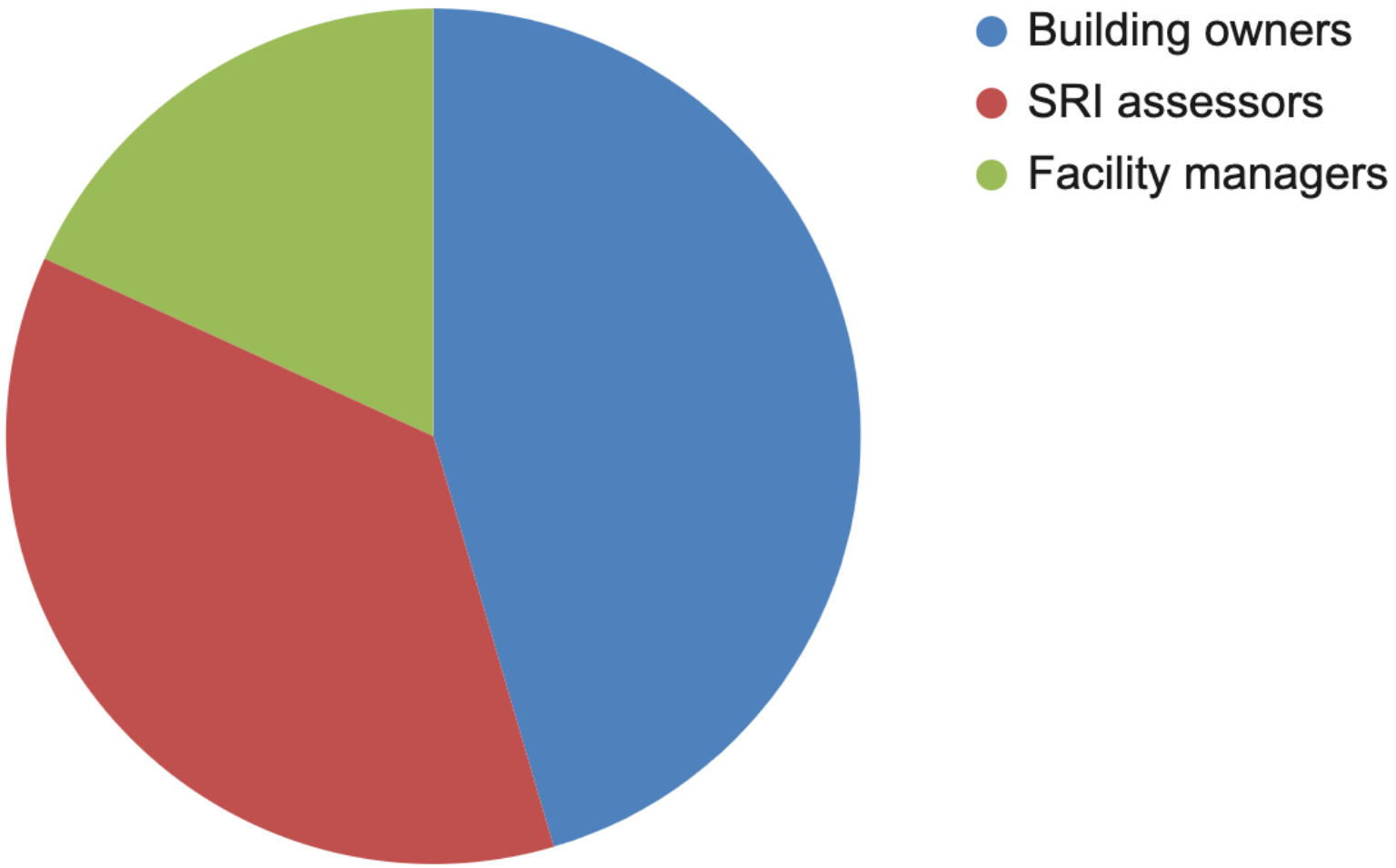
Only 6 answers received so far, more expected soon

