



Built4People

5th Stakeholders Forum

Building Europe's Resilient Future

7 October 2026 | Buildwise, Zaventem



Co-funded by the
European Union



Programme

8h30	Registration and good morning coffee	
9h30	Welcome	Built4People Partnership Management Team
9h40	Keynote: Resilience by Design	Captain João Galocha, Portuguese Delegation to NATO
10h05	Panel 1: From Vulnerability to Resilience Securing Europe's Built Environment	moderated by Sami Kazi, VTT
11h05	Panel 2: Circular by Design Building Europe's Resource-Efficient Future	moderated by Cornelia Partsch, ECTP
12h05	Panel 3: From Innovation to Impact Industrialising and Scaling Up Construction	moderated by Magnus Österbring, ENCORDER
13h05	Lunch break	
14h05	Panel 4: Boosting Competitiveness AI, Robotics and the Future of the Built Environment	moderated by Vedran Angebrandt, CINEA
15h05	Panel 5: People at the Heart of Resilience Scaling People-Centred Innovation	moderated by Clémentine Coujard, Dowel Innovation
16h05	Special Session on B4PIC network	moderated by Nerea Gómez, ECTP
16h20	Closing remarks	



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Welcome and opening



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European Union**





Barbara PIRCHNER

Policy Officer - Energy Efficiency: Policy and
Financing (ENER.B.2)

Directorate-General for Energy (DG ENER)

European Commission

Welcome and updates



Annarita FERRERI

Head of Sector - Energy Efficiency Smart Cities and
New EU Bauhaus

CINEA, European Commission



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Edward WOODS

Head of R&D | Innovation | Venture Capital

Bouygues Construction

ECTP President



Co-funded by
the European Union



Welcome



Ilari AHO

Head of Global Business Sustainability

GF Building Flow Solutions

B4P Partnership Board Co-Chair

Vice President of ENCORD



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the European Union



Welcome



Magnus Österbring

NCC

ENCORD General Secretary



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the European Union





Keynote



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Keynote

9h40 – 10h05



PORTUGUESE DELEGATION
TO THE
NORTH ATLANTIC TREATY
ORGANIZATION

Captain João GALOCHA

Military Counsellor in the Portuguese Delegation to NATO

“Resilience by Design: Building a Europe Ready for an Uncertain Future”



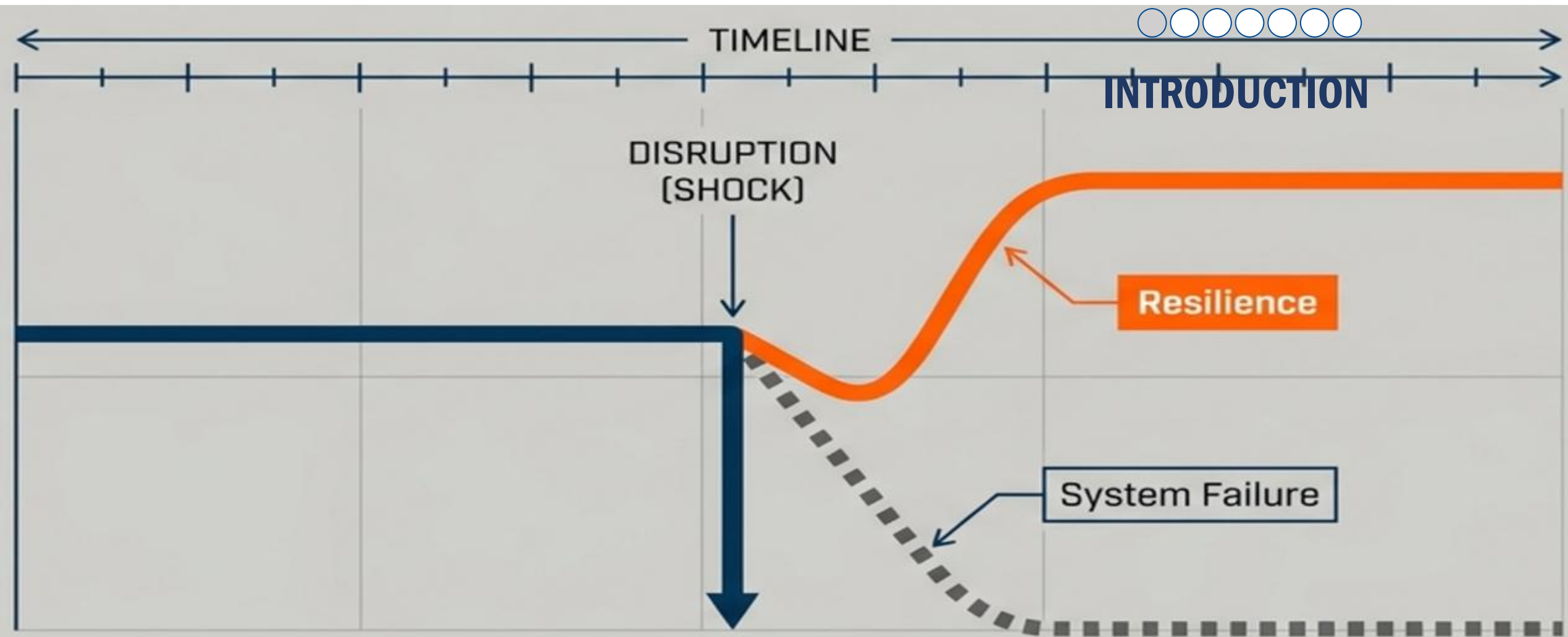
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| Resilience by Design

Building a Europe ready for an uncertain future





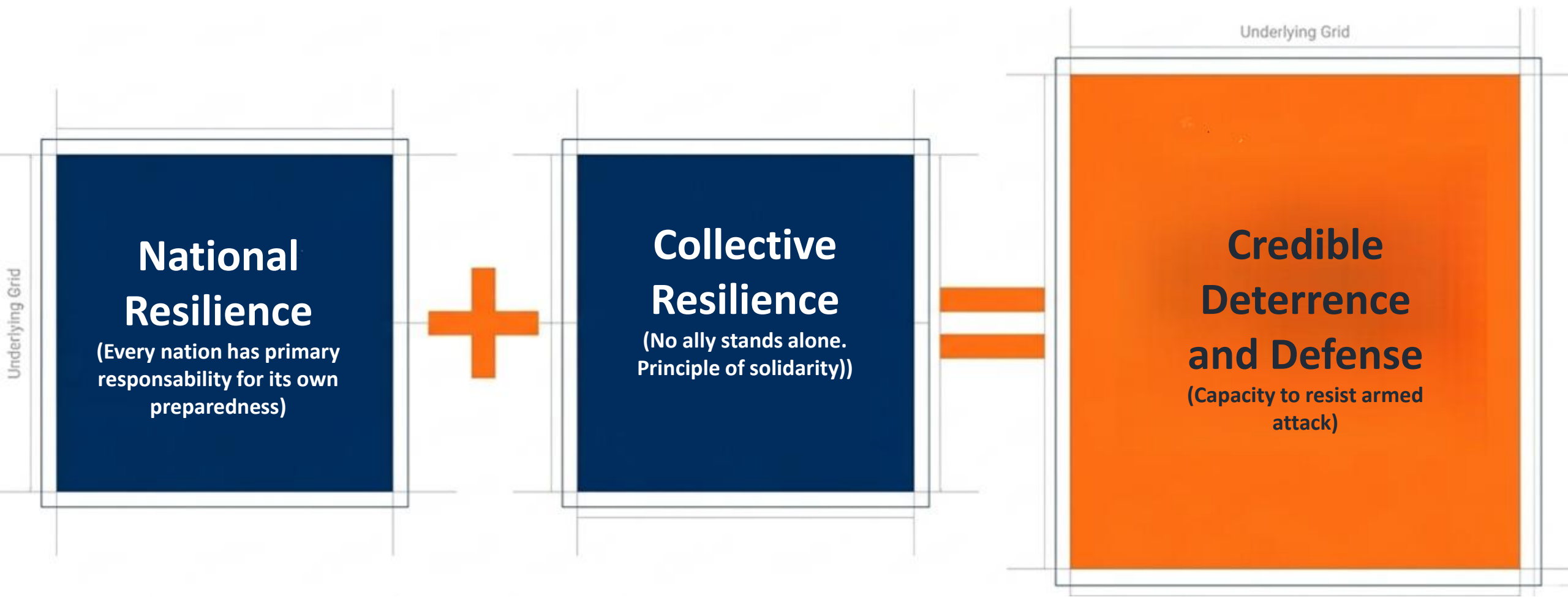
INTRODUCTION



“Resilience must be understood as a property of the whole system.”

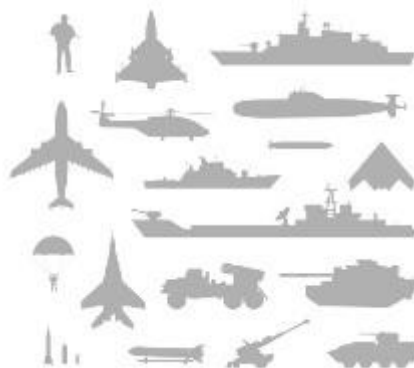


NATO





CIVIL PREPAREDNESS



Most of the infrastucture that keeps soceties running is not military.

Civilian, owned and operated by governments, regional authorities, and private companies

NATO's armed force depend heavily on this exact grid.

Without resilient civilian systems, there can be no real military readiness.



CIVIL PREPAREDNESS

NATO recognizes three core functions that civil preparedness must protect, even under extreme pressure

Continuity of government

The ability for governments to continue making decisions

Continuity of essential services

Ensuring public access electricity, water, ...

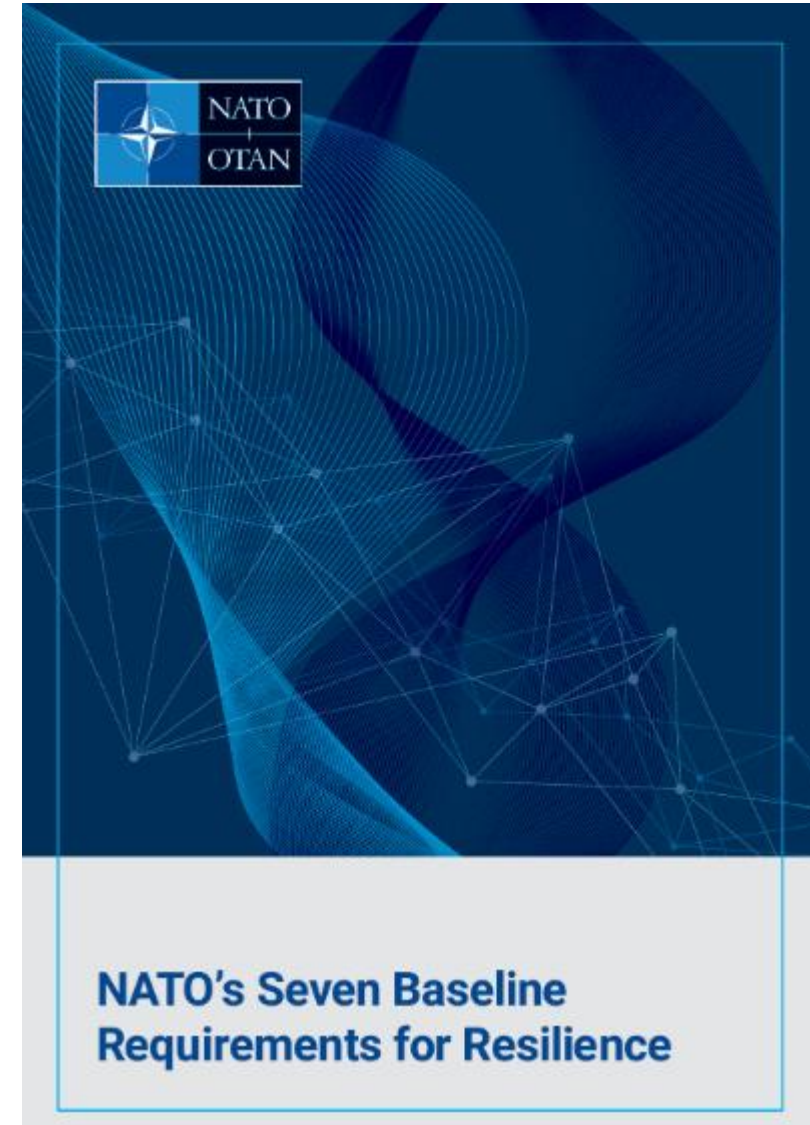
Civil support to military operations

Ensuring civilian capabilities support military forces in peace, crisis, and conflict



1. Assured Continuity of Government and Critical Government Services
2. Resilient Energy Supply
3. Ability to Manage Controlled and Uncontrolled Movement of People
4. Resilient Food and Water Resources
5. Resilience To Deal With Mass Casualties and Disruptive Health Crises
6. Resilient Civil Communications Systems
7. Resilient Civil Transportation Systems

7 BASELINE REQUIREMENTS





7 BASELINE REQUIREMENTS





DUAL - USE

One infrastructure, two purposes

Civilian

Military Mobility

Ports
Commercial traffic today



Ports
Rapid military mobility tomorrow

Roads
Commercial traffic today



Roads
Rapid military mobility tomorrow

SatNav
Finding a restaurant today



SatNav
Guiding defense logistics tomorrow

Drones
Inspecting bridges today



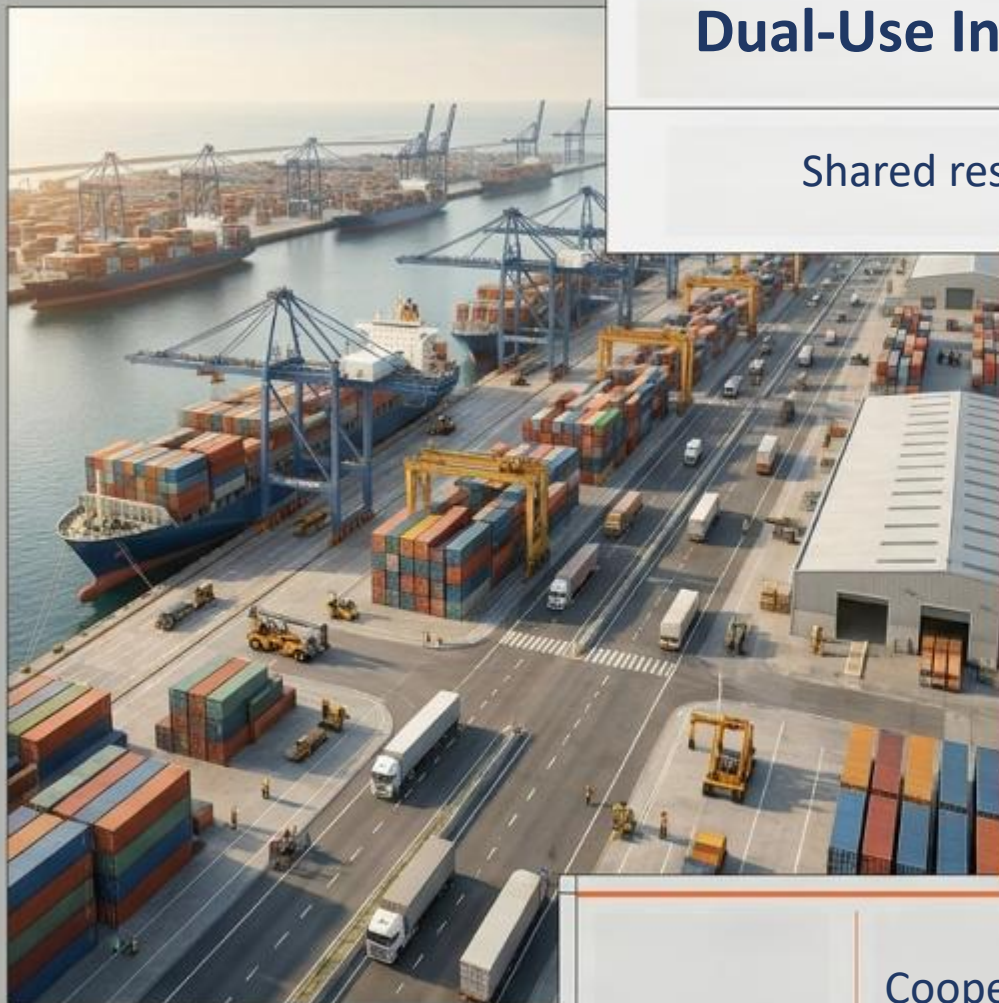
Drones
Providing reconnaissance tomorrow



DUAL - USE

Dual-Use Infrastructure

Shared responsibility



Civilian Economy

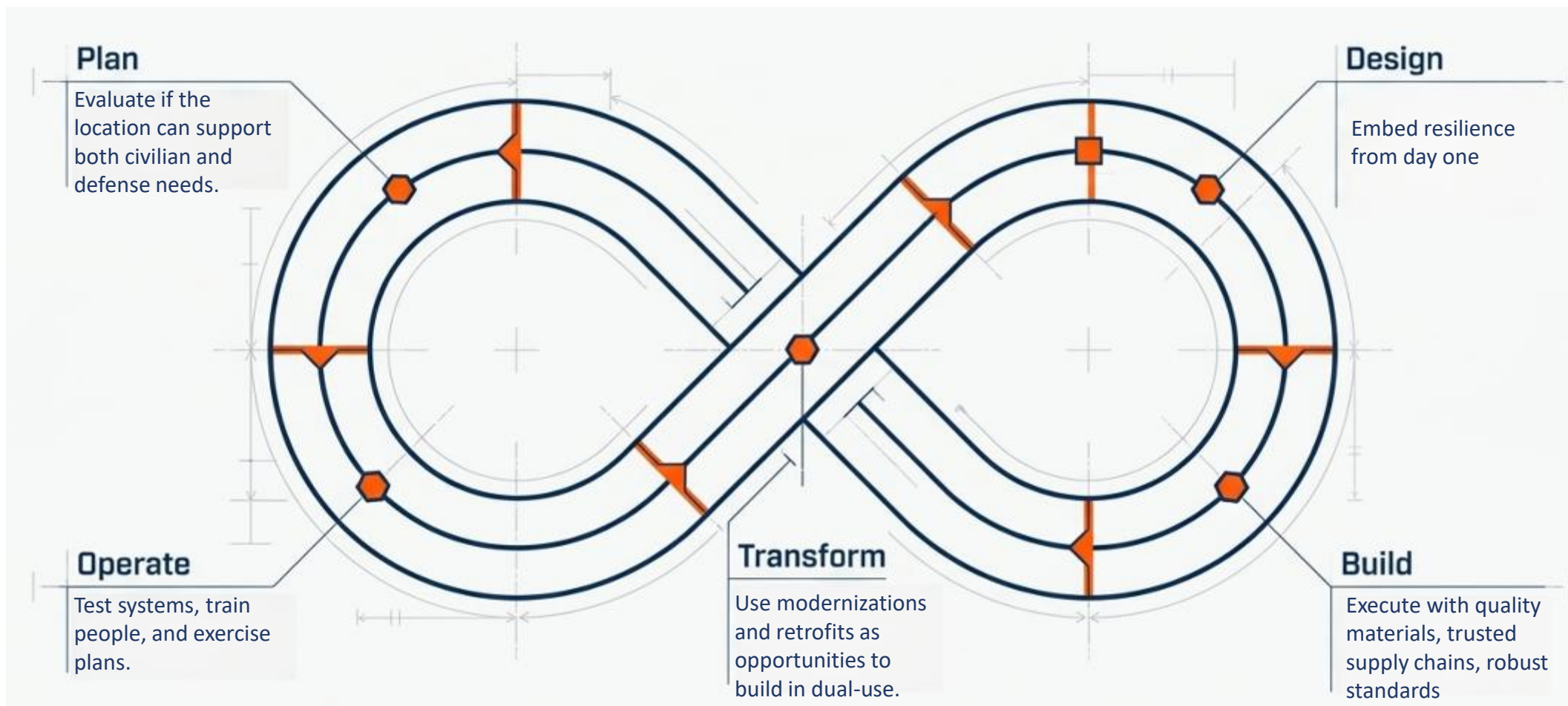


Military Mobility

Cooperation

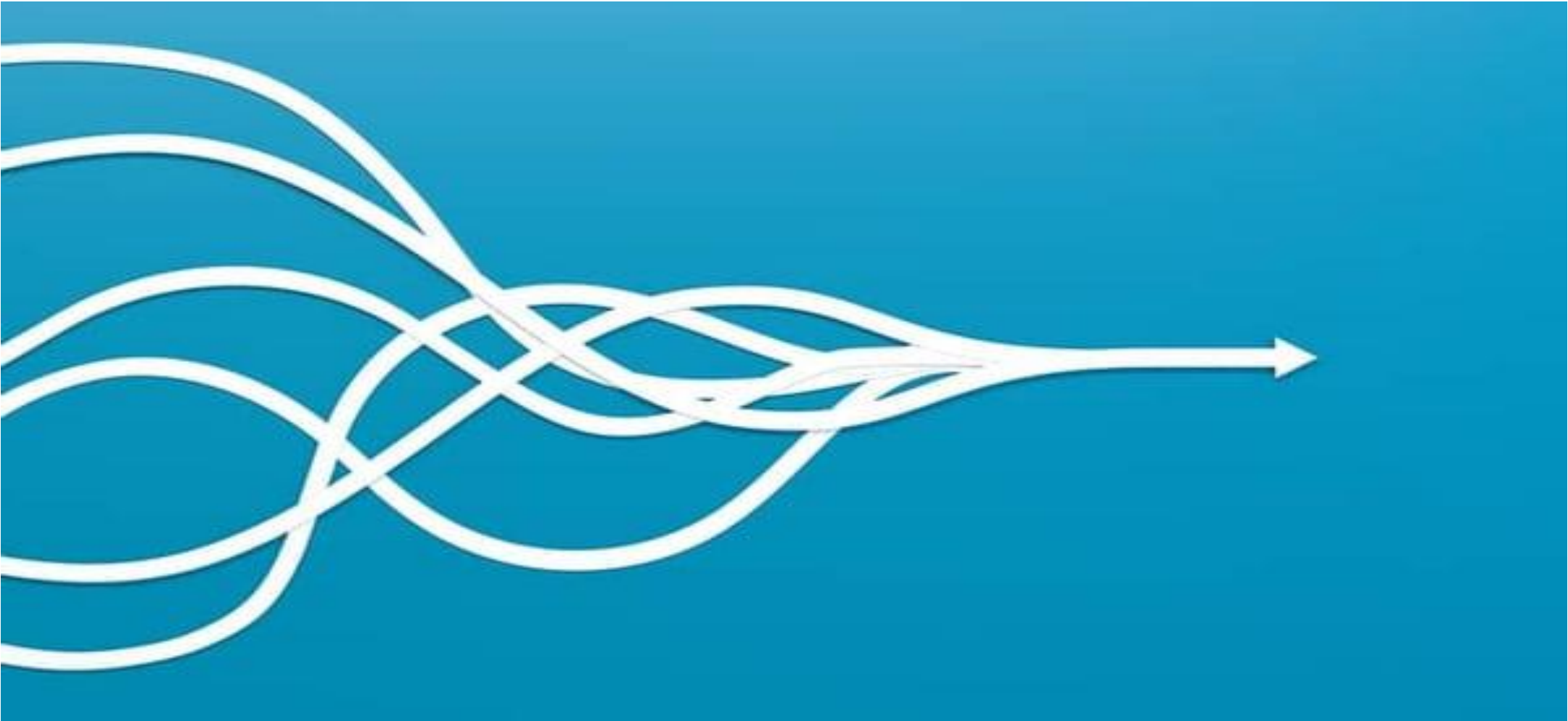


BUILT ENVIRONMENT





CLOSING





| Resilience by Design

Building a Europe ready for an uncertain future



Panels



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Panel 1: From Vulnerability to Resilience



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Panel discussion on From Vulnerability to Resilience: Securing Europe's Built Environment

moderated by:



Sami KAZI
VTT



Rita MOURA
Teixeira Duarte



Stergios-Aristoteles MITOULIS
Bartlett School of Architecture,
UCL



Niall BUCKLEY
IES



Emmanuelle FRÉNÉAT
EGIS



Panel

From Vulnerability to Resilience: Securing Europe's Built Environment

Sami Kazi (Moderator)

VTT Technical Research Centre of Finland

Panellists:

- Rita Moura
Teixeira Duarte
- Prof Stergios-Aristoteles Mitoulis
UCL Centre for Global Infrastructure Resilience
- Dr Niall Buckley,
IES, Resilience of the Built Environment Cluster
- Emmanuelle Frénéat
EGIS Group

Built4People
Stakeholders Forum 2026

"Building Europe's Resilient Future"

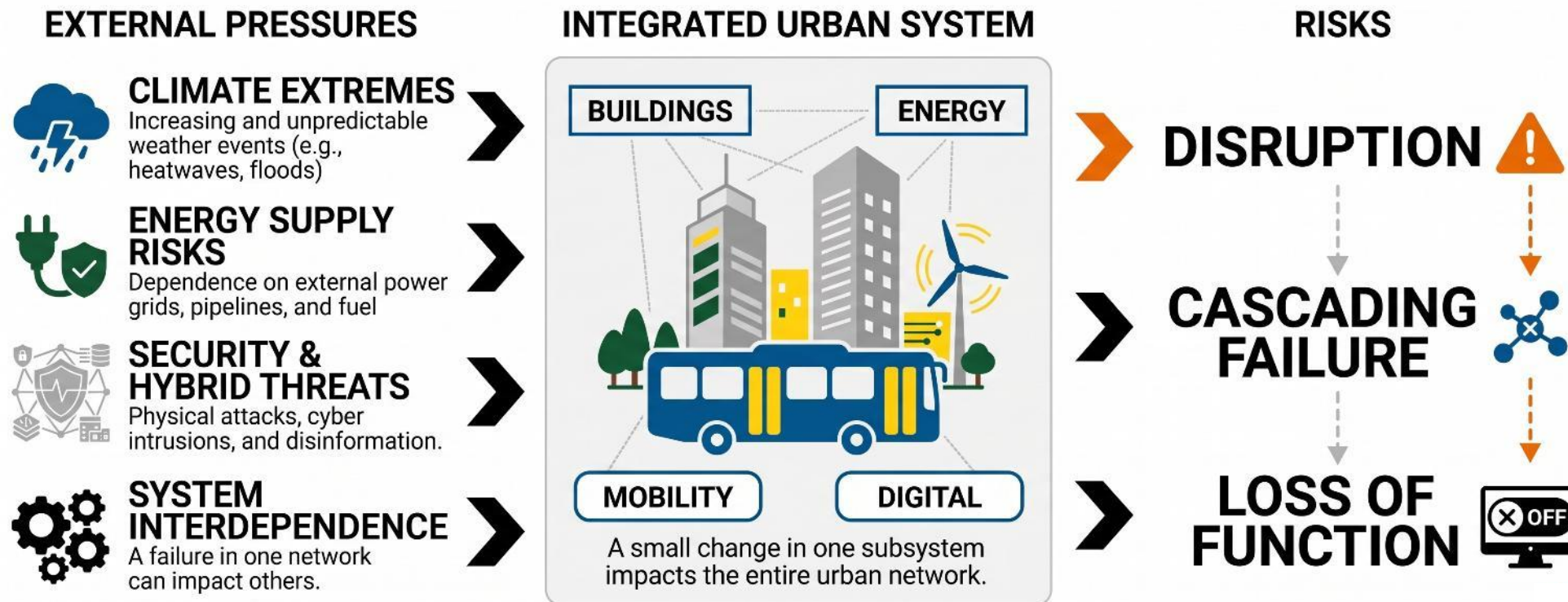
7 October 2026 | 08h30 – 16h30 CEST

Buildwise Zaventem, Brussels

(Kleine Kloosterstraat 23, 1932 Zaventem)

Why resilience and security? Why now?

Resilience and security has shifted from a nice to have contingency issue to a core requirement for investment, operations, sustainability, and survivability!



Paradigm shift from “**how efficient are cities and infrastructure**” to “**what will and needs to remain functional and safe when conditions change**”



WHAT IF
YOUR CITY
STOPPED
WORKING?

Panel Dynamics

From Vulnerability to Resilience: Securing Europe's Built Environment

Each panellist will spend 5 minutes presenting some initial thoughts and findings on
“From Vulnerability to Resilience: Securing Europe's Built Environment”

Rita Moura, *Teixeira Duarte*

➤ *How can resilience ambitions be translated into practical decisions across the delivery of major infrastructure projects?*

Prof Stergios-Aristoteles Mitoulis, UCL Centre for Global Infrastructure Resilience

➤ *From isolated risks to systemic resilience: how should Europe rethink the design of its built environment?*

Dr Niall Buckley, IES, Resilience of the Built Environment Cluster- Minority Report project

➤ *Which systemic vulnerabilities and interdependencies prevent current resilience solutions from becoming part of resilient infrastructure systems at scale?*

Emmanuelle Frénéat, EGIS

➤ *Which systemic vulnerabilities and interdependencies prevent current resilience solutions from becoming part of resilient infrastructure systems at scale?*

PANEL DISCUSSION



TEIXEIRADUARTECONSTRUCAO.COM

From Vulnerability to Resilience: Securing Europe's


Built4People
Stakeholders Forum 2026

7 October 2026 | 08h30 – 16h30 CEST
Buildwise Zaventem, Brussels
(Kleine Kloosterstraat 23, 1932 Zaventem)

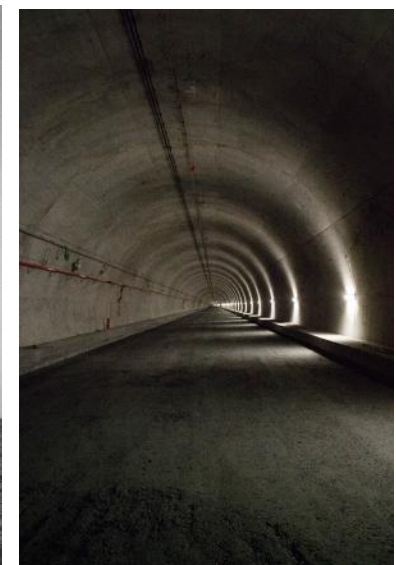
"Building Europe's Resilient Future"

 **TEIXEIRA DUARTE**
ENGENHARIA E CONSTRUÇÕES

GRUPO TEIXEIRA DUARTE
100
ANOS
CONSTRUINDO
UM MUNDO MELHOR

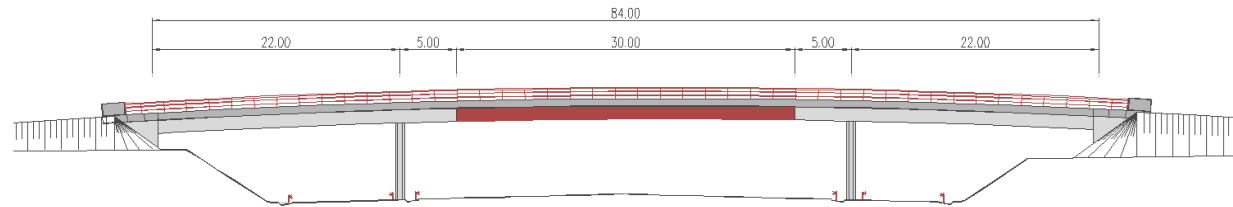
Resilience & Robustness

- Natural & Manmade Risks
- Extreme Events
- Defence & Dual use



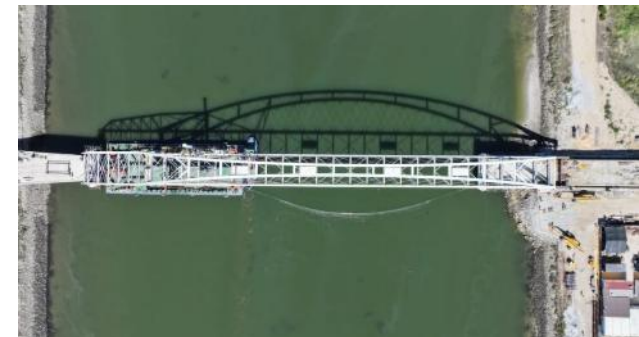
OMICRON PROJECT - HORIZON 2020

A hybrid bridge is a structure that is simple, fast and safe to build.



FAST BRIDGE CONSTRUCTION

A 120m spam bridge towed unto position by barge and installed in just 1h30m!



From isolated risks to systemic resilience: How should Europe rethink the design of its built environment?

Prof Stergios-Aristoteles Mitoulis

Professor of Sustainable and Resilient Infrastructure
Director, UCL Centre for Global Infrastructure Resilience
The Bartlett School of Sustainable Construction
University College London
email: S.Mitoulis@UCL.ac.uk



Centre for Global Infrastructure Resilience

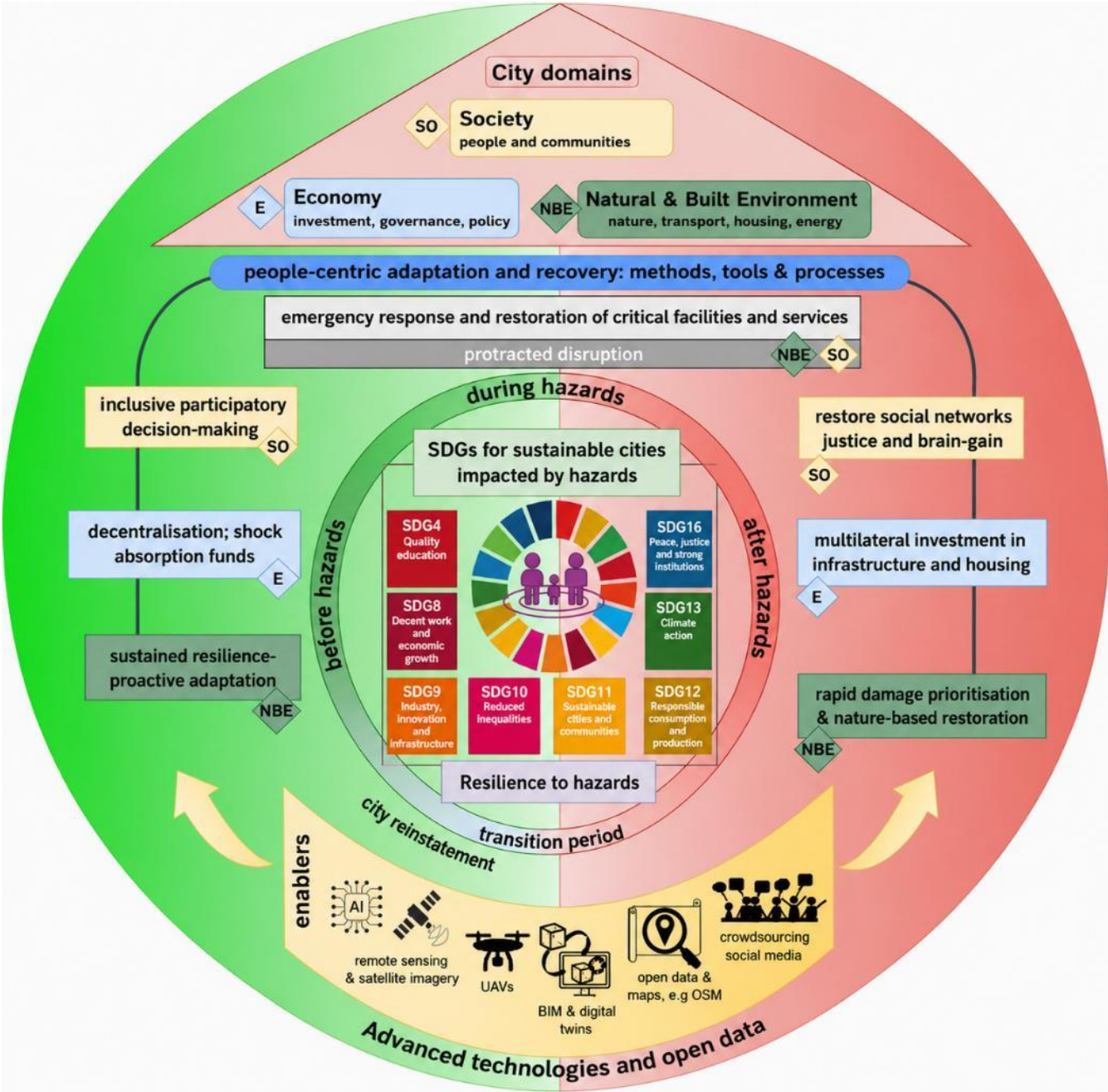


A new paradigm for resilient and equitable post-war recovery of cities

Rebuilding cities after extensive destruction often prioritizes political or economic interests at the expense of long-term resilience and equity.

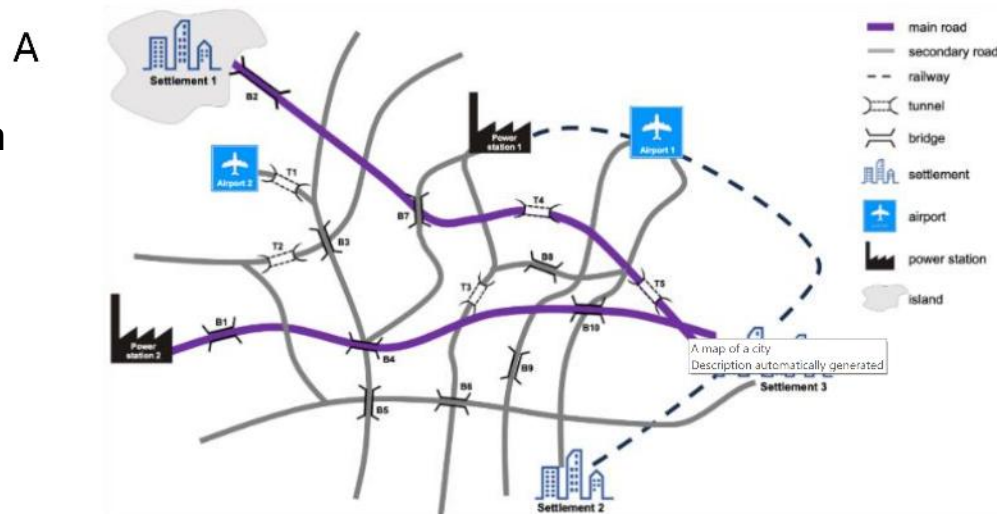
Recovery must break away from traditional, interest-driven patterns.

Instead, reconstruction should be redefined through frontier science and a multidisciplinary lens that has people and communities, social justice, and sustainability at its heart.

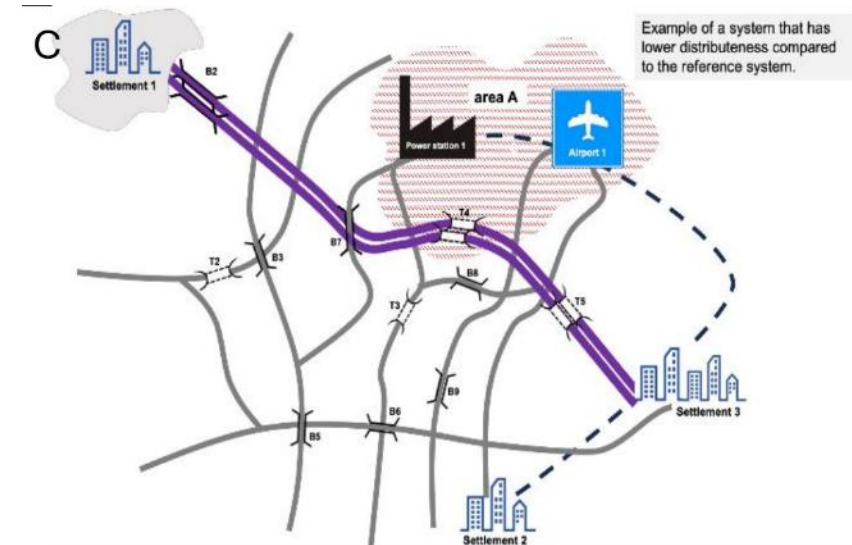


Threat agnostic resilience

Reference system

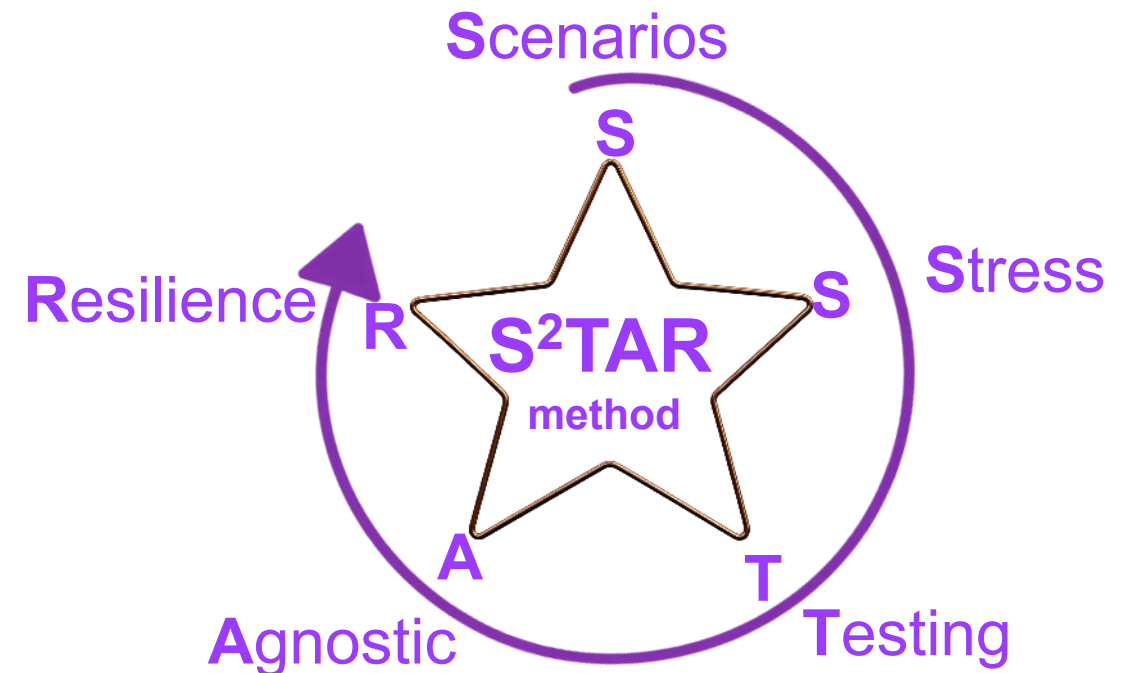
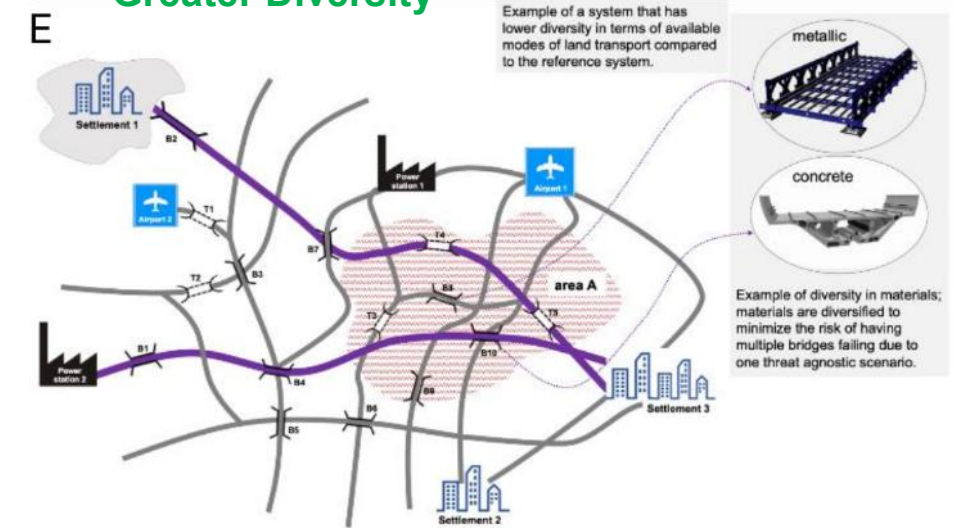


Lower Distributedness



Modularity
Distributedness
Redundancy
Diversity
Plasticity

Greater Diversity

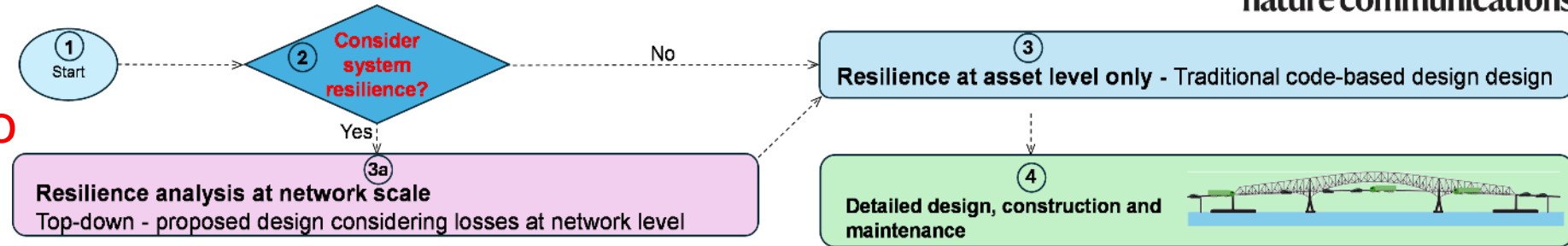




Beyond systemic breakdown: Designing the future through Sustained Resilience

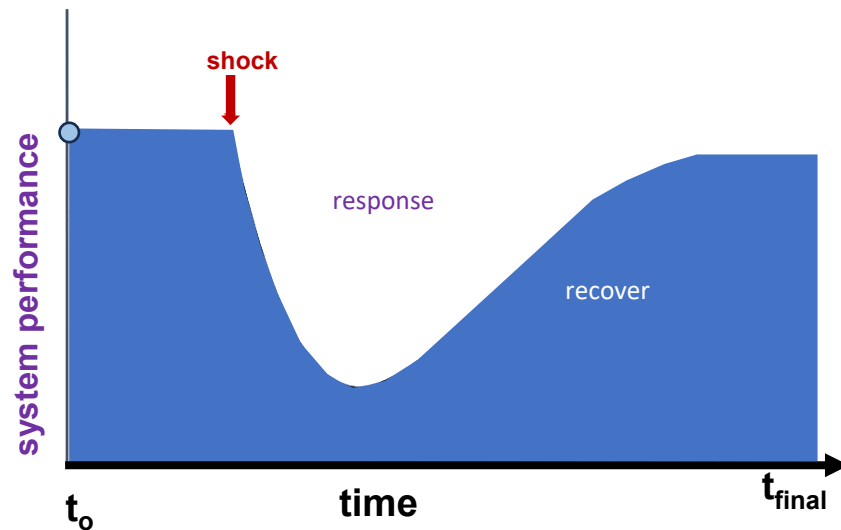
nature communications

Current design practices are myopic to systemic breakdown



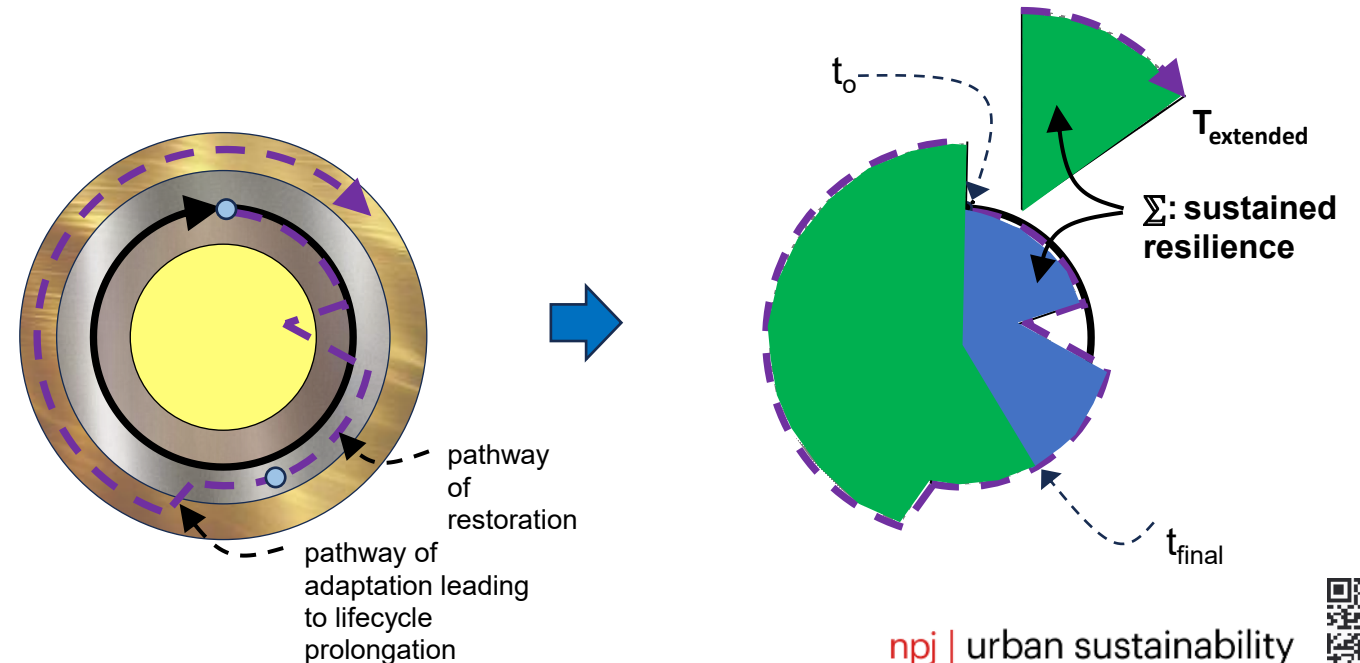
Design of critical infrastructure should follow a clear systems approach where resilience is considered along with managing risks to avoid cascading disruptions.

Today: Resilience as recovery only

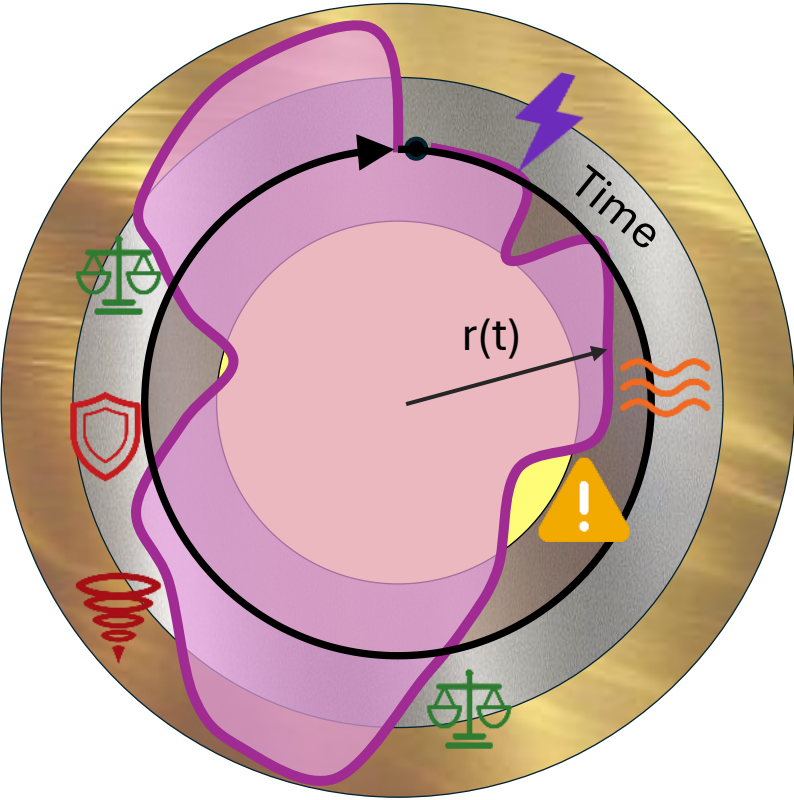


➡ Doesn't describe resilience through lifecycle

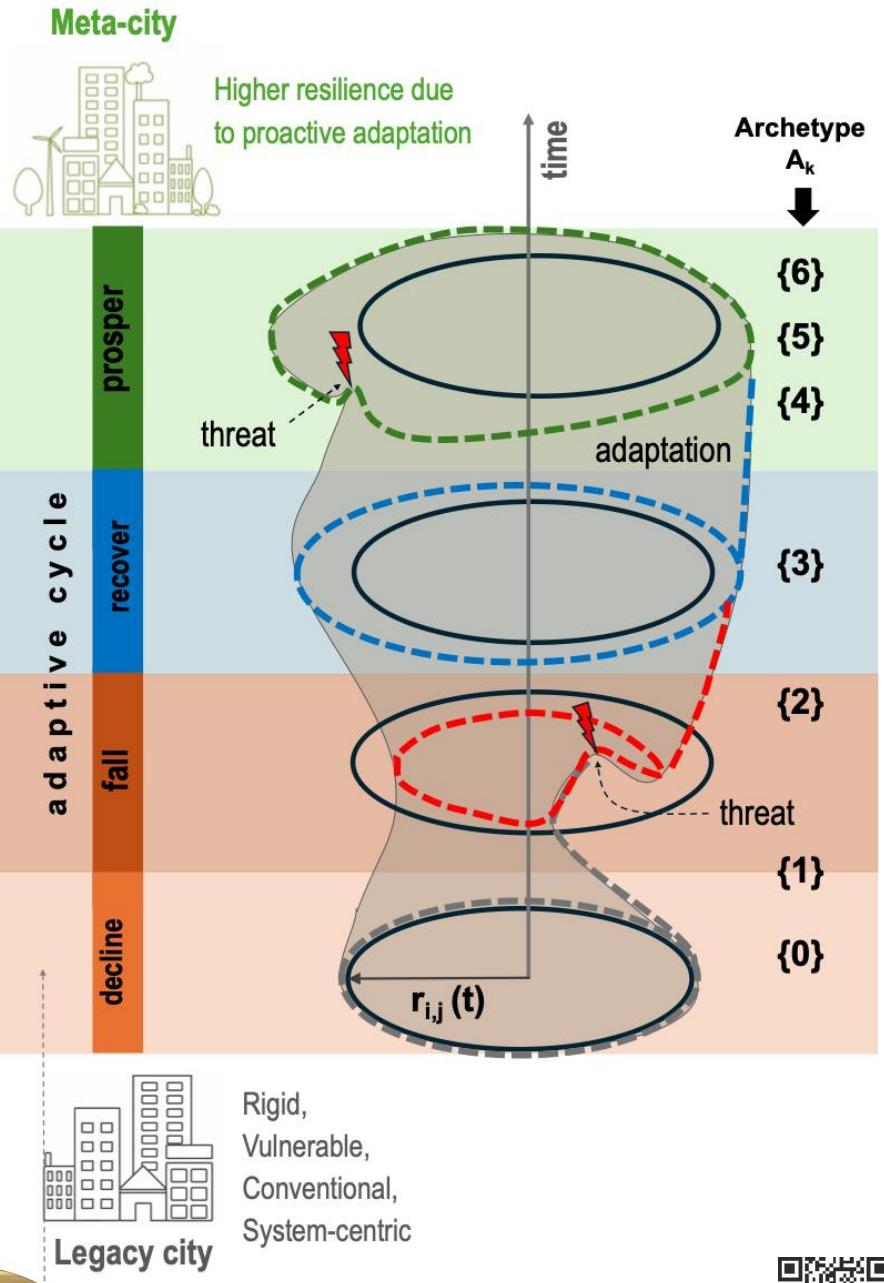
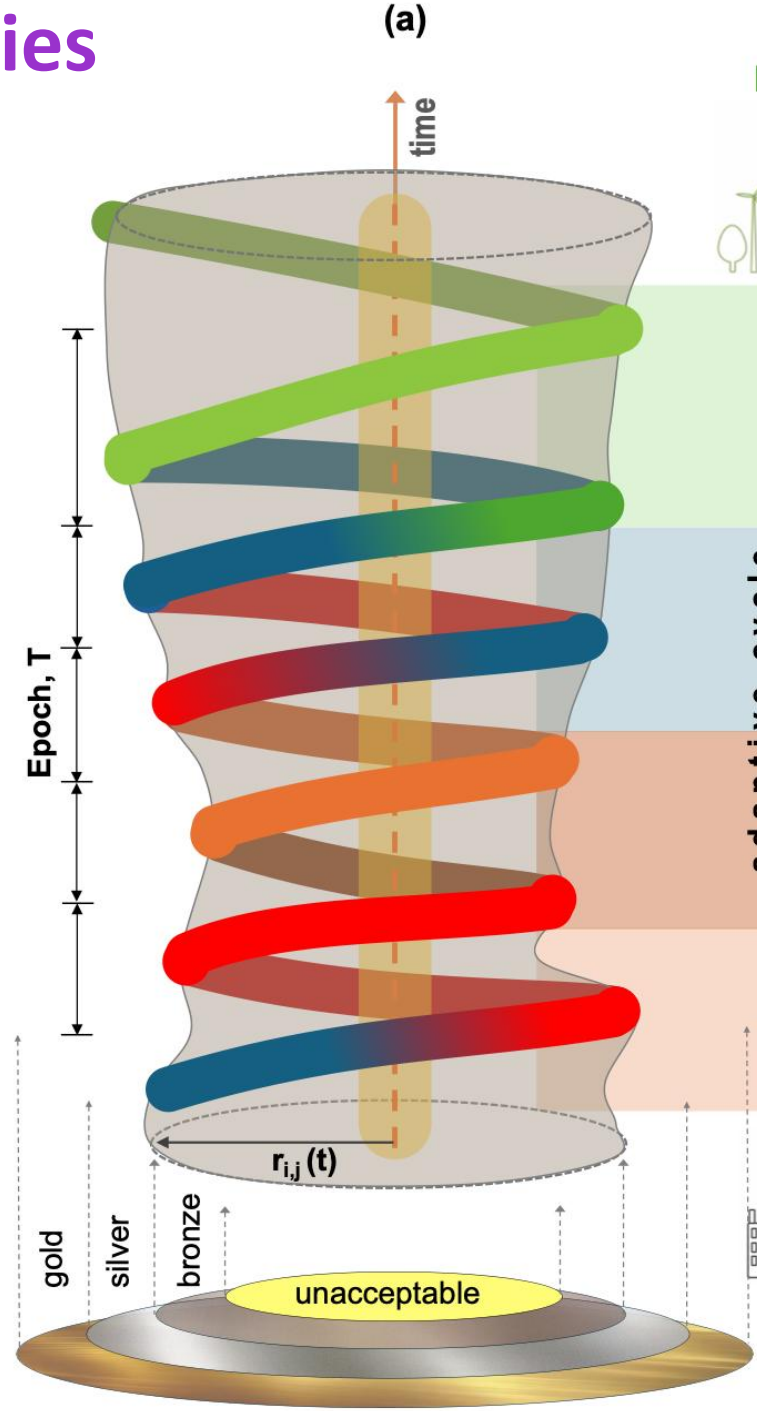
Resilience across the lifecycle. Resilience does not end at recovery.



Sustained Resilience of Cities



- HAZARDS**
Potential sources of harm
- THREATS**
Deliberate or emerging sources of harm
- SHOCKS**
Acute disruptive events
- CRISES**
System-wide disruptions
- CHRONIC STRESSES**
Persistent degrading pressures
- REGULATORY / DEMAND SHIFTS**
Change in required performance (standards, codes, demand, policy)





Advanced
technology in
physics, energy and
digital twins

Home to the largest
building analytics
team in the world



Dr Niall Buckley | Senior Project Manager, IES R&I

Resilience through Minority Report



Physics Enabled Simulation

- Based on fundamental physics principles
- Simulates the physics of energy & heat flow



Real & Virtual Sensor Data

- IoT & BMS Data from the Real Building
- Virtual Sensor Data from the Simulation



AI & Machine Learning

- Enables data driven prediction
- Fills data gaps & checks for anomalies



Digital Twin

Leverages the best of both Building Simulation, Sensor Data,
AI & Machine Learning



Four reports, one systemic resilience challenge

EFCA Future Trends Committee | 2025 work on infrastructure resilience

EFCA

European Federation of Engineering Consultancy Associations

Representing the European engineering consultancy industry and bringing engineering expertise into the policy debate

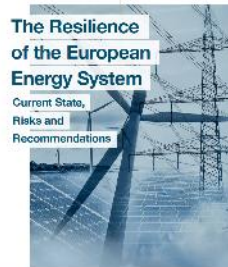
FUTURE TRENDS COMMITTEE

2025 WORK THEME

Infrastructure resilience

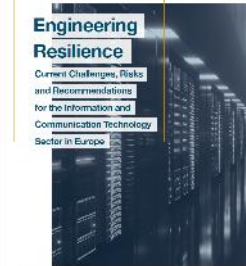
The Committee examined resilience across four interconnected infrastructure systems: Energy, Transport, ICT and Water

FOUR SECTOR REPORTS



ENERGY

The Resilience of the European Energy System



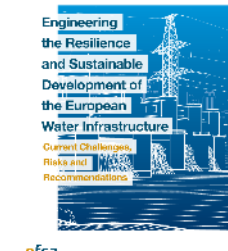
ICT

Engineering Resilience: Information and Communication Technology



TRANSPORT

Engineering the Resilience of the European Land Transport Sector



WATER

Engineering the Resilience and Sustainable Development of European Water Infrastructure

One conclusion: Europe's resilience challenge is no longer sectoral. It is systemic.

Key findings: where Europe is vulnerable

Different sectors, but the same underlying resilience problem

1

Infrastructure designed for a different world

Ageing assets were designed for more stable climates, predictable demand, lower interconnectivity and fewer cyber threats

2

Climate change is an infrastructure risk

Heat, drought, floods, storms and water scarcity increasingly damage assets, constrain capacity and amplify disruption

3

Geopolitical dependencies create exposure

Imported energy, critical materials, semiconductors, cloud services, equipment and global supply chains create strategic vulnerabilities

4

Digitalisation creates benefits and cascading risks

Energy, water and transport increasingly depend on ICT; one failure can propagate across several essential services

5

Fragmented governance slows adaptation

National, sectoral and institutional silos delay interconnections, cross-border projects and coordinated implementation

Systemic insight | Vulnerabilities are reinforced at the interfaces between Energy, Water, Transport and ICT

Common recommendations across the four sector reports

Modernise, diversify, integrate and govern better

01 EMBED RESILIENCE-BY-DESIGN

Design for future uncertainty rather than historical conditions. Make scenario planning and adaptive design standard practice

02 INVEST UPSTREAM

Prioritise anticipation, preventive maintenance and adaptation before disruption, rather than reconstruction after failure

03 STRENGTHEN CROSS-BORDER INTEGRATION

Connect energy grids, TEN-T corridors, river-basin management and digital infrastructure beyond national approaches

04 ACCELERATE PERMITTING & GOVERNANCE REFORM

Remove regulatory and administrative bottlenecks and strengthen coordination across sectors and institutions

05 INVEST IN SKILLS & EXPERTISE

Develop the engineering, digital, cybersecurity and operational capabilities required to design and manage resilient systems

06 MOVE FROM LOWEST COST TO WHOLE-LIFE VALUE

Procure on quality, lifecycle performance, maintainability and adaptability, not lowest upfront cost

THE COMMON SHIFT

From optimising individual assets for stable conditions



To sustaining essential services, adapting and recovering under uncertainty

Resilience is achieved when infrastructure systems can continue delivering essential services, adapt and recover under disruption

Join the conversation



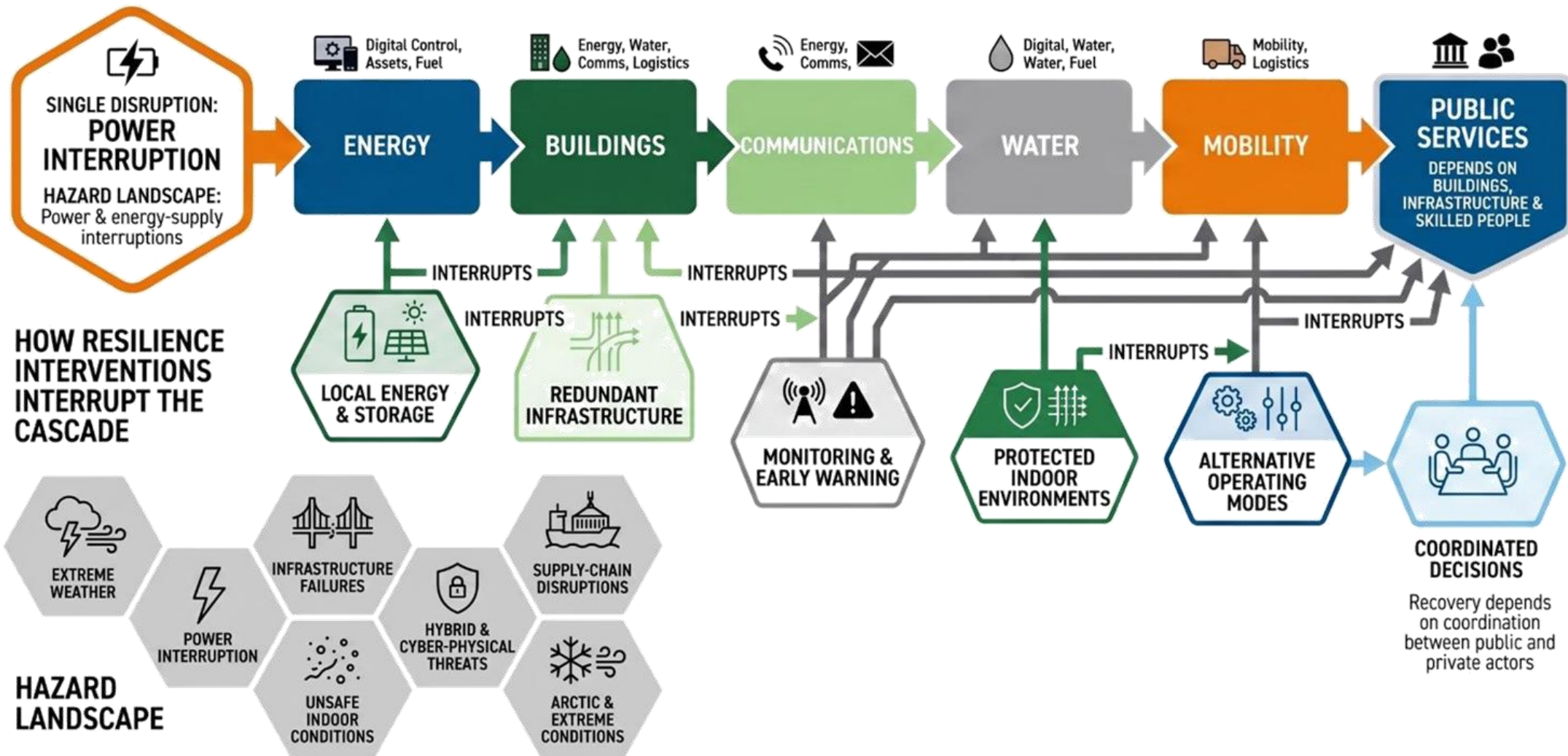
 +358407736661

**We need
cities that are
not only
resilient by
design, but
self-sufficient
in practice!**



Society depends on interconnected technical and organisational systems

CASCADING-DISRUPTION MAP



Resilience

The measurable ability to prepare, withstand, adapt & recover



Phase	Key Questions	Needed Actions
Understand	What is vulnerable, and why?	Measure, assess and verify
Anticipate	What may happen next?	Monitor, model and predict
Prepare	What must be ready beforehand?	Design, optimise, adapt and prepare
Withstand	How are essential functions maintained?	Protect, secure, integrate and enable
Recover	How are functions restored?	Strengthen and recover
Transform	How do we reduce future vulnerability?	Learn, transform and scale

Resilience is more than physical protection.
It is an end-to-end capability covering the full disruption lifecycle.

Sami (Abdul Samad) Kazi

Doctor of Engineering
Adjunct Prof. Hanken (FI), AIT (TH)

Driving the transition towards resilient, secure, climate-neutral, and circular cities by connecting research, industry, cities, investors and policymakers to create scalable societal impact.

- Portfolio Lead, Senior Principal Scientist, Research Coordinator, VP Strategy and Foresight, Team Leader
- Mentor, coach, facilitator, sparring partner, hack master, webinar / event host, speaker, **creativity evangelist**
- ~85 EU funded projects, ~50 strategic/customers projects
- 100+ publications and books



Sami Kazi

Portfolio Lead
Resilience and Security
VTT Technical Research Centre of Finland Ltd



Turning future possibilities into practical action, partnerships and measurable impact.



Panel 2: Circular by Design



Co-funded by the
European Union



Panel discussion on Circular by Design: Building Europe's Resource-Efficient Future

moderated by:



Cornelia PARTSCH
ECTP



Isabel RODRÍGUEZ-MARIBONA GÁLVEZ
Tecnalía



Marianne HAAVARDSHOLM AANDAHL
The Research Council of Norway



Valia TSIALA
EBC / BIO4EEB



Roy PENNINGS
CERN



Ilari AHO
Georg Fischer



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Why circularity? It's a materials world

1 RESOURCES

Construction is one of Europe's biggest users of raw materials, land and water.

Your building is somebody's future quarry.

2 SECURITY

Europe is rich in buildings – and poor in raw materials.

Not a green nice-to-have.
A geopolitical necessity.

3 COMPETITIVENESS & SCALE

A competitive advantage?

The Circular Economy Act is coming in November 2026. The rules are being written now.

- 1 · A Single Market for secondary materials
- 2 · More demand for circular solutions
- 3 · Circularity as industrial policy

Solutions exist. The challenge is scaling them.

PROMISING SOLUTIONS



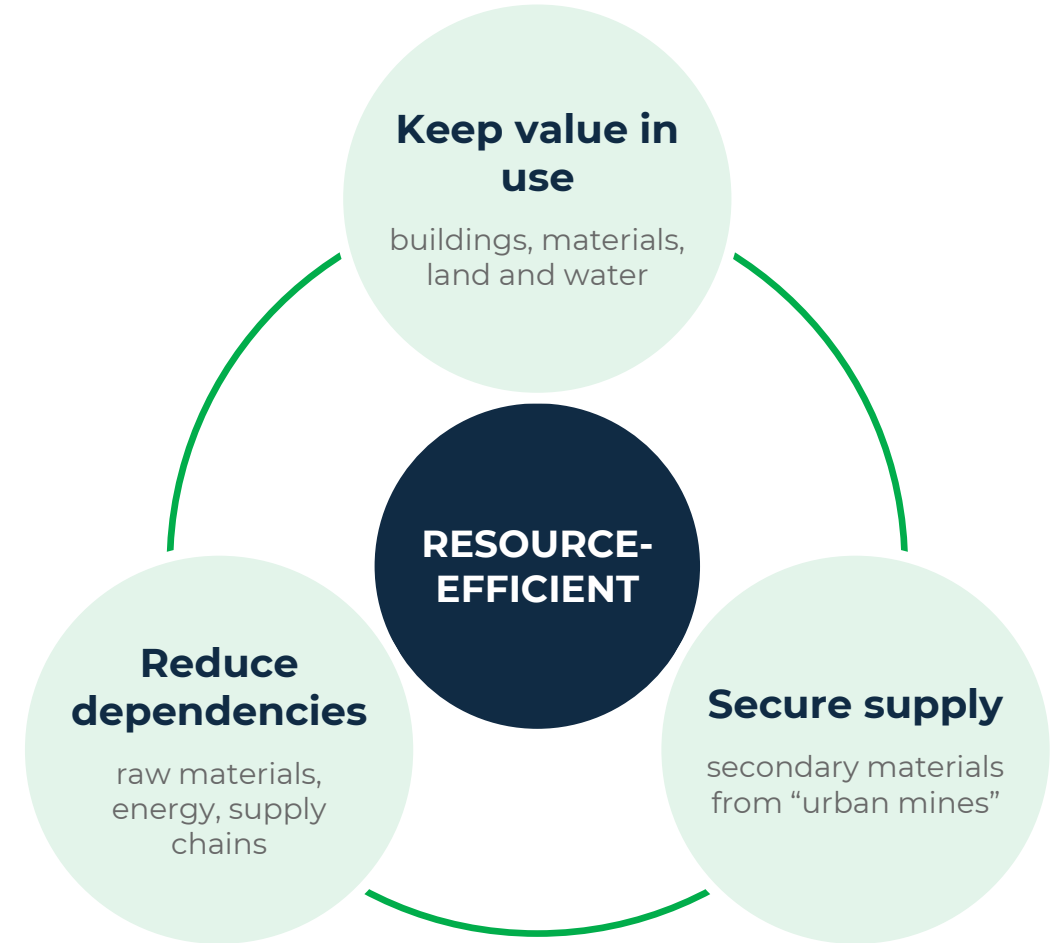
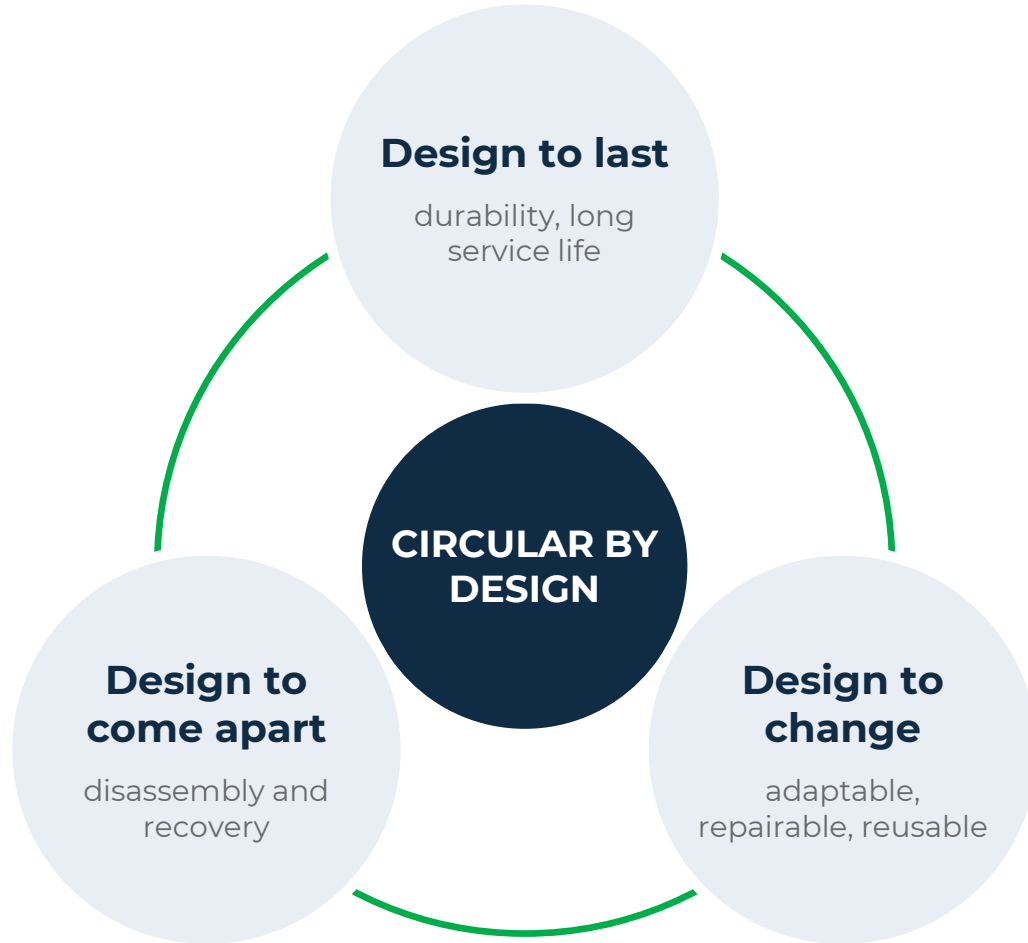
COMPETITIVE, SCALABLE CIRCULAR BUILT ENVIRONMENT



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the European Union



Circular by design. Resource-efficient.



PROMISING SOLUTIONS



COMPETITIVE, SCALABLE CIRCULAR BUILT ENVIRONMENT



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the European Union



The questions for this panel

THREE CORE QUESTIONS FOR THIS PANEL

- 1** **SCALABLE**
How do we make circularity economically viable and deployable at scale?
- 2** **COMPETITIVE**
Can circular construction become a competitive industrial model?
- 3** **WHAT MUST CHANGE**
What needs to change for circular products and processes to become mainstream?

PROMISING SOLUTIONS



COMPETITIVE, SCALABLE CIRCULAR BUILT ENVIRONMENT



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Different angles

HERITAGE & REGENERATION

Dr Isabel Rodríguez-Maribona Gálvez · Tecnalia

Technology Director, Energy, Climate and Urban Transition · Chair, ECTP Heritage & Regeneration Committee

R&I POLICY

Marianne Haavardsholm Aandahl · The Research Council of Norway

National Expert to the European Commission – Energy · NCP Horizon Europe Energy, CETP & Clean H2 for Europe

SMEs & DEMONSTRATION

Valia Tsiala · EBC / BIO4EEB

Senior Technical Officer

INFRASTRUCTURE OWNER

Roy Pennings · CERN

Senior EU Projects Manager

INDUSTRY & MARKET

Ilari Aho · Georg Fischer

Head of Global Business Sustainability · ECTP Presidium and Steering Committee member

PROMISING SOLUTIONS



COMPETITIVE, SCALABLE CIRCULAR BUILT ENVIRONMENT



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RECYCLE

Circularity before the term existed

Spolia kept structures, components and materials in circulation across generations of buildings.

WHOLE STRUCTURE • SYRACUSE

The 5th-century BCE Temple of Athena became the structural core of the cathedral.

BUILDING ELEMENTS • ROME + AACHEN

Santa Maria in Trastevere reused 22 ancient granite columns. Charlemagne's chapel used antique columns, probably brought from Rome and Ravenna.

MASONRY • ST ALBANS

The 11th-century Norman tower was built with Roman bricks.

Learning from inherited circular design

REDUCE & REPAIR

Inherited design shows how to reduce resource demand and keep buildings repairable.



ALBEROBELLO · ITALY

Local limestone
Dry-stone construction
Passive construction and water management

Dry-stone construction supports repair, recovery and reuse.



CÓRDOBA · SPAIN

Light and ventilation
Shade, water and vegetation
A shared social space

Passive comfort reduces energy and material demand.

A non-renewable resource kept in use

REUSE

Adaptive reuse reduces new construction while repair extends the life of existing fabric.

TABAKALERA

Donostia–San Sebastián (Spain)

Former tobacco factory

Contemporary culture centre

KRUISHERENHOTEL

Maastricht (Netherlands)

15th-century monastery and Gothic church

Five-star design hotel

The 4R hierarchy for heritage

Reduce demand. Repair to conserve. Reuse the building. Recycle only what cannot stay in use.

B4P Stakeholders Forum, 7. Oct. 2026 "Circular by Design"

Marianne Haavardsholm Aandahl

National expert to the European Commission – Energy

NCP (National point of Contact) to Horizon Europe – Energy

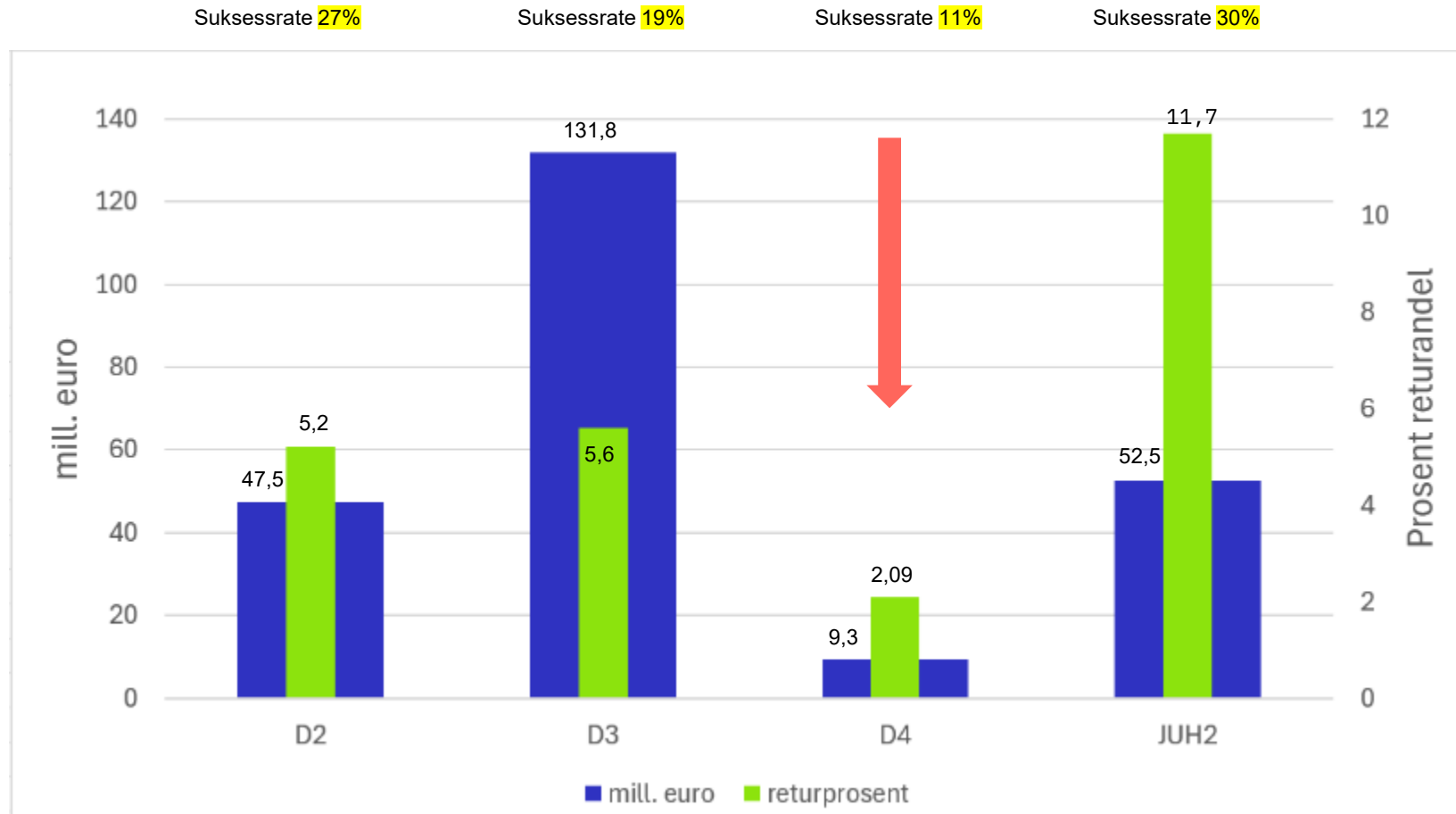
NCP (National point of Contact) to Clean Energy Transition Partnership, CET-P & Clean H2 for Europe

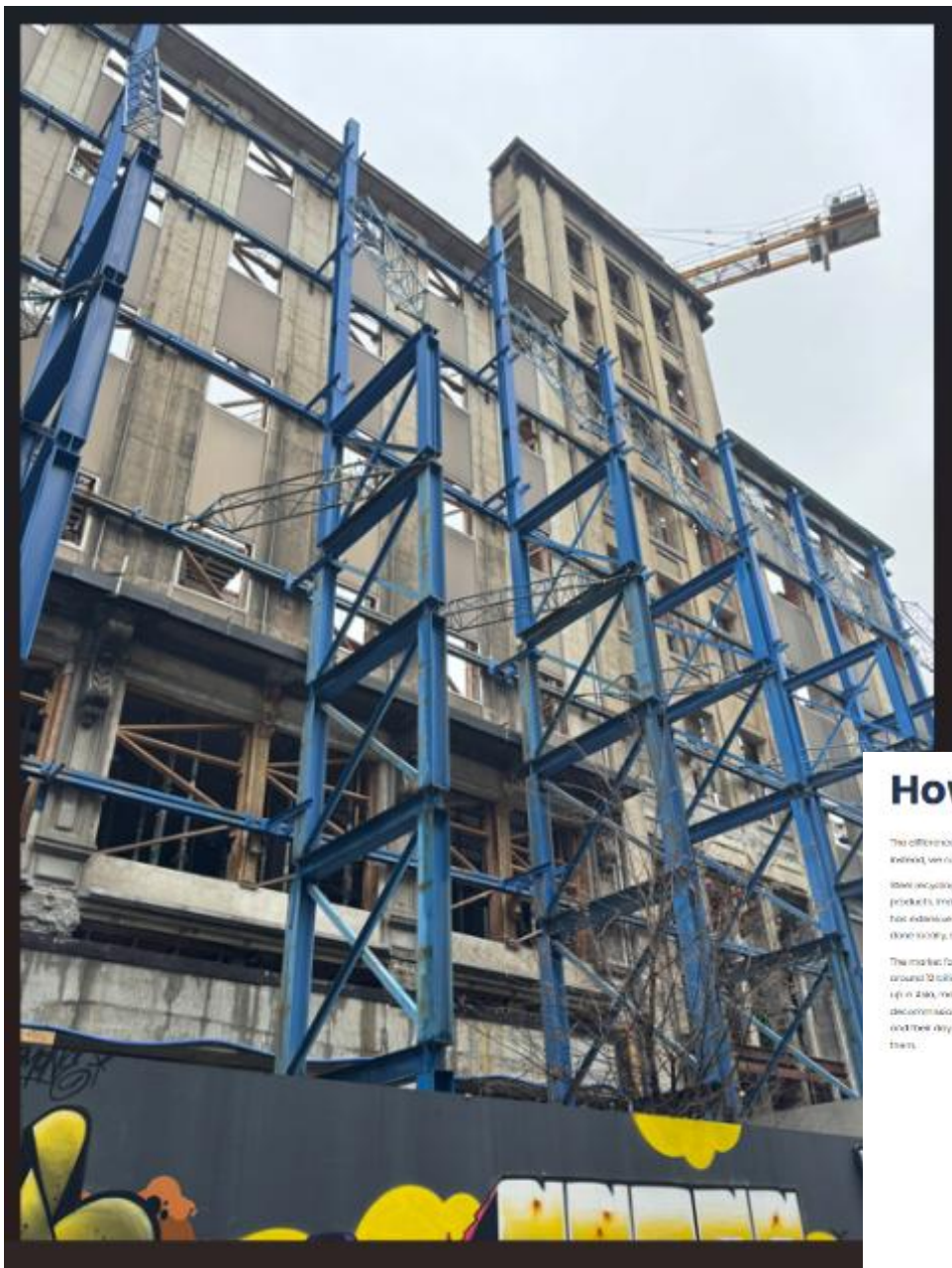
The Research Council of Norway, Dept. for Energy Transition

E-mail mhaa@rcn.no

Mobile: + (47) 99 15 19 36

Results for Norway in Horizon Europe Cluster 5 (energy programme parts) + the Clean Hydrogen Joint Undertaking (Jan. 2021 – July 2026)





HEU Destination 4 (Built4People) holds Cluster 5's most fierce competition. The Europeans take the lead here.....

How do we upcycle steel?

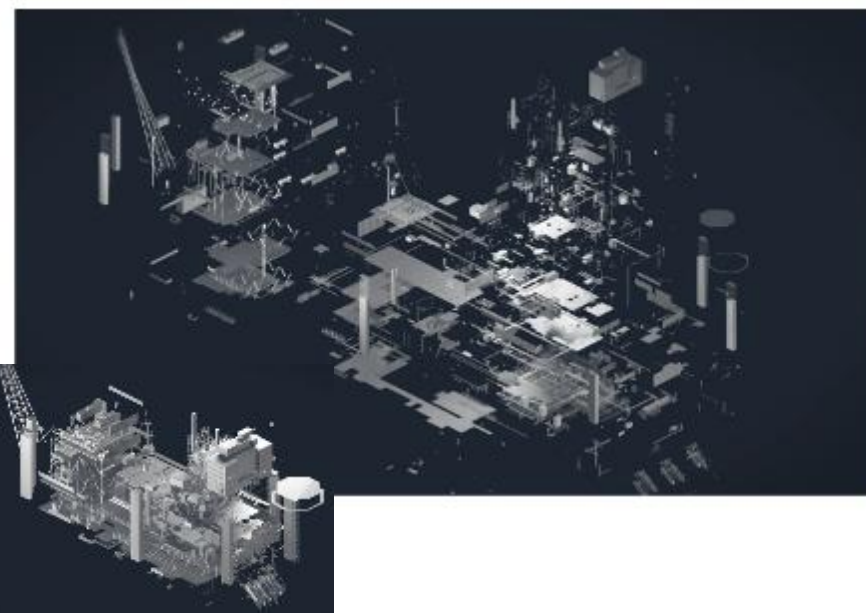
The difference between recycling and upcycling steel is that when we upcycle the steel, we make new products without melting it. Instead, we cut, screw, bend, impact and rivet by the steel.

Steel recycling is a global established business where they go and used steel into big pieces and melt the steel to make new products. In upcycling is when they go through a grinder, that's what it's all about. Sometimes they even use dynamite. The process has extensive emissions from the melting, often based on quality and requires transport across the globe. Upcycling of steel can be done locally and by local workforce. This way we save costs of CO2 emissions and keep the quality of the steel intact.

The market for decommission of ships is huge. There is between 5 - 600 ships sent to decommission every year, a steel image of around 10 billion. But even if most ships are owned by the west (Norway has the fifth largest fleet in the world), most of the ships end up in Asia, many on the beaches of Hong Kong and India. But we have to stop burning of ships. That's why we are putting decommission yards in Norway and steel manufacturers to rethink their strategies. They already have the knowhow and equipment, and their day jobs are of new use as the solution - it's not a green future as all. We know, because we have already done projects with them.



Nordic Circles AS show its possible to recycle oil platforms to steel building materials





But all too often this is the case....



«Alle» er enige om at vi bør rive minst mulig. Men Oslo bystyre sa ja ja til å rive en hel gate med fullt brukbare bygninger.

Ekspertene trekker frem eksempler fra utlandet der ombruk har vært en suksess.

Oslo | Byutvikling

I denne gaten skal nesten alt rives: - At vi gjør det i 2025 er vanvittig

Aftenposten, førstesiden, 24. nov. 2025

From the leading newspaper Nov. 2025

«Oslo City Council has approved the demolition of all buildings from the 90s in this street»

Comments to the article:

- *Doing this in 2025 is completely insane*
- *Experts highlight successful examples from abroad where adaptive reuse has proven successful*
- *All agree we should demolish less*

In contrast:

Among the EU priorities:

- **Digitalization for reduced energy consumption**
- **Deep renovation of existing building stock**

(preserve, renovate, recycle, reuse, fit for alternative purpose)



ABOUT EBC

At European level, EBC is a recognised sectoral social partner representing exclusively micro, small & medium-sized enterprises (SMEs) & craft trades of the construction sector.

**Established
in 1990**

16 EU/EFTA countries

**21 employer
representatives**

**More than 300,000
companies**

At national level, EBC members cover trades ranging from general contractors and specialized/craft trades to finishing trades, passing by infrastructures specialists.





CIRCULARITY & INNOVATION

SMEs are key local actors in circular value chains.

Opportunities

- New markets and business opportunities
- Resource efficiency and cost savings
- Skills development potential
- Shorter circuits in local ecosystem

Challenges

- Collection and sorting shortcomings
- Financial constraints and affordability
- Weak market for secondary raw materials (trust, liability)
- Legal uncertainty and fragmentation

Innovation must reach the companies who actually implement it.

Structural challenges

- EU innovation often remains at prototype level
- Most innovation targets new build, not renovation
- 80% of today's buildings will still be in use in 2050

SMEs need innovation that is

- Job-site ready
- Financially accessible
- Tested and co-developed with SMEs

Circularity in construction will not happen without SMEs, they are the ones who implement it locally



BIO4EEB

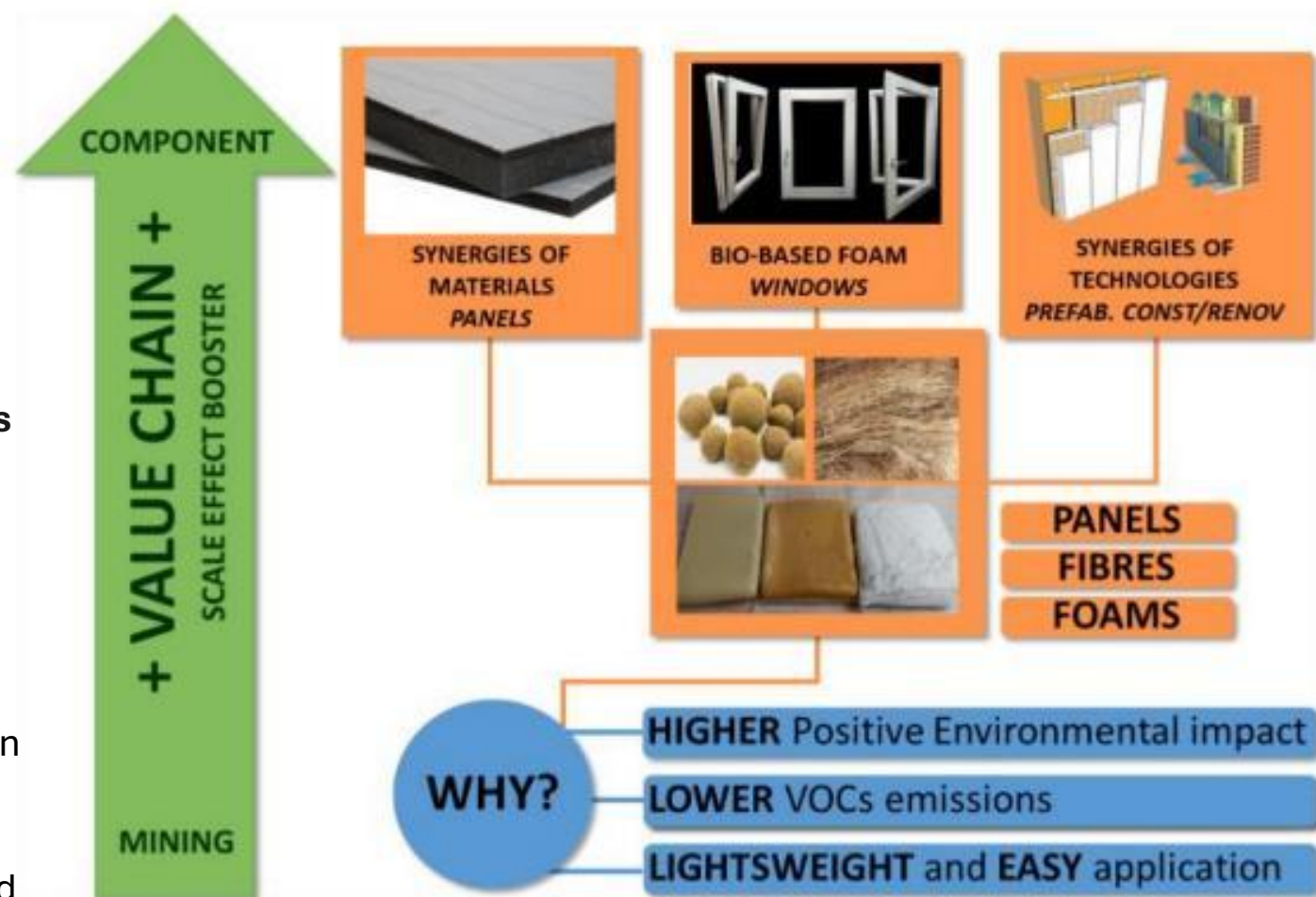
A Horizon Europe project developing and demonstrating bio-based and energy efficient solutions for building renovation in five real buildings across Europe.

BIO4EEB puts these conditions to the test in real renovation projects.

Real-life demonstration: bio-based and low-carbon envelope solutions integrated into renovation projects in different European contexts.

Validation beyond the product: the project looks at installation, building performance, user needs, cost and decision-making – **and reuse potential**; not only technical material performance.

Replication: the aim is to understand what is needed for these solutions to work beyond one pilot and become usable in the wider renovation market.



Research on both bio-economy, energy efficiency and circularity!

CERN O₂: regenerating an operational research site



Meyrin site today

78 ha
site surface



Target state, 2033

2028 to 2033
implementation

Up to CHF 100 Million
donation-funded

Circular by design: unseal the ground, keep water on site

CERN Meyrin site in context



CERN Meyrin Site plan



Today



2033



Trees

2540 → 6603

Shaded area

8% → 22%

Asphalt surface

44% → 14%

Permeable surfaces

31% → 36%

Green spaces

35% → 46%

The O₂ project will run alongside CERN's master-plan for building regeneration.

A living lab, open to partners

- **Living lab**
Nature-based solutions tested under real operating conditions.
- **Academic Research Consortium**
Long-term design, monitoring and evaluation over a ten-year research lifecycle.
- **Academia-Industry co-creation**
Consultants and industry are active partners during design and implementation. Local/regional government involvement to maximise embedding and impact.
- **CERN Green Village**
Innovative sustainable technology testing by industry.
- **Open and replicable**
Results for other research, industrial and urban sites.





Panel 3

From Innovation to Impact



Co-funded by the
European Union



Panel discussion on From Innovation to Impact

Industrialising and Scaling Up Construction

moderated by:



Magnus ÖSTERBRING
ENCORD



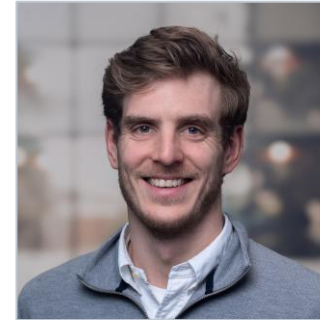
Natalia ZEBROWSKA
EC DG GROW



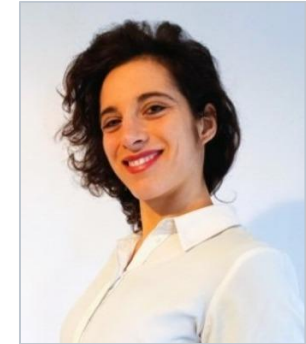
Maira MADALA
Knauf Insulation



Javier BONILLA
Acciona



Tim VAN EE
TNO



Celina SOLARI
RINA



Co-funded by
the European Union



Panel discussion on From Innovation to Impact

Industrialising and Scaling Up Construction



Natalia ZEBROWSKA

Head of Unit – Construction

DG GROW, H1

European Commission



Co-funded by
the European Union



Panel discussion on From Innovation to Impact

Industrialising and Scaling Up Construction



Maira MADALA

EU Public Affairs Manager

Knauf Insulation



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Panel discussion on From Innovation to Impact

Industrialising and Scaling Up Construction



Javier BONILLA

Innovation and Digital Manager

ACCIONA Construction



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the European Union



Panel discussion on From Innovation to Impact

Industrialising and Scaling Up Construction



Tim VAN EE

Consultant & Knowledge Manager – Conceptual and Industrialised Construction

TNO



Co-funded by
the European Union



Panel discussion on From Innovation to Impact

Industrialising and Scaling Up Construction



Celina SOLARI

RINA

Senior Innovation R&D Project Manager



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the European Union





multiclimact

From R&I to deployment: what can demonstration and replication teach us about scaling innovation in the built environment?

Lessons from the MULTICLIMACT

Celina Solari, R&I Project Manager, RINA Consulting



Co-funded by
the European Union

7.10.2026, Bruxelles, Stakeholder Forum

LESSONS from MULTICLIMACT: from R&I to deployment



20

tools: design
methods,
materials, digital
solutions

4

real demo sites
(IT, ES, NL, LV)

25

partners from
9 countries

START

Horizon Europe Innovation Action

END

01.10.2023

31.03.2027

THE REAL TEST
Not “did the pilot work?”

But: could another city, in another country, deploy it?





KEY LESSONS FOR SCALING UP

1

Think as a system from the start

Our design - development - deployment approach shows the value of planning integration, installation and maintenance as core activities.

2

Interoperability helps tools travel

Open standards and vendor-neutral choices make solutions easier to replicate. A shared language across disciplines matters too.

3

Users on board drive uptake

Working with cities, water authorities and heritage owners embeds the tools in real decisions, e.g. local Resilience Action Plans.

In EU R&I, the key step is from innovation to a working system others can use.



WHAT CAN HELP EUROPE SCALE UP?

Plan the “after” from day one

Name a pilot owner. Involve buyers, cities and investors in design - with real commitments, not only letters of support.

Fund the bridge, not only the pilot

A reserved scale-up budget (1-2 years), released only if performance, cost and delivery targets are met.

Make results easy to find and reuse

A shared catalogue of tested pilots (e.g. on CORDIS), open standards, and replication packages for cities.

Keep the people

Link projects to skills and jobs, so trained teams can deliver the solution again.

KEY MESSAGE

A successful pilot is the start, not the finish line.

Let's measure success by who uses it next.



Visit our website: www.multiclimact.eu



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Panel 4

Boosting Competitiveness



Co-funded by the
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Panel discussion on Boosting Competitiveness

AI, Robotics and the Future of the Built Environment

moderated by:



Vedran ANGEBRANDT
CINEA



Stavros STAMATOUKOS
EC DG ENER



José SOLÍS HERNÁNDEZ
CEMOSA



Miguel SEGARRA
DRAGADOS



Rosie SHAPIRO
CivicLabs



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Strategic Roadmap for Digitalisation and AI in the Energy Sector

DG ENER.B4 – Digitalisation, Competitiveness, Research & Innovation

Stavros STAMATOUKOS – Policy officer, Digitalisation and AI

Technology sovereignty package

- The [Chips Act 2.0](#) to strengthen the semiconductor ecosystem and supply chain resilience, and boost domestic demand
- The [Cloud and AI Development Act \(CADA\)](#) to unlock the potential AI and cloud, to transform our industrial ecosystems and improve societal outcomes
- The [EU Open Source Strategy](#) to reduce dependencies across the entire technology stack
- A [Strategic Roadmap for Digitalisation and AI in Energy](#) to accelerate the rollout of sovereign digital and AI solutions in energy, while keeping risks in check



The Roadmap at a glance: 3 pillars, 7 flagships



PILLAR I

Energy for AI

- 1 Model tripartite agreement for data centres
- 2 EU rating scheme & minimum performance standards for data centres



PILLAR II

Digitalisation & AI for energy

- 3 Smart grid KPIs & faster smart meter rollout
- 4 AI models across the energy value chain



PILLAR III

Data for AI & energy

- 5 EU framework for cross-border energy data exchange & AI training



Trust, security, skills & implementation

CROSS-CUTTING

- 6 Safety of AI & cybersecurity of critical devices

- 7 Tracking progress & better energy data

Flagship 1: Tripartite agreements for data centres

● WHY

12 → 28 GW

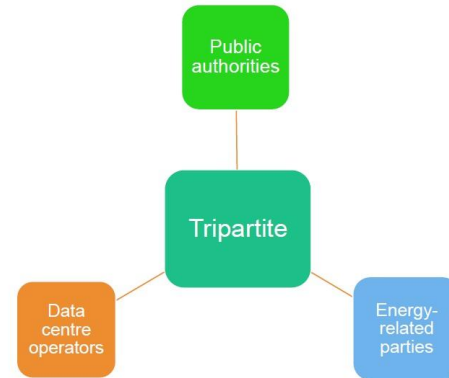
EU data centre capacity, 2025 → 2030 (expected)

~2.5%

of EU electricity consumption today, concentrated in a few hotspots

Connection requests are rising sharply – single sites now ask for capacity comparable to major industrial plants.

● WHAT



A voluntary, replicable model for local agreements between three sides.

- **Phase 1:** EU model agreement (autumn 2026)
- **Phase 2:** localised agreements, tailored to national / regional conditions

● SCOPE OF COMMITMENTS

Additional clean generation & PPAs

Better information for grid planning

Timely grid connections (incl. use-it-or-lose-it)

Flexibility & flexible connection agreements

Waste heat reuse & local value

Energy efficiency & water use

Flagship 2: Data centre energy efficiency package

WHAT WAS ADOPTED ON 21 SEPTEMBER

1

Report to Parliament & Council

Published

COM(2026) 500 – first assessment of the data reported by data centres and ways forward for a more sustainable sector.

2

Delegated Regulation: EU rating scheme

Adopted

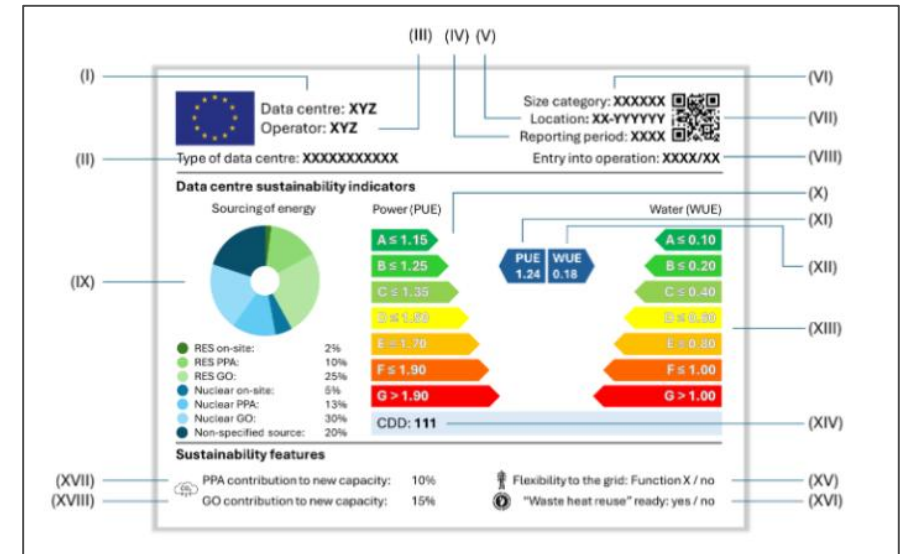
Energy efficiency, water efficiency, clean energy use, waste heat reuse and flexibility. Scrutiny by EP & Council; first labels in 2027.

3

Consultation on minimum performance standards

Open

For new and existing data centres – open until 14 December 2026 (see next slide).



Label template from the Delegated Regulation

Flagship 3: Smart grid KPIs and smart meters

● WHY

€1.2 tn

grid investment needed 2024–2040 (€730 bn distribution, €430 bn transmission)

up to 40%

more network capacity from grid-enhancing technologies

But regulation still favours conventional expansion over smart solutions.

● WHAT THE PROPOSAL COM(2026) 600 DOES

Smart & digital solutions

Art. 18a(1)

Regulators must promote them via tariff incentives (Art. 18) and prioritise them in network development plans.

Smart grid indicators

Art. 18a(2)–(3) · 61(5a)

ACER recommendation, Commission implementing act, ACER progress reports – next slide.

Smart meters

Art. 18b

≥50% of final customers by end-2030, ≥75% by end-2033; cost-benefit assessment only beyond 75%.

Grid data exchange

Art. 18a(4)–(5) · 61(5b)

Mandatory exchange between TSOs and DSOs + voluntary reuse framework for R&I and AI.



Proposal amending Regulation (EU) 2019/943 – now in co-decision

50% → 75%

Art. 18b – minimum coverage per Member State by 2030 → 2033 (one extra year if below 30% today)

Flagship 4: AI.grids – European AI models for grids



Community of Practice to build the first pan-European AI foundation model for grid management and planning.

54

organisations signed – grid operators, SMEs, research

20

TSOs

€50 m

Horizon Europe: €30 m (2026) + €20 m (2027)



● MILESTONES

Jun 2026

Agreement signed

Q1 2027

Proof-of-concept models

End 2027

First operational models

Flagship 5: Energy data for smart services and AI

PRIMARY USE

Operational data exchange

- Cross-border interoperability for flexibility & bidirectional EV charging
- Coordinate interoperable national data hubs
- Builds on the Data4Energy / expert-group recommendations of 20 May

Art. 18a(4)

MANDATORY

SECONDARY USE

Pooling for research & AI training

- Trust frameworks for AI in energy
- Regulatory sandboxes & testing facilities
- Legal proposal: incentive for grid operators to cooperate + framework for secondary use

Art. 18a(5)

VOLUNTARY

TIMING

2026: assessment

2027: development of the EU framework

Result: trusted, harmonised energy data →

smart energy services that scale across borders, and AI models (e.g. AI.grids) trained on European data.

Flagship 6: AI safety and cybersecurity

1,500+

cyber-attacks per week on one energy utility in
2024 – 3× 2020 (IEA)

● CYBERSECURITY

Cybersecurity Act revision

ICT supply-chain requirements; basis
to ban high-risk inverters if needed

EU funds

Restricted for projects with inverters
from high-risk suppliers

Systemic risk assessment

Incl. solar installations – 2026

Security of supply review

Incl. cyber risks in critical energy
devices – 2026

● AI SAFETY & TRUST

- European AI energy safety transformation group
- AI regulatory sandboxes with Member States
- Guidance on high-risk AI systems (AI Act)
- Ethics opinion (EGE) on trustworthy AI governance in energy

Flagship 7: Tracking progress, better energy data

Energy Digitalisation Forum

Annual, from 2027

- Review progress on the Roadmap
- Spot regulatory bottlenecks
- Share good practice, address new developments

Better Energy Data initiative

Q4 2026

- Map and address gaps in energy data availability
- More detailed, interoperable, timely and accessible data

Thank you



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Leveraging Digital Twins for European Competitiveness

Panel 4: Boosting Competitiveness: AI, Robotics and the Future of the Built Environment

Jose Solís Hernández | R&I Director | CEMOSA



Built4People
Stakeholders Forum 2026

7 October 2026 | 08h30 – 16h30 CEST
Buildwise Zaventem, Brussels
(Kleine Kloosterstraat 23, 1932 Zaventem)

“Building Europe’s Resilient Future”



The Competitiveness Imperative

Europe needs Innovation to drive Productivity

Construction productivity has stagnated in Europe in the last decades.

Relevant Barriers:

FRAGMENTATION

Too many silos in the value chain.
A European view is key: volume and capabilities.

LOW LEVEL OF DIGITALISATION

Low implementation of BIM, GIS, IoT, platforms
or robotics, among others.

SKILLS & WORKFORCE

Fewer workers, new skills, increasing
complexity.

SCALE-UP GAP

High upfront costs. Insufficient funding.
Uneven and rigid regulation.

0.9%

EURO AREA

6.7%

UNITED STATES

ECB: Growth in productivity per hour, Q4 2019 to Q2 2024.

CHINA KEEPS ACCELERATING

Highest reported construction-
tech investment: \$4.2bn/year



Engineering Knowledge + AI + Digital Twins

The Missing Link

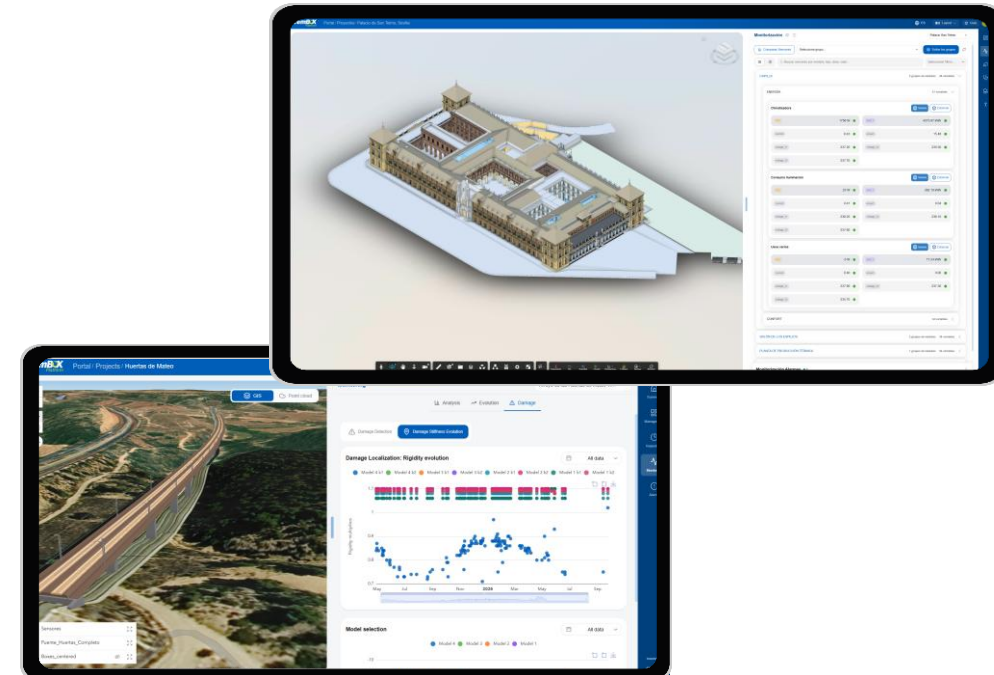
Digital Twins emerge as enablers of productivity

Connecting AI with engineering reality.



Digital Twins (DTs) are digital replicas of the built environment to represent **past, present, and future scenarios**.

- DTs enable visualisation, prediction and simulation of Business Cases.
- DTs close the scale-up gap.



Multiple high-value Business Cases

Digital Twin Paradigm

The Digital Twin logic supports the **design, operation, maintenance and resilience** of the built environment.

INFRASTRUCTURE

Predictive maintenance. SHM
Defense
Network resilience: Multiple hazards
...

ENERGY

Renewable integration. PEDs.
Flexibility
Operational optimization & resilience
...

BUILDINGS

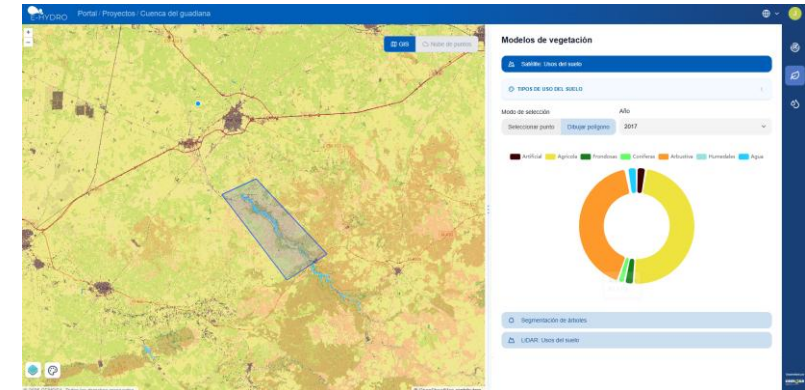
Energy efficiency
People-centred operation
Renovation planning
...

CITIES

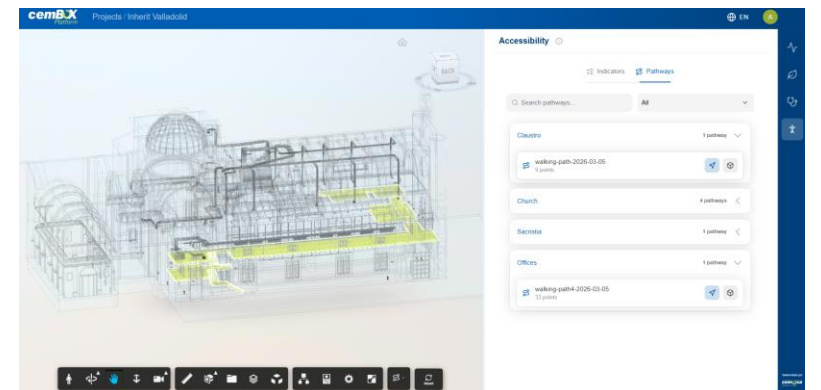
Climate-risk assessment: UHIE, floodings, ...
Coordinated decisions
Pollution and energy transition
...



Bridges



Floodings



Buildings

From Pilots to European Scale

Built4People is key in the new pathway in FP10

The next Framework Programme should close the gap into **deployable, interoperable and market-ready solutions**. Built4People is key.



Thank you for your attention!



Jose Solís Hernández | jose.solis@cemosa.es | +34 610 76 87 93

www.cemosa.es

5ht Built4People Stakeholders Forum

Panel 4: Boosting Competitiveness: AI, Robotics and the Future of the Built Environment

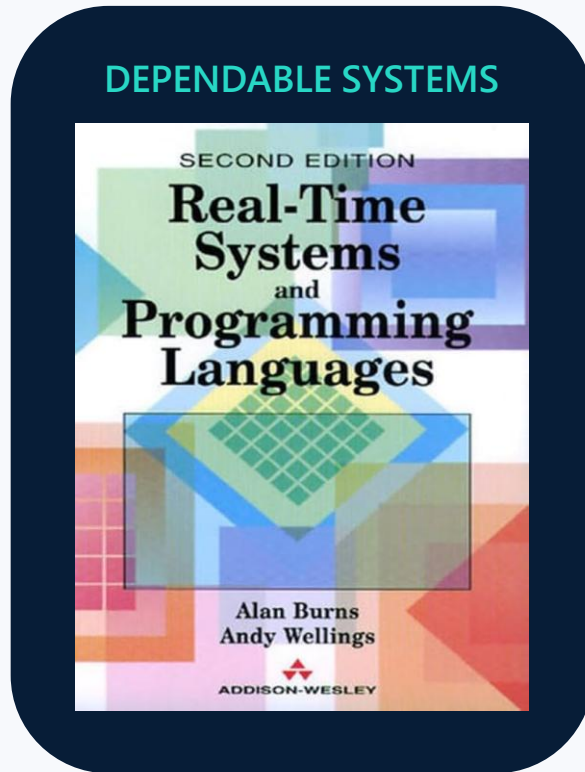
Dr. Miguel Segarra
Senior Vice President of Innovation, DRAGADOS
Vice President, ECTP
Member of the Council, ENCORD

Built4People · Building Europe's Resilient Future

Buildwise Zaventem, Brussels (Kleine Kloosterstraat 23, 1932 Zaventem) · 7 October 2026

Operational Trust

Property of a system that allows reliance to be justifiably placed in the service it delivers



**SAFETY AND RELIABILITY CAN
CONFLICT WITH EACH OTHER!**

**SAFETY MUST BE MET WHETHER OR
NOT THE INTENDED FUNCTION IS
PERFORMED!**

1

AVAILABILITY

Readiness for usage

2

RELIABILITY

The system conforms to an authoritative specification of its behavior

3

SAFETY

Freedom from conditions that cause death, injury occupational illness, damage to (or loss of) property or environmental harm

4

CONFIDENTIALITY

Non-occurrence of unauthorized disclosure of information

5

INTEGRITY

Non-occurrence of improper alteration of information

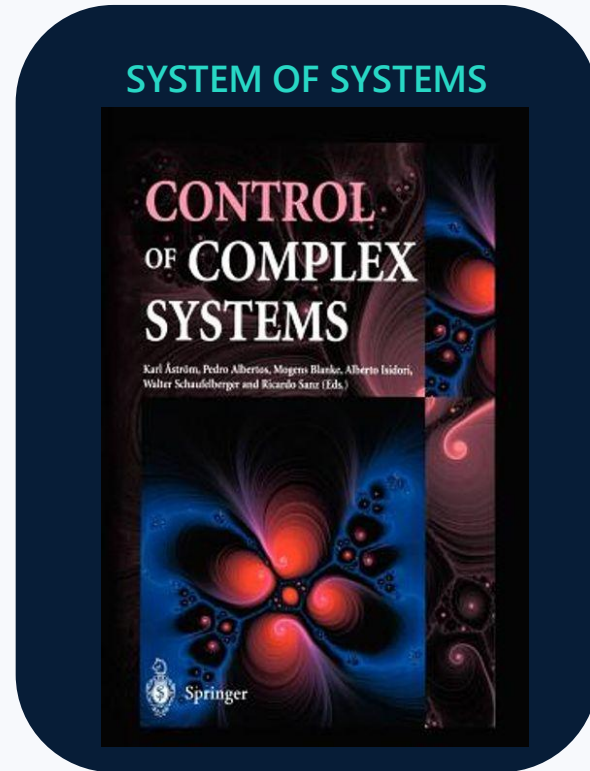
6

MAINTAINABILITY

Aptitude to undergo repairs and evolutions

Operational Trust

Differences lie in the time horizon, the level of abstraction of the data, and who (or which subsystem) makes the decisions.



**DO WE NEED TO COORDINATE THE
AI AGENTS OR WILL THEY
COORDINATE THEMSELVES?**





5TH BUILT4PEOPLE STAKEHOLDERS FORUM · PANEL 4

BOOSTING COMPETITIVENESS: AI, ROBOTICS AND THE FUTURE OF THE BUILT ENVIRONMENT

From pilot to procurement

What makes the industry trust and adopt AI and robotics

Rosie Shapiro

VP of Partnerships, CivicLabs · 10+ years in built environment innovation

10+ YEARS OF INNOVATION WORK WITH CONTRACTORS

What has changed, and what has not

	THEN	NOW
Contractors	Innovation was a side project, often driven by one enthusiast.	Dedicated innovation teams, budgets and open calls for startups.
Technology	Digital tools for the office: BIM, planning and management software.	AI and robotics on the site itself, touching daily operations.
The question	Does it work?	How do we buy it, own it and scale it?

What has not changed: the gap between pilot and deployment is rarely the technology.

FROM PROMISING DEMONSTRATION TO TRUSTED DEPLOYMENT

What needs to happen

01

Name an owner

Someone in operations, not only the innovation team, who can say "we continue".

02

Agree KPIs up front

Define success in numbers before the pilot starts, with the next step attached.

03

Build trust on site

Site teams and innovators work side by side, so the solution fits the real work.

04

Open the procurement route

Map the budget and tender path in advance, so a good result leads to a contract.

Design the pilot as the first step of the purchase, not as a separate experiment.



Panel 5

People at the Heart of Resilience



Co-funded by the
European Union



Panel discussion on People at the Heart of Resilience

Scaling People-Centred Innovation

moderated by:



Clémentine COUJARD
Dowel Innovation



Stefan MOSER
Task Force Housing,
European Commission



Edward WOODS
Bouygues Construction



Masi MOHAMMADI
Eindhoven University of
Technology



Floridea DI CIOMMO
cambiaMO /
InclusiveSpaces



Vera WINTHAGEN
New European Bauhaus
Unit, European
Commission



Co-funded by
the European Union



Stefan Moser

Head of the Housing Task Force at European Commission

**Edward Woods,
Head of R&D | Innovation | Venture Capital, Bouygues Construction,
ECTP President**

Prof. Masi Mohammadi, PhD

Chair, Smart Architectural Technologies, Eindhoven University

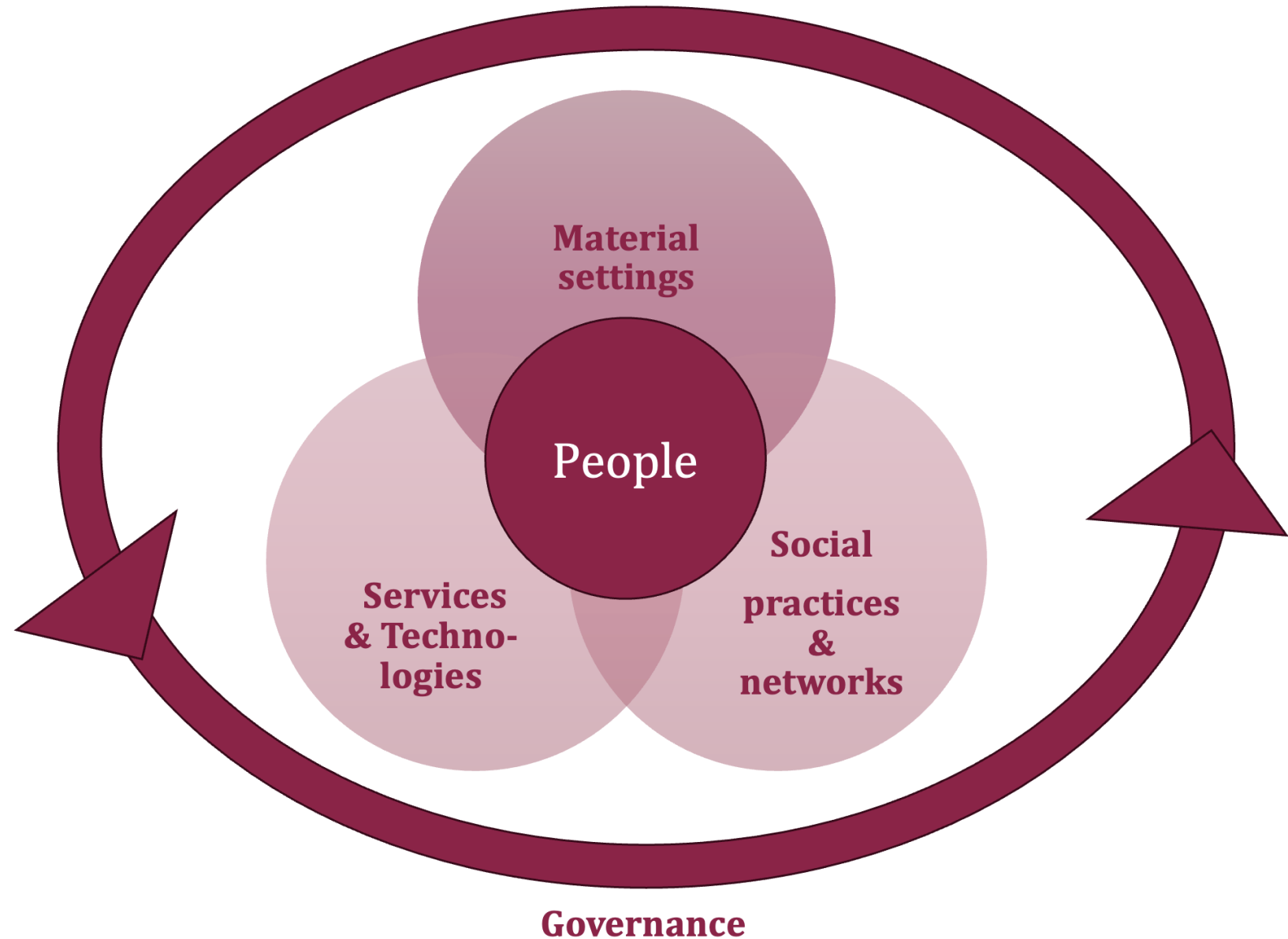
Head, Architecture in Health, HAN UAS

Scientific Director, DEEL Academy

Chair, ECTP Built4Life Committee

Social resilience

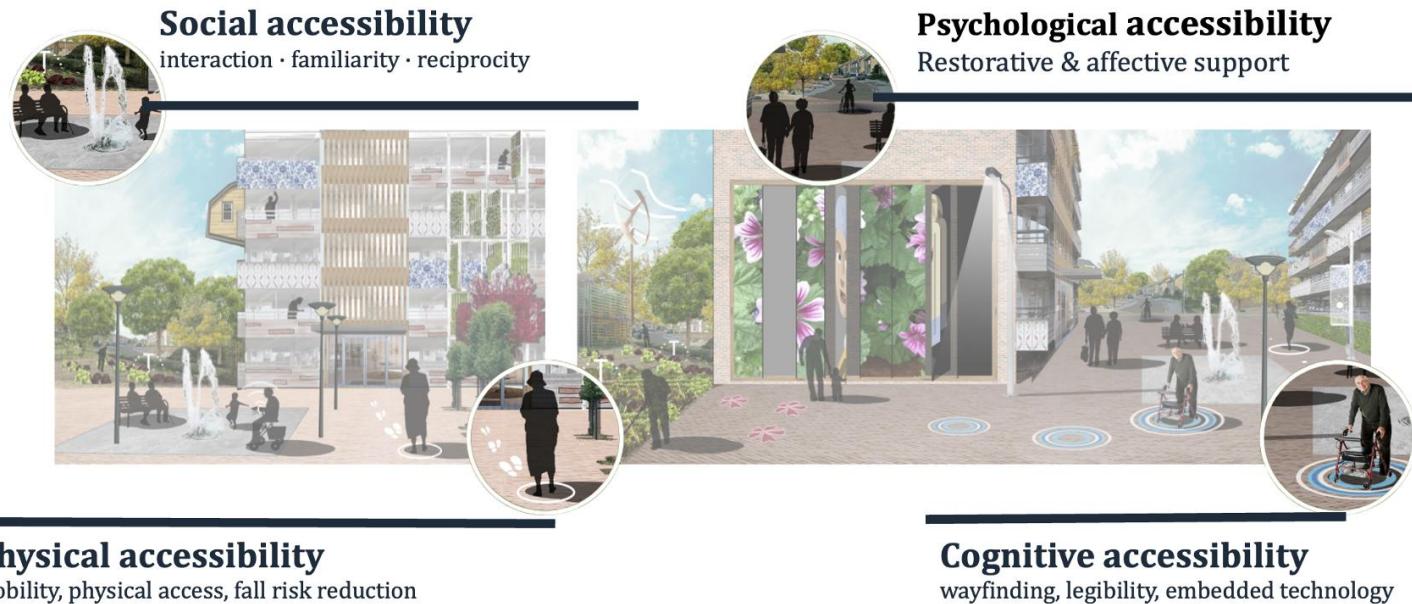
**Our capacity to participate,
connect and adapt is shaped
by the environments in
which everyday life unfolds.**



People-centred innovation in ELLI

Living labs for inclusive ageing | 3 neighbourhoods | 2 Dutch municipalities

Lived experiences and behavioural patterns | co-design | modelling neighbourhood dynamics | targeted interventions | iterative evaluation | adaptation



People-centred innovation in practice: Equity across four intervention lenses

Affordability is part of scaling

Living labs across the Netherlands
www.deelacademy.nl/en

Preserve the mechanism. Adapt the intervention
 Invest in the value it creates.

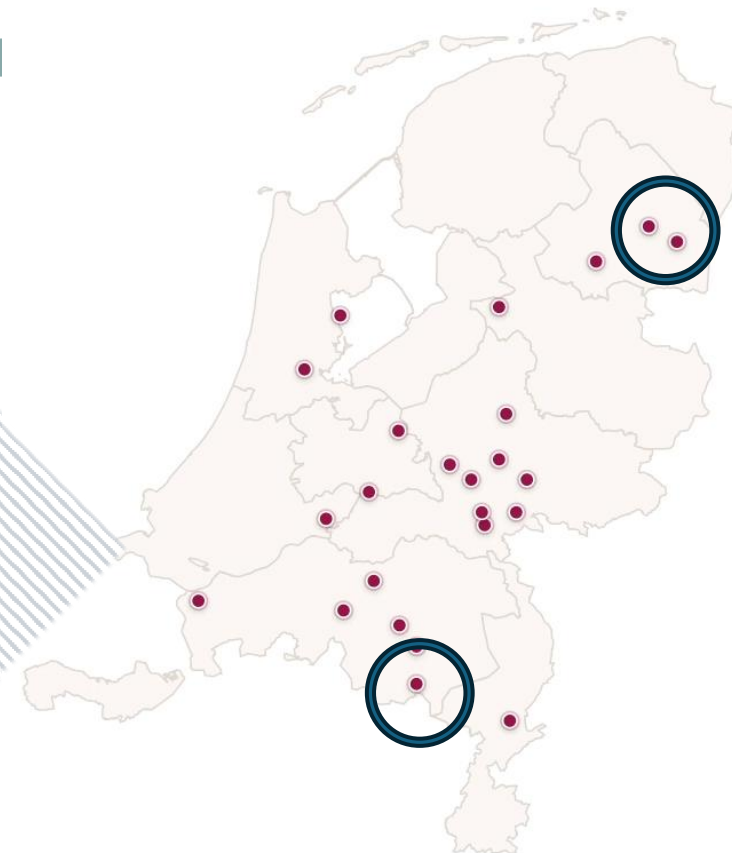
Evidence of
outcome

Who benefits /
when

Affordable
scaling

Long-term
value

Investment
conditions



Floridea Di Ciommo, PhD,
Director of cambiaMO cooperative
Coordinator of InclusiveSpaces project



inclusive spaces

5th Built4People Stakeholders Forum –
P5: People at the Heart of Resilience: Scaling People-Centred Innovation

From practical implementation to research, to policy

People-centred innovation for the built environment — InclusiveSpaces (Horizon Europe)

Floriea Di Ciommo, Director at cambiaMO | changing MObility, InclusiveSpaces project coordinator.



Funded by
the European Union

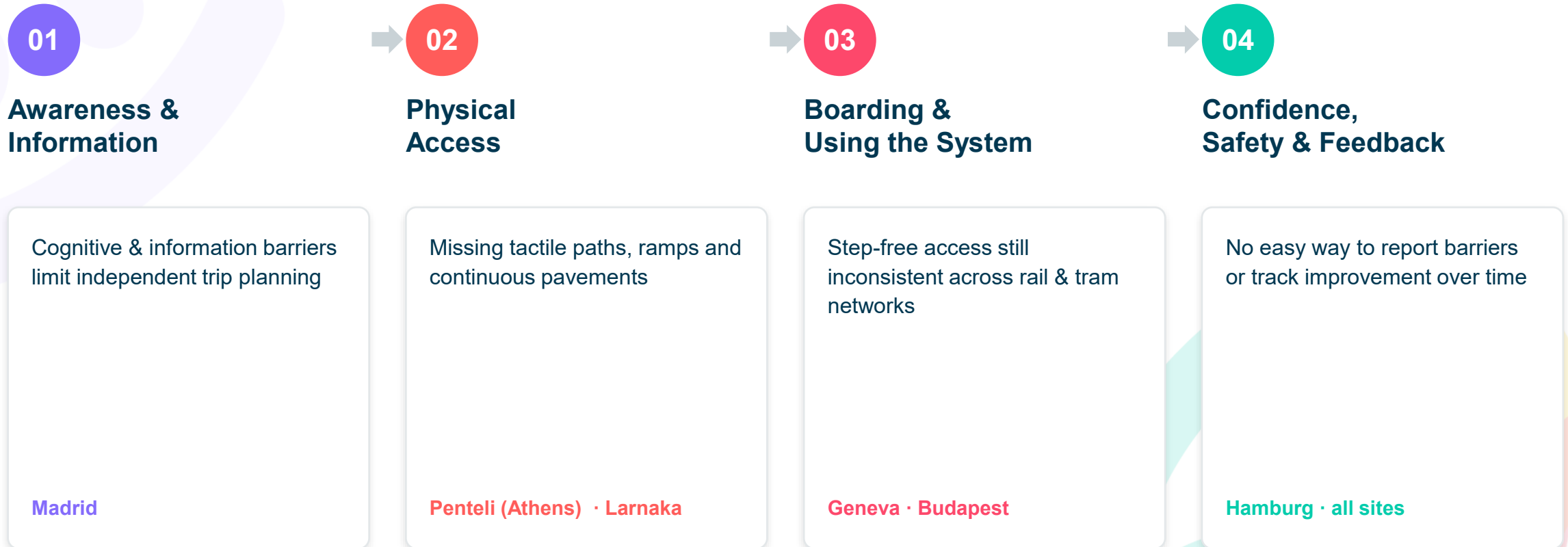
This project has received funding from the European Union's HORIZON EUROPE research and innovation programme under the grant agreement No 101147881.

THE PROBLEM

Whose journey wasn't working?



TG3 citizens — people with visual, physical & intellectual disabilities, older adults and caregivers, gender, including women and girls in all their diversity— across 6 pilot cities



The accessible chain breaks at different links in different cities, the pattern, not one single stage, is what replicates.

Inclusive Spaces Designs for planning 10 tools & climate friendly technologies



Universal design as a human right

Rooted in human rights rights

Dignity

Spaces that respect every body and mind

Equality

Best practices beyond legal legal minimums

Participation

Users as designers, not just inhabitants

Autonomy

Independent, safe use of public space

✓ Key achievements & value

80+ resources systematically analysed to build the design baseline

+

17
regulations

25
case studies

24
manuals

24
project analyses

Public space acceptance

Barrier evaluation

End-user views + tech

Building & business models

Way forward & conclusions



Feeds planning & design tools) and assistive technologies

 Regulations miss real-world complexity: **complement them with innovation and creativity**

 **Move beyond “minimum dimensions”** to adaptable designs

 Use the **NEB Compass** to secure sustainability and aesthetics

EVIDENCE

What changed — and how strong is the evidence?



6

pilot cities

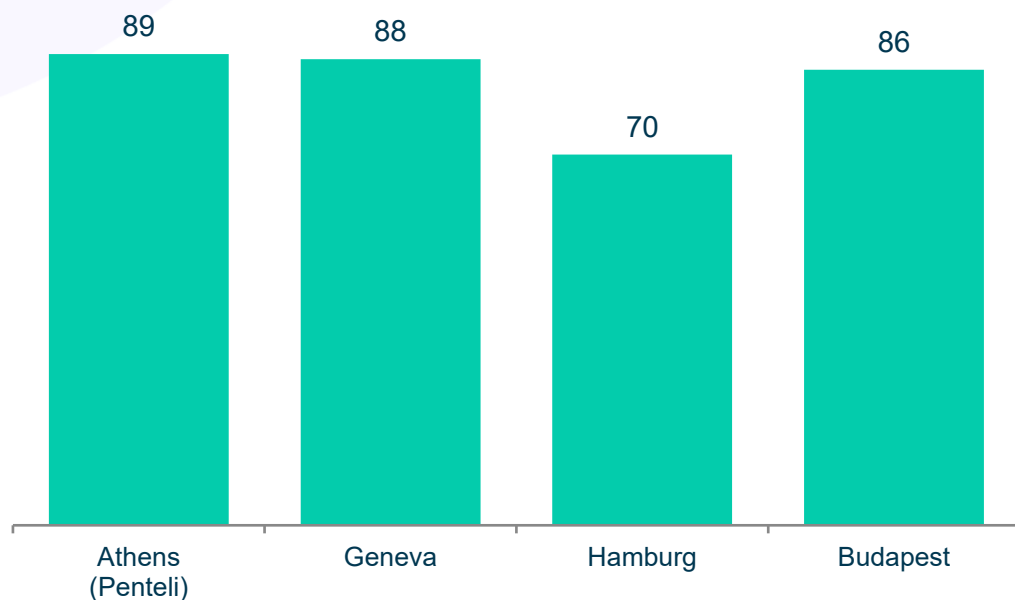
10

tools & technologies evaluated

100%

of sites met their Quality-of-Life target

Quality-of-Life Impact by pilot city (% target achievement)



% of target achieved, self-reported Quality-of-Life questionnaires

MADRID

4.13 / 5

avg. ISAACC
satisfaction rating
(TG3)

LARNAKA

95

citizens trained across
6 tools deployed

Business Impact — ongoing

3 of 11

- tools have already met their Business Impact KPI (UDT, Empathy Tool, Upright Tricycle)

Madrid is the pilot with its target fully met so far (5 letters vs. target of 2)

Remaining sites are collecting letters of commitment through

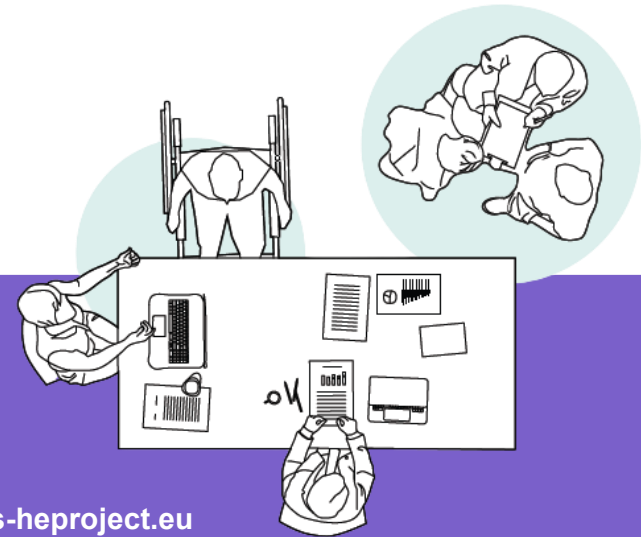
Thank You!

for your attention
and valuable contributions

Connect with us



 inclusivespaces-heproject.eu
 [InclusiveSpaces](#)
 info@inclusivespaces-heproject.eu



Vera Winthagen

Deputy Head of NEB Unit, JRC, European Commission

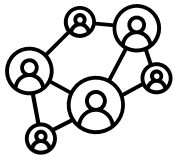
NEB Facility: Revitalising European Neighbourhoods with Design for Sustainability and Inclusion

Objective ①

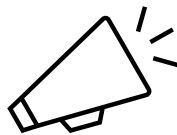
Transforming Places with Communities

R&I Component:
**Develops novel
NEB solutions**

Funding approