Reahub
Building renovation
has a new place

Advancing energy performance assessment to enable holistic building renovation within sustainable urban development strategies

Leandro Madrazo
La Salle-Universitat Ramon Llull
Project Coordinator

Co-funded by
the European Union

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Project precedents

2021-24

Linking building renovation to urban regeneration and sustainable development

transFORMAT-LINK

URBEM

Retabit

Combine EPCs, building stock data, and socioeconomic and environmental indicators to identify renovation priorities and support targeted, sustainable intervention.

REAHUB

2026-29

Connecting building assessment, renovation planning, financing and services into a common framework for sustainable building renovation and urban regeneration.

TIMEPAC

Integrating building performance certification schemes

Integrate EPC, Smart Readiness Indicator and Renovation Passport through harmonised data and procedures to support building assessment, renovation planning and digital logbooks.

Consortium

9 partners + 1 associated partner
4 countries: Austria (2), Belgium (1), Italy (4), Spain (3)

4 Research organisations

1 Consultancy

1 Private company

2 Public bodies

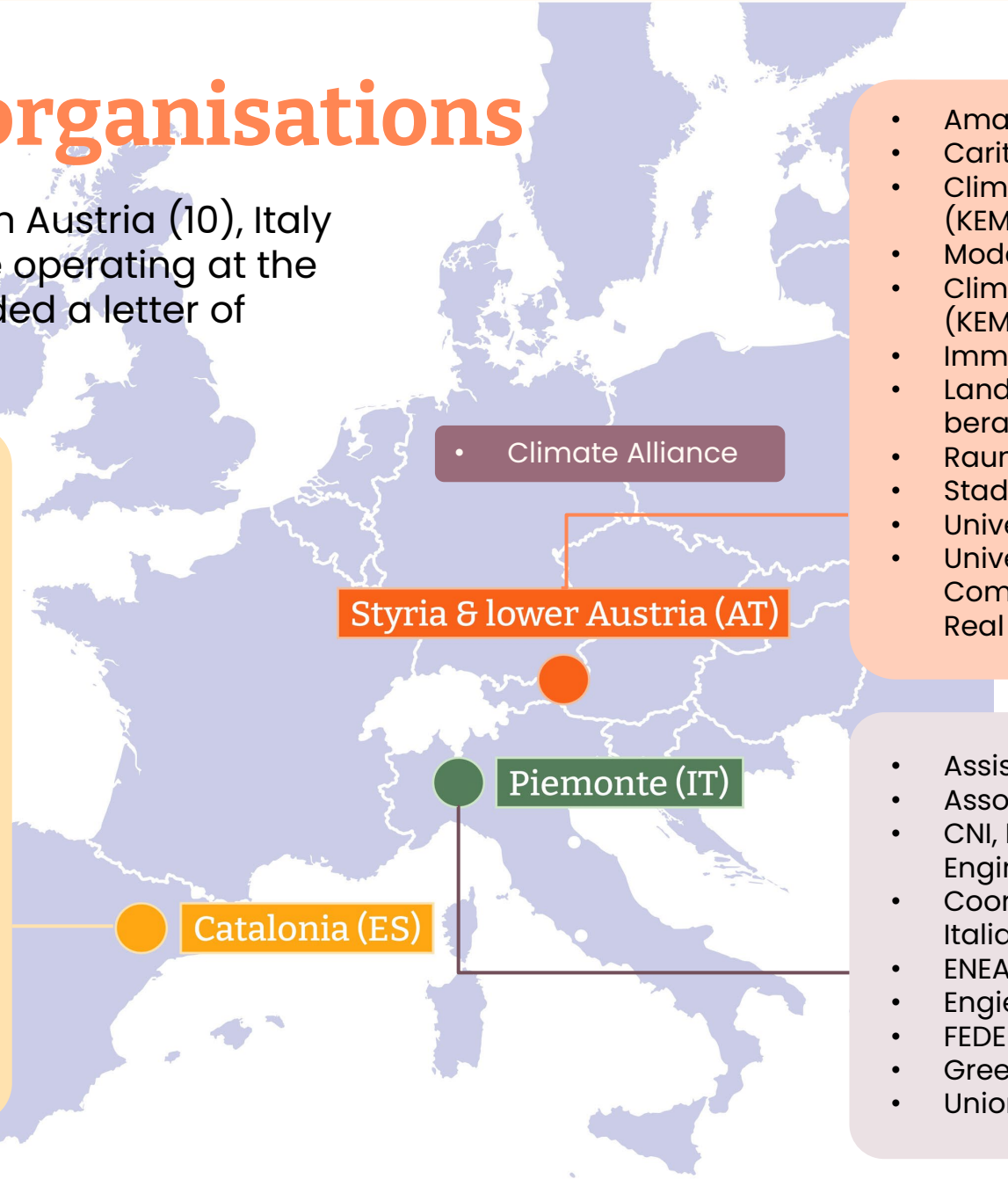
1 Professional association

1 Non-profit organisation

P1 - Fundació Privada Universitat i Tecnologia (FUNITEC) - ES
P2 - Catalonia Institute for Energy Research (IREC) - ES
P3 - Institute for Sustainable Energy and Resources (SERA) - AT
P4 - Politecnico di Torino (POLITO) - IT
P5 - Edilclima S.r.l. (EDIC) - IT
P6 - Regione Piemonte (PIE) - IT
P7 - Sustainable Energy Finance Association (SEFA) - BE
P8 - 4ward Energy Research GmbH (4ER) - AT
P9 - ICONS - IT
P10 - Institut Català d'Energia (ICAEN) – ES (Associated partner)

Supporting organisations

A total of 31 organisations in Austria (10), Italy (9) and Spain (12), and one operating at the European level, have provided a letter of support



- Agencia de Energía de Barcelona
- Agència de l'Habitatge de Catalunya
- Ajuntament de Barcelona
- Ajuntament de Ripoll
- Ajuntament de Sant Cugat del Vallès
- Consell Comarcal del Baix Empordà
- Consell Comarcal del Pla de l'Estany
- Diputació de Barcelona
- Diputació de Girona
- Direcció General de l'Habitatge
- Fundació Europace
- Green Building Council España

- Amascon Immobilien
- Caritas
- Climate and Energy Model Region (KEM)
- Modellregion Murtal
- Climate and Energy Model Region (KEM) Modellregion Thermenlinie
- Immobilien Verwaltung Lasserus
- Land Salzburg, Energiewirtschaft und -beratung
- Raum Sim Lab, TU Wien
- Stadtgemeinde Judenburg
- Universität für Weiterbildung Krems
- University of Applied Sciences and Communication, Vienna, Institute for Real Estate Management

- Assistal
- Associazione Nazionale Costruttori Edili
- CNI, National Council of Italian Engineers
- Coordinamento Agende 21 Locali Italiane
- ENEA (2)
- Engie Servizi Spa
- FEDERESCO
- Green Building Council Italia
- Unioncamere Piemonte

REAHUB vision

Premises

•Europe's **clean energy transition** requires transforming the existing building stock into a more energy-efficient, decarbonised, resilient and inclusive built environment. Achieving this transformation depends on effective governance, high-quality data, adequate financing, skilled professionals, and informed decision-making to accelerate renovation at scale.