1. What an SRI calculation tool should be used for?



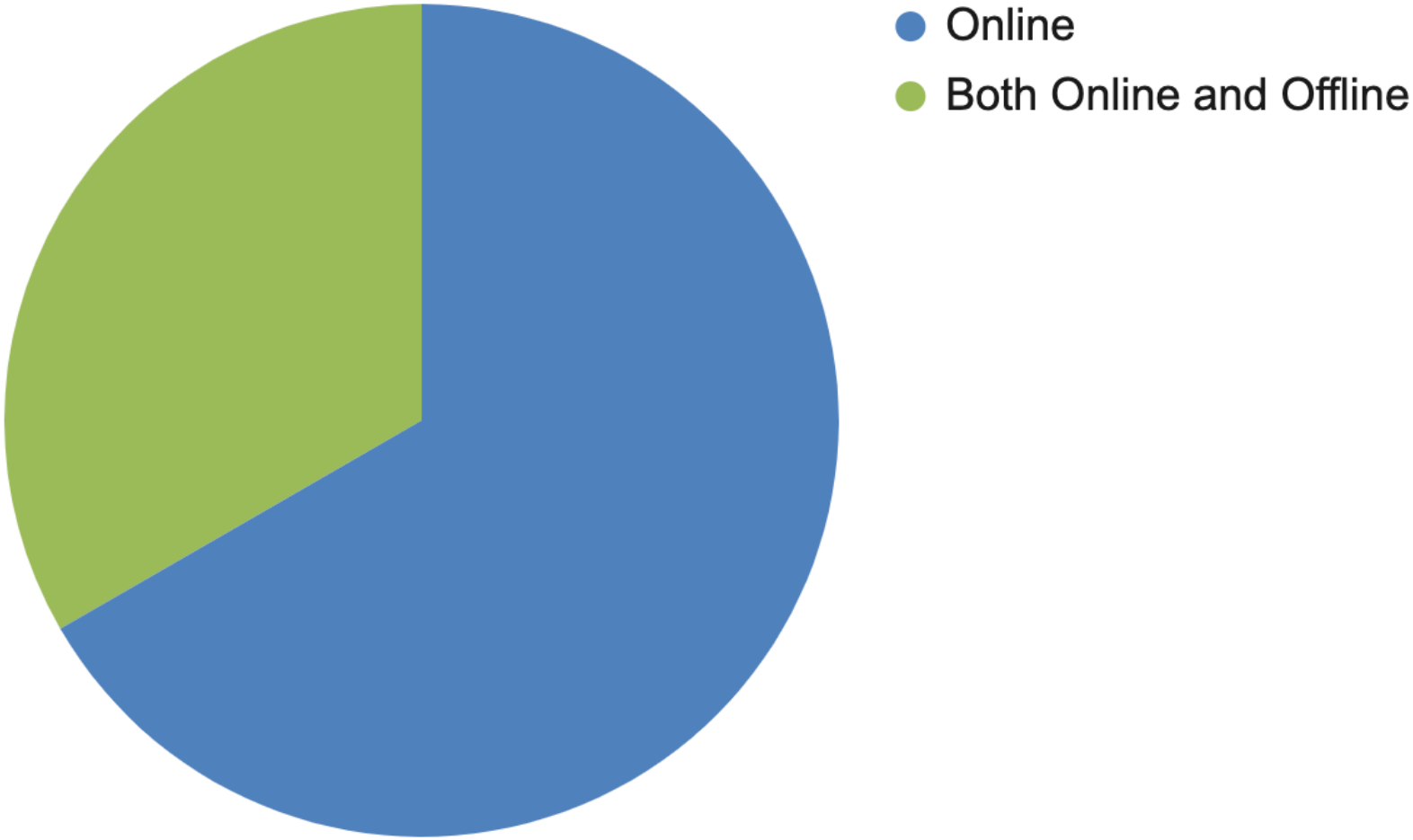
Very preliminary results

2. Who do you foresee will be the main users of the tool?



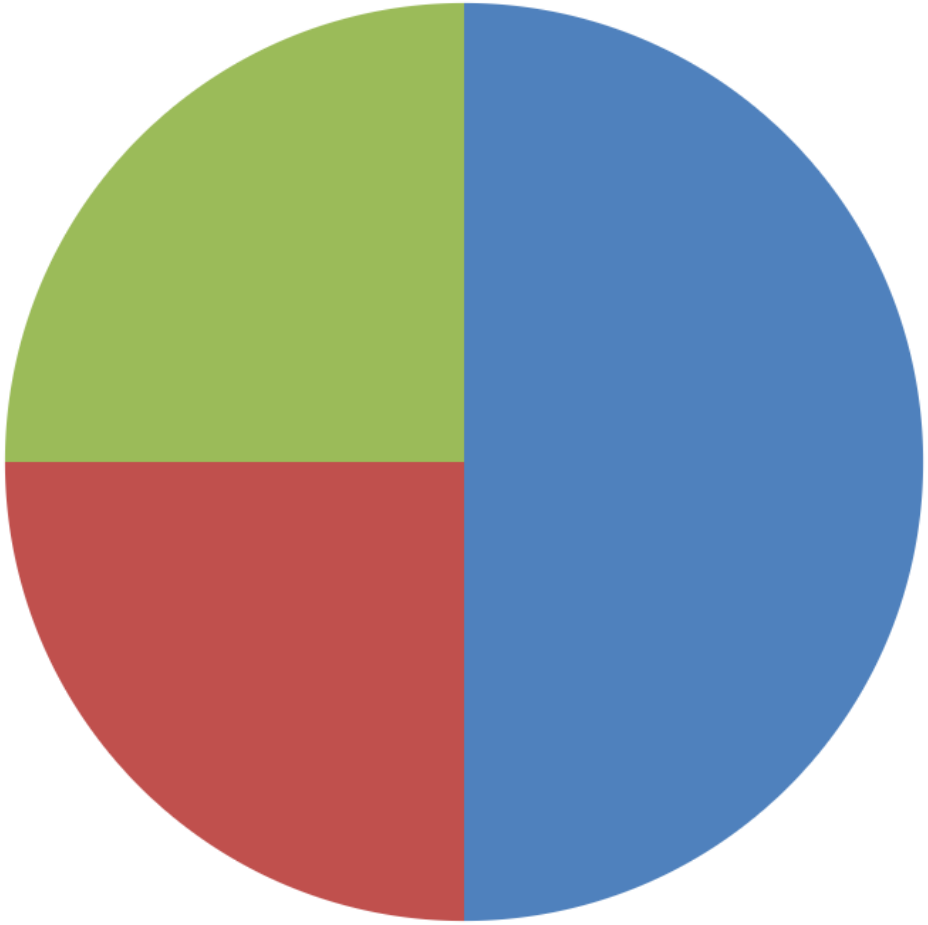
Very preliminary results

3. Should the tool be accessible: Online / Offline / Both?



Very preliminary results

4. Which stakeholders are more legitimate to lead the implementation and distribution of SRI calculation tools ?



- The EU should lead the definition and implementation of a common open source SRI calculation software
- Member States should develop their own national SRI calculation tool to take into account national specificities, local language, etc.
- Public and private stakeholders will develop their own tools (either open source or commercial)

Very preliminary results

Conclusions

- The offline calculation tool (Excel) still is the reference for assessing the SRI of a building
  - Version 4.5 released soon
- Online tools are being developed and may progressively replace the offline tool
  - Either online or offline, SRI calculation tools can be adapted at national level
- When implementing the SRI, Member States will have to adopt a clear position regarding the use of each type of tool

Smart Readiness Indicator (SRI)

Q&A

Smart Readiness Indicator (SRI)

Closing remarks

Brigitte Jacquemont
European Commission
DG ENER

Thanks for your attention!

Contact: support@smartreadinessindicator.eu

Web: https://ec.europa.eu/smart-readiness-indicator

#SmartReadinessIndicator