

THEMATIC SESSION

Sustainable Urban Design: Positive Energy Districts and Flexible Energy Communities

Day **3** Fri. 10 Oct. 09.00 - 12.30 AM CEST





10 October 2025 | 09:00 – 12:30 h.

Monte Rosa 91 Conference Centre, Milan

Sustainable Urban Design: Positive Energy Districts & Flexible Energy Communities

Organized by



Contributors:



Sponsors:



OPENING SESSION

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Thematic Area Leader - Smart and Sustainable Communities
Renewables and Energy Efficiency Expert | R2M Solution Italy



“We now know how to make efficient buildings, but **how to make efficient cities becomes a little more complicated** because there is a problem of organizing space, networks and systems that implies **widespread actions coordinated with each other**”

Francesco Musco, Professor of Urban Planning at the IUAV University of Venice

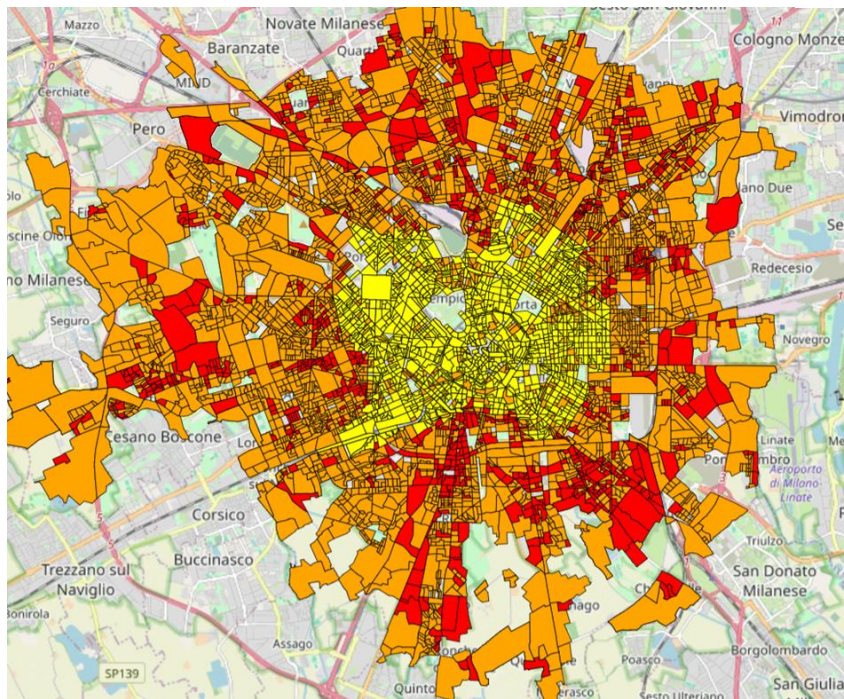
duezero  cinquezero - Padova, 2025



Thematic Area Smart and Sustainable Communities collaboration with:



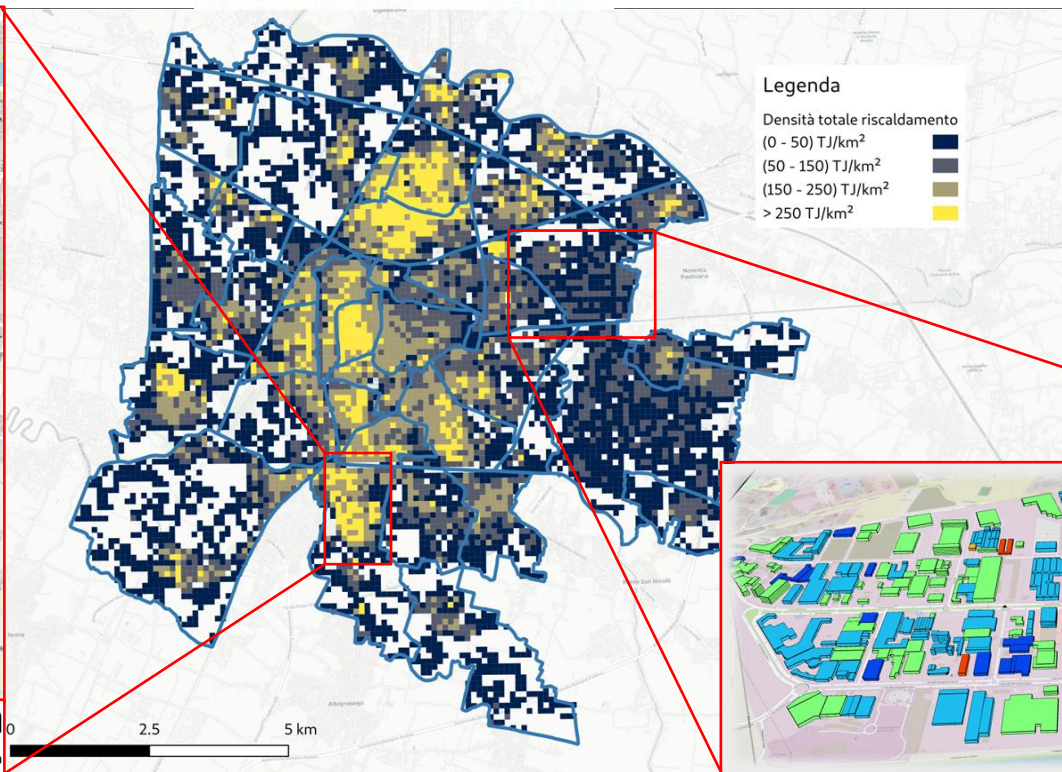
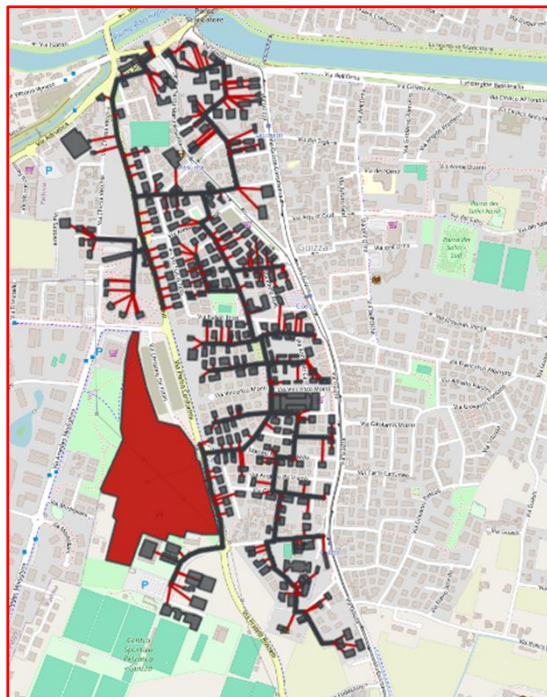
Comune di
Milano



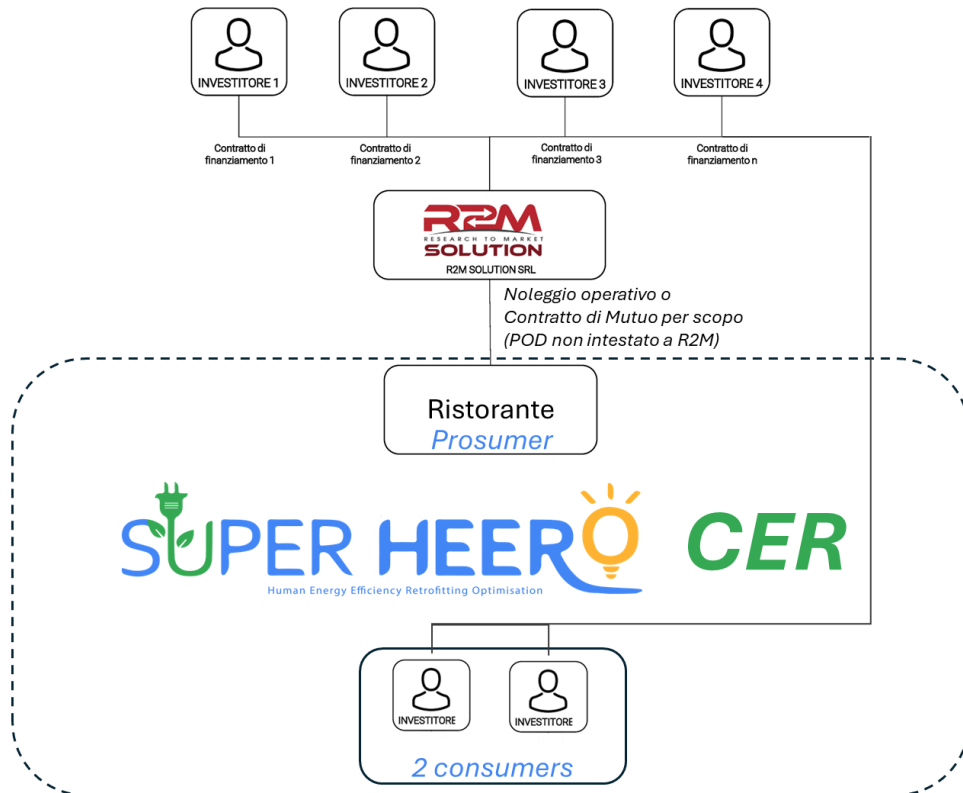
+DHC4Padova

PADOVA 2030
CITTÀ A ZERO EMISSIONI

+PADOVAxCHANGE



Announcement: the first REC powered by R2M in Italy!



Keep yourself updated!



Invest on the platform:

www.super-heero.com

Don't miss the afternoon session!



Announcement:

SP25 is the first event in Italy certified by Access4You!



SustainablePlaces 2025 - Milano

event location

The Sustainable Places 2025 welcomes wheelchair users, the elderly, people with reduced mobility, people with hearing impairments and people with assistance dogs. The event takes place in Milan, on the 8-10th of October.



20149 Milano, via Monte Rosa, 91

[SEE MAP](#)



Accessibility

According to Access4you's requirements, the location can accommodate the following accessibility needs.



Barrier-free public car park (within 100 metres)

Accessible toilet

Accessible toilet

Getting-in with assistance dog

Photos

Click on the photos to find out more details on accessibility!



[See all 75 photos](#)

Thanks to our colleagues of the **Innovative Products Division** for this achievement!

Let's get started!

“THE KNOW-HOW THAT SHOWS HOW”

“LA COMPETENZA CHE FA LA DIFFERENZA”

ANNA GAGLIARDI

Architetto – Project manager Task force Edilizia e Urbanistica Progetto 1000 esperti PNRR – Regione Lombardia

«Burocrazia vs Innovazione»

UN DIVARIO DA COLMARE

Cosa blocca lo sviluppo e l'innovazione?

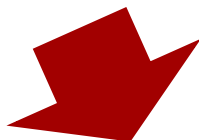
Le competenze e i regolamenti



“La velocità del cambiamento tecnologico ed ambientale è superiore a quella della normativa”.

BUROCRAZIA LENTA

- AUTORIZZAZIONI
- TEMPI LUNGH
- ITER COMPLESSI



INNOVAZIONE RAPIDA

- FONTI RINNOVABILI
- SMART CITY
- MOBILITA' SOSTENIBILE



RITARDO nell'applicazione di soluzioni utili a cittadini e imprese

**Fattori di incertezza
per imprese e
investitori
derivanti da prassi
operative eterogenee
tra enti**

Difficile definizione degli interventi

Mancanza di linee guida e incertezze nei procedimenti edilizi.

Complessità normativa e burocratica

Procedure complesse e disomogenea interpretazione delle norme.

Mancanza di coordinamento tra gli enti

Tempi di risposta lunghi e mancato utilizzo della Conferenza di Servizi

Eterogeneità nei metodi applicativi

Applicazione discrezionale della normativa e prassi operative diverse tra enti



**INVESTIMENTI INNOVATIVI
BLOCCATI**



**DISALLIENAMENTO TRA ESIGENZE DELLE
IMPRESE E CITTADINI E RISPOSTE DELLA P.A.**



RALLENTAMENTO



**RALLENTAMENTO = PERDITA DI COMPETITIVITA'
DEL TERRITORIO (IL TEMPO E' DENARO)**



Crescente sfiducia nei confronti della pubblica amministrazione.

Per sfruttare queste opportunità,
la PA deve rafforzare le competenze

PNRR

ha accelerato tempi e modalità di attuazione degli interventi di trasformazione territoriale, ma con forte pressione sulla capacità amministrativa...

bisogna prepararsi a gestire le missioni future



Nella PA bisogna prepararsi a capire e gestire l'eredità del Pnrr

Modelli di sviluppo/3

Veronica Vecchi

Qualche anno fa all'avvio del Pnrr si discuteva dell'importanza di creare una legacy di nuove capacità, soprattutto nelle PA locali, chiamate a gestire progetti con logiche di risultato. Si guardava poi al PNRR come possibile fonte di co-finanziamento di iniziative di partnership pubblico-privato (PPP), per generare un effetto moltiplicatore e per legare l'investimento alla gestione, introducendo innovazioni nei servizi pubblici. Tiriamo un primo bilancio, guardando i dati che ogni anno il Pnrr Lab di SDA Bocconi elabora. Nel 2023-24 il 30% delle gare di lavori (80 miliardi) sono state realizzate per progetti Pnrr e la buona notizia è che l'effetto "deadline" ha compresso i tempi medi di aggiudicazione: circa il 16% in meno e oltre il 10% per i grandi progetti (100+ milioni). Sicuramente la diversa disciplina dei ricorsi e una responsabilità diffusa, che ha favorito la collaborazione interistituzionale, sono state decisive. In termini di competenze, sono circa 3300 le PA qualificate per appalti di lavori (il 10% del

totale) ma solo circa 800 hanno la qualificazione massima. In questo panorama, meno del 20% dei comuni (l'aspettativa, di cui circa 440 hanno la

Una riflessione urge per non disperdere le competenze accumulate dagli esperti Pnrr laddove hanno saputo creare unità efficienti a supporto degli

periodo 2018 - 2023 ha rappresentato circa il 10% delle gare per investimenti, con una punta del 16% nel 2019, il numero di gare è rimasto però costante, mostrando una tendenza all'utilizzo anche per piccoli progetti. Ma il suo peso in iniziative Pnrr ha registrato uno scarso 6%. D'altra parte anche negli strumenti finanziari destinati agli investimenti, il PNRR non ha esitato sperimentazioni, se non con la misura per i Piani Integrati Urbani volta a creare addizionalità finanziaria. Essendo una misura rivolta a finanziare progetti privati o di PPP di rigenerazione urbana scatta la seria carenza di progetti bancabili e tempestive urbanistiche molto lunghe. In ambito rigenerazione urbana sarebbe stato forse opportuno una misura di sostegno alla costruzione di una

pipeline di progetti di PPP, capace di supportare le amministrazioni nell'ideazione di iniziative progettuali ad alto profilo "società". Il PPP ha dimostrato di funzionare molto bene "fuori dal Pnrr" per gli interventi di efficientamento energetico, cresciuti significativamente: un mercato molto dinamico ha saputo "strutturare" la possibilità di presentare proposte alle amministrazioni. Oggi, con il correttivo al Codice Contratti la procedura "tiro a bersaglio" sembra avvicinarsi sempre di più alla procedura negoziata, strada di riferimento per l'aggiudicazione di contratti di PPP a livello internazionale. Tra l'altro dovendo gestire i costi con minori disponibilità di capitale pubblico per sostenere la spesa per investimenti, sarà necessario riflettere attentamente sull'uso di "efficienza allocativa". I capitali pubblici dovranno essere allocati prevalentemente dove esistono fallimenti di mercato, o comunque dove non vi è la possibilità di individuare modalità di remunerazione del capitale privato non è possibile applicare l'istituto della concessione - per assenza del rischio operativo che giustifica la concessione rispetto all'appalto. Gli investimenti in efficientamento energetico si pagano in larga parte con la spesa storica e pertanto sarebbe del tutto inefficiente utilizzare il capitale pubblico per finanziarli. In questo ambito, la recente misura RecoverEU destinata all'housing pubblico rappresenta un segnale importante per facilitare la transizione al PPP. Avvicinandosi il termine del programma, una mossa vincente sarebbe l'allocazione delle risorse a rischio di non spesa in fondi dedicati al finanziamento di iniziative di PPP, senza dimenticare che in un paese in cui le capacità di fare PPP sono molto fragili servono misure di tipo demand-side e quindi a supporto della costruzione di una pipeline di progetti piuttosto che di tipo supply-side, cioè volte a sostenere l'offerta di capitale privato, che non manca quando ci sono progetti di PPP ben strutturati, fattibili e bancabili.

SDA Bocconi
SISTEMI DI INNOVAZIONE

Una riflessione urge per non disperdere le competenze accumulate dagli esperti Pnrr laddove hanno saputo creare unità efficienti a supporto degli enti, come in Lombardia. Passando al PPP: nel



Nuove competenze in:
transizione ecologica e ambientale, innovazione digitale e intelligenza artificiale,
project management e partenariato pubblico-privato,
semplificazione normativa

Cosa occorre allora?

**Una PA agile, competente e capace di anticipare le sfide
Attraverso norme e regolamenti aggiornati, semplici, orientati al futuro**

Un nuovo rapporto tra norme e sviluppo sostenibile

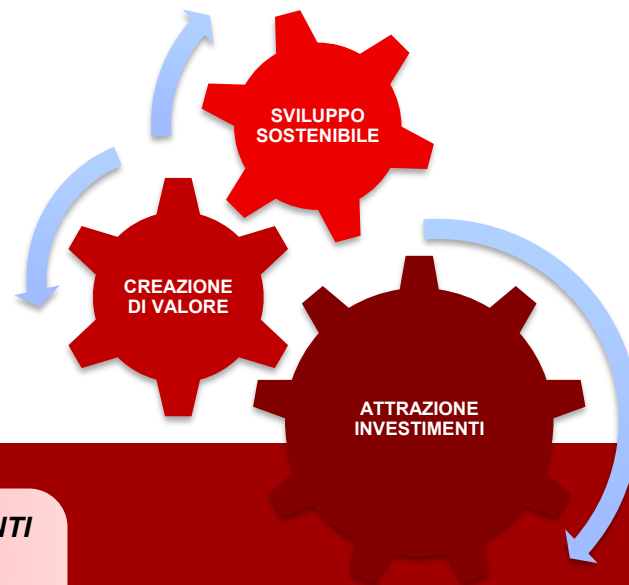
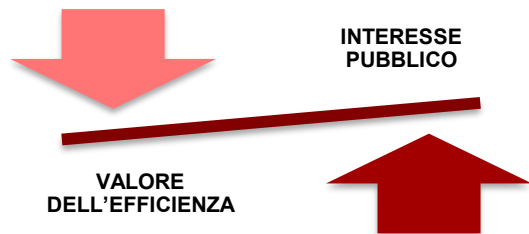
“Investire oggi nelle competenze della PA significa garantire domani comunità più sostenibili, innovative e inclusive”.



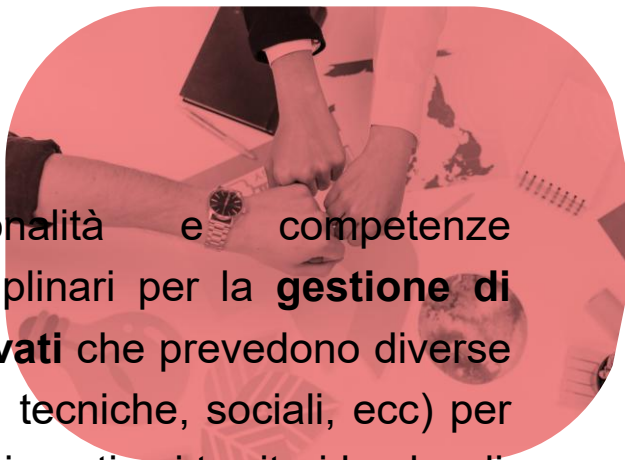
Benefici Tangibili

Riduzione di tempi e costi per gli investimenti delle imprese sul territorio, affidabilità e trasparenza nei processi amministrativi.
Aumento della qualità della vita dei cittadini e delle imprese

L'ETICA DELLA RESPONSABILITÀ NELLA GOVERNANCE TERRITORIALE



**MIGLIORAMENTO DELLE RELAZIONI= FIDUCIA= MAGGIORI INVESTIMENTI
=
SVILUPPO SOSTENIBILE**



Occorrono professionalità e competenze complesse e multidisciplinari per la **gestione di accordi pubblici e privati** che prevedono diverse discipline (economiche, tecniche, sociali, ecc) per l'atterraggio degli investimenti sui territori lombardi

Partnership Pubblico Privato per il Territorio

Una nuova alleanza che valorizzi le competenze tecniche e la capacità di innovazione della PA

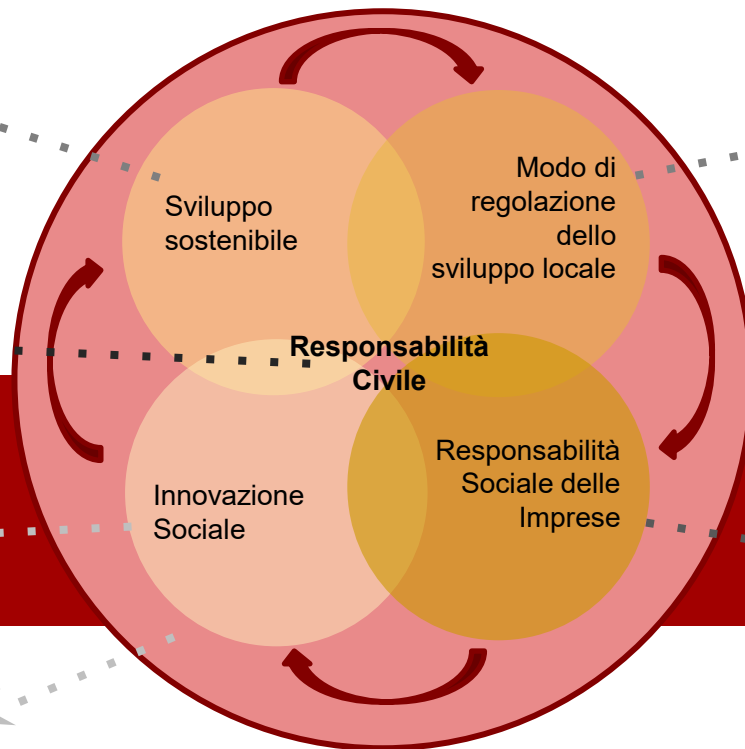
TERRITORI RESPONSABILI E GENERATIVI DI COMUNITÀ

Sviluppo come benessere equo e
sostenibile territoriale

Scelta etica e
politica

Innovazione che
genera coesione
sociale e comunità

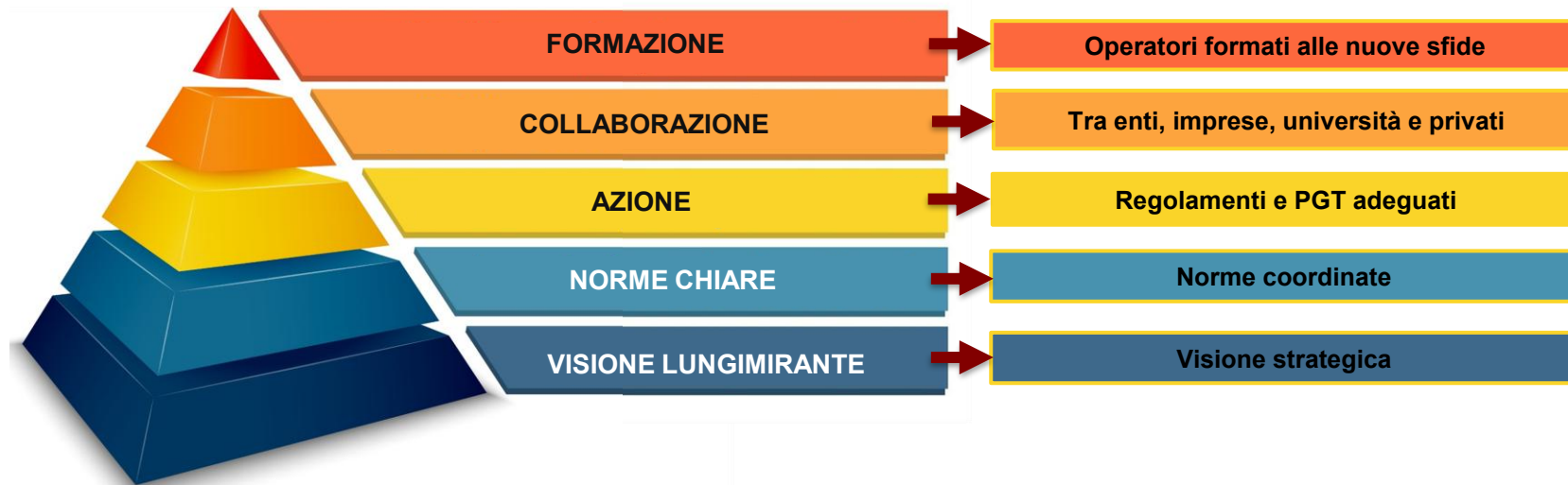
Approccio ecosistemico
Coevoluzione su un territorio che
apprende e genera valore condiviso



Sistema di relazioni
stato/mercato/comunità
e **responsabilità sociale**
dell'attore pubblico

Responsabilità sociale
delle imprese ed etica
del lavoro

“VOGLIAMO RESTARE FERMI NELLA BUROCRAZIA O GUIDARE IL CAMBIAMENTO?”

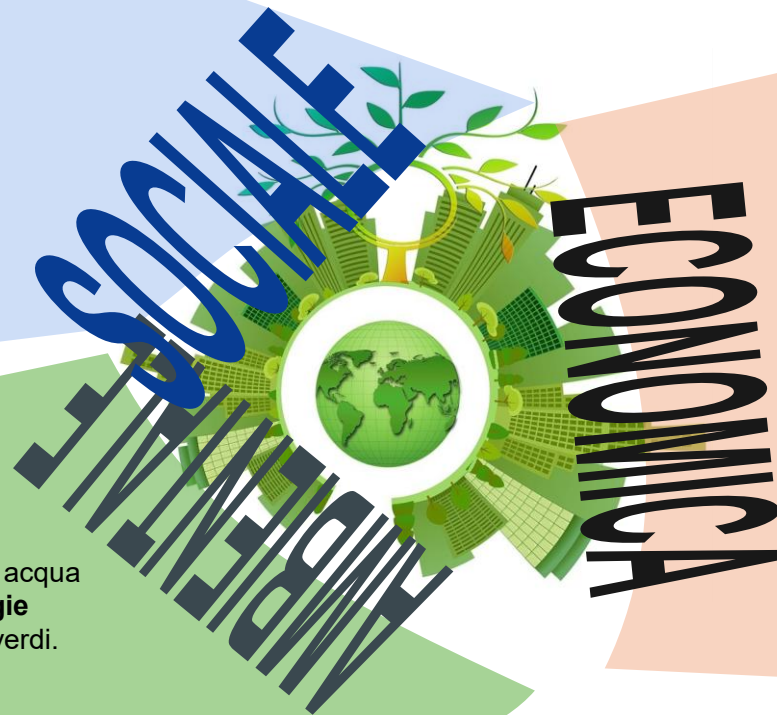


«Il futuro non aspetta! Costruiamolo insieme»



Favorire l'**inclusione sociale**, il benessere dei cittadini, la salute e l'accessibilità ai servizi.

Ridurre il consumo di suolo, energia, acqua e materiali, **promuovendo energie rinnovabili**, green building e spazi verdi.



Garantire la **sostenibilità economica** attraverso la valorizzazione delle risorse, il recupero dell'esistente e la creazione di opportunità lavorative



Miglioriamo insieme la collaborazione tra imprese, comunità e pubblica amministrazione

GRAZIE DELL'ATTENZIONE

info@annagagliardi.it



Mainstreaming Energy Communities in Europe

Fayaz Ahmed

R&D Engineer & Project Manager, R2M Solution (Italy)

EU & Italian Perspectives on Scaling Energy Communities for 2030 & 2050

- 1 Why energy communities matter now,
- 2 What policy and market frameworks make them possible, and
- 3 How we can scale them across Italy and Europe to meet the 2030 and 2050 goals.



WHY THE TRANSITION IS URGENT (GREEN DEAL, PRICE VOLATILITY, ENERGY POVERTY)

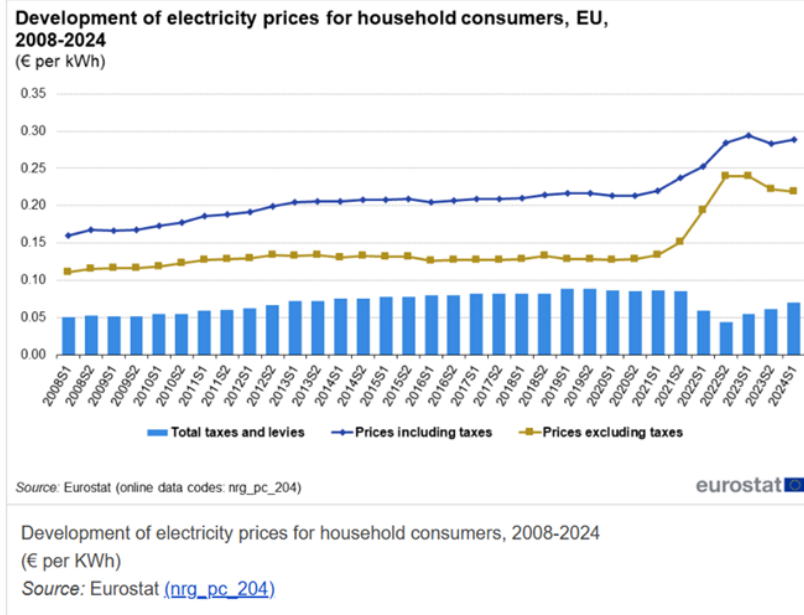
The **EU Green Deal** is a comprehensive **policy initiative** aimed at **making the European Union the world's first climate-neutral bloc by 2050**.

Reliance on fossil fuel imports causing price volatility & high supply costs.

Effects of **high energy prices** in Europe

- Retail electricity prices for **households** remain higher than pre-crisis levels.

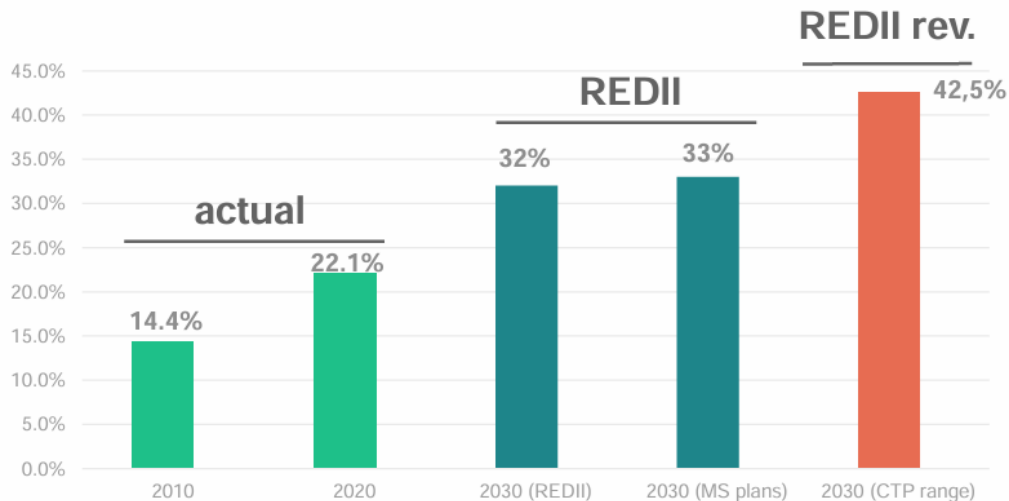
Energy poverty affects more than 46 million Europeans.



The energy transition is not just about carbon — it's about cost, security, and people.

SCALE OF THE CHALLENGE (MORE RENEWABLES, GRID INVESTMENT)

We must accelerate renewables and upgrade our grid to deliver the Green Deal



- We need to add about 1.5 times more wind and solar capacity by 2030.
- Additional EUR 560-580 billion of investments needed in the power grid by 2030.

We need new actors — not just new technologies.

HOW DO WE TACKLE THIS? BY EMPOWERING CONSUMERS.

When citizens become active participants, several things happen:

Public acceptance of renewables

Consumers become active energy citizens

Active consumers provide flexibility

Mobilize private capital

Citizens in Europe have the potential to invest up to 176 billion euros in the energy transition by 2030 - ACCE project



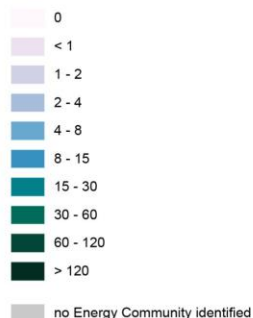
Source: European Climate Pact

ENERGY COMMUNITY MOVEMENT IS REAL

- ❑ Western and Northern Europe have mature community energy ecosystems.
 - ❑ Southern and Eastern Europe are catching up but still face administrative and financial barriers.
- ❑ Dark green areas (> 120 ECs per M inhabitants) → high density of Renewable or Citizen Energy Communities. →
 - ❑ Example: parts of Germany, Denmark, Austria.

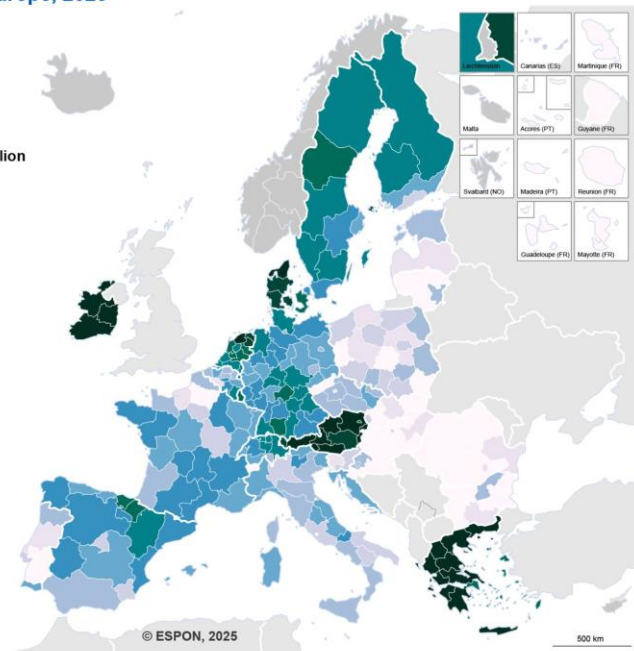
Energy Community Density in Europe, 2025

Number of Energy Communities* per 1 million inhabitants



Note: * Energy Communities considered here are CECs (Citizens Energy Communities) and RECs (Renewable Energy Communities). RECs and CECs bring together natural persons, local authorities, and businesses together in a legal entity to organise different activities in and around renewable energy production.

ESPON  Co-funded by the European Union



Territorial level: NUTS 2 (2021)
Source: ESPON TANDEM, 2025
Origin of data: TANDEM survey, Energy by People, Energy Communities Repository, national registries, 2025
Administrative boundaries: ©EuroGeographics ©ESPON

Source: TANDEM (Territorial Analysis of Decentralised Energy Markets) project

EUROPE HAS GIVEN ENERGY COMMUNITIES A LEGAL BACKBONE

Renewable Energy Communities (REC)

- (Article 22 Renewable Energy Directive 2018/1999)

Citizen Energy Communities (CEC)

- (Article 16 Electricity Market Directive 2019/944)

Art. 2 on definitions: makes clear that renewable energy communities are a social concept, rather than financial profits.

**The EU has now formalised this empowerment.
Under EU Law, Energy Communities are legitimate market actors.**



Citizen Energy Package



ITALY: TURNING EU POLICY INTO A BANKABLE MODEL (RSE Map)

- The RSE interactive map offers a comprehensive overview of Renewable Energy Communities (RECs) across Italy.
- Developed by Ricerca sul Sistema Energetico (RSE), it provides real-time data on active, planned, and developing RECs, including their **geographic distribution, technological profiles, and organizational models.**



Comunità Energetiche: superate le 2.000 configurazioni CACER in Italia



Fonte: Tutte
Anno: Tutte

Dati cumulati CACER in esercizio*

Schema incentivazione: Tutte
Configurazione: Tutte

Numero configurazioni



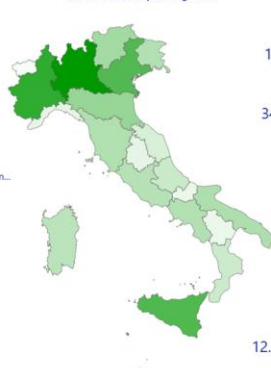
Altre configurazioni n. Autoconsumo a dist. Autoconsumo c. Comunità en.

Potenza impianti (MW)

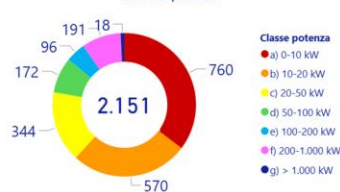


Altre configurazioni n. Autoconsumo a dist. Autoconsumo c. Comunità en.

Distribuzione per regione



Classi di potenza



Classe potenza
a) 0-10 kW
b) 10-20 kW
c) 20-50 kW
d) 50-100 kW
e) 100-200 kW
f) 200-1.000 kW
g) > 1.000 kW

Numero clienti associati**



Altre configurazioni n. Autoconsumo a dist. Autoconsumo c. Comunità en.

Fonte: All
Anno: All

Dati cumulati CACER in esercizio*

Schema incentivazione: All
Configurazione: Comunità energetica rinnovo

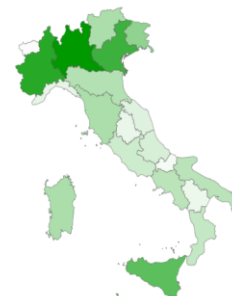
Numero configurazioni



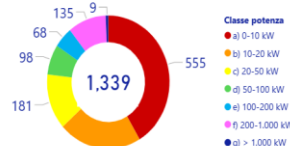
Potenza impianti (MW)



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f) 200-1.000 kW
g) > 1.000 kW

Numero clienti associati**



Comunità energetica rinnovabile

Dati al 30 settembre 2025

*Si considerano in esercizio gli impianti con contratto sia attivo sia in fase di finalizzazione. Le configurazioni localizzate su più Regioni e/o con più di una fonte sono distribuite sulle relative Regioni/fonti.

**Il numero di clienti associati rappresenta il numero di POD associati alle configurazioni.

CURRENT STATUS— ENERGY COMMUNITIES IN ITALY (SEPTEMBER 2025)

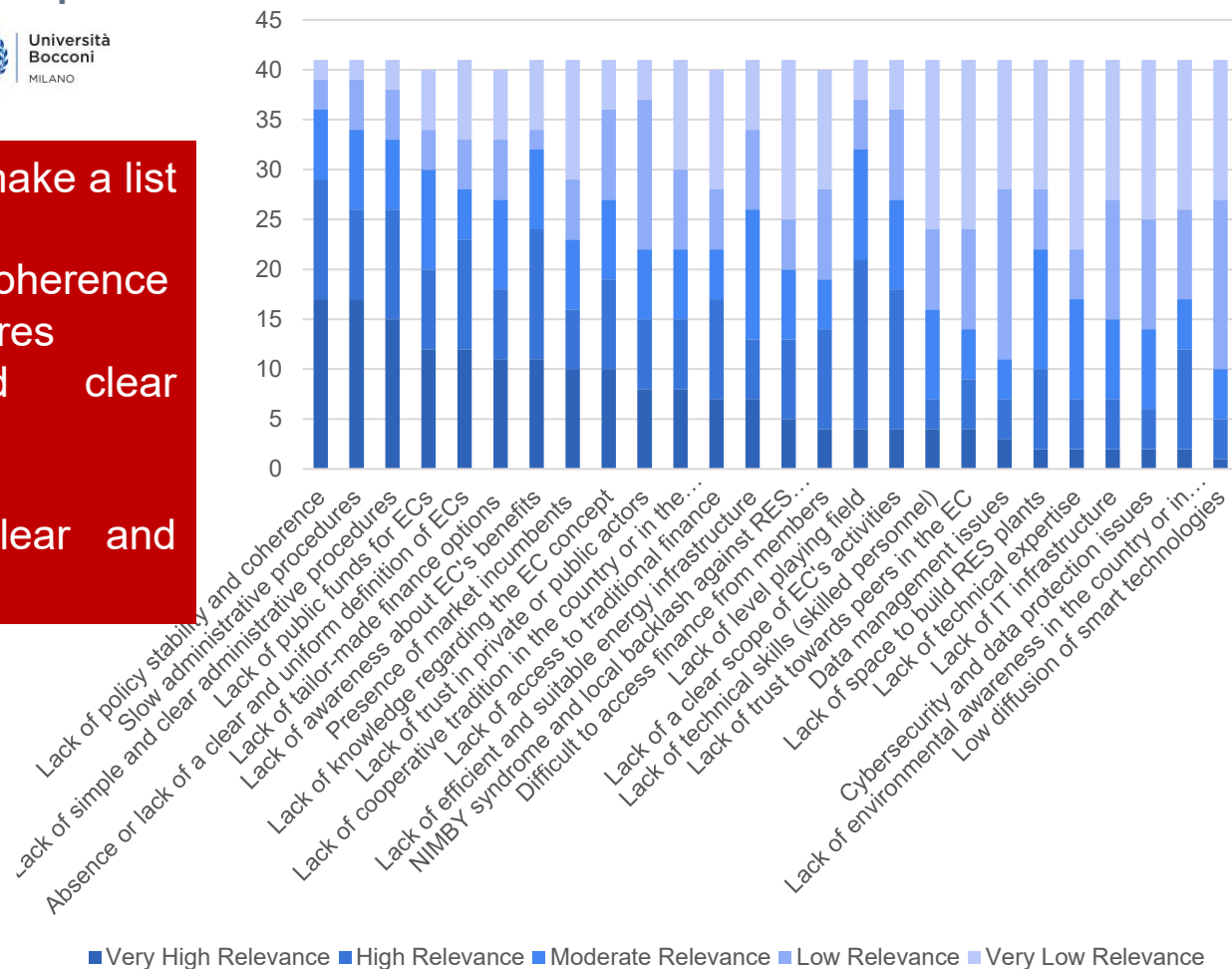
- 1,339 Renewable Energy Communities (CER) in operation or finalization.
- 12,878 associated clients — citizens, SMEs, municipalities, and third-sector actors.
- Strong concentration in northern regions (Lombardia, Veneto, Emilia-Romagna, Piemonte), with southern growth supported by PNRR incentives.
- Consistent monthly growth: Approximately 50–70 new Renewable Energy Communities (RECs) are established each month, signalling a national scaling phase
- Active municipal engagement: Over 500 local administrations have launched feasibility studies or joined REC initiatives.
- First urban collective self-consumption models: Cities like Milan, Bologna, and Turin are piloting neighborhood and condominium-based REC models

- The deployment curve is accelerating Italy is moving from pilot initiatives to a scaling phase.
- Municipal engagement is growing, making CERs an effective tool for local climate and energy strategies.
- Financial innovation is emerging crowdfunding, cooperative ownership models, and public-private partnerships are unlocking new funding channels.
- CERs are influencing urban regeneration: unused public buildings and rooftops are being repurposed for clean energy production.
- Integration with electric mobility is beginning: some CERs are installing EV charging stations and exploring vehicle-to-grid solutions.

Looking at all barriers, we can make a list of the most relevant ones :

1. Lack of policy stability and coherence
2. Slow administrative procedures
3. Lack of simple and clear administrative procedures
4. Lack of public funds for ECs
5. Absence or lack of a clear and uniform definition of ECs

Comparative analysis of barriers



1 Simplify

Cut complexity and harmonize rules.

→ One-stop shops, faster permitting, and clear, consistent definitions across Member States.

3 Empower

Put cities, citizens, and SMEs at the heart of Europe's energy transition.

→ Support local leadership, participation, and fair access to benefits.

2 Finance

Expand financial instruments that truly recognize the unique models of community energy.

→ Support energy communities across all development stages — from feasibility to replication.

THE HUMAN SIDE OF ENERGY COMMUNITIES: LESSONS FROM DIFFERDANGE

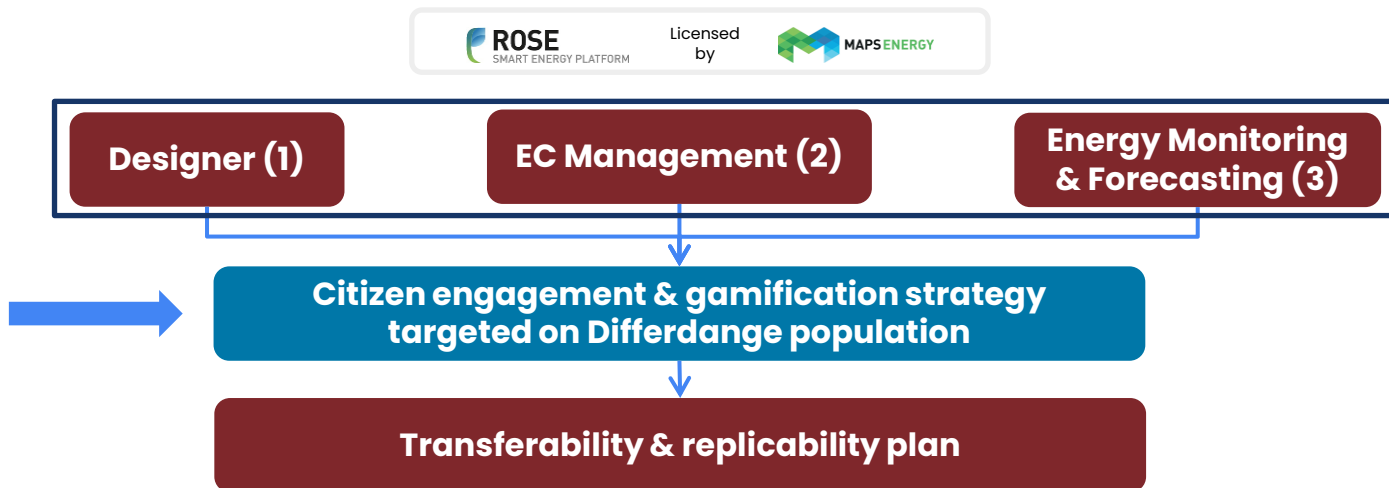
MARTINA DI GALLO

Project Manager, R2M Solution

DECAFF Solution

CHALLENGE: the City of Differdange has the ambitious goal to produce locally and sustainably 100% of its global need in electricity by 2030 with the support of its population

SOLUTION: DECAFF aims to provide a multilingual **digital platform** structured in three interconnected blocks aligned with a **citizen engagement and gamification strategy**.

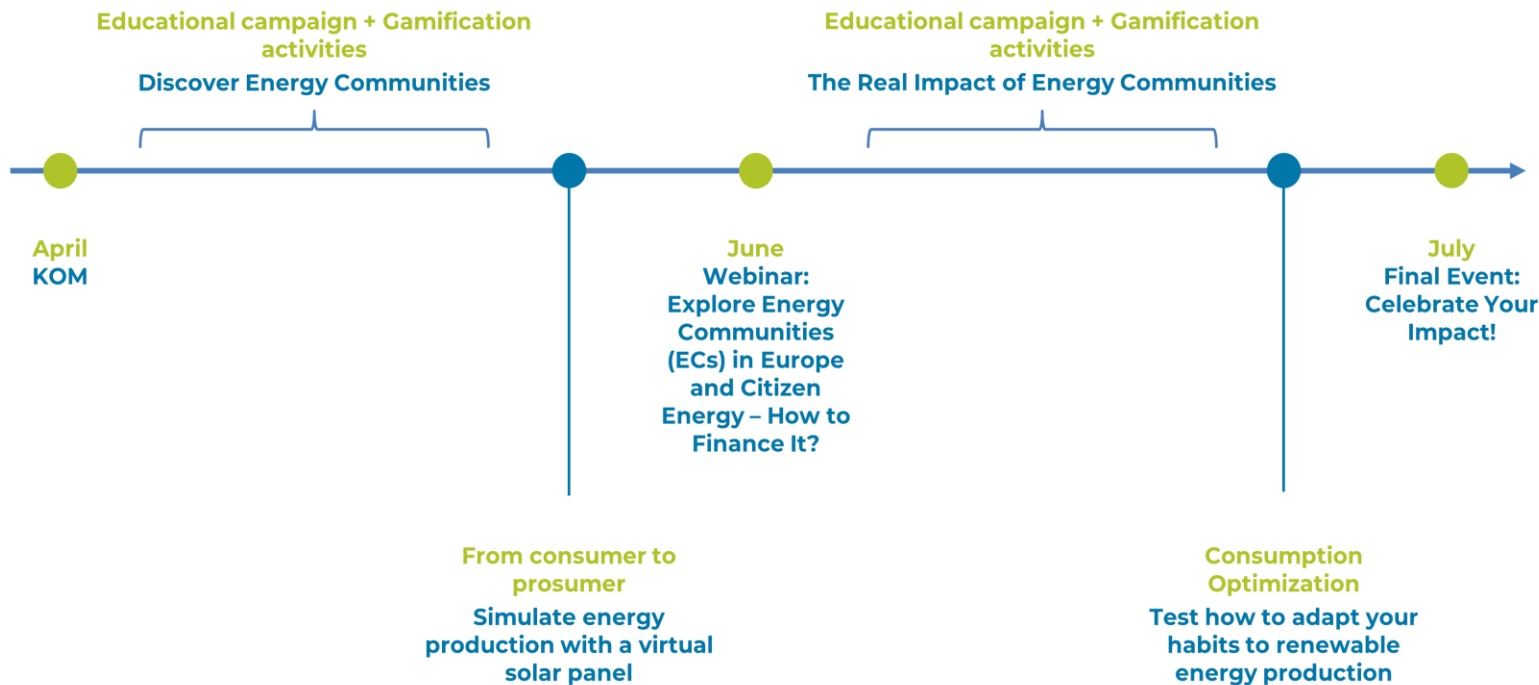


Citizen engagement and gamification strategy

General Objective: Engage citizens in the journey toward the creation of **virtual Renewable Energy Communities (RECs)** and **promote awareness, active participation, and energy-sustainable behaviours.**

Expected Impacts:

- Increased energy awareness.
- Stronger sense of community belonging.
- Creation of an active base of citizens ready to join real RECs.



ENGAGEMENT STRATEGY

Blended approach: combination of digital activities and in-person events.

Progressive engagement: information → experimentation → participation.

Main target: citizens, but also local businesses and stakeholders.

Focus: collective value and participation in the energy transition.

KEY TOOLS & GAMIFICATION MECHANISMS

DECAFF platform and app: digital environment to register, explore energy missions, and monitor progress through a personal dashboard.

Gamified experience: thematic missions to encourage sustainable actions.

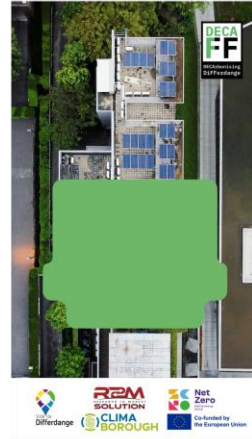
Collective challenges: promote collaboration, knowledge sharing, and a strong sense of community.

COMMUNICATION, CAMPAIGNS & EVENTS

Developed campaigns: designed to engage citizens and raise awareness about RECs.

Citizens as ambassadors: promote word-of-mouth participation and involvement of new users.

Workshops, videos & storytelling: hands-on sessions and shared experiences from other countries to inspire participation and increase awareness.



Participation in Net-Zero City events and collaboration with the municipal teams strengthened local engagement.

Connected a local REC with the municipality and developed simulation scenarios for RECs across different districts to foster awareness and participation.

Supporting the municipality in envisioning scalable and evidence-informed community energy strategies.

Lessons Learned

Local presence and trusted intermediaries are key: Face-to-face interactions and credible local partners build citizen trust.

Early scepticism requires tailored communication: Clear, consistent messages addressing doubts are essential to foster engagement.

Participation culture requires time and nurturing: Sustainable involvement grows gradually; continuous support is necessary.

Introducing digital tools requires careful assessment: Consider user readiness, digital habits, and accessibility when deploying apps.

Gamification motivates behaviour and reinforces learning: Missions, badges, and challenges help citizens adopt sustainable energy behaviours.

Community and peer influence matter: Visibility of others' actions and collective challenges strengthen engagement and collaboration.

LIFE-BECKON

Boosting **E**nergy **C**ommunities massive deployment by equipping local authorities with comprehensive technical assistance **cooKboOk**, integrated services and capacity **buildiNg**



Ivan Aranda

Director Energy Dept., R2M Spain



Co-funded by the
European Union

Main Objective

- To facilitate the creation, maintenance and replication of energy communities (EC) in Europe

For whom?

- Public authorities, promoters and Local Action Groups



The  team



How?

1. Step-by-step guidelines (“Cookbook”)
2. Capacity Building
3. One-Stop-Shop Platform
4. Technical Assistance and Replication





geographic focus

Where?

Copenhagen, DK



Ávila, ES



Sofia, BG

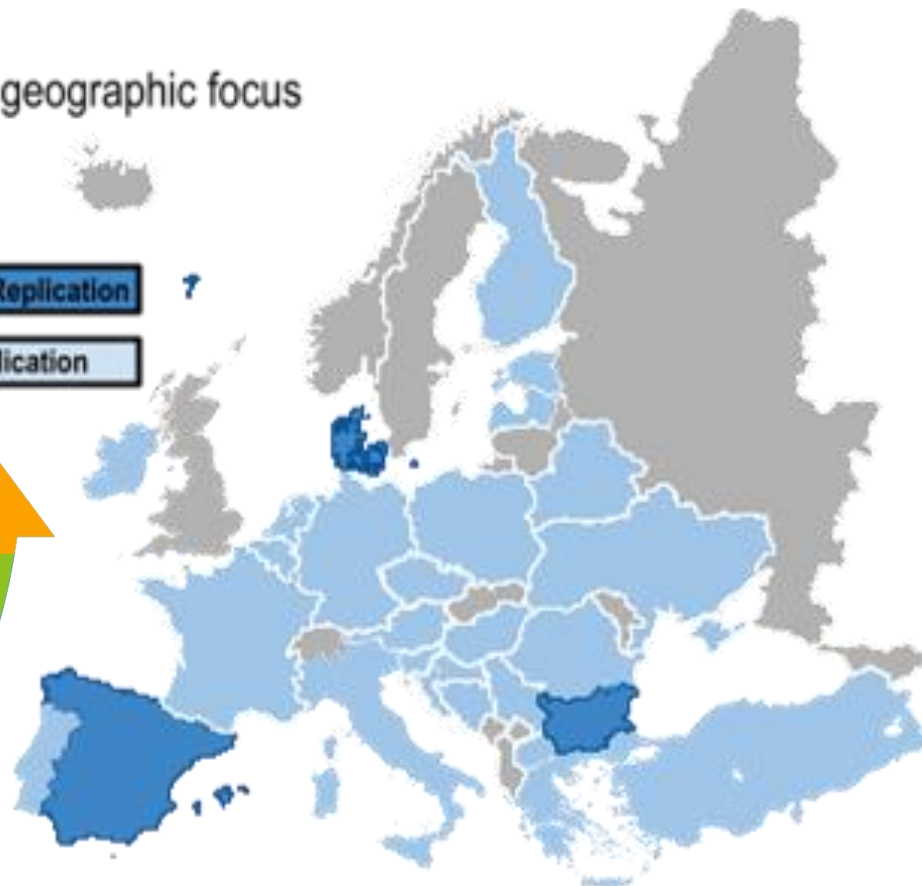


+ **25**
Replicators

Validation & Replication

7

Targeted Replication



Why?

Context

- Different energy initiatives are in different “maturity stages”
- Different needs for different stakeholders in EC world
- Too many already existing resources
- Lack of awareness

Need

Comprehensive
support



1. Guidance Hub
2. Training Hub
3. Opportunity Hub



Solution

LIFE-BECKON

All-Inclusive Platform
for Energy
Communities

Sign up



Guidance hub



Initiation

Design

Implementation

Operation



Step-by-step Guidance

This comprehensive framework offers a step-by-step guidance for Energy community leaders and experts to successfully initiate, design, implement, and operate an Energy community.

Initiation

Design

Implementation

Operation

The initiation phase allows promoters to become acquainted with the fundamentals of Energy Communities, gain insights from existing cases, and receive support in establishing their initial development concept.

You are just a few clicks away from understanding the basics of Energy Communities!

What is an Energy Community? Explore fundamentals

To create an energy community, it is fundamental to get familiar with the concepts of such initiative.

Create your Business Plan

The advancement of an energy community largely hinges on the creation of a sound and coherent business plan. This plan must take into account the fundamental topics of an energy community and outline the principal decisions and agreements established via participatory processes.



To formulate your business plan, the LIFE BECKON Business Plan template offers step-by-step instructions, providing brief explanations of the anticipated inputs for each section, along with suggested support materials available on the platform.

[Click here](#)

Examples of Business Plans

The LIFE BECKON business plan template is not the sole resource available! You can also consult the various documents and guidelines provided in this section for additional support in crafting your business plan. Feel free to choose the material that best fits your requirements:

Training hub



VIDEO SERIES

Video Series

Discover the world of Energy Communities through LIFE-BECKON thematic videos: you'll gain valuable insights, practical tips, and diverse examples to guide your journey. Complementing these videos are detailed slide decks, providing comprehensive elaboration and supplemental information for each topic. Subtitles available in Bulgarian, Danish, Finnish, French, German, Italian, and Spanish.

Start here: Trailer

Definitions and Benefits

Overcoming barriers in Energy Communities

Stakeholder engagement in Energy Communities

Governance models and Legal structures

Regulation highlights

Financing and Public Aids



Start here: Trailer

Definitions and Benefits

Overcoming barriers in Energy Communities

Stakeholder engagement in Energy Communities

Governance models and Legal structures

Regulation highlights

Financing and Public Aids

Technological considerations

Operation of Energy Communities



Welcome to second video in our training series on Energy Communities! Building on the first video of the series which unveiled the foundations and rich benefits of Energy Communities, our goal is to inspire those establishing or supporting them. Dive into real-world examples and best practices from European initiatives, showcasing successful exploration of potential barriers. Discover a wealth of knowledge and resources tailored for both experienced individuals and newcomers. Explore tips for overcoming technical, financial, operational, participation, user engagement, legal, and regulatory barriers. Let inspiration ignite your journey into the realm of Energy Communities!

Complementary written materials – Overcoming barriers in Energy Communities [PDF]

Opportunity hub



Next events

There are no events at this moment.

[More events](#)

Latest financial opportunities



Byfornyelsespuljer

March 27, 2025

Læs mere om Københavns Kommunes Byfornyelsespuljer til både renovering, energieffektivisering og rådgivning:

[More opportunities](#)

Latest news



Solcellepuljen

March 27, 2025

Få 50% støtte til en professionel teknisk rådgiver, der screener om jeres ejendom er velegnet til solceller. I kan få tildelt en rådgiver eller vælge jeres egen

[More news](#)



København (DK)

[Details](#)

[Members](#)

[Contact](#)



Tiago Soares Loureiro

Administrator



Pablo Imaz

Manager



Erik Hagelskjaer

Citizen



Eik Buhl Petterson

Technician



Alberto Danese

Join us at: <https://www.oss-energy-community.eu/>



THANK YOU!

Co-funded by the European Union. 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.



Co-funded by the European Union

The STUNNED approach: balancing needs orchestrating flexibility

Ana García Garre

Head of Innovation, Voltiva Energy (MIWenergía)

Matteo Porta

Senior Project Engineer, RINA-C

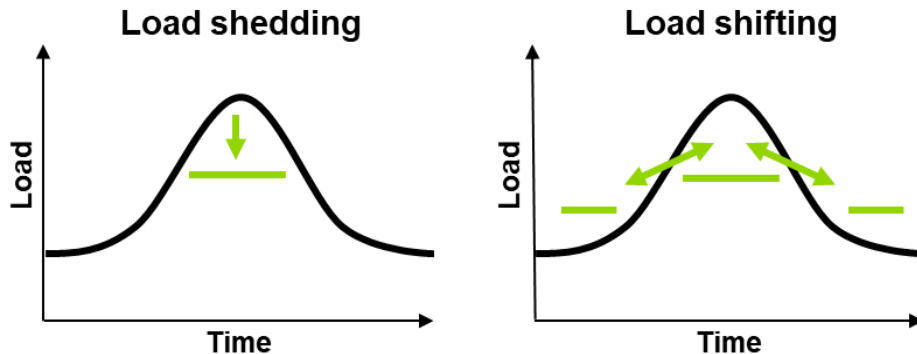
Project Overview

The main objective of **STUNNED** project is the development and demonstration of a comprehensive HW/SW solution for the optimal management of complex energy systems of aggregated industrial sites and buildings to operate in novel flexibility and standard electricity markets.



What's the problem?

‘**Supply follows demand**’ used to be the main rule of the existing electricity system, to ensure security of supply at any time.

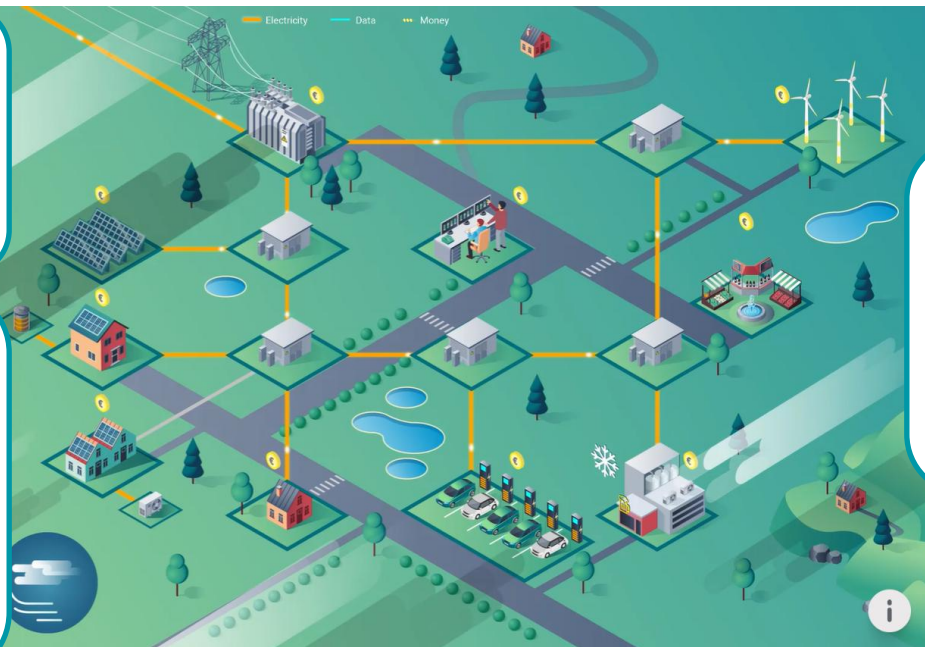


Today is no more the case, ‘**Demand follows supply**’ can be safely stated. Global and local **flexibility markets** are places where this can happen.

What's the problem?

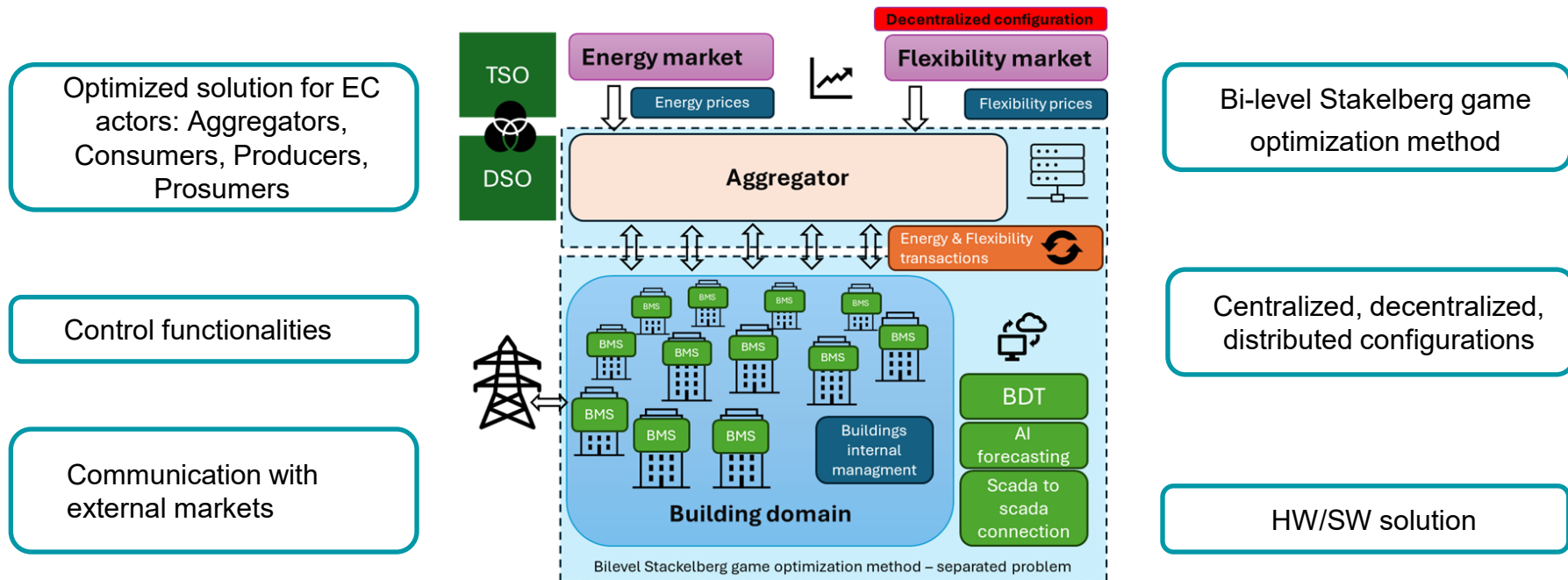
How to aggregate small capacities to participate to **local flexibility markets** gaining values from them?

Aggregators, BRP and **BSP** assume the responsibility and provide the opportunity to small actors (residential, commercial, tertiary) to get profit from flexibility.

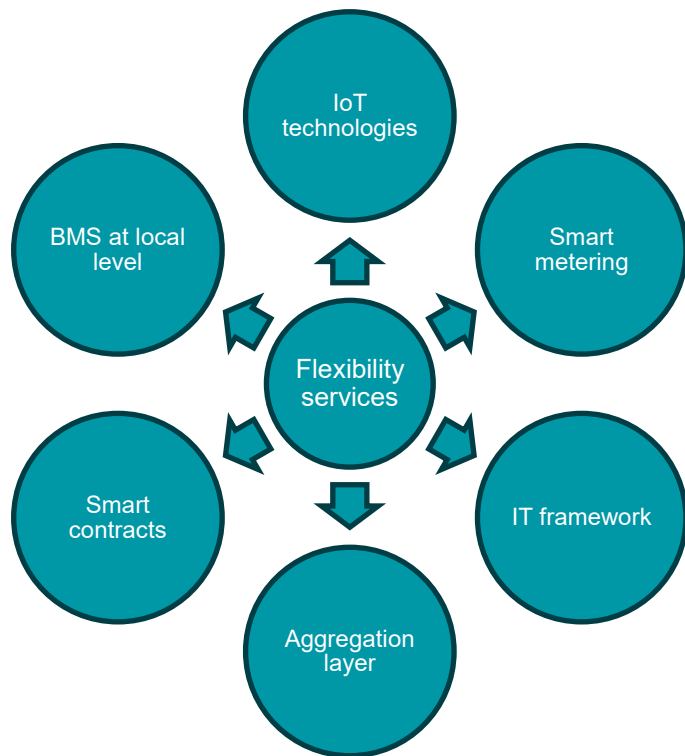


Load shifting and **load shedding** are not for free: they require technology, digital infrastructures, precise planning and orchestration.

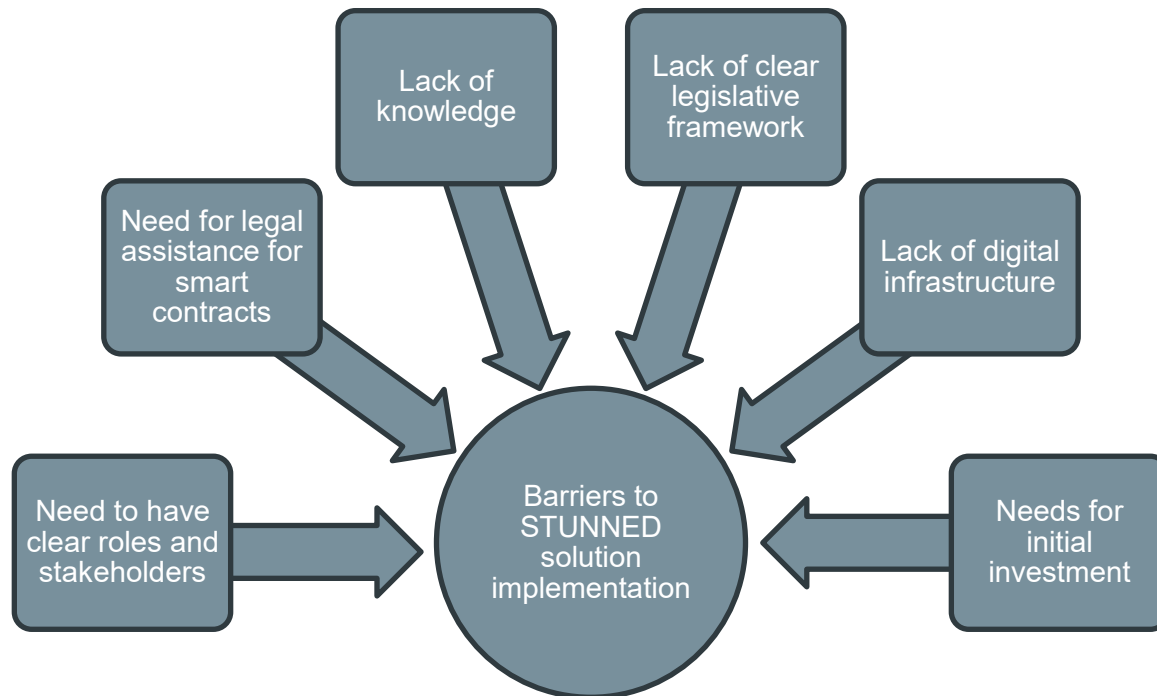
Addressing operational complexity



How to develop the STUNNED solution



Most common barriers to implementation



MASTERPIECE: Enabling Citizen-Driven Energy Communities through Digital and Social Innovations

Fayaz Ahmed

R&D Engineer & Project Manager, R2M Solution (Italy)

WHAT IS MASTERPIECE MISSION?



*MASTERPIECE's mission is to create
**a digital coordination and
cooperation platform that facilitates
the creation and operation of
energy communities***

How?

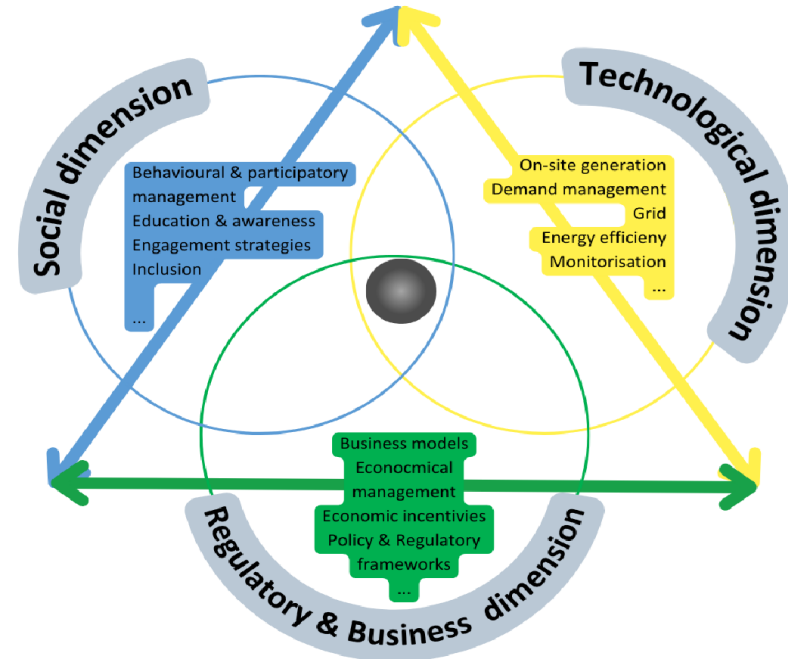
Focusing on social innovations and participatory processes to engage stakeholders.

ICT tools to support the creation, management and replicability of energy communities.

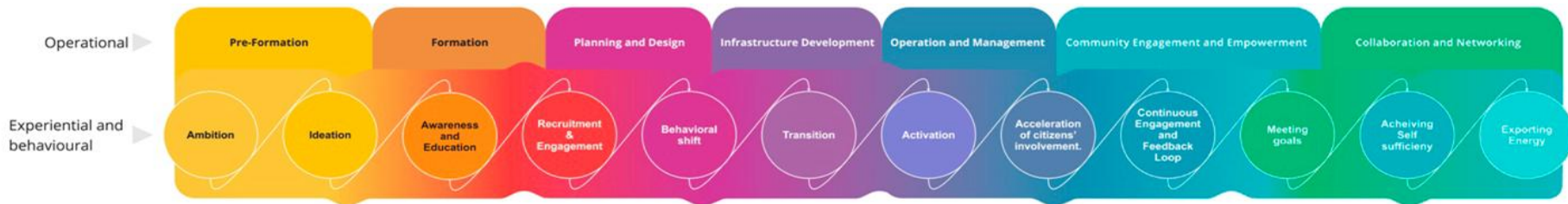
A digital platform ecosystem to assist organizational, legislative, and operational activities.

Three Foundational Dimensions of Energy Communities

- **Energy communities are not just technical systems** — they are socio-technical ecosystems.
- In **MASTERPIECE**, we built upon the understanding of the **three key dimensions**. This systemic perspective, combined with our focus on **social innovation and participatory engagement**, have guided the **design and implementation of the project activities**.



The Energy Community Journey



- **Operational dimension** describes the phases or stages of energy community development — from the early idea to full operation and expansion.
- **Experiential & Behavioural layer** shows the **human and social processes** that accompany each operational phase — essentially, how **citizens' attitudes and behaviours evolve alongside** the technical and organisational development.

**EC journey =
Operational + Experiential
& Behavioural pathways**

OUR PILLARS: TURNING FRAMEWORKS INTO ACTION

Guiding Frameworks



Digital Modular Platform

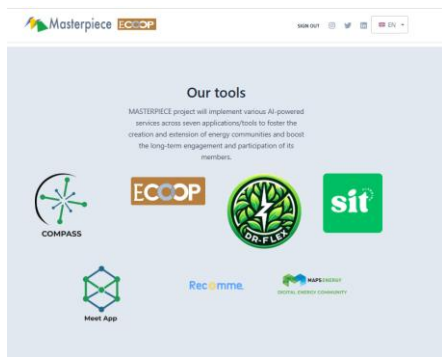


8 pilots across 5 EU countries

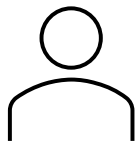


Together, these three pillars transform conceptual frameworks into tangible actions — empowering citizens, enabling sustainable energy communities around Europe.

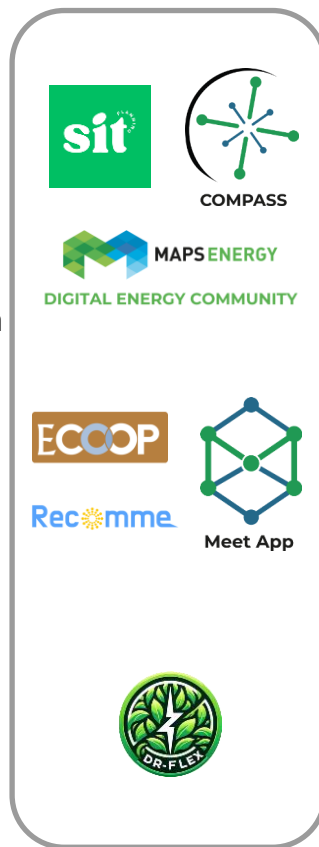
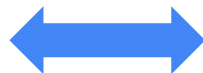
THE DIGITAL MODULAR PLATFORM



**MASTERPIECE LANDING
PAGE**



Centralized
authentication

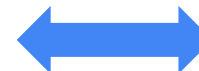


GROUP 1
Simulation & EC
Management

GROUP 2
Discovery,
Awareness, Enrolment
Engagement, and
Profiling

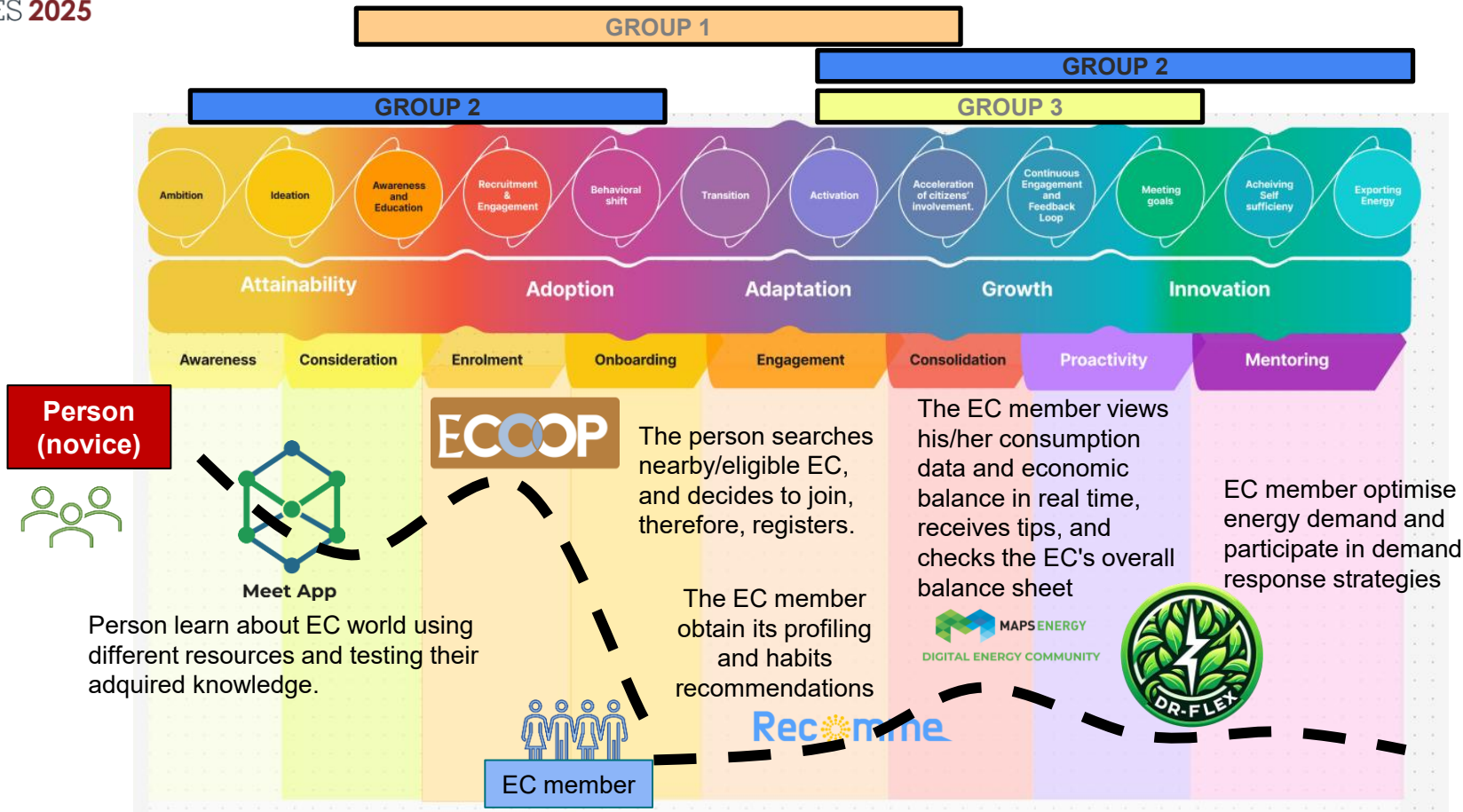
GROUP 3
Flexibility, DR and
demand optimisation
framework

Interoperability
through NGSI-
LD data models

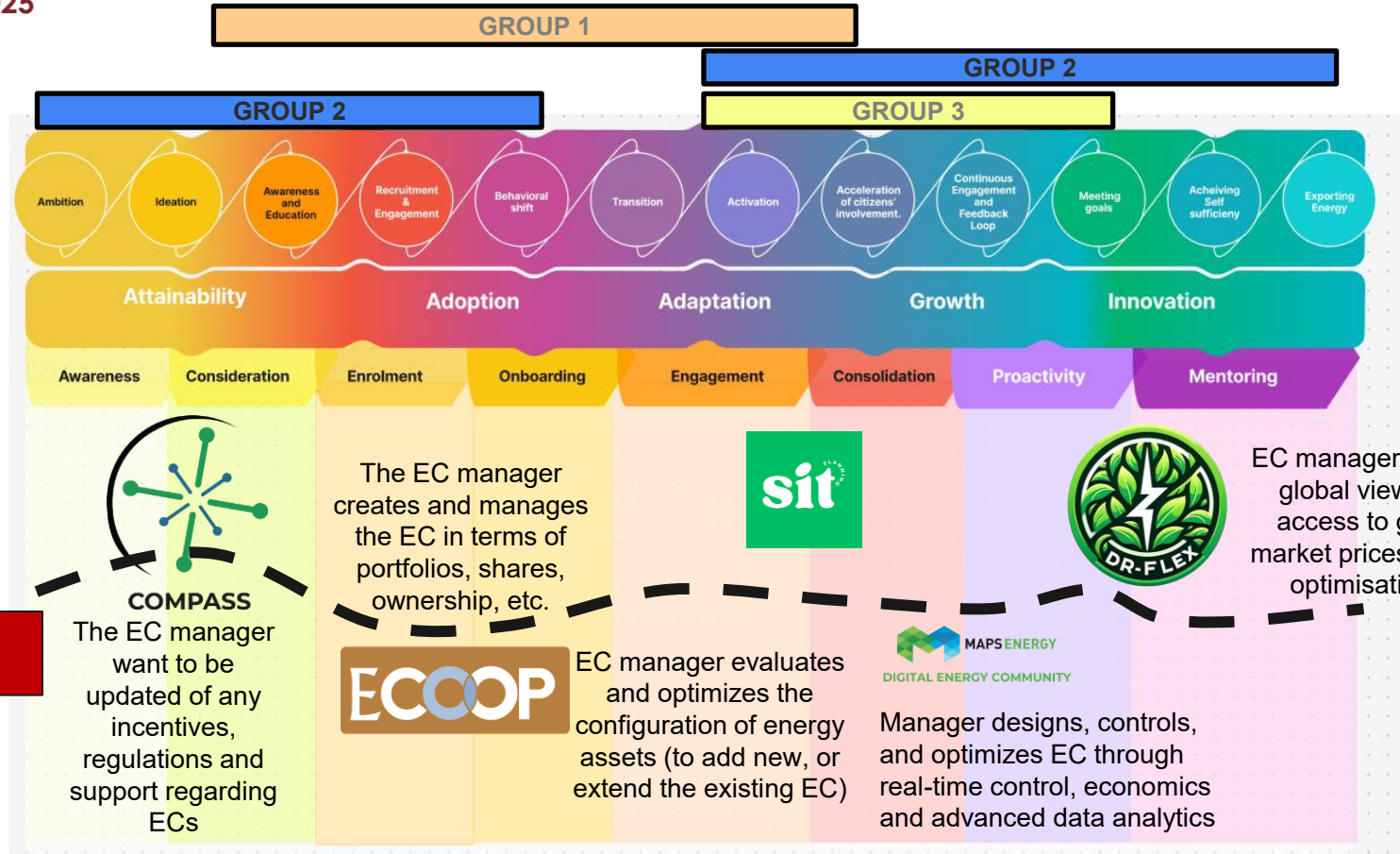


Secure
Digital
Platform

THE CITIZEN JOURNEY



THE EC MANAGER JOURNEY



PILOTS

**Spain – UMU (PoC) –
Universidad de Murcia**



**Turkey – TROYA –
Aşağıçavuş Forest
Village**



**Italy – BERC –
Municipality of
Berchidda**



**Sweden – UPP –
Dansmästaren**



**France –
RDIUP/SEIN – Les
Mureaux**



**France – ALEC –
Solévent**



**Sweden – NGENIC –
BRF Våppeby Backe**

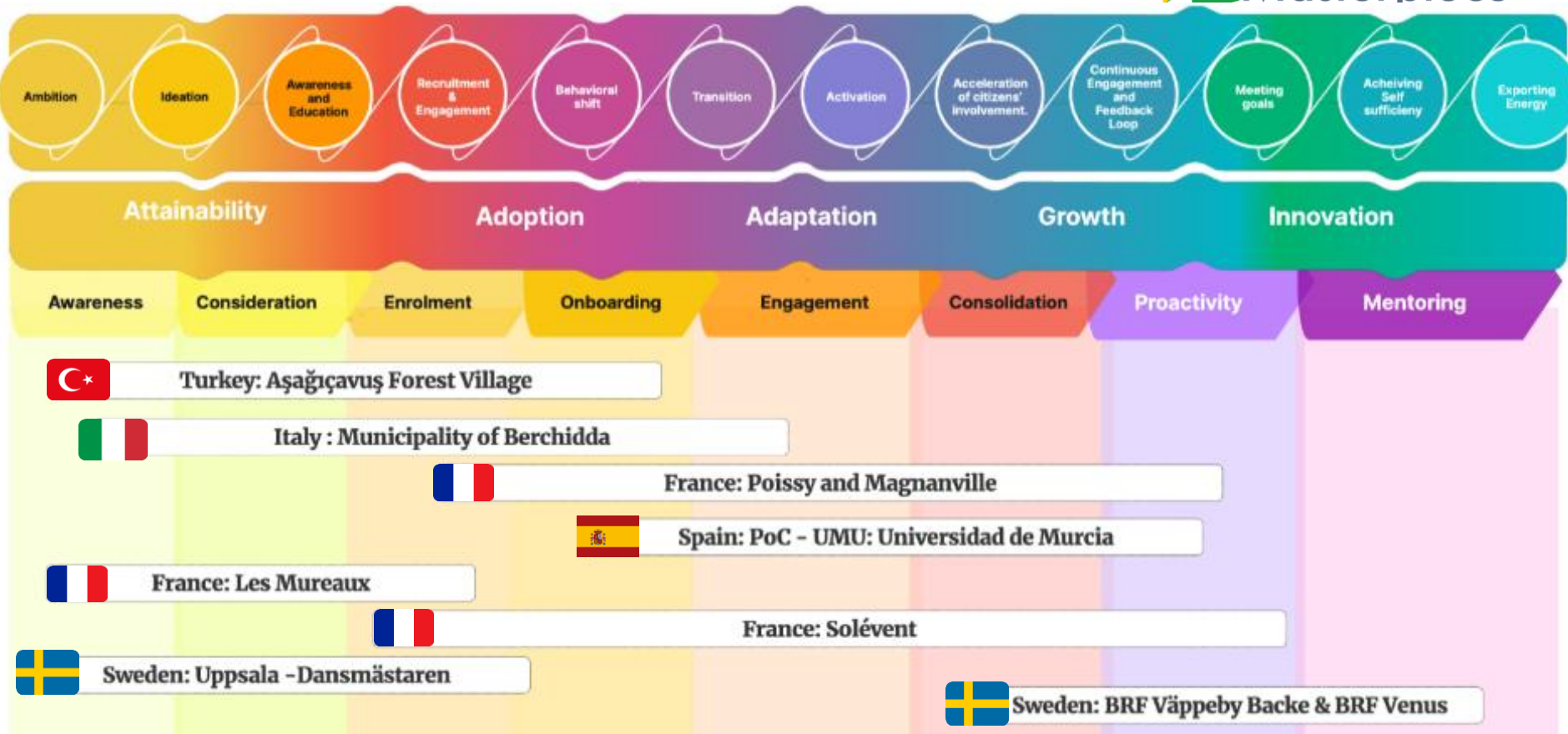


**Sweden – NGENIC
– BRF Venus**





PILOTS AND THE EC JOURNEY



TRAINING MATERIALS AND CAPACITY BUILDING FOR ENERGY COMMUNITY ACTORS



**GUIDANCE ABOUT THE EC MANAGER,
CITIZEN AND EC MEMBER JOURNEY
THROUGH OUR TRAINING MATERIALS**



[Website](#)

THANK YOU!



This Project has received funding from the HORIZON EUROPE research and innovation program under grant agreement No 101096836.



FEDECOM: **FED**Erating energy **COM**munities

Horizon Europe (2023–2027)

Zia Lennard

Senior Project manager, R2M Solution (France)

WHY FEDECOM MATTERS

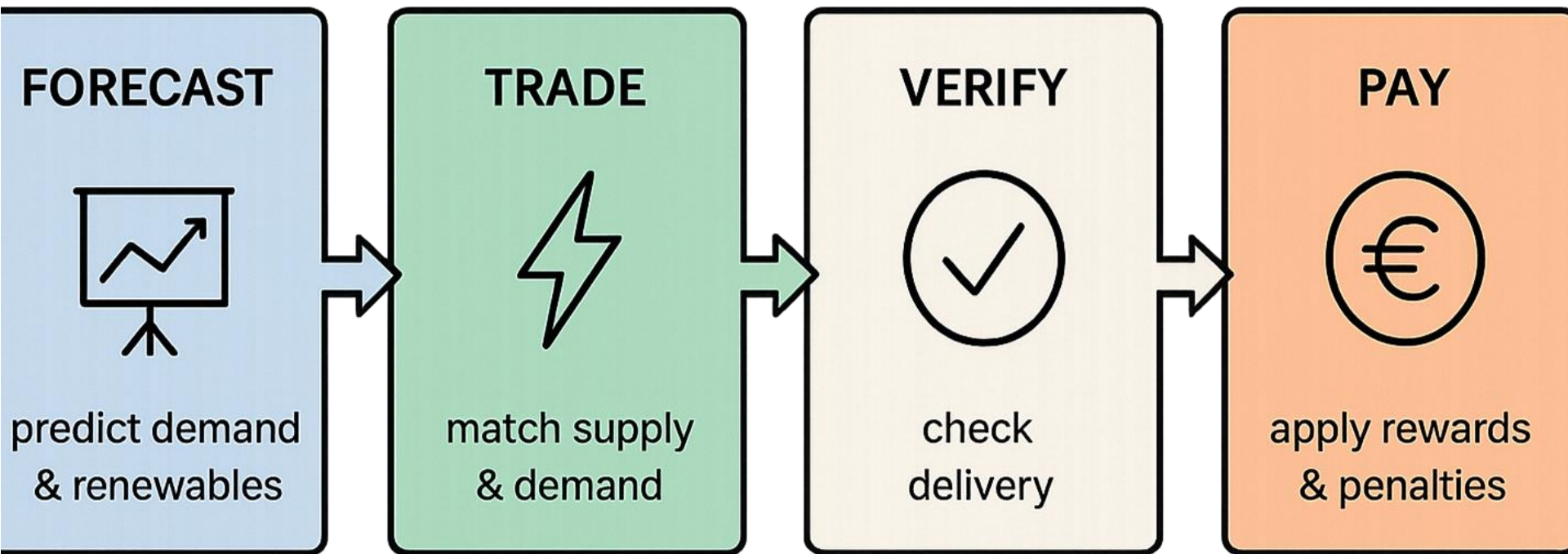
Current energy community trading platforms mainly focus on exchanges within a single community. **Federation across multiple communities**, especially across vectors / borders, is uncommon and difficult to implement.

- Local trading often stops at self-consumption.
- Platforms are siloed and not easily interoperable.
- Regulatory differences block scaling across borders.
- Without federation, replication beyond pilots is limited.



THE FEDECOM TECHNOLOGY

(mostly open source: GPL v.3):



TWO TRADING SCHEMES:

SECURE &
SCALABLE



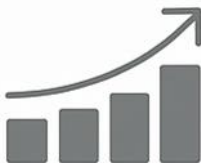
Peer-to-peer (P2P)
neighbours or community
members share electricity



Peer-to-pool
a whole community trades
as one block with the grid
or other actors



Trust & transparency
blockchain ensures trades
are secure, private, and auditable



Scalability
works within one community
or across multiple communities

6 USE CASES IN 3 PILOTS

(different technical and regulatory conditions)

Pilot 1: Spanish Virtual Green Hydrogen Federation



Bilbao

San Sebastian



Puertollano



Barcelona



Green H2 & Heat Systems

Pilot 2: Swiss Residential Hydropower Federation



Lugaggia

Arena



Garamè



PV & Batteries

Pilot 3: BE-NL Cross-country E-Mobility Federation

Brico



Voorhout



Besix



PV & EV Mobility

Pilot 1: Spanish Virtual Green Hydrogen Federation



Bilbao

San Sebastian



Puertollano

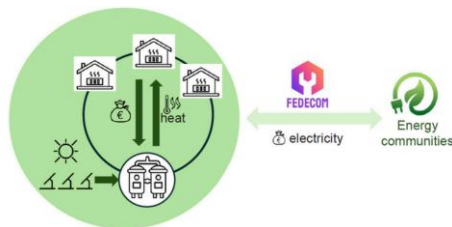


Barcelona

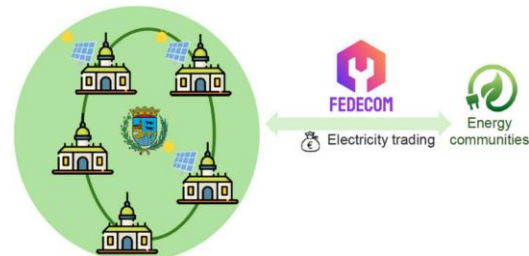


Green H2 & Heat Systems

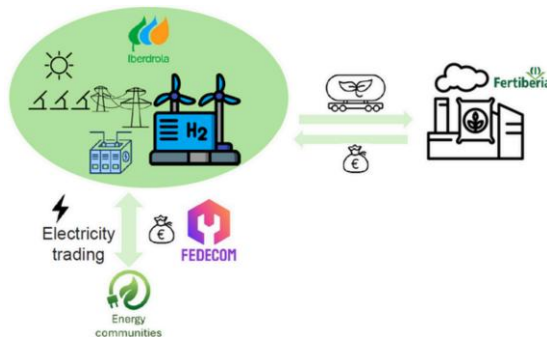
Pilot 1 (Use Cases 1-4)



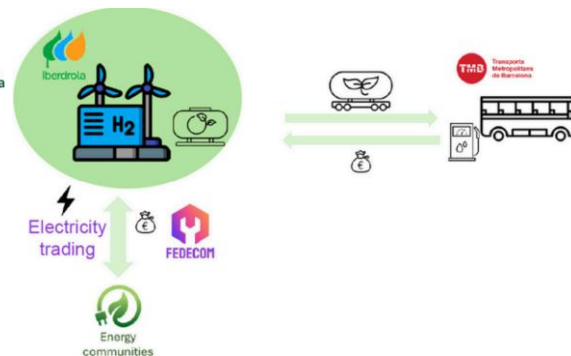
UC1: Spain – Ur Beroa Residential Community



UC2: Spain – Bilbao City Hall



UC3: Spain – Puertollano Green Hydrogen Plant



UC4: Spain – TMB Hydrogen Station

Pilot 2

(Use Case 5)

Pilot 2: Swiss Residential Hydropower Federation



Lugaggia

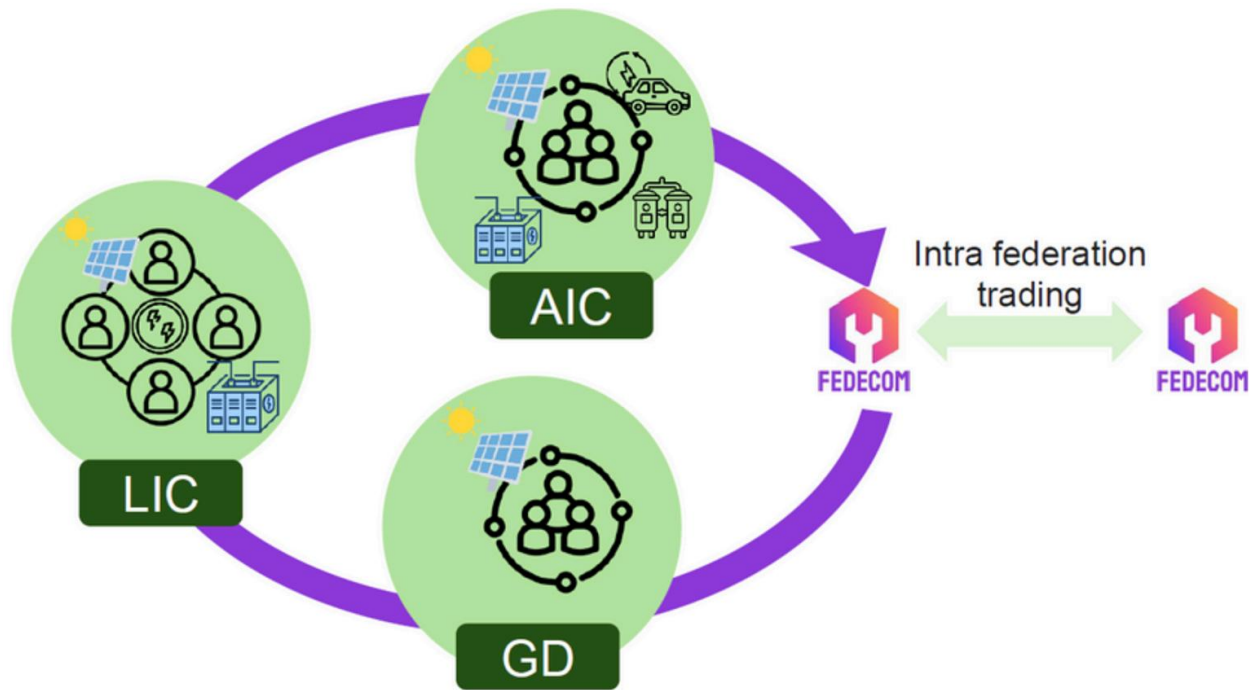


Arena



Garamè

PV & Batteries



Pilot 3: BE-NL Cross-country E-Mobility Federation

Brico

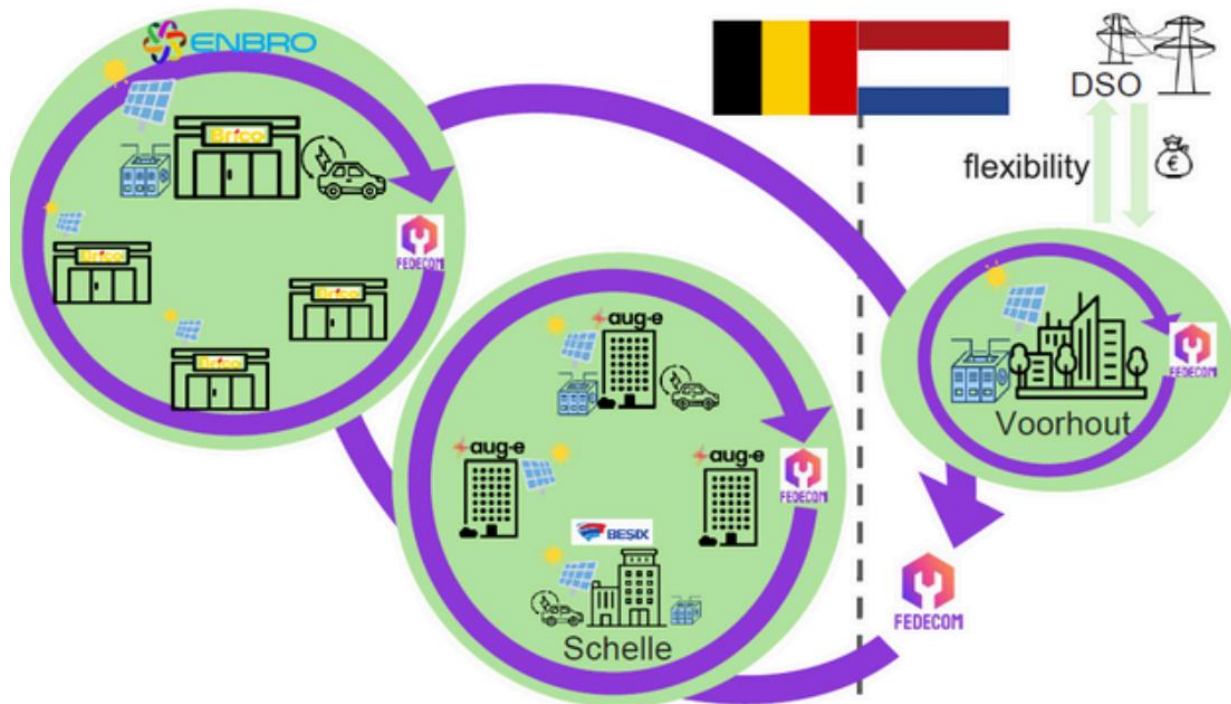


Voorhout

Besix



PV & EV Mobility



REPLICATION PLAYBOOK

(helping early adopters reach TRL 8)

3 pathways:

Minimal — forecasting & optimisation

Intermediate — federation & interoperability

Full — trading & market participation

Guidance provided:

Technical, business, regulatory, and organisational steps (+ Portugal, Austria, France, Scotland).

4 profiles:

Site owners, technical integrators, aggregators, public sector.

Online self-assessment tool (+ full Playbook):

Quick check of readiness and best pathway. ☐



Thank you

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MEMBER OF BASQUE RESEARCH
& TECHNOLOGY ALLIANCE

UCL
Université
catholique
de Louvain

 **Fraunhofer**

 **IBERDROLA**

R2M
RESEARCH TO MARKET
SOLUTION

AEM

 **HIVE
POWER**

SUPSI

GS-y

 **MP**
institute **MIHAÏLO PUPIN**

**HERIOT
WATT**
UNIVERSITY

 **energy web**

 **ENBRO**

 **smartEn**
Smart Energy Europe



Grant Agreement number
101075660

COFFEE BREAK

The role of municipalities in Energy Communities: some issues in search of resolution

Federico Chiopris

Energy Lawyer, WST Tax & Law Firm

Art. 2(16) RED II

‘renewable energy community’ means a legal entity:

- (a) which, **in accordance with the applicable national law**, is based on open and voluntary participation, is autonomous, and is effectively controlled by shareholders or members that are located in the proximity of the renewable energy projects that are owned and developed by that legal entity;
- (b) the shareholders or members of which are natural persons, SMEs or **local authorities, including municipalities**;
- (c) the primary purpose of which is to provide environmental, economic or social community benefits for its shareholders or members or for the local areas where it operates, rather than financial profits;

Which role for municipalities in building RECs?

Promoting

- Public awareness
- List of accredited CERs

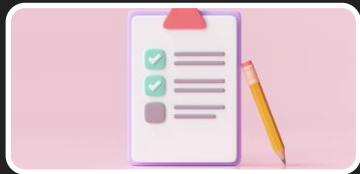
Mild

- granting third parties the use of owned land for the construction of facilities for the production of electricity from renewable sources (Art. 12(2) Legislative Decree 28/2011)

Active

- Founding and/or participating a REC (as producer/prosumer/consumer)

The active role of Municipalities in building RECs: main issues



Preventive control by the Court of Auditors



Limits and conditions on participation



Lack of technical, legal, and economic expertise

The preventive control by the Court of Auditors

Article 5 of Legislative Decree 175/2016.

Control of the Court of Auditors in the event of:

- establishment of companies
- acquisition of direct or indirect shareholdings

What does the Court of Auditors controls?

- “**necessity**” of the company/participation in the company for the pursuit of institutional purposes
- economic **convenience**
- financial **sustainability**
- compatibility with the principles of **efficiency**, **effectiveness**, and economy of administrative action;
- **absence of conflict** with the provisions of the European Treaties and, in particular, with European regulations on state aid to businesses

See e.g. CdC Emilia-Romagna, del. 85/2024/PASP

The preventive control by the Court of Auditors

The Court shall express an opinion within 60 days: if it does not, the Municipality may establish the company/acquire the shareholding.

If the Court issues a negative/partially negative opinion, the Municipality may still establish or acquire the shareholding as decided (i.e., it may establish/participate in the REC), provided that it gives **specific reasons** for deviating from the opinion, that must be published the official website.



A favorable opinion from the Court of Auditors excludes gross negligence («colpa grave») in the event that a subsequent financial liability emerges (if the CER was established in accordance with the opinion).

The preventive control by the Court of Auditors

The Court shall express an opinion within 60 days: if it does not, the Municipality may establish the company/acquire the shareholding.

If the Court issues a negative/partially negative opinion, the Municipality may still establish or acquire the shareholding as decided (i.e., it may establish/participate in the REC), provided that it gives **specific reasons** for deviating from the opinion, that must be published the official website.



A favorable opinion from the Court of Auditors excludes gross negligence («colpa grave») in the event that a subsequent financial liability emerges (if the CER was established in accordance with the opinion).

The preventive control by the Court of Auditors

Direct and indirect costs for the municipality (e.g., business plan or similar) with a breakdown of the specific costs:

- Installing of the plant(s)
- routine and extraordinary maintenance
- any financial charges (e.g., in the case of third-party financing)

Revenues:

- savings from the share of energy produced by the plants within REC and consumed by the municipality
- income deriving from the GSE incentive share and indication of incentive applications (CACER/Conto Termico) and breakdown;
- overall economic and financial forecasts for the municipality (e.g., forecasts of changes in the price of electricity sold);
- any establishment of funds for social purposes

The preventive control by the Court of Auditors

A (minimum) technical report:

- specificity of the territory of the REC
- current electricity consumption and existing energy production sites within the Municipality
- estimate of consumption reduction (e.g. also through the implementation of any energy efficiency measures);
- economic analysis following the creation of the community

Statute/Regulations

Limits and conditions on participation: two principles

Freedom of form(s)

- The Court's control does not concern the legal form itself that the REC wishes to adopt, but rather the reasoning behind the choice in relation to the pursuit of the municipality's institutional purpose.

Case-by-case assessment

- The Court assessment is always carried out on a case-by-case basis, in relation to the reasoning provided by the entity regarding the most suitable corporate structure for pursuing its institutional purpose.

Limits and conditions on participation: examples

(Non Profit) Association (unrecognized or recognized)

Third sector entity (ETS)

Cooperative

Benefit cooperative

Consortium

(Public-Private) Partnership

Limits and conditions on participation: examples

Court of Auditors (Campania), Resolution 32/2025/PASP

If the REC is is not a company under Italian Law (no incorporation: e.g., unrecognized non-profit association) -> no preventiv control by the Court, but subsequent review is possible.

Limits and conditions on participation: examples

Court of Auditors (Lombardia), Resolution 274/2025/PASP

A municipality decided to purchase shares in a cooperative company – ETS social enterprise.

The Court stated:

- It is not necessary for the municipality to be part of a REC: it can simply promote the creation of RECs within the municipal area. Founding or being member of a specific REC must therefore be particularly justified;
- many RECs (over 50%) were founded in that area by municipalities in a non-corporate form: therefore, it is not 'immediately necessary' for the municipality to set up a company or participate in a company;
- it is therefore necessary to verify the appropriateness of the choice in each individual case.

Limits and conditions on participation: examples

Court of Auditors (Lombardia), Resolution 274/2025/PASP

A municipality decided to purchase shares in a cooperative company – ETS social enterprise.

In this case, the opinion of the Court was substantially positive. The municipality, indeed:

- had proposed an adequate business plan highlighting the economic and financial forecasts related to the development of the project to promote the shared self-consumption of energy from RES, the investment plan, management costs, and potentially generatable and distributable revenues;
- demonstrated that it would not have the necessary skills, including in terms of human resources;
- with regard to economic convenience, it carried out a comparative assessment of alternative methods of joint management of the activity (association, consortium, third sector entity).

Enabling PEDs through energy communities: truth or fiction?

Reflections from pilot experiences and attempts to reconcile theory with practice

Adriano Bisello - PhD Urban Planner

Senior Researcher – Team Coordinator @ Eurac Research
Vice President @ ASSURB

Urban Planning for Climate Neutrality

Provocative Question

We have PV panels and heat pumps...
why do we need urban planning?



**Optimizing energy balance is
not enough to make a PED!**

**I'm already bored with my neighbor,
no wonder I don't want to discuss it
in a Renewable Energy Community.**

A PED is



Let's exaggerate the different perspectives...



- For engineers and architects PED projects aim to provide new (or retrofitted) top-performance fancy buildings and innovative energy infrastructure



- For local politicians PED projects are a way to increase visibility at international level and gain some funds



- For real estate developers PED projects are business, they expect a certain Return On Investment from rents/sales



- For house-holders/tenants PED projects are... ???
They only care about a lesser energy bill



...a piece of a larger settlement

... an opportunity for change!



- For urban planners PED projects are urban interventions, aiming increasing the quality of life, valorization of community resources, at social inclusion, reduction of the environmental pressure, promoting local economic development, etc.
- Urban planning orchestrates physical, social, and regulatory dimensions that enable or block such technologies. Without the right framework, even the best energy models can fail to materialize.
- Integration of innovation in local procedures and administrative / legal frameworks is a key step.

Integrated Strategies and Planning to scale up from PED to PE-Cities

Provocative Questions

Do city plans talk to each other?

What makes a PED replicable
instead of a one-off?



Buildings, Mobility, Water, Green spaces,
Energy, Investments, Mainstreaming

Co—benefits are the key to success

Economic

- ☐ Job creation
- ☐ Revenue generation
- ☐ Costs
- ☐ Energy security
- ☐ Business/technological innovation
- ☐ Labour productivity
- ☐ Labour conditions
- ☐ Economic production
- ☐ Natural resource depletion
- ☐ Congestion
- ☐ Disruption of energy, transport, water and communications networks
- ☐ Economic impact of disasters

Social

- ☐ Water security
- ☐ Food security
- ☐ Mobility and access
- ☐ Road safety
- ☐ Energy poverty
- ☐ Transport poverty
- ☐ Security/protection for poor/vulnerable populations
- ☐ Social inclusion, equality and justice
- ☐ Transparency and accountability
- ☐ Education and public awareness
- ☐ Number of households and businesses forced from homes/places of work

Public Health

- ☐ Physical health
- ☐ Mental wellbeing/quality of life
- ☐ Air quality
- ☐ Preparedness for health service delivery
- ☐ Health impacts from extreme heat or cold weather
- ☐ Disaster/disease/contamination-related health impacts
- ☐ Premature deaths
- ☐ Health costs

Environmental

- ☐ Resilience to climate change/adaptation
- ☐ Water/soil quality
- ☐ Noise pollution
- ☐ Light pollution
- ☐ Green space coverage and quality
- ☐ Biodiversity and ecosystem services



Buildings, Mobility, Water, Green spaces,
Energy, Investments

Is there any plan behind your PED or REC?

Provocative Question

Does the urban
plan empower or
limit your design?



Land use, Zoning, Urban rules, Architectural freedom, systemic
changes for climate neutrality



This is at best a Positive Energy System

But it is not a Positive Energy District!



**Old fashion
district**



**Brand new
smart district**



Designing for energy visibility and liveability

Provocative Question

How can we make (renewable)
energy a visible part of daily
urban life?



Public awareness, Design, Energy literacy, Symbolism 110

Castelfranco Veneto unveils its Visionary Solution 6: Totem!

October 2024

On September 28, 2024, our Pilot City Castelfranco Veneto unveiled its Visionary Solution 6: a multifunctional digital totem!



The totem offers interactive content for both children and adults, aiming to raise awareness about the positive effects of green and blue spaces in the area of Castelfranco Veneto and its neighborhood. The Totem provides information on cultural initiatives and local events, strengthening the community's sense of belonging to the project, as well as details on the environmental qualities of Villa Bolasco's garden and its beneficial effects. The totem encourages outdoor physical activity and active mobility for pedestrians and cyclists, offering free services like electric bike and smartphone charging, as well as tire inflation.



Public awareness, Design, Energy literacy, Symbolism 111

A PED is not just buildings



Governance Before Technology

Provocative Question

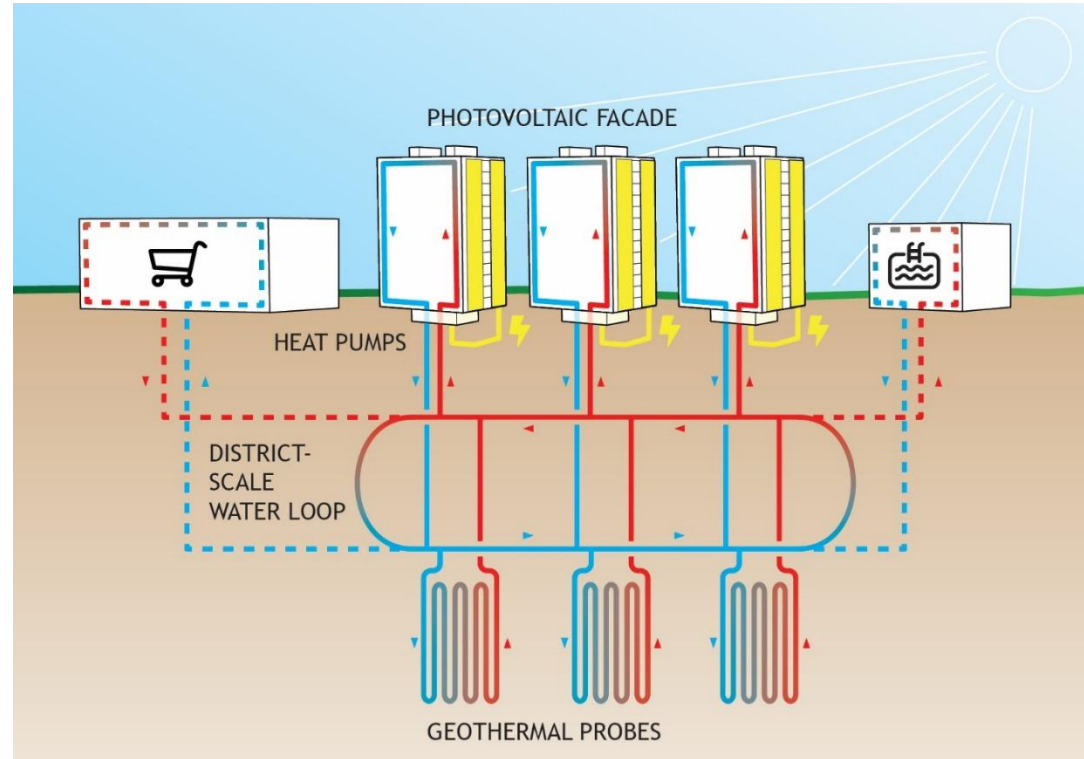
Who manages energy (sharing)
if it's no one's business?



Responsibility, Energy exchange, Ownership, Management

Provocative Question

Who is ready to manage this?



Shifting the Mindset

Provocative Question

What's harder: changing
(planning) laws or changing
minds?



Culture change, leadership, Agenda 2030, CNCS, NEB

**Are you having trouble with
your PED / REC ?**

**Call your friendly neighborhood
urban planner! ***



*item available in limited quantity, only in the best cities



eurac
research

Let's keep in touch!



And see you at the next event...

Smart and Sustainable Planning for Cities and Regions

9–12 December 2025,
Bozen/Bolzano, Eurac Research,
NOI Techpark



HOW OFFSITE RENOVATION AT NEIGHBORHOOD SCALE COULD BENEFIT ENERGY COMMUNITIES?

Experiences and lessons learnt from Energiesprong projects

Chiara Stanghini

Head of European projects, EDERA srl Impresa Sociale



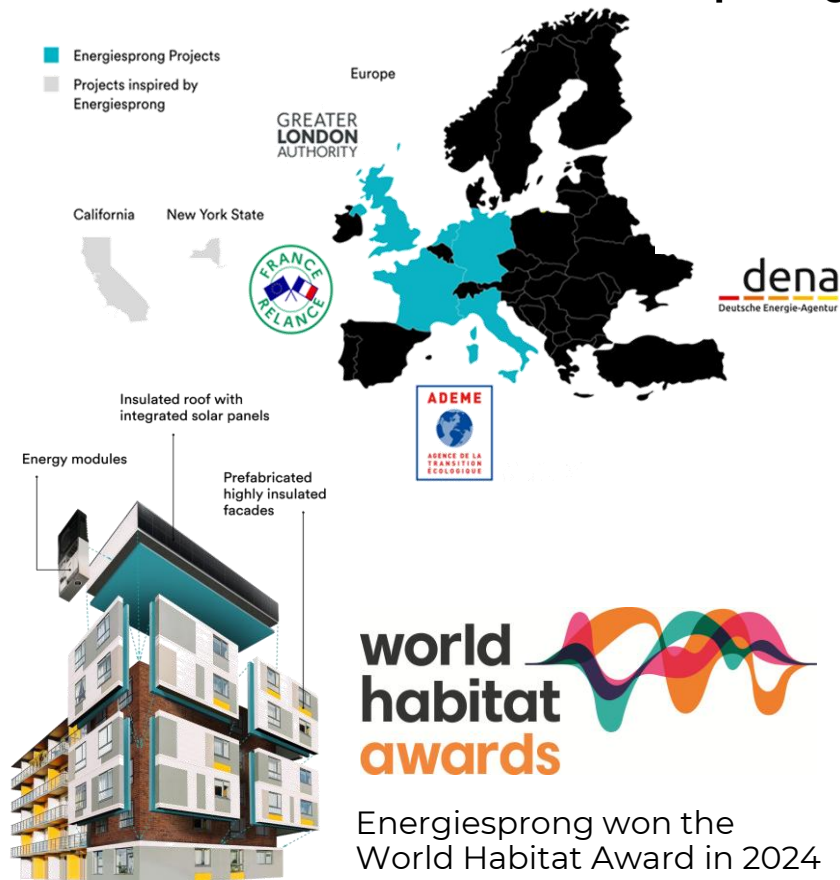
Energiesprong: retrofit for all

An international open innovation program to provide **zero-energy retrofit** on the big scale with fast and replicable interventions thanks to **digitalization** and **industrialization**.

Over **20.000 renovations** in Europe with the following benefits:

- Cost reduction up to 40%
- Intervention time reduction 50%
- NZEB performance guaranteed
- Anti-seismic improvement
- Low tenants' disruptions

energie
sprong



energie sprong in a minute



ZERO ENERGY

Full insulated envelope and renewable energy generation for storage, heating, cooling and domestic hot water



OFFSITE PRODUCTION

Industrialization of the process for higher quality, reduced intervention costs and minimal disruption onsite attracting new and qualified jobs



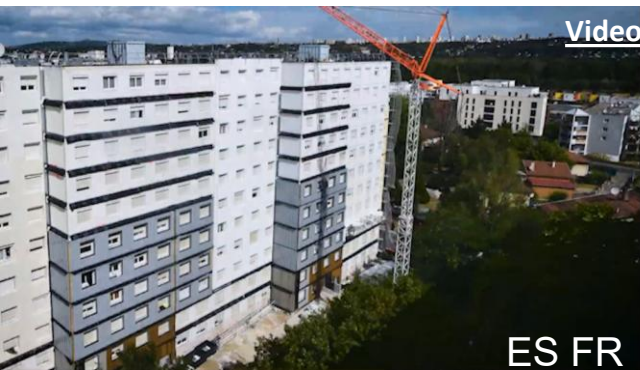
GUARANTEED PERFORMANCE

Zero-energy annual budget and guaranteed comfort with affordable utility bills



NEW ECONOMIC MODELS

Cost of the intervention financed by energy and maintenance savings guaranteed in the long term



[Video link](#)

ES FR



ES NL



[Video link](#)

ES IT

Multiple projects and solutions for different housing types

Housing typologies



High-rise
collective housing



Small-rise
collective housing



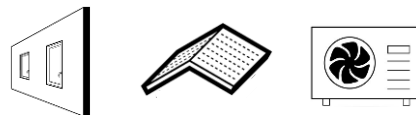
Single family
housing

Performance standards

A/B

Insulation
+ technical
systems

XL

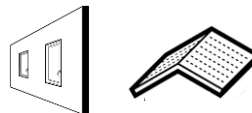


**giga
regio
factory**

B/C

Insulation

L



**reno
tides**

C

Technical
systems

M



**street
hp reno**

Why offsite renovation for PED and REC?

OFFSITE RENOVATION

industrial, fast, and data-driven solutions

practical bridge and enabler for

Electrified and
decarb stock



Predictable
energy demand

Performances
guaranteed



Long-term
reliable needs

High scalability

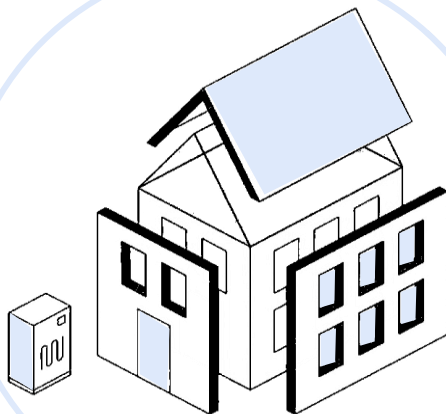


District approach

Tenant engagement

RENEWABLE ENERGY COMMUNITIES

local flexibility and
self-consumption
optimization



Clustering according to offsite potential

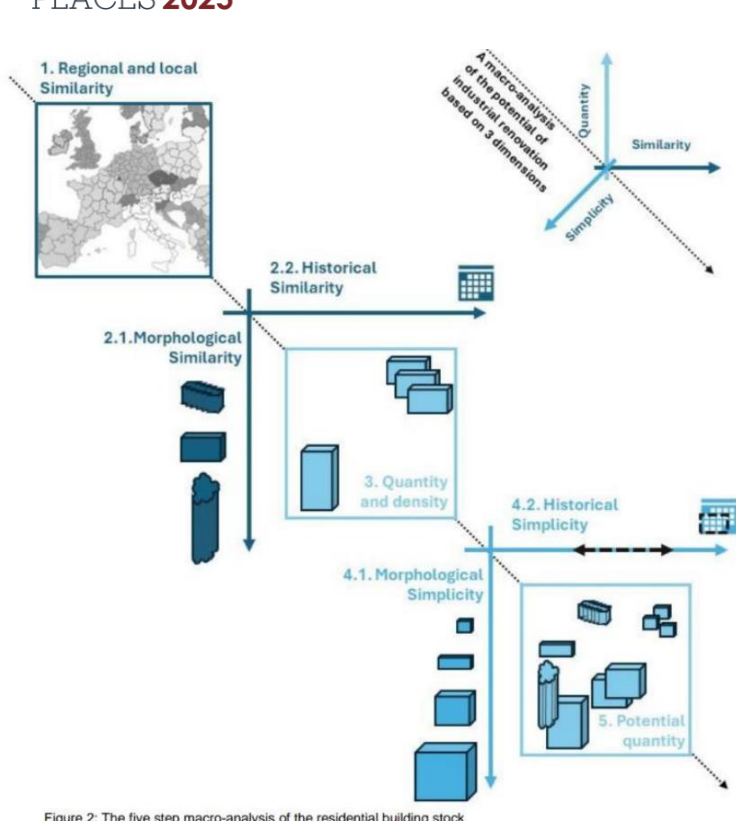
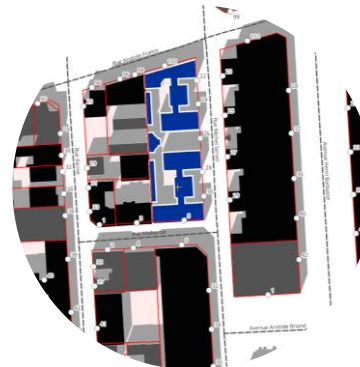
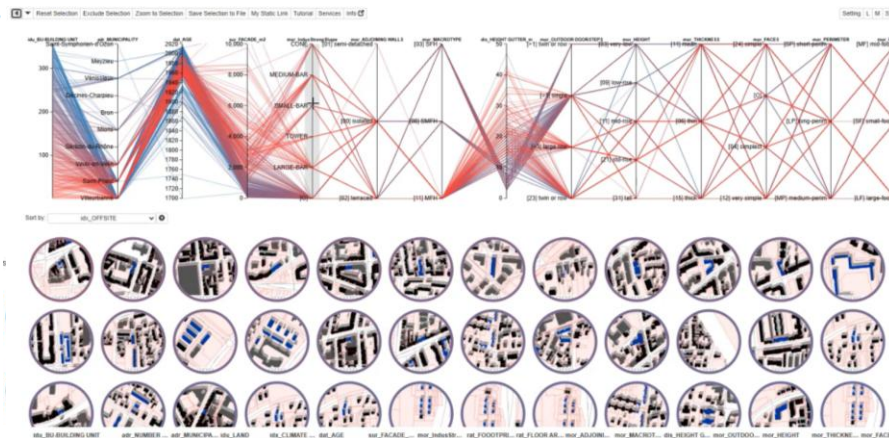


Figure 2: The five step macro-analysis of the residential building stock

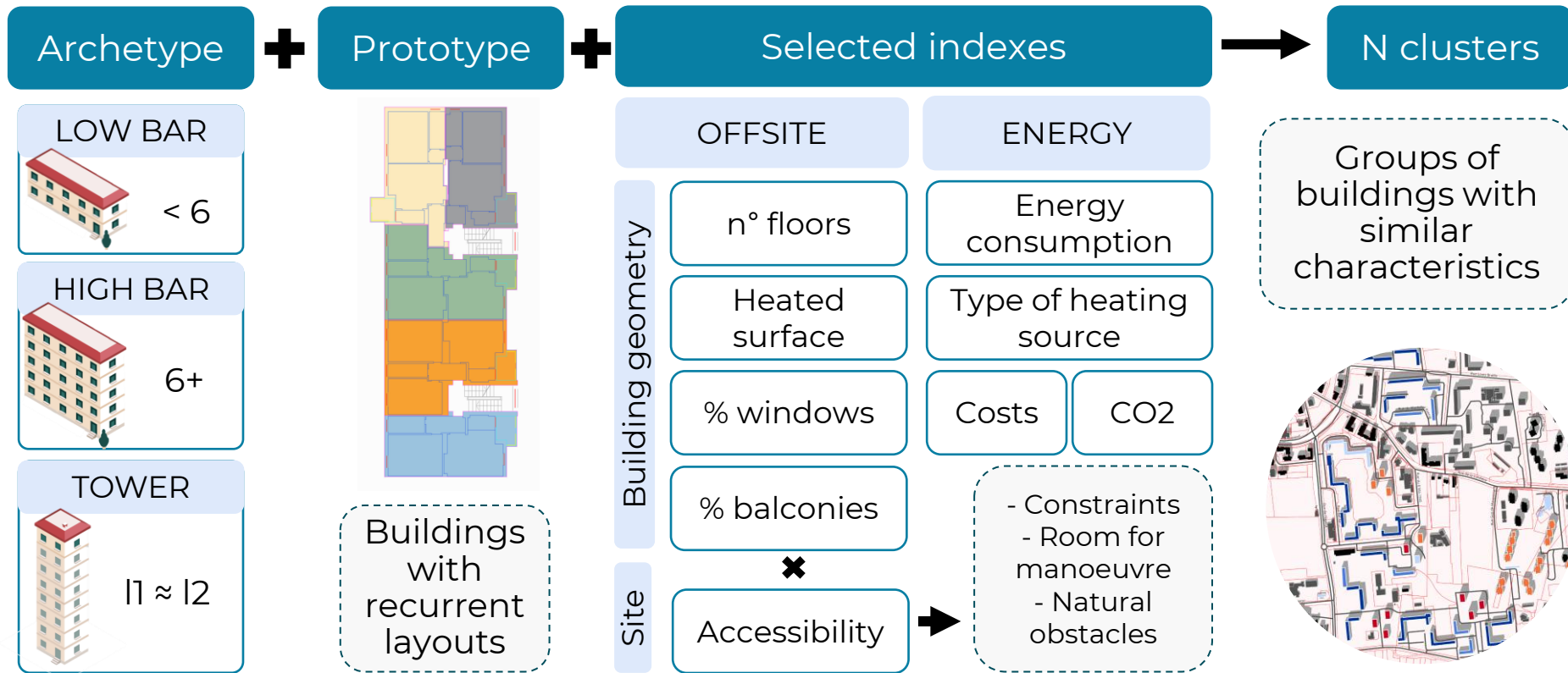


Method to analyze **BUILDING BLOCKS**

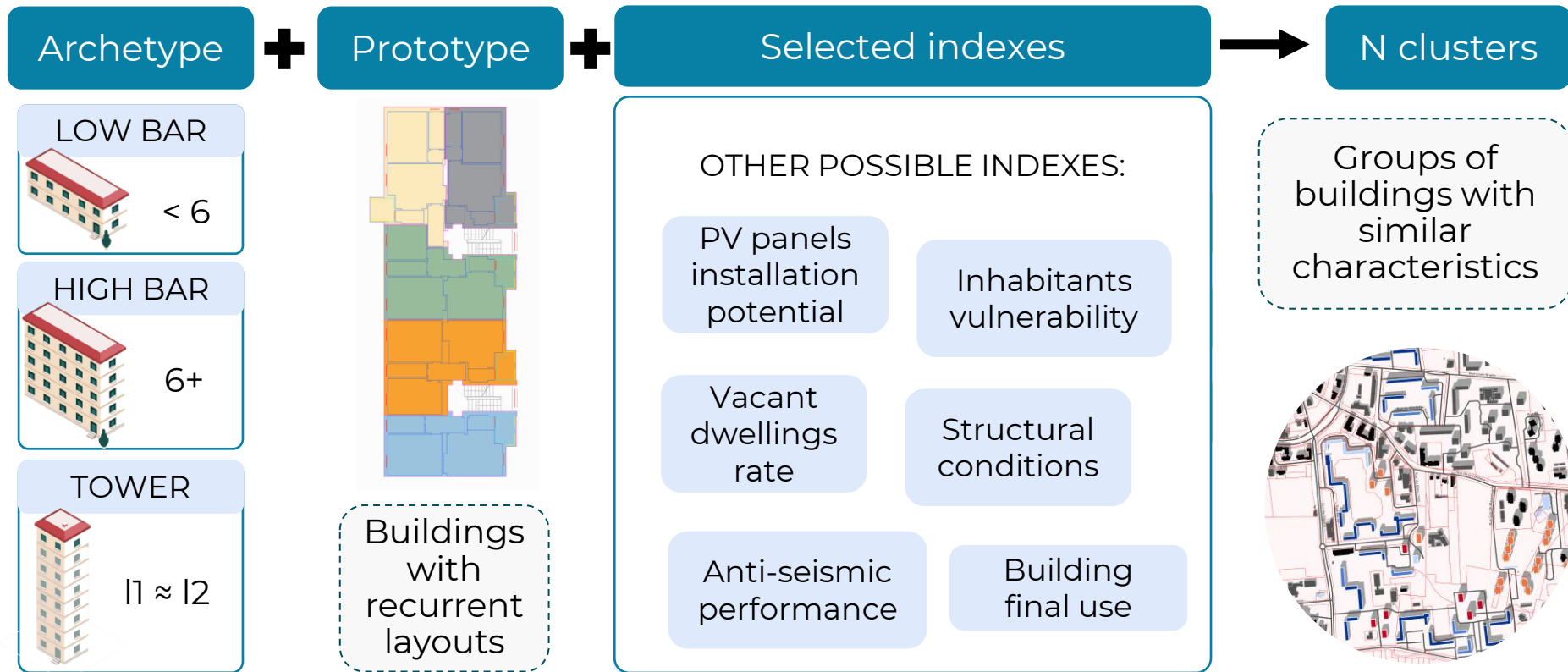
- for assessing:
- Simplicity
 - Similarity
 - Quantity



The clustering process applied in Italy



The clustering process applied in Italy



The results on Milanese social housing stock

995 buildings with residential units owned

693 fully owned and managed

381 with
consumption
data

384 with
defined
prototype

365 analyzable

183 analyzed

61% low bar
25% high bar
14% tower

35% self-heat
65% central

51% (93)

**High
potential**

38% (69)

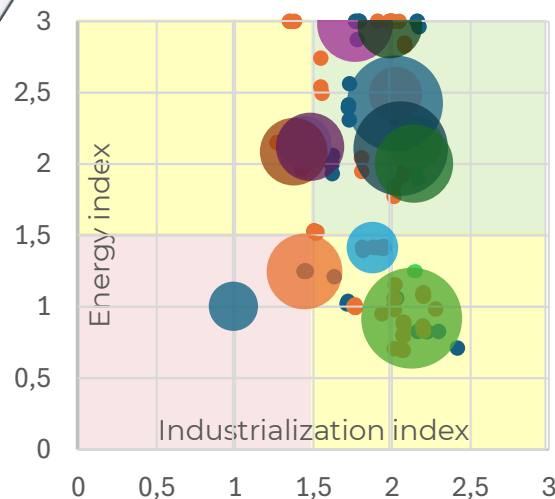
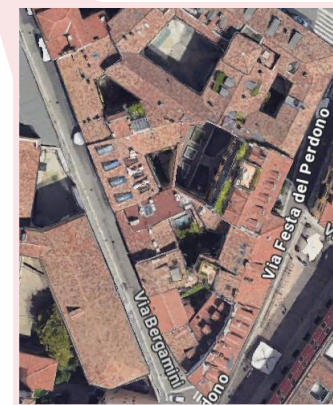
**Medium
potential**

5% (10)

**Low
potential**

6% (11)

Outliers



Before : 1 building & 1 owner

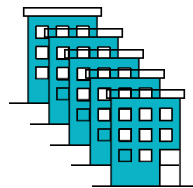


Step 1...

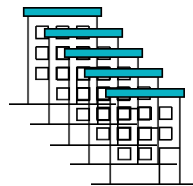
...Step 2
5 years after...

...Step 3
10 years after

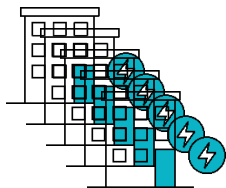
Now : X buildings & Y building owner(s)



1 collective buy-in-scheme for
façades insulation for 1 building
typology



1 collective buy-in-scheme for **roof
insulation** for 1 building typology



1 collective buy-in-scheme for
energy systems for 1 building
typology

Clustering enable market activation into **homogenous retrofit tides** that
can **activate economies of scale** and lower prices

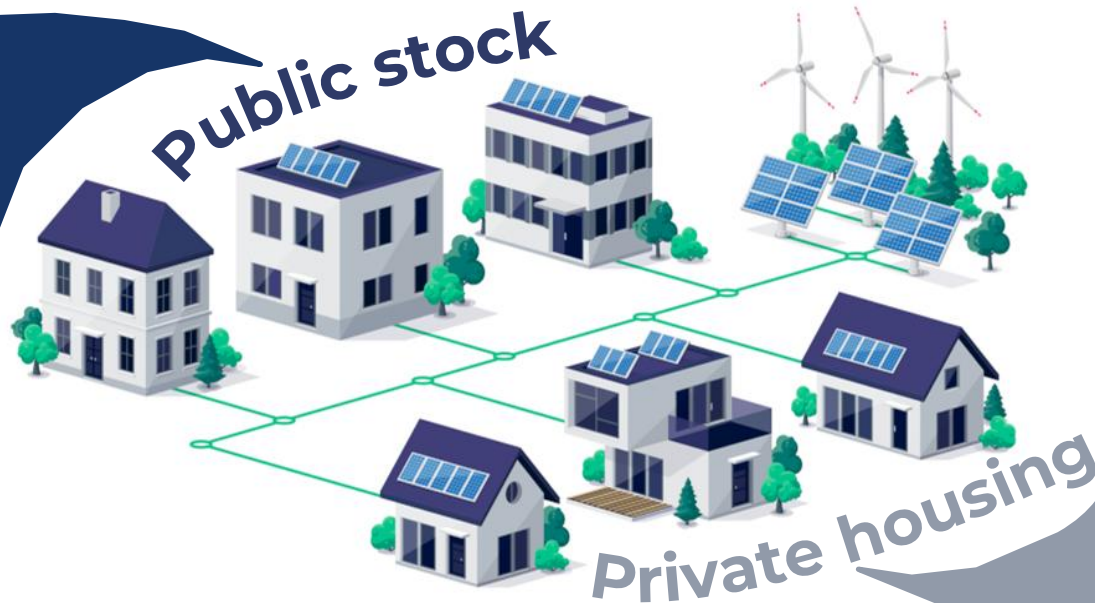
Why clustering benefits public and private owners?

“ready-to-connect” buildings..

Prioritize
stock

Allocate
limited
financial
resources

Structure
public
procurement
bids



Aggregate
demand for
group
purchasing

Get
discounted
prices

De-risk
investments

..for local energy networks.

Thank you!

Chiara Stanghini

chiara.stanghini@edera.city



If you want
to know
more:



Sustainability and Resilience

BERNHARD SCHARF

CEO, greenpass GmbH



Sustainability

AND
OR
VERSUS



Resilience

What is Sustainability?

Original definition of sustainability



Definition Sustainability

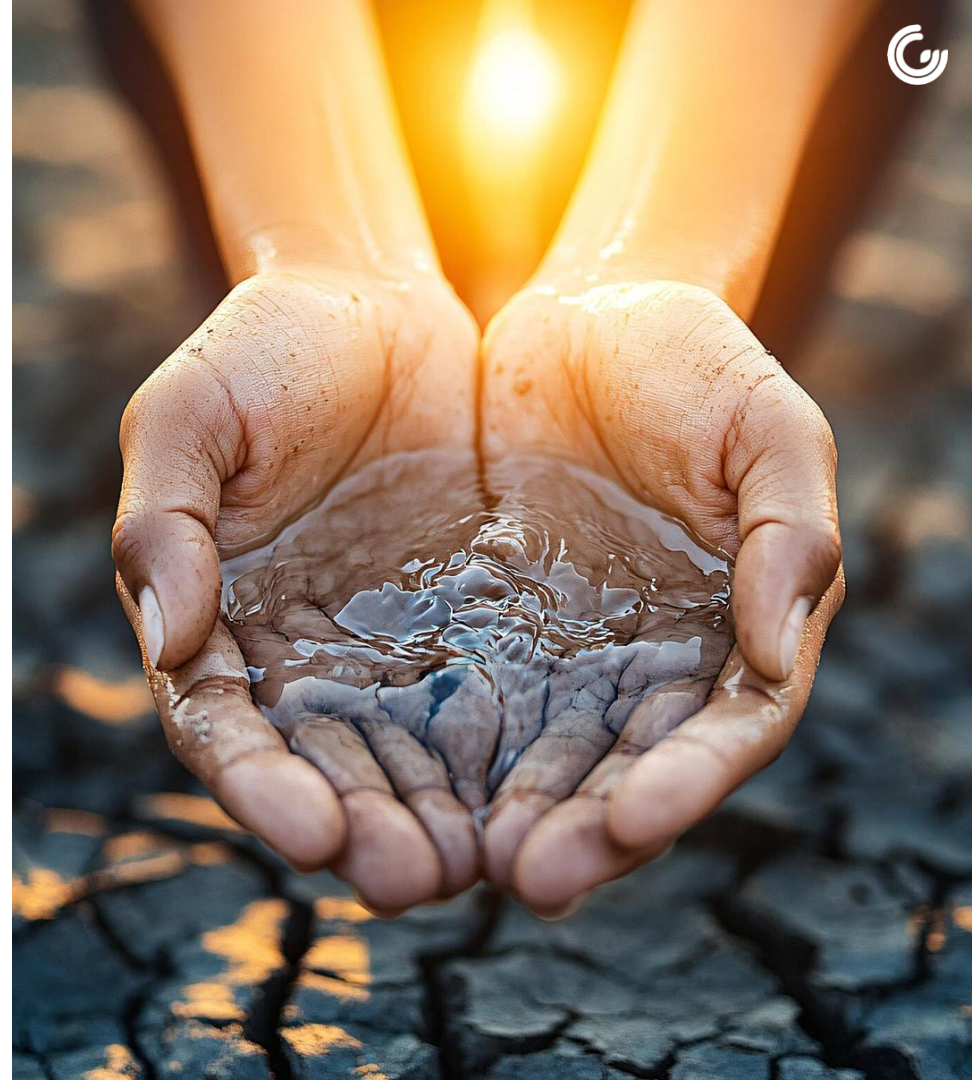
Sustainability means meeting the needs of the present in a way that does not limit the opportunities and livelihoods of future generations.

It involves the responsible use of resources in the environmental (ecological), economic (economic), and social (social) dimensions, which should be considered equally.



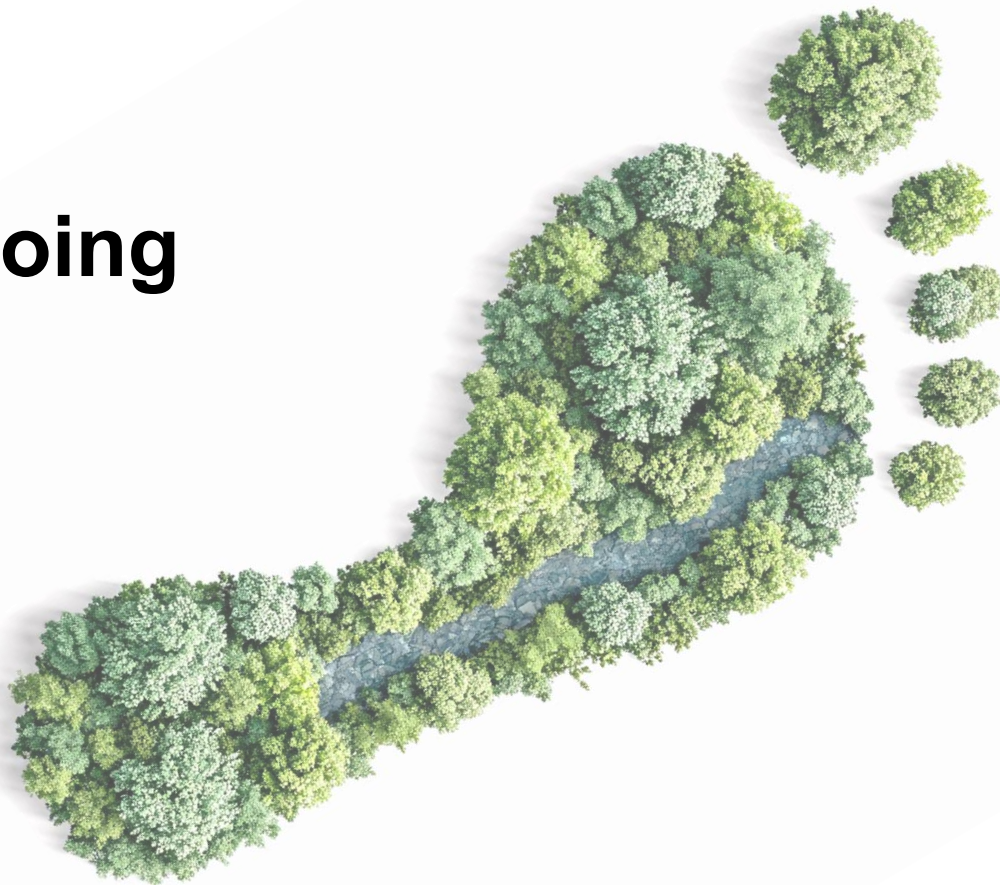
Principles of sustainability

- Use of renewable materials
- Durability
- Repairability
- No environmental pollution
- No climate-damaging emissions
- Reusability of materials



How are we doing so far?

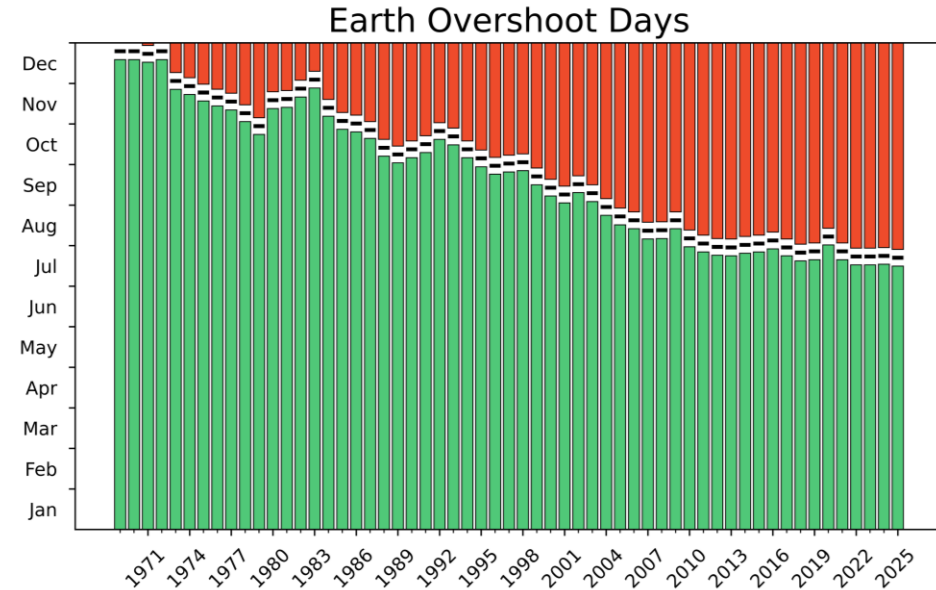
How sustainable is our
economy and society



Earth Overshoot Day:

→ **24. Juli 2025**

Austria	7. April 2024
Germany	2. Mai 2024
Schweiz	7. Mai 2024
EU	10. Mai 2019
USA	14. März 2021
Luxenburg	16. Februar 2020

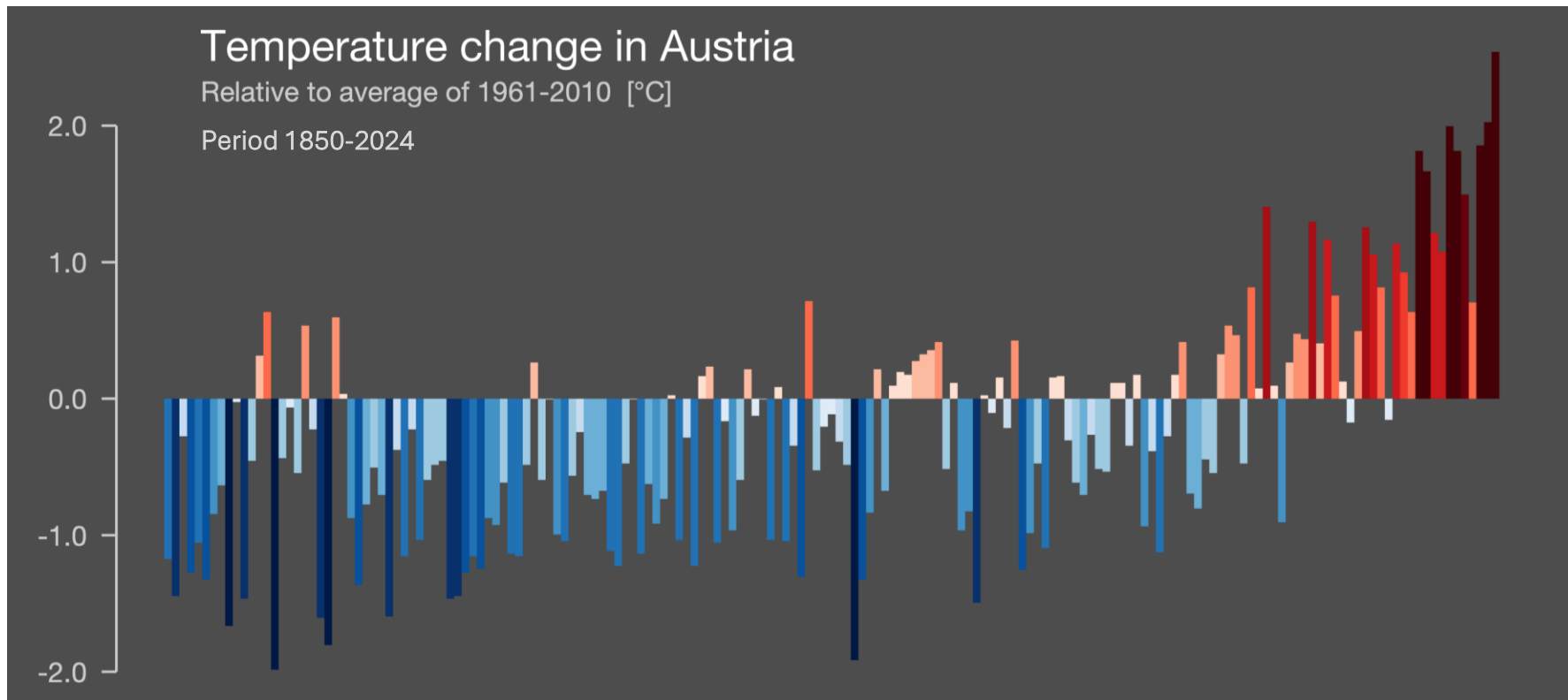


What is the problem?

How we destroy our future climate, wealth and health



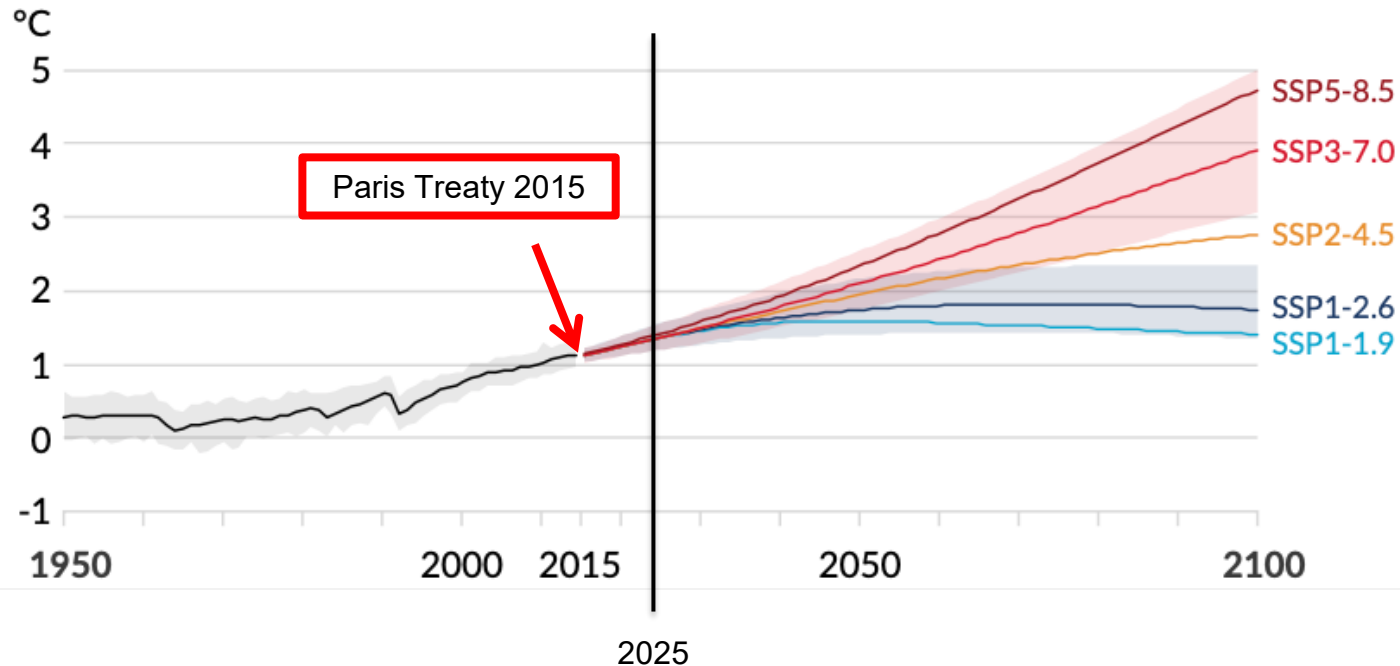
Temperature Change in Austria

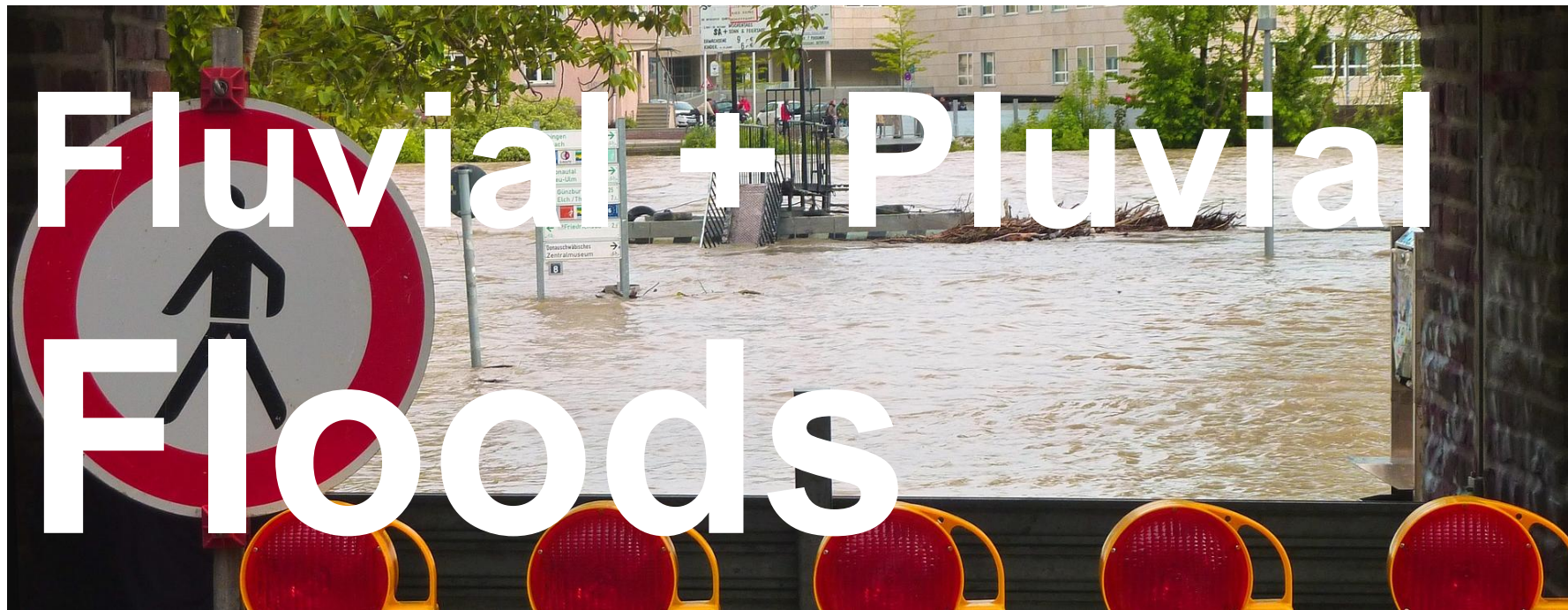


Climate Change Scenarios



a) Global surface temperature change relative to 1850-1900





Heat Extremes

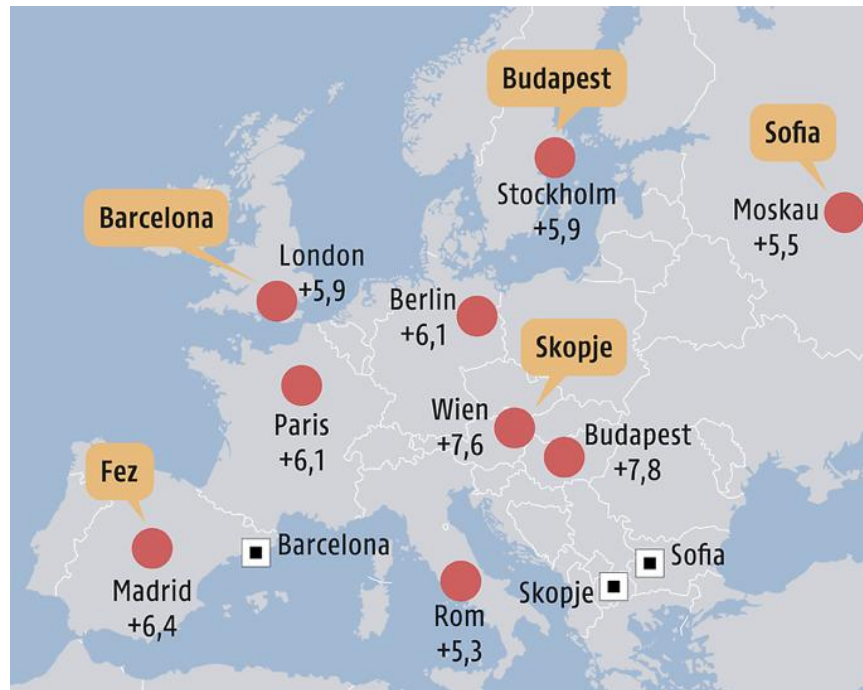
A photograph of a dead, bleached tree in a desert landscape. The tree is in the foreground, and the background features large, smooth sand dunes under a clear blue sky. The text 'Heat Extremes' is overlaid on the image in large white letters.



Heat extremes without climate mitigation until **2050**

Increase of
maximum air temperature

- London +5,9°C
- Wien + 7,6°C
- Stockholm + 5,9°C



Wet Bulb Conditions | 35 °C | 100% rel. humidity



Who is affected by Climate Change?

YES

- Our Health
- Our Wealth
- Our Security

NO

- Climate
- Nature
- Biodiversität



What should we do?

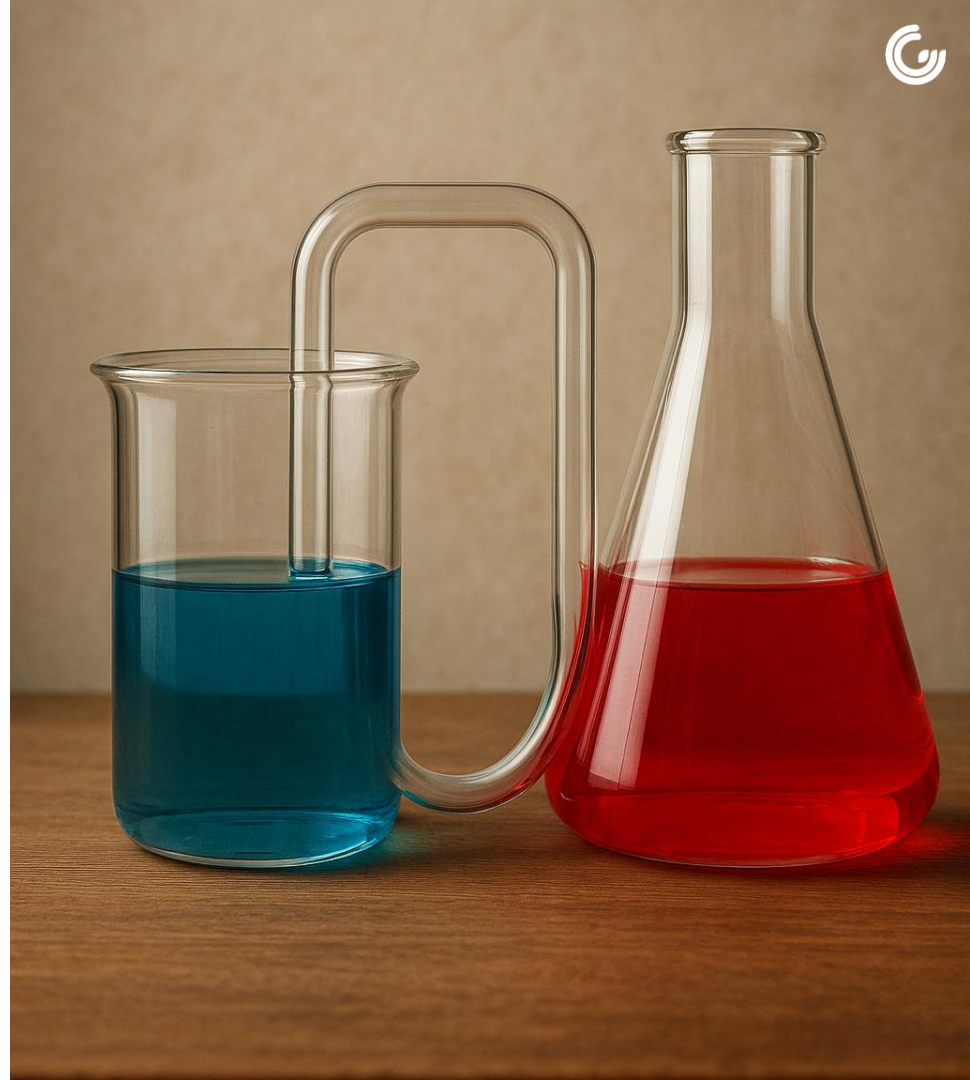
How the transformation can be facilitated



**What we
build today
will remain
for decades**

Sustainability AND Resilience

are communicating
vessels



Sustainability AND

Resilience



greenpass check

Manage your assets and build your
transformation strategy

All-in-One greenpass Check

- Climate Risks
- Climate Mitigation
- Climate Resilience



konform
mit



EU-TAXONOMIE



Hundertwasserhaus Wien

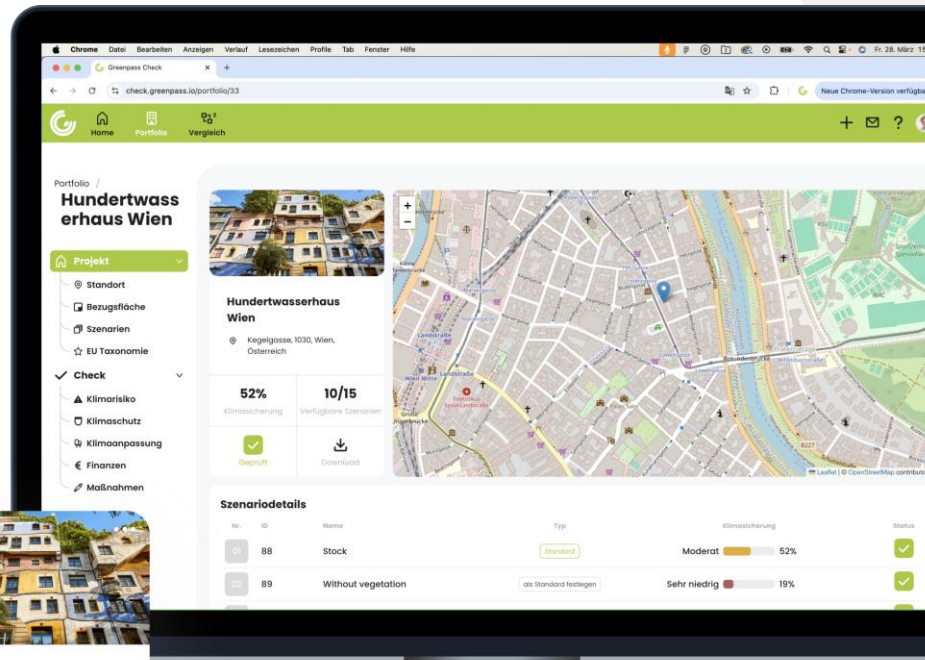
📍 Kegelegasse 36-38
1030 Wien, Österreich

52%

Klimasicherung



konform





Know the risks, emissions and resilience of your assets.

Try it yourself at
check.greenpass.io



Risks

Identify the
natural
hazards for the
location, as
well as the
vulnerability
and exposure
for your
properties



Mitigation

Contribute
actively to
climate
protection with
decarbonization,
reduce your
footprint and
save money
directly



Adaptation

Evaluate and
optimize the
climate resilience
and adaptability
of your properties
and open spaces

Know your climate risks and adapt your assets accordingly



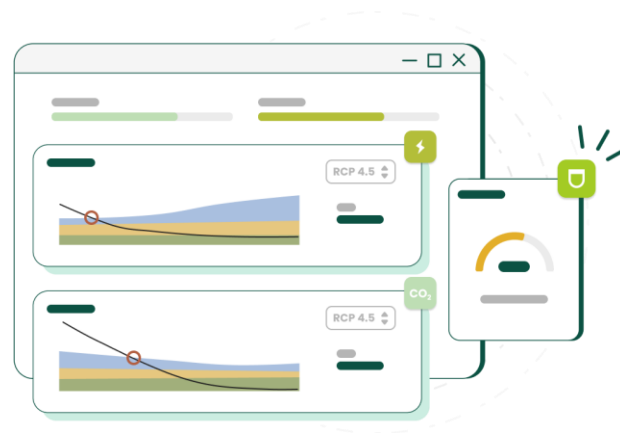
Climate risk and vulnerability analysis



28 Climate Risk

According to EU taxonomy for today and future climate scenarios

Plan your decarbonization and optimize climate mitigation of your assets



Reduction of CO₂e missions

Find the best solution to reduce
carbon emissions



Optimize energy cost

Know your energy cost until 2025
and compare different energy
sources and prices

Strengthen the climate resilience of your assets with AI support



AI climate resilience assessment



Know the status of your assets climate resilience and optimize it with ease.

KPIs in 4 thematic fields



Numerical climate resilience indicators lead your way and allow planning

Asses your conformity with the **EU-Taxonomy** in a guided process



All 6 environmental goals covered

Check the conformity for all 6
environmental goals



Confirmation of conformity

Receive a digital conformation of the
conformity with the EU taxonomy of
your asset

greenpass

Simulation Solutions

detailed climate resilient design

Stratford Cross

Urban Transformation
London, Landlease



Infill Retrofit

Planning Team

Gustafson + Bowman

Makower Architects

Client

Landlease

Climate

Simulation

- today
- 2080, rcp 8.5
- Tree Shade

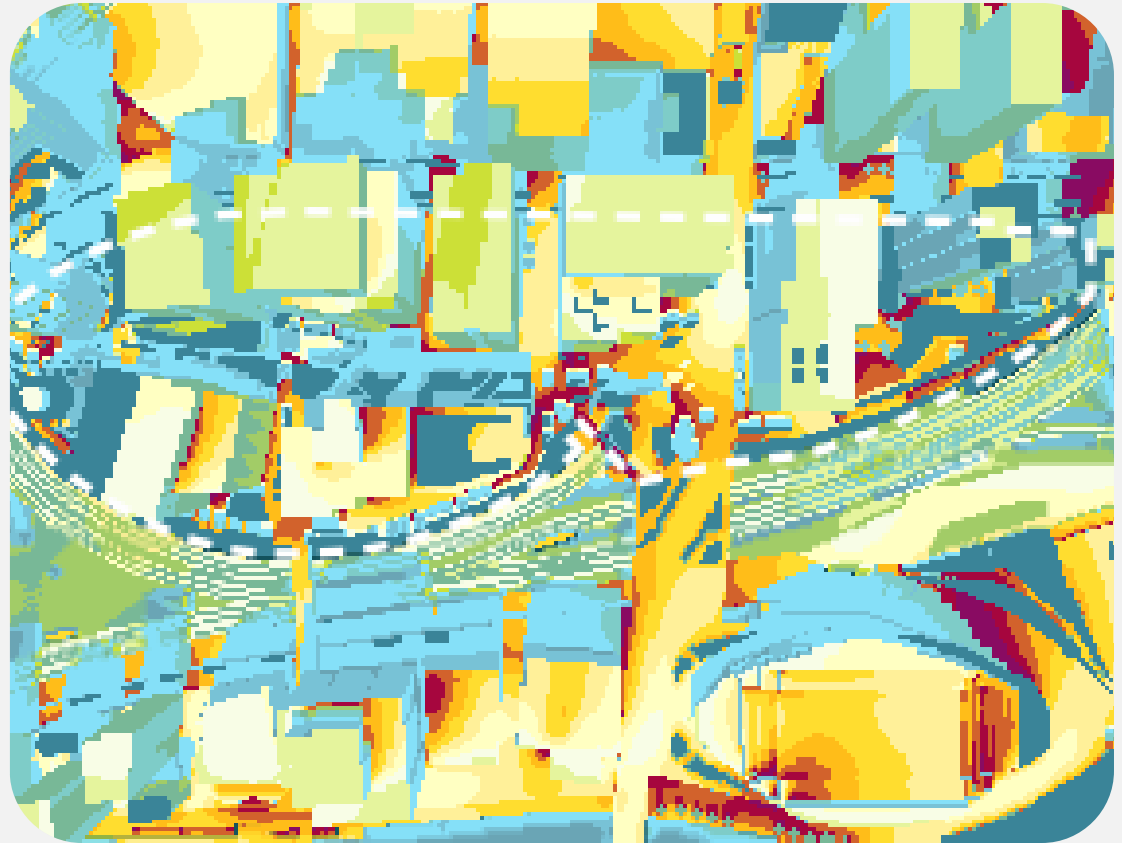


Climate

Simulation

Service

- today
- 2080, rcp 8.5
- Tree Shade



Parkstadt Süd

Urban Development & Transformation
Köln, Stadt Köln



Infill Retrofit

Planning Team

RMLP Stephan Lenzen

Client

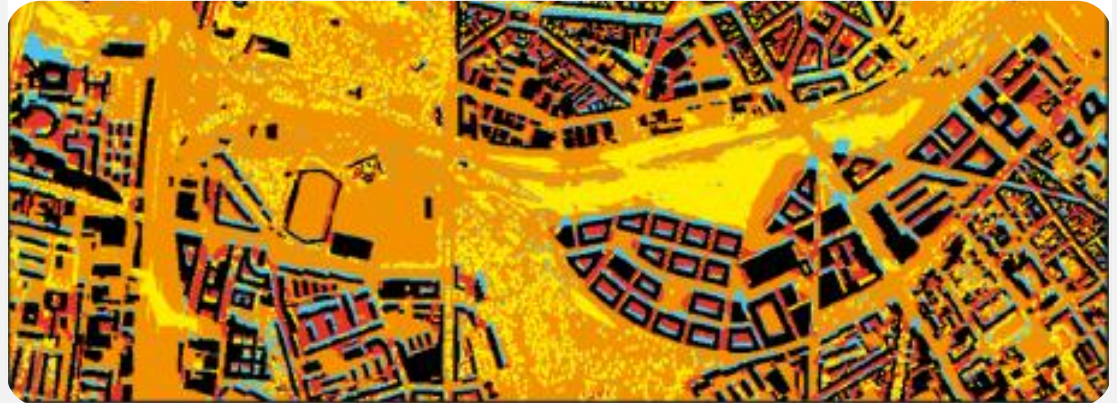
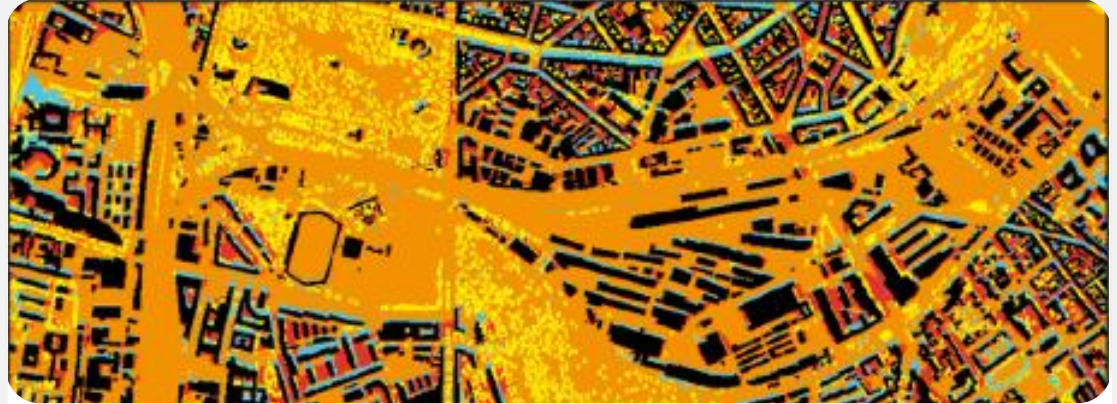
City of Cologne

ClimateS ervice

- today

3 Scenarios

- Status Quo
- Plan
- Optimization



ClimateS ervice

- today

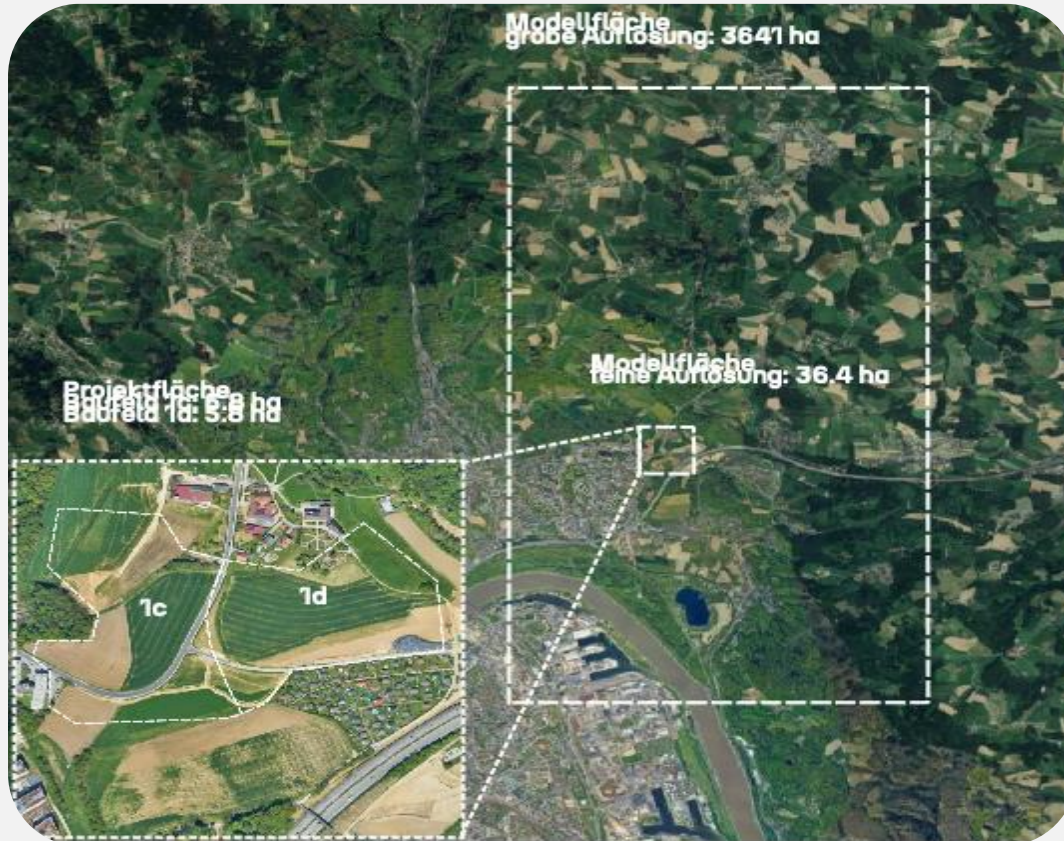
3 Scenarios

- Status Quo
- Plan
- Optimization



Linz Nord

Urban Development
Linz, Stadt Linz



Urban Development

Planning Team

Albert Wimmer

Client

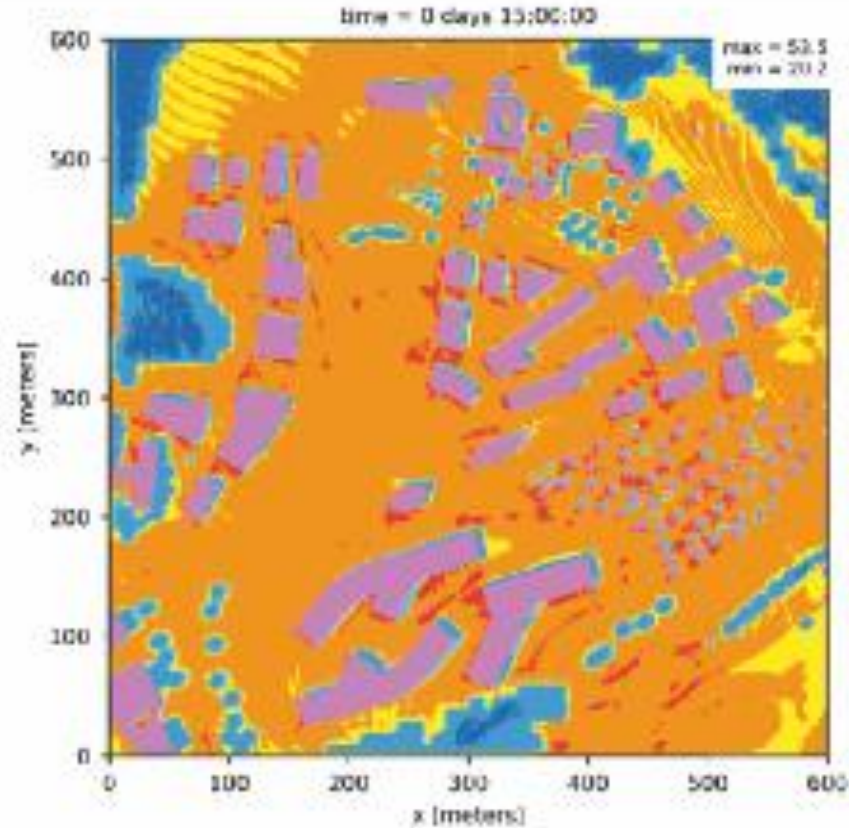
City of Linz

Services

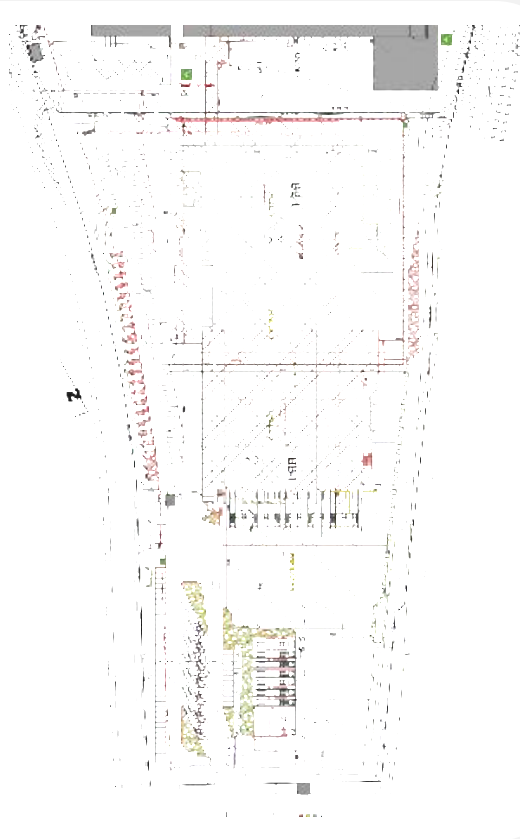
- Climate
- Cold air stream

3 Scenarios

- Status Quo
- Plan
- Optimization



Industry



Kühllager NÖM

Planers

CADOFFICE

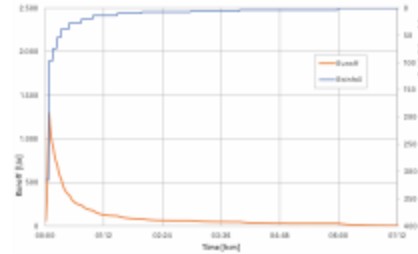
Client

NÖM AG

Services

- Climate
- Water
- EU Taxonomy

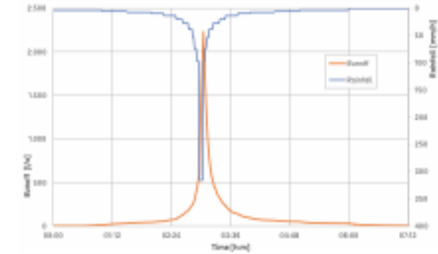
100-jährlich



100-jährlich



100-jährlich



100-jährlich



climate resilience certification



Woliba

Life & Business
Park

Team

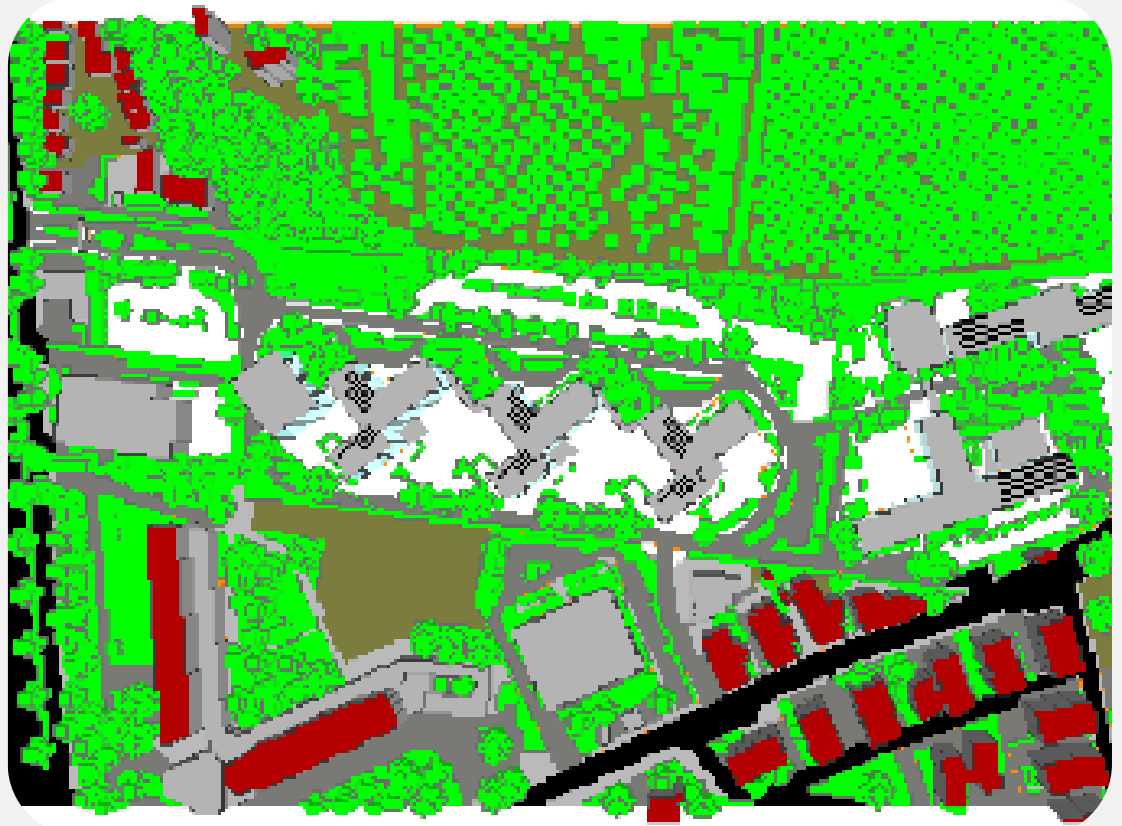
Progetto CRM, R2M solutions

Client

Fondo Laurus

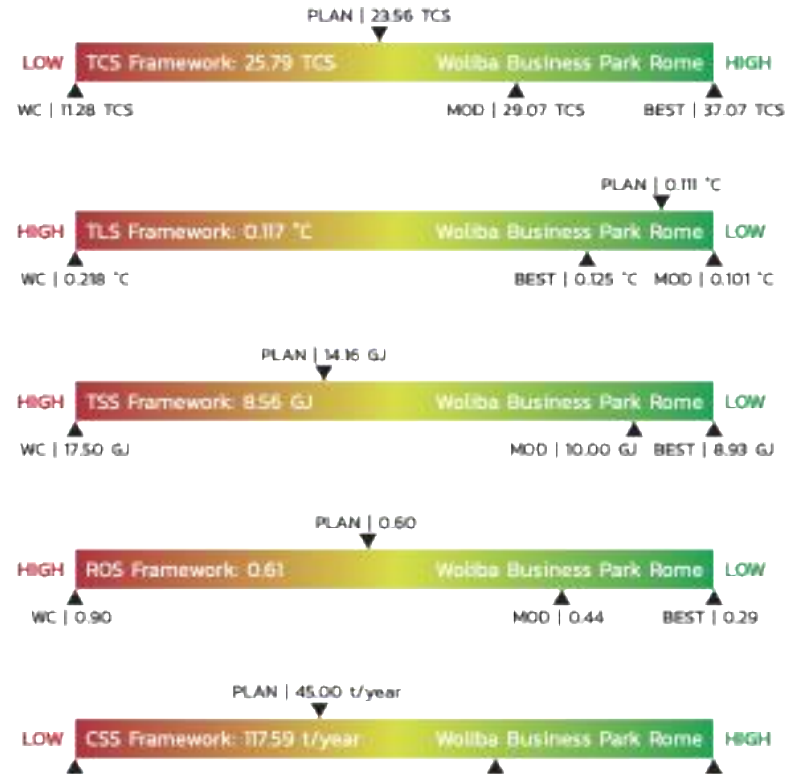
Services

- Climate resilience certification
- 3 reference scenarios



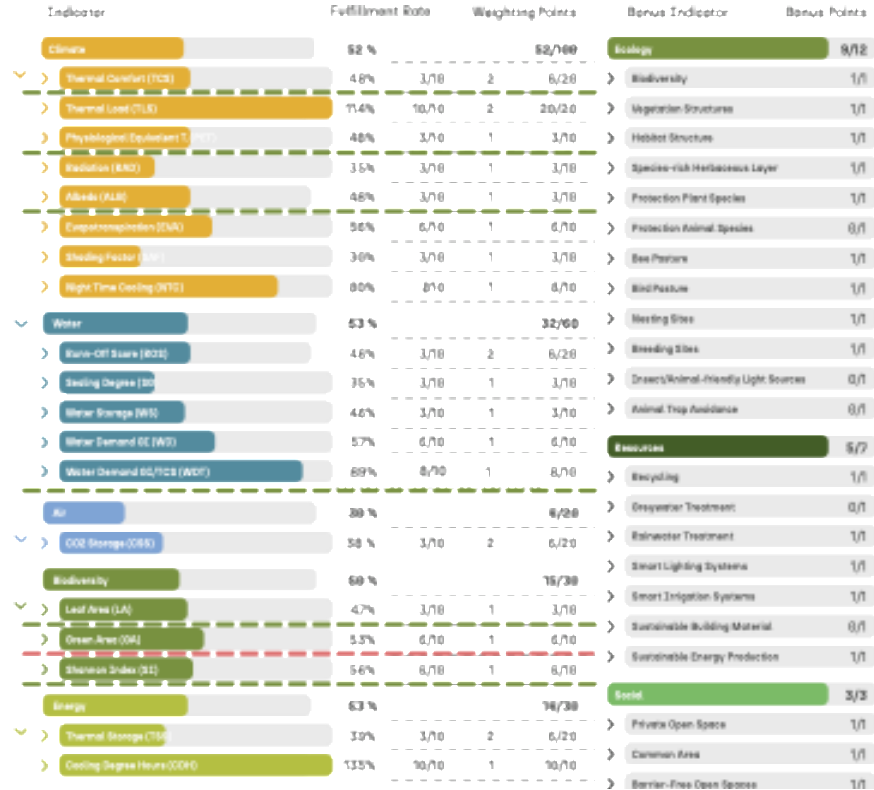
Services

- Climate resilience certification
- 6 thematic fields
- 5 KPIs



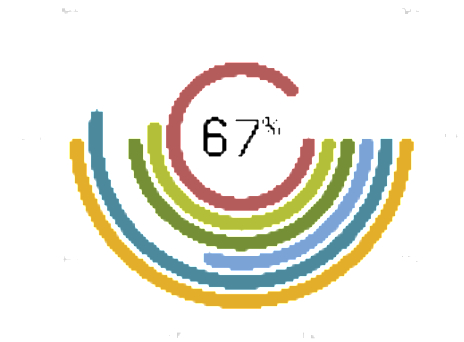
Services

- Climate resilience certification
- 28 Indicators



Services

- Climate resilience certification
- 28 Indicators



Points	193/320
Bonus Points	21/26
Total Points	214/320
Certification Grade	67%

Thank you for the attention!

Adress

Leopold-Ungar-Platz 2/4/423
1190 Vienna

Contact

+43 699 19744304

Mail

contact@greenpass.io

ACCESS4YOU:

CERTIFYING ACCESSIBILITY FOR SUSTAINABLE BUILT ENVIRONMENTS

Denis Uracs

Business Development Lead,
Access4you

access4you.io

Questions for the audience



Who has ever traveled
with a suitcase?



access4you.io

**KEEP YOUR HANDS UP
AND LOOK AROUND**



Who has parents or
grandparents that are
still alive?



Who has a person in
their lives living with a
disability?



Who is a parent, and
experienced going
around with a stroller?



access4you.io

and last question...



Have you ever been
grateful, that you can
enter and use any
environment you want?



access4you.io

**KEEP YOUR HANDS
UP AND LOOK
AROUND**



access4you.io

There
is
a
reason
why

access4you.io

Accessibility is taken for granted



Local regulations
primarily consider
wheelchair users, but
tend to forget the rest

This is why -

When we think about

“Accessibility”

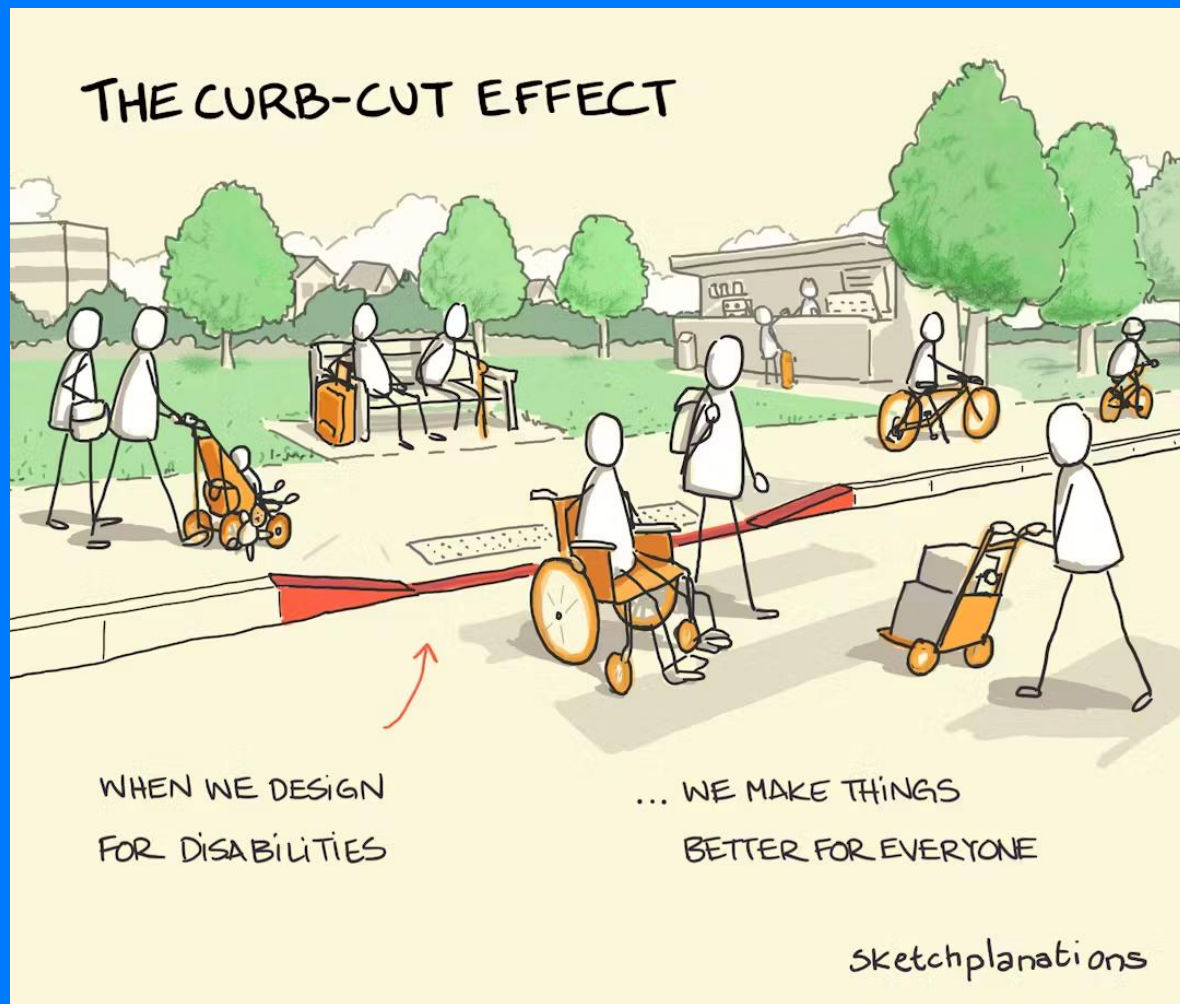
- we primarily think about

=wheelchair users

But we never think
about **ourselves, our
friends and family**

And how accessibility
truly **impacts our lives**,
and how it **WILL impact**
our lives

What people don't realise about accessibility



Who needs accessible environments?





30-40% of society who
has some form of
accessibility need

Why is accessibility important *for you?*

By not being accessible for people with disabilities businesses missing out on yearly \$13 trillion in disability spending power

[Source](#)

80%

of disabilities are invisible, and develop between the aged of 18 and 65

[Source](#)

75%

of disabled people and their families have walked away from a UK business because of poor accessibility or customer service.

[Source](#)

£2 billion

businesses lose approximately £2 billion a month by ignoring the needs of disabled people.

[Source](#)

60%

of disabled customers could not find the information they wanted to about a product online.

[Source](#)

Current trends

Italy has an aging society 25% of its population is 65+, measured in 2024 - [World Bank Group](#)

100%

Becoming
older is a
100%
guarantee

Regulations primarily focus on people who are wheelchair users, not including people with visual, hearing and cognitive impairments

Building owners think their environments are already accessible due to existing regulations

**But the end-results
are typically not
verified...**

access4you.io

Photo I've
taken in
Belgium,
2025



access4you.io

**Let's
look
closer...**

access4you.io

Let's
look
closer.

..



access4you.io

**And
another
example**



And
an
other



access4you.io

So,
How does Access4you
benefit us?



1

Your environment is audited (1-2 days), no documentation needed

Audit Service



Data Collection



Certification & qualification



Reporting &
Development proposals



Consultancy

Assessed element / Item		Evaluation											
Entrance door		present											
Door type	double door		✓	✓	✓	✓	✓						
Opening direction	opens outwards									✓			
Free width (when regular, primary wing only)	69 cm		!	!	!	!							
Free height	208 cm									✓			
Threshold	present									✓			
Outside	36 mm		!	!				!	!				
Inside	0 mm		✓							!	!		
Design of threshold	normal		!	!	!								
Opening method	manual		✓	✓	✓					✓	✓	✓	
Door handle	present		✓	✓									
Height of door handle	100 cm		✓	✓									
Type of door handle	"D-shaped" push-shield		✓	✓									
Automatic door closer (hydraulic, mechanic...)	present							✓					
Design of door	door leaf in glazed construction or glass door		!	!	!								
	there is not lower protection		!	!	!								
	contrasty framing		!	!	!								
Glazed surface	glazed surface, marked but not contrasty												
Additional elements	absent		!	!	!								
Width of free area in front of the door	240 cm		✓	✓	✓								
Length of free area in front of the door	252 cm		✓	✓	✓								
Width of free area on the side of the hinge	48 cm		✓	✓	✓								
Width of free area on the side of the handle	119 cm		✓	✓	✓								
Width of free area behind the door	240 cm		✓	✓	✓								
Length of free area behind the door	305 cm		✓	✓	✓								
Width of free area on the side of the hinge	49 cm		✓	✓	✓								
Width of free area on the side of the handle	52 cm		!	!	!								
Vestibule		present											
Width of vestibule	240 cm		✓	✓	✓								
Length of vestibule	305 cm		✓	✓	✓								
Floor covering	level		✓	✓	✓								
	anti-glare												
	anti-slip												
Material of floor covering	other:		!	!									



2. Certified

Communication of Certification Services



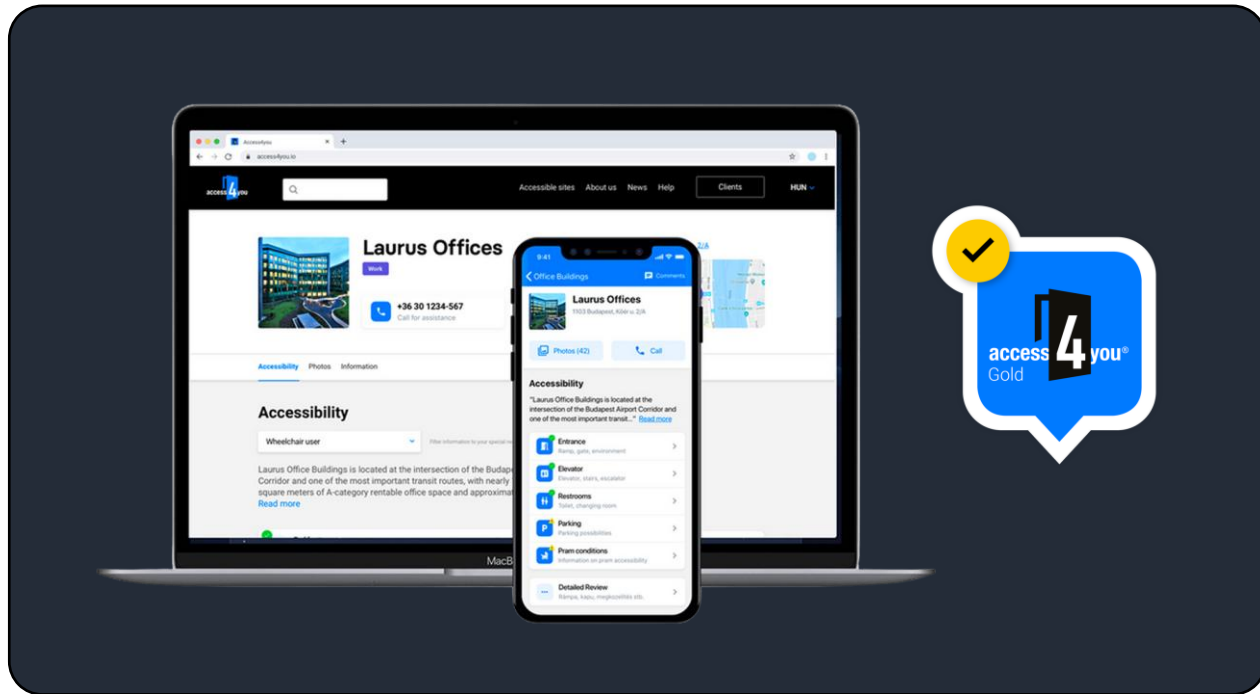
Certificate Implementation



Location Profile
Implementation



B2B-B2C Communication



Levels of accessibility



Bronze
(at least 4 target groups)

Silver
(at least 6 target groups)

Gold
(all target groups)

	Wheelchair users, people with disabilities	Minimum requirements are met and the main functions and services can be used by at least 1 of the 8 target groups.			In case of compliance with the minimum requirements of all target groups with special needs.
	People with baby strollers				
	The elderly, people with reduced mobility				
	The blind				
	Visually impaired				
	Hard of hearing				
	The deaf				
	People with cognitive impairment				



3. Scored

Accessibility Score Services



Scoring



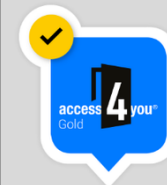
Score report



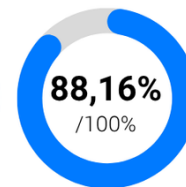
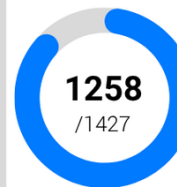
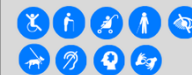
Alignment guide (CSRD,
ESRS, SFRD)

Access4you Score - percentage values										
access 4 you										Overall percentage
External environment	achieved	achieved	achieved	achieved	achieved	achieved	achieved	achieved	achieved	achieved
Getting in	87.50%	87.50%	87.50%	14.52%	23.68%	20.00%	20.00%	11.11%	35.48%	68.83%
Indoor traffic	94.14%	95.00%	95.30%	93.84%	84.81%	0.00%	0.00%	0.00%	86.83%	86.83%
Information system	98.61%	92.08%	98.48%	72.09%	75.00%	50.00%	42.86%	62.50%	10.71%	81.48%
Sanitary block	50.00%	0.00%	50.00%	0.00%	5.26%	9.72%	10.81%	31.82%	10.71%	31.48%
Underground garage/parking	70.27%	76.47%	95.24%	90.49%	83.33%	100.00%	100.00%	100.00%	91.94%	91.94%
Overall percentage per stakeholder groups	90.64%	90.08%	96.20%	53.91%	71.33%	17.02%	17.05%	36.00%	68.93%	68.93%

Access4you Score percentage values - corrected according to minimum requirements										
access 4 you										Overall percentage
External environment	achieved	achieved	achieved	achieved	achieved	achieved	achieved	achieved	achieved	achieved
Getting in	87.50%	87.50%	87.50%	0.00%	23.68%	20.00%	20.00%	0.00%	0.00%	68.83%
Indoor traffic	94.14%	95.00%	95.30%	93.84%	84.81%	0.00%	0.00%	0.00%	86.83%	86.83%
Information system	98.61%	92.08%	98.48%	72.09%	75.00%	50.00%	42.86%	62.50%	10.71%	81.48%
Sanitary block	50.00%	0.00%	50.00%	0.00%	5.26%	9.72%	10.81%	31.82%	10.71%	31.48%
Underground garage/parking	70.27%	76.47%	95.24%	90.49%	83.33%	100.00%	100.00%	100.00%	91.94%	91.94%
Overall corrected % per stakeholder groups	90.64%	90.08%	96.20%	51.40%	77.25%	5.07%	5.07%	36.00%	68.93%	68.93%



Access4you
Certification & Score



In short...

We Survey



We Assess
& Certify



We Provide
Communication Support





WHERE TO IMPLEMENT THESE?

Strategic Foundations



Enhanced
Property



Brand Building



Sustainability
(Social)

Strengthening



Engage tenants and
increase loyalty



Inviting in a larger pool
of people in your environments



Elevating brand and standing
out from competition



Building trust among
stakeholders and investors

Quick and Effective

- ✓ Minimal management effort
(1-2 working days)
- ✓ Integration into WELL and GRESB systems



access4you.io

How can I be
more accessible?



Implementation Examples

Real-world accessibility improvements with costs



The Blind Tactile Signage

Cost:

€2000-4000

€200/m, general distance: 10-20 m



The Visually Impaired Glass and Step Markings

Cost:

1-2 Euro/m, 500-1500 m/building (material price only, including step markings, marking tapes, stickers)



Implementation Examples

Real-world accessibility improvements with costs



The Hard of Hearing Induction Loop System

Cost:

Starting from €500-1000/per device (One-time device cost)



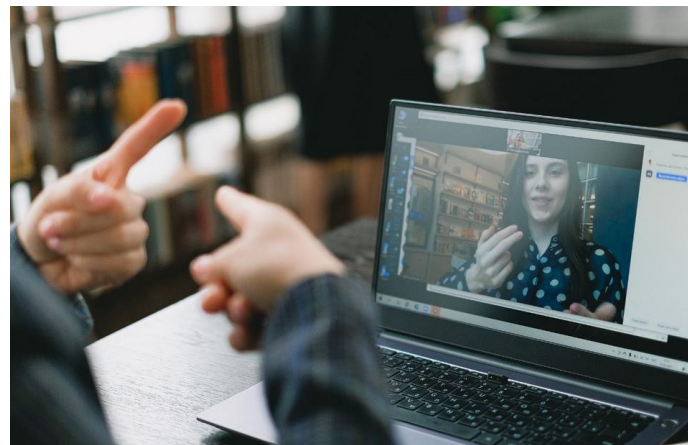
The Deaf Online Sign-Language Service

Cost:

€1000/per device

€100-200/service/month

(one-time device cost and annual service fee)



Implementation Examples

Real-world accessibility improvements with costs



Cognitive Impairments Comprehensive Signage and Wayfinding System

Cost:

Starting from €1000 (built from store-bought components, without design work)

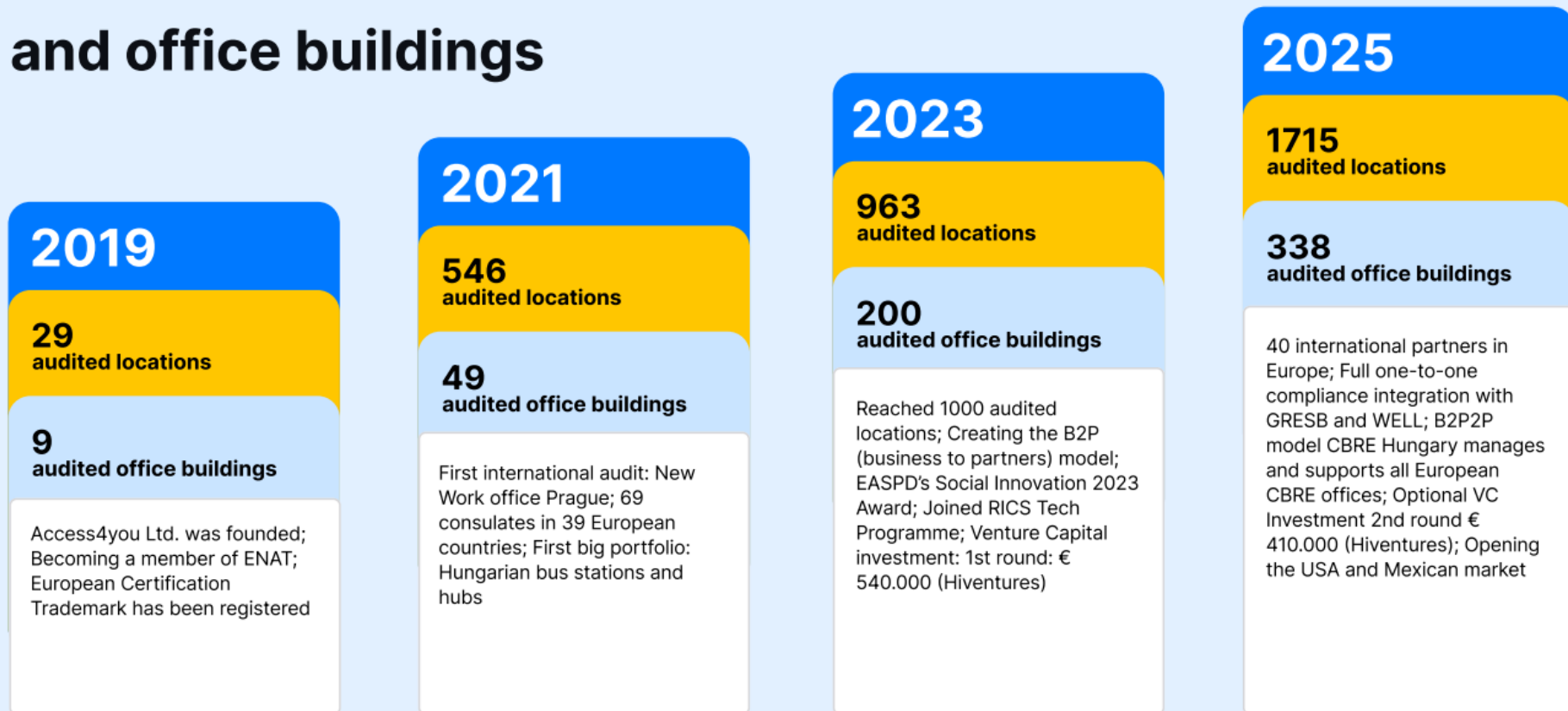


Benchmark for *Average Cost of Development*

Determined by the building's complexity (does not include custom-designed solutions)

€10 000

Global growth of audited locations and office buildings



GEOGRAPHICAL SCOPE

Number of audited locations
in Europe



Companies, that are already committed to accessibility

WE ARE TRUSTED BY LEADING COMPANIES

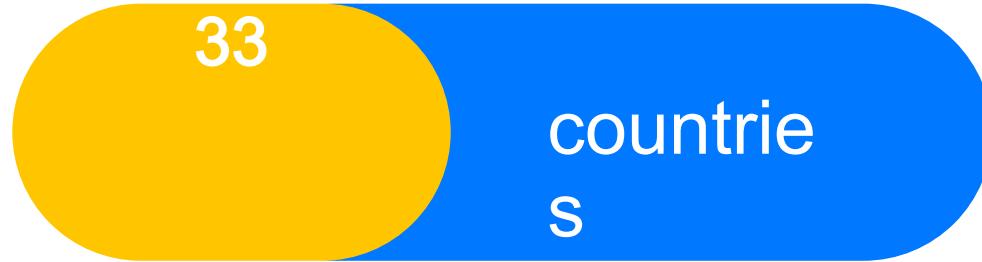


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What now?



We have an international partner network



So if our presentation has
taught you something, and
you now

**see the importance of
accessibility**



I'll help you connect
with our best partners



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Depending
on your
country



Option 1

Visit us
at our booth

Option 2



Book a **call!**



Thank you
for your **attention!**



PANEL DISCUSSION

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Adriano Bisello, PhD Urban Planner, Senior Researcher – Team Coordinator @ Eurac Research, Vice President @ ASSURB

Chiara Stanghini, Head of European Projects, EDERA srl Impresa Sociale



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THANK YOU