•**Building renovation is a key component of this transition.** However, the impact of renovating a building depends not only on its own characteristics but also on its surrounding urban context, including the condition of neighbouring buildings, local energy infrastructure, socioeconomic conditions, climate risks, and municipal planning priorities.

•**Consequently, renovation potential cannot be assessed solely at the level of individual buildings.** It must also be analysed at the neighbourhood and building stock levels to identify priorities, coordinate interventions, optimise resource allocation, and maximise environmental, social and economic benefits.

Challenges

REAHUB will develop an integrated data-driven framework that connects building-level interventions with urban-scale analysis.

- **Building stock assessment** identifies where renovation efforts will have the greatest impact, supporting the development of coordinated renovation strategies.

- **Building-level interventions** implement these strategies in individual buildings. The resulting performance data and implementation experience feed back into the framework, improving future assessments, informing the evolution of regulations and standards, and strengthening the data and methodologies that underpin renovation planning.

MULTILAYER INTERTWINED LEGISLATION- DATA-PROCEDURES

EUROPE
EPBD, EED, Climate-Neutral and Smart Cities Mission
Building Stock Observatory
Level(s)

COUNTRY
National renovation plans
National EPC databases
GWP

REGION
Regional energy and climate strategies
Regional building inventories, regional energy agencies' datasets

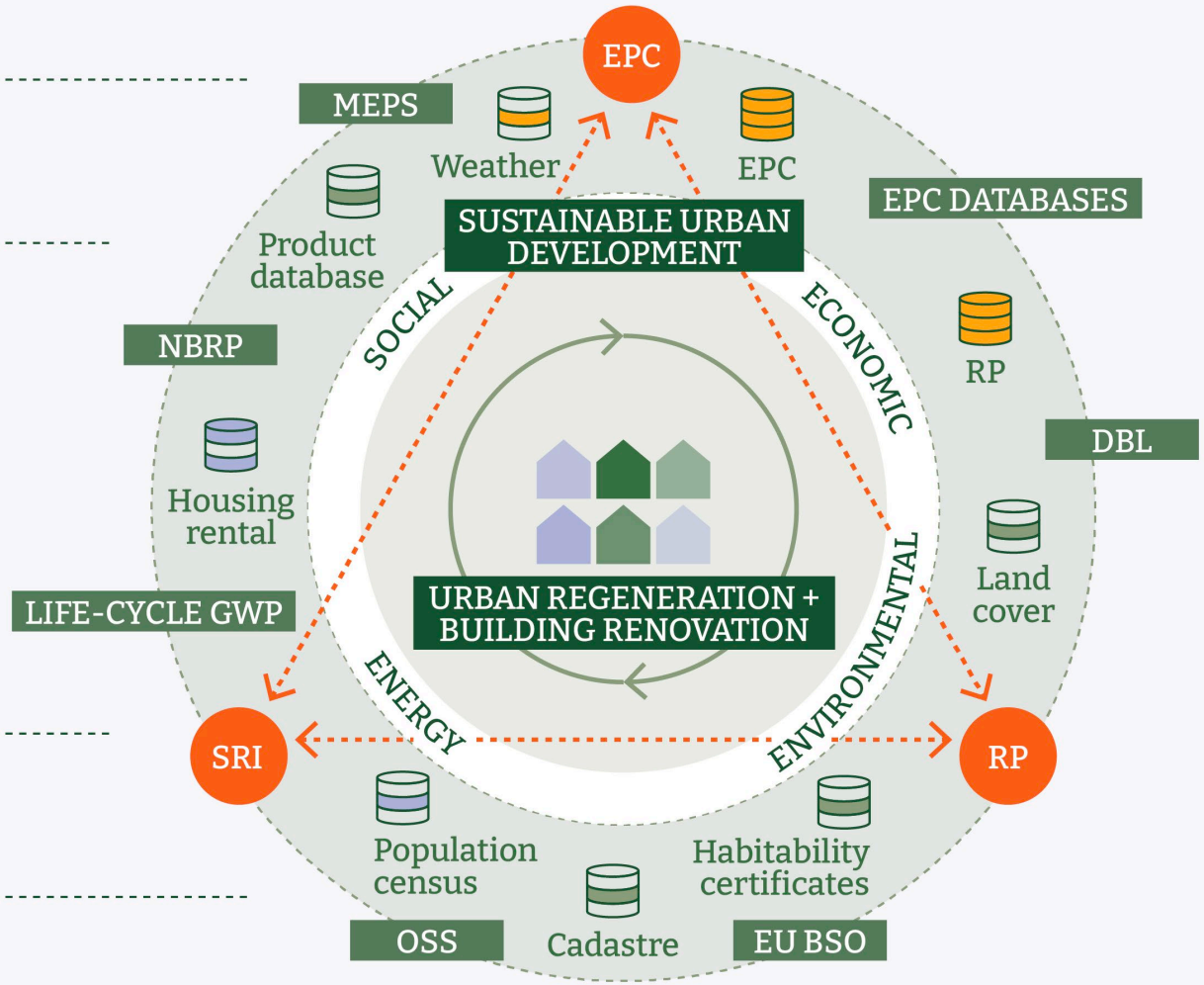
MUNICIPALITY
SECAPs
Building codes
Urban planning regulations
District energy system data

BUILDING
EPC, SRI, RP, Digital Logbooks
MEPS
Smart-meter data

BUILDING UNIT
EPC
Smart-meter data

REGULATORY FRAMEWORK

LOCAL BUILDING RENOVATION PROGRAMMES



INTERVENTIONS

An integrated ecosystem linking regulations, data and building assessment tools to enable coordinated renovation actions from building to city scale.

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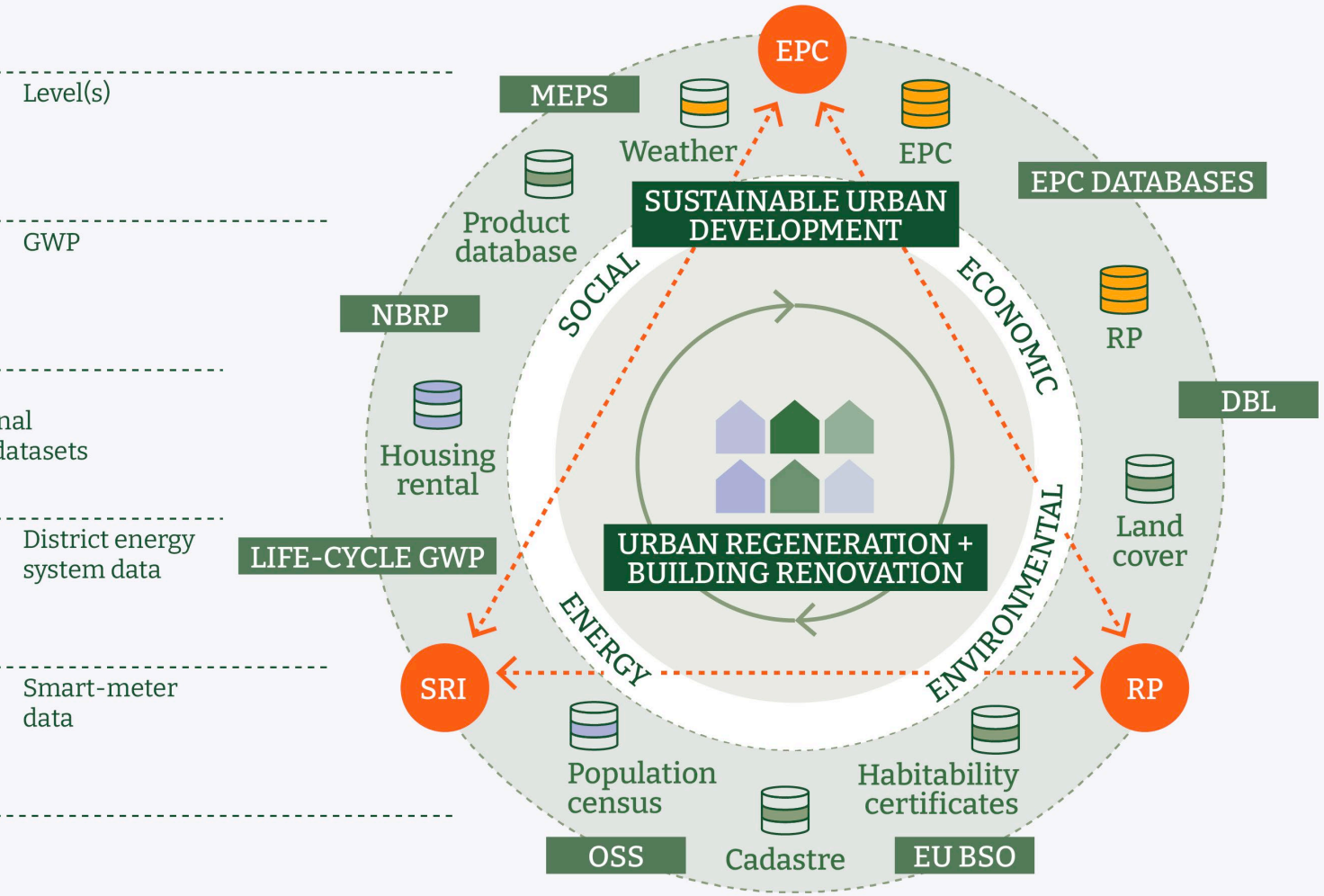
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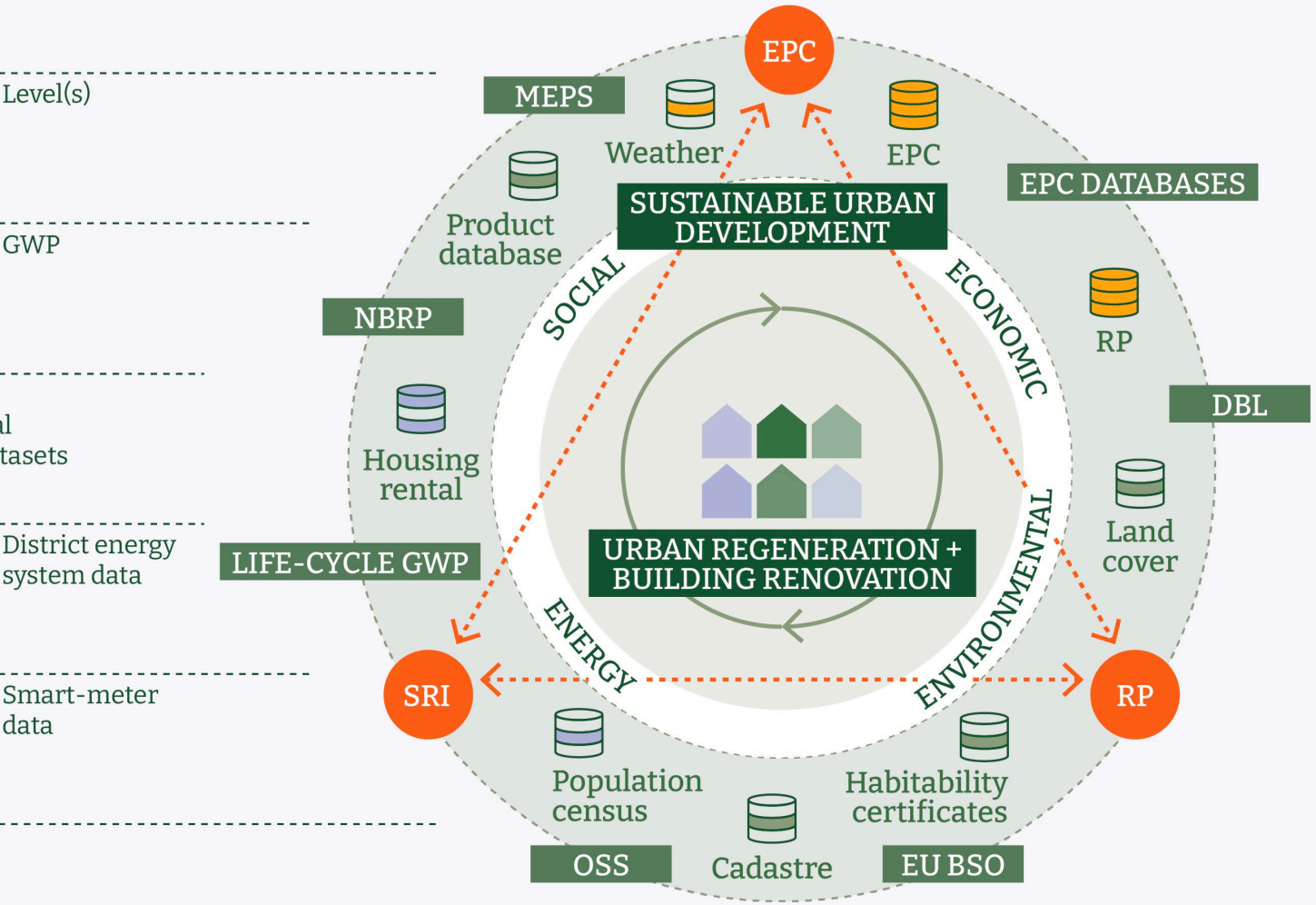
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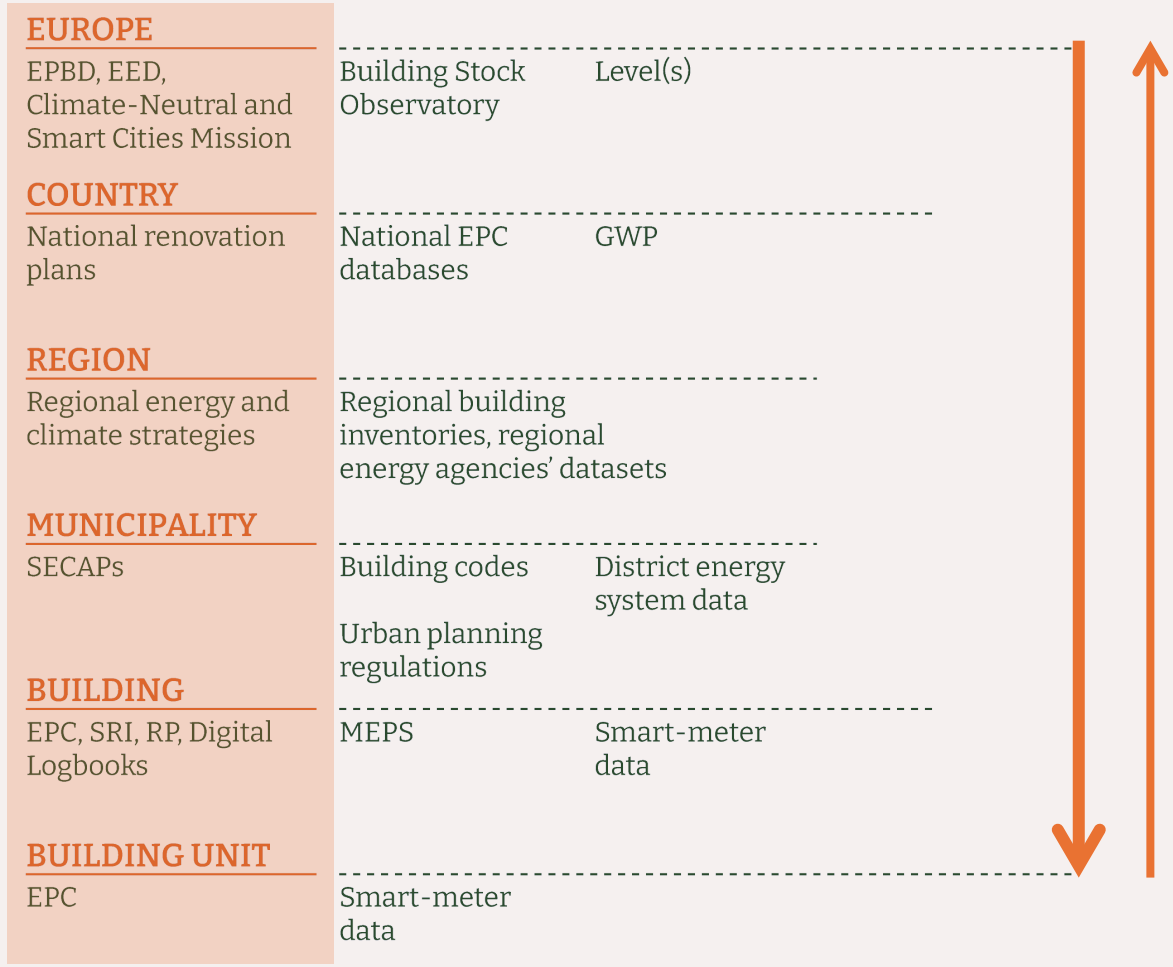
LOCAL BUILDING RENOVATION PROGRAMMES



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MULTILAYER INTERTWINED
LEGISLATION - DATA - PROCEDURES



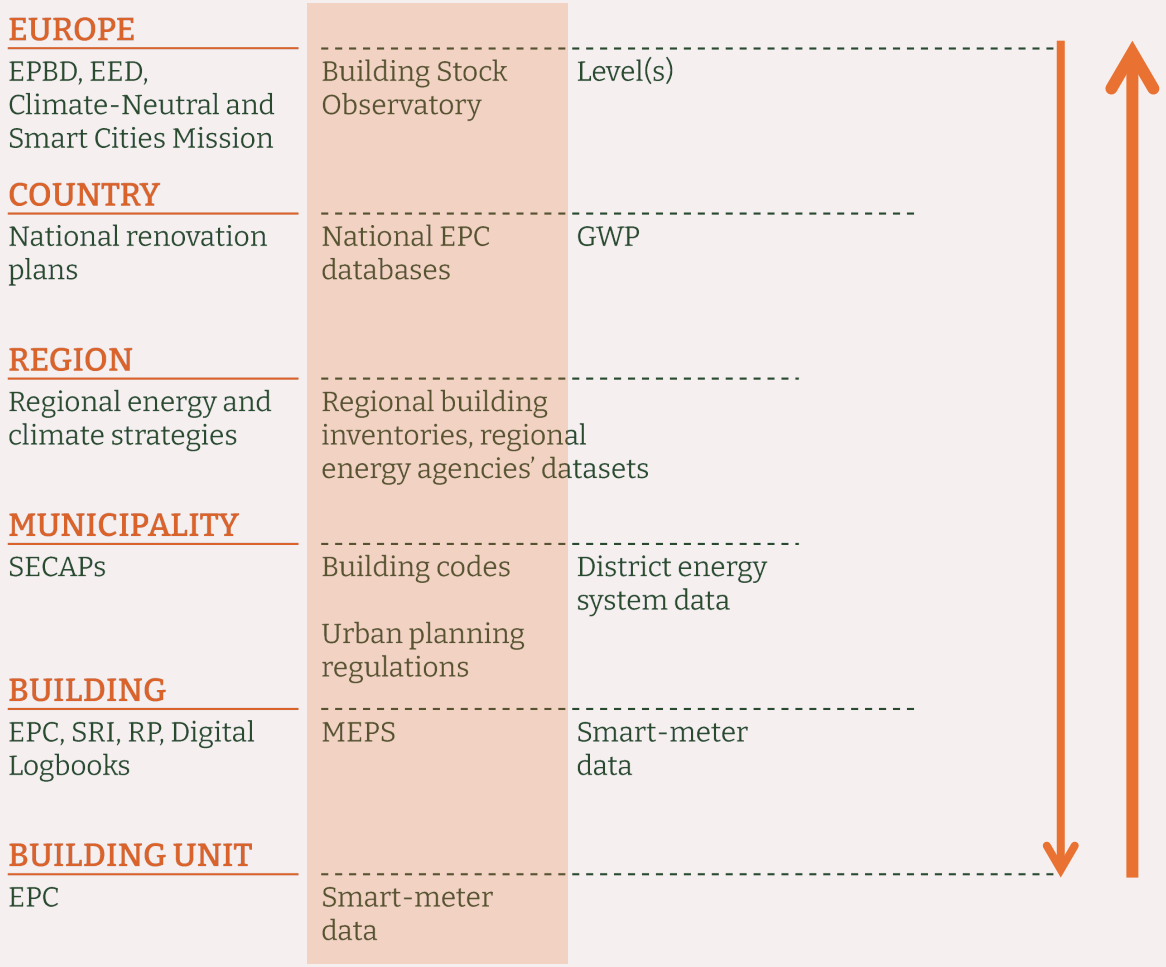
From EU policy objectives to local action

Policy objectives flow from the European level to national and local implementation, while implementation experience informs future policy revisions.

REGULATORY FRAMEWORK

A continuous policy cycle connecting objectives, implementation and improvement.

MULTILAYER INTERTWINED LEGISLATION - DATA - PROCEDURES



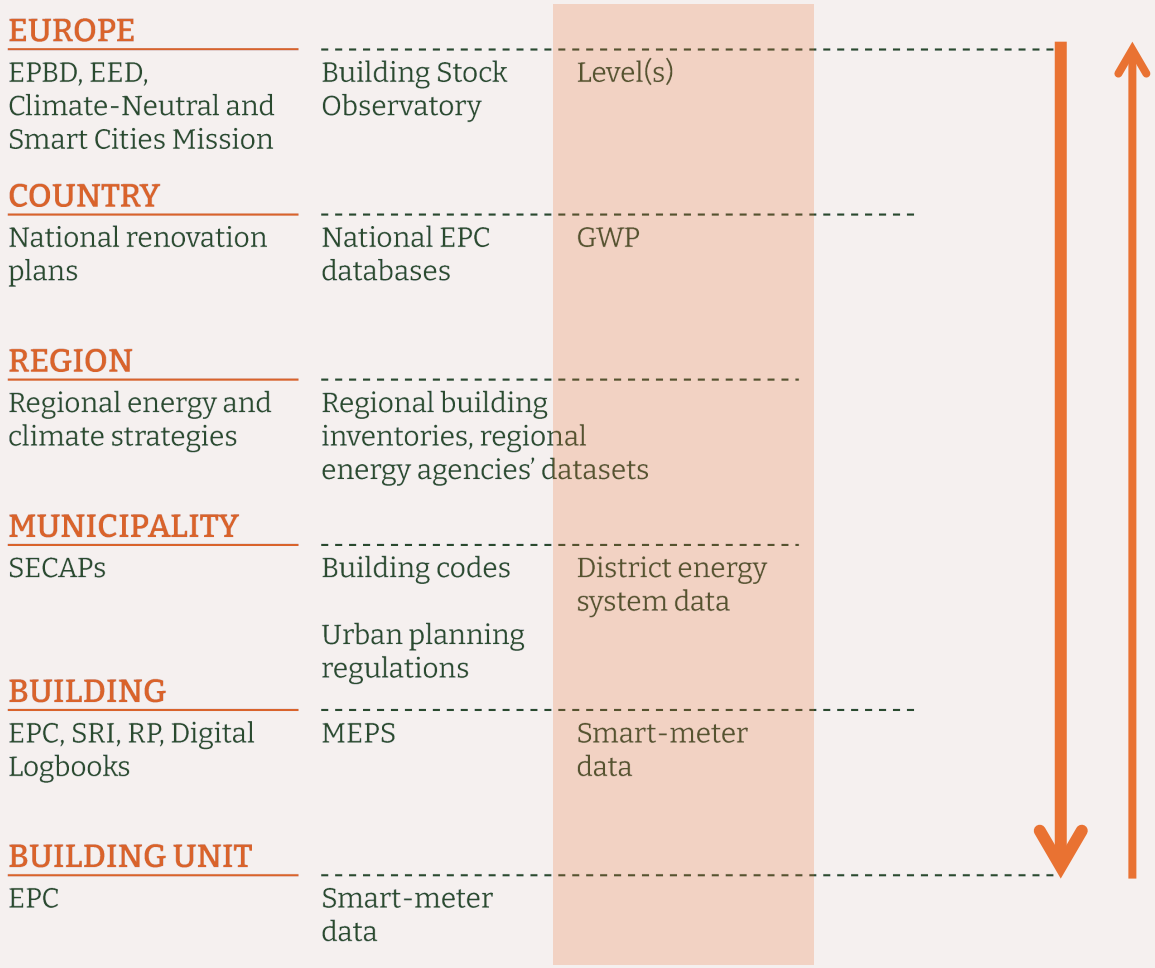
REGULATORY FRAMEWORK

Data flows across governance levels

Data generated at building level is aggregated and enriched across governance levels, supporting monitoring, benchmarking and evidence-based decision-making.

A connected data ecosystem supporting assessment, monitoring and decision-making.

MULTILAYER INTERTWINED LEGISLATION - DATA - PROCEDURES



REGULATORY FRAMEWORK

Procedures connect policy, data and action

Coordinated procedures guide how regulations are applied and how data is used in practice, supporting consistent renovation planning and implementation.

A shared operational framework connecting assessment, decision-making and action.

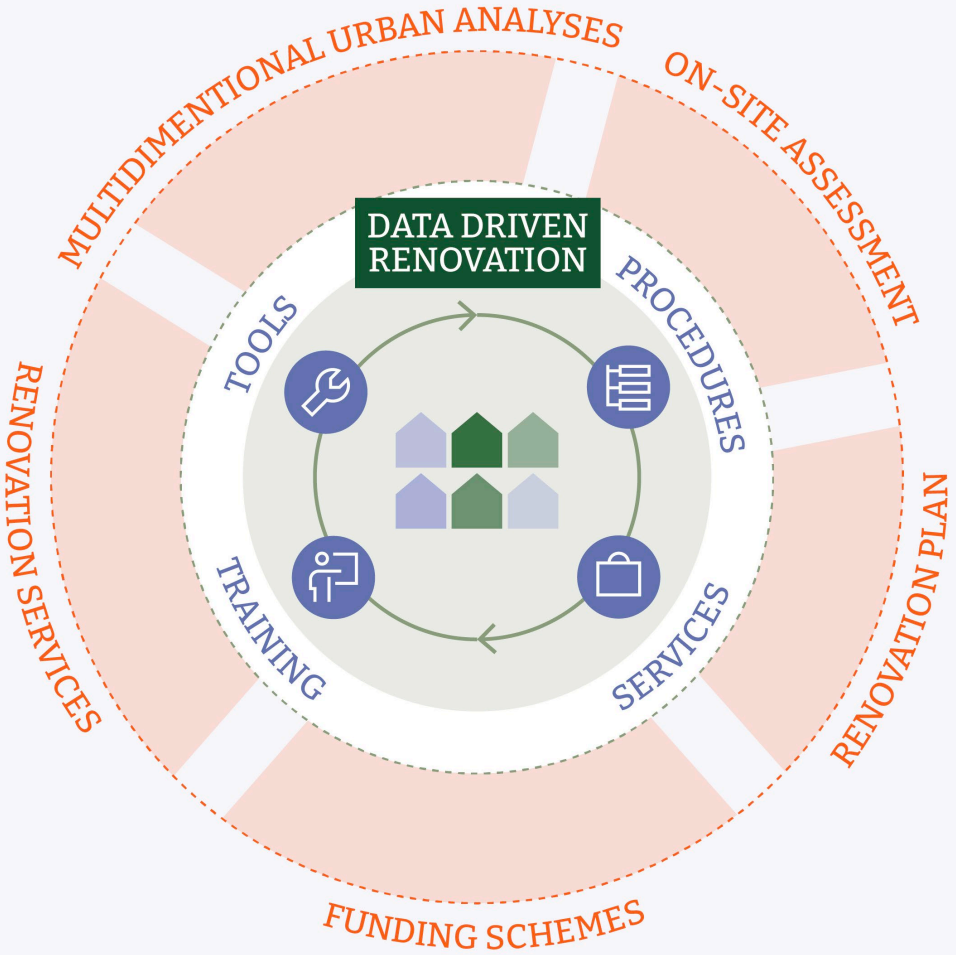
REAHUB framework

The REAHUB framework supports data-driven renovation through five **sequential stages:**

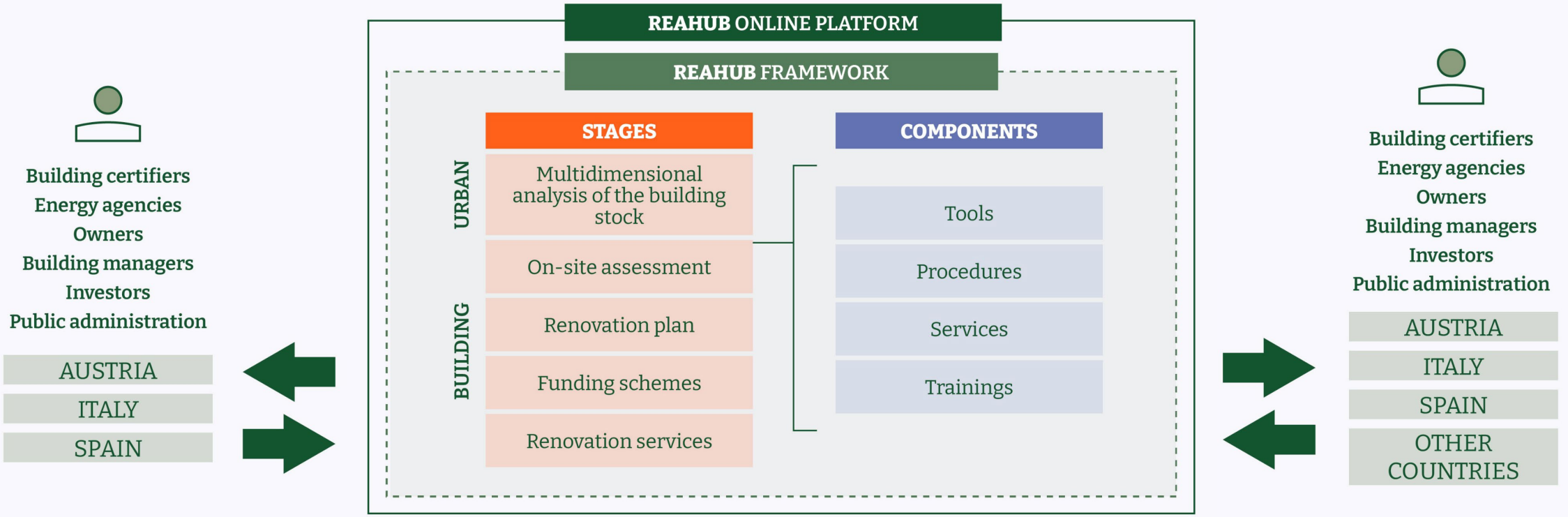
—multidimensional urban analysis
— on-site assessment
— renovation planning
— funding schemes
— renovation services

Each stage involves four **cross-cutting components**:

— tools
— procedures
— services
— training



A comprehensive renovation framework that bridges urban and building scales, empowering stakeholders with the tools, procedures, services, and training needed for effective EPBD implementation.



Pilot regions play a dual role: they provide the data, knowledge, and stakeholder input needed to develop the framework, and they act as real-world testbeds to validate, improve, and demonstrate its application.

The Five Stages of the REAHUB Framework

An integrated pathway for planning, financing and delivering building renovations.

Multidimensional analysis

On-site assessment

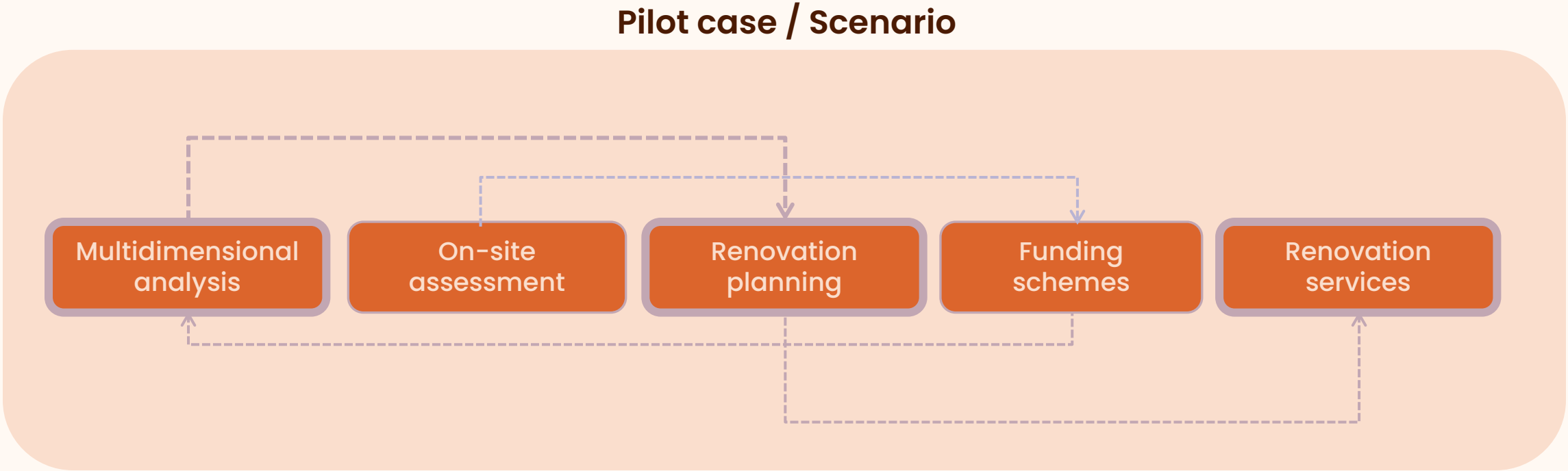
Renovation planning

Funding schemes

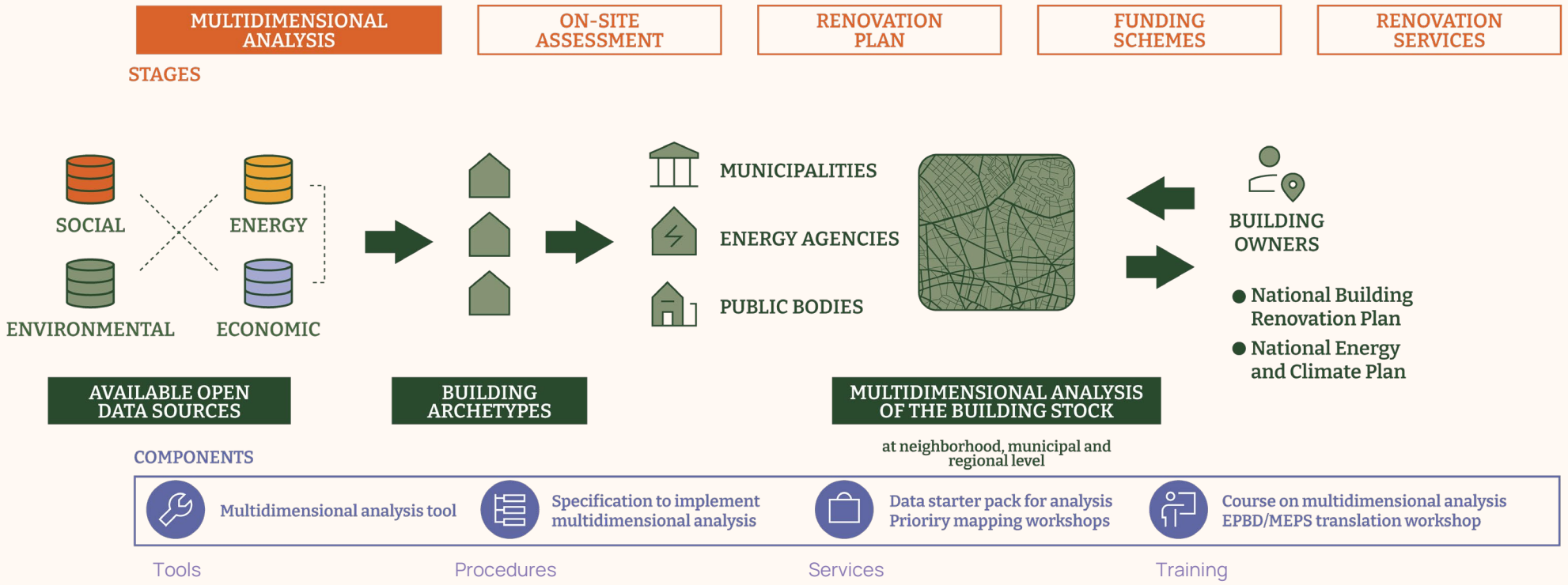
Renovation services

The Five Stages of the REAHUB Framework

The framework is adapted to local contexts, focusing on the stages and connections most relevant to each pilot case and scenario.

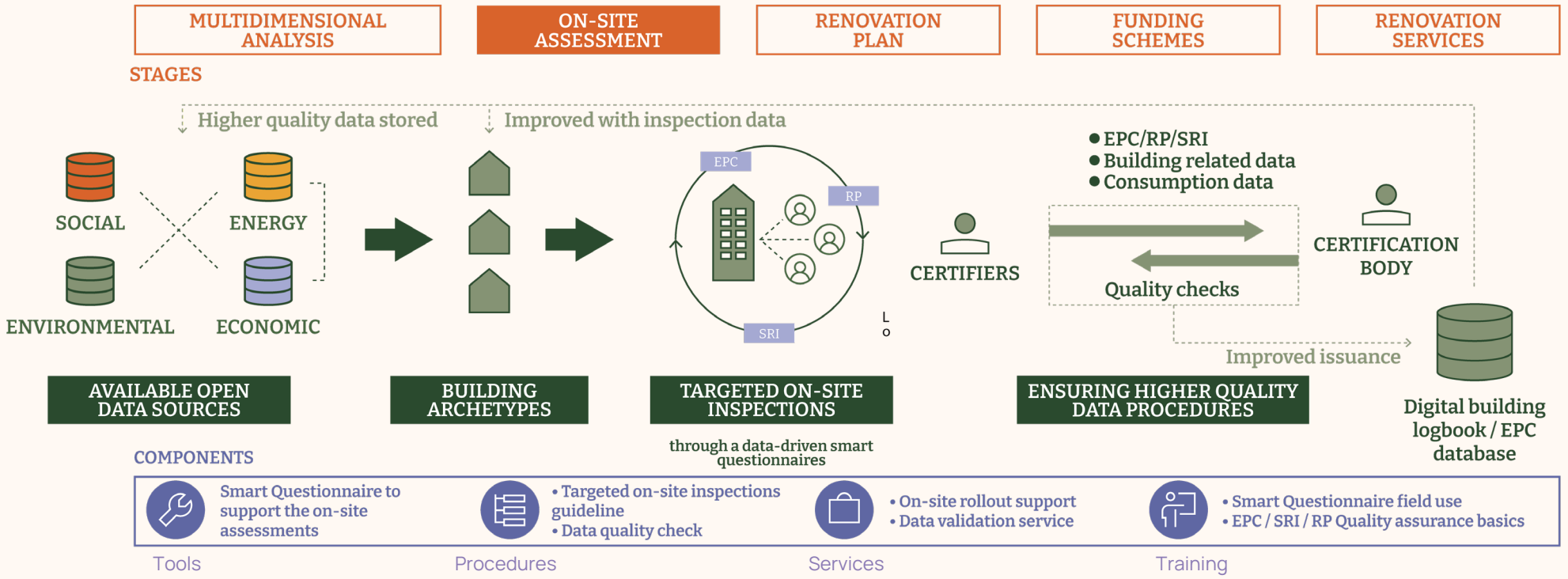


Multidimensional analysis



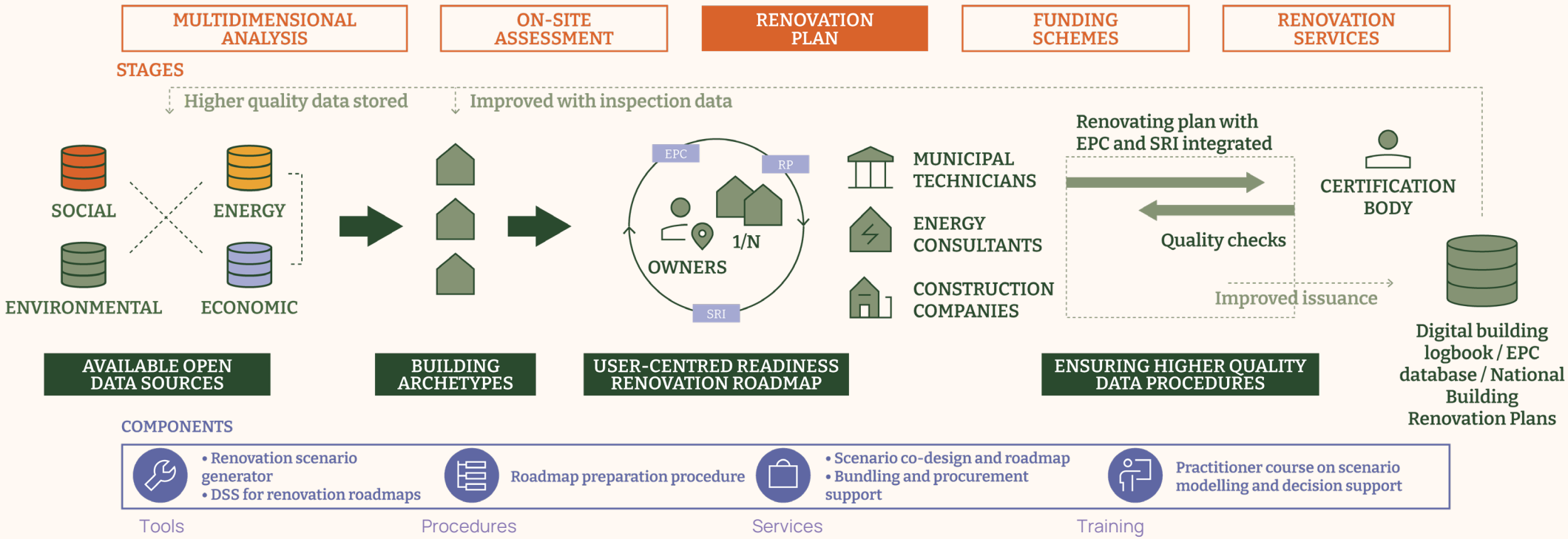
Multidimensional analysis of open data feeds the definition of building archetypes and on-site assessments. The results support renovation planning and funding decisions by municipalities, energy agencies and public bodies. Building stock analyses at different territorial scales ultimately help building owners access renovation services and implement renovation measures.

Online assessment



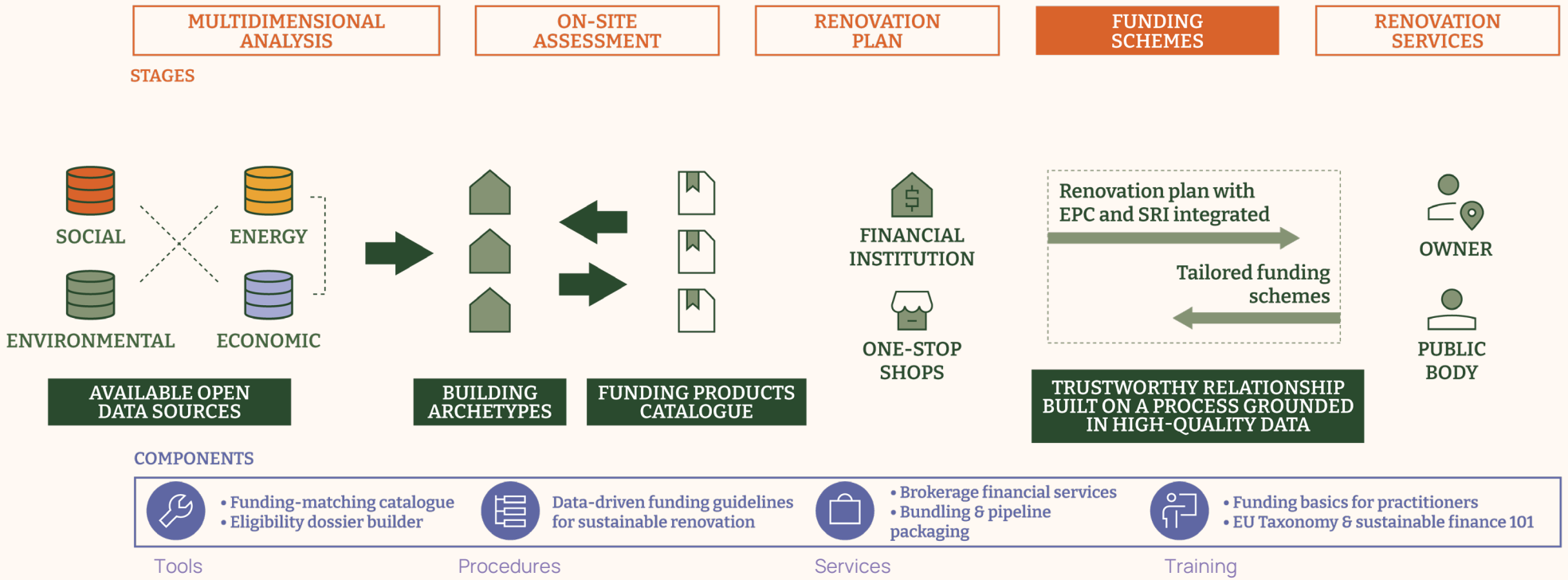
On-site assessment involves building owners, certifiers and certification bodies in targeted inspections supported by building archetypes and smart questionnaires. The collected data validates and enriches existing datasets, improving the quality of EPC, RP and SRI assessments and strengthening digital building logbooks and EPC databases.

Renovation planning



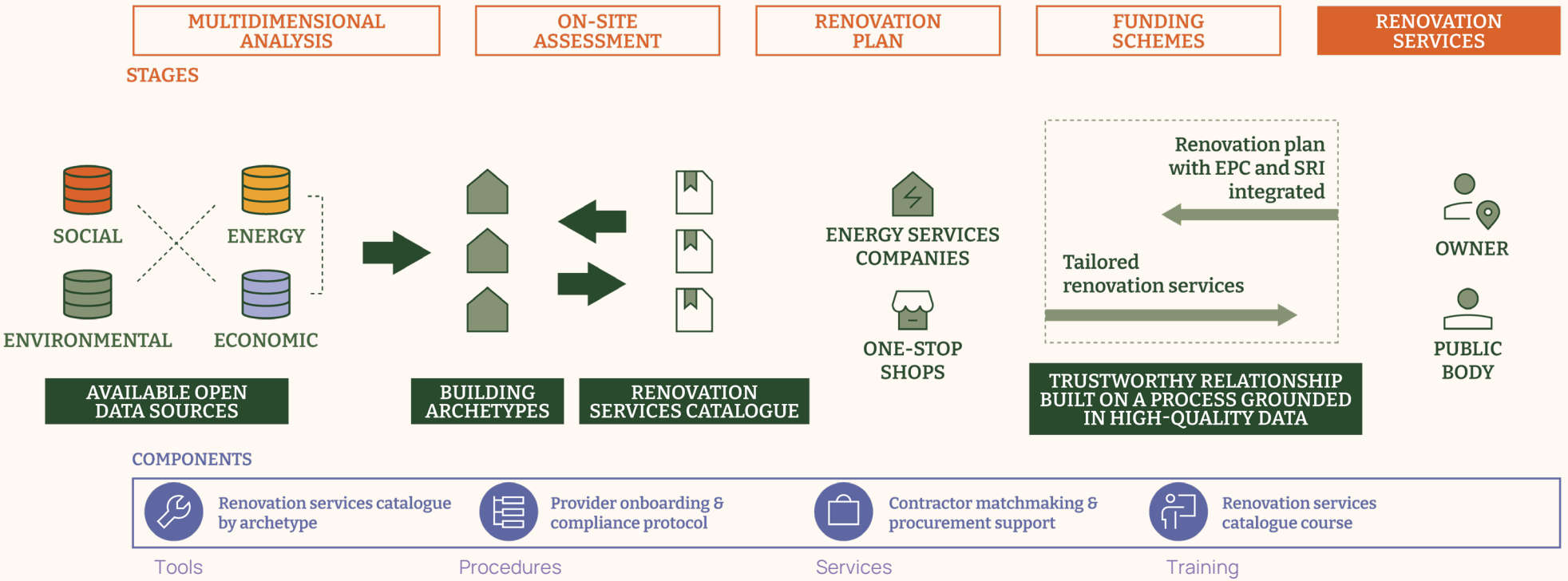
Renovation planning brings together building owners, municipal technicians, energy consultants and construction companies to develop user-centred renovation roadmaps. Based on building data and EPC, RP and SRI assessments, renovation scenarios are defined, prioritised and validated, creating a reliable basis for renovation decisions and implementation.

Funding schemes



Funding schemes match renovation projects with suitable financing options. Using building data and renovation plans, financial institutions and one-stop shops identify tailored funding products that support investment decisions and help building owners and public bodies implement renovation measures.

Renovation services



Renovation services turn renovation plans into action by matching building owners and public bodies with appropriate service providers. Energy service companies and one-stop shops deliver tailored renovation services and implementation support based on reliable building data and renovation roadmaps.

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Thank you!

If you need more information, please contact us

info@reahub.eu

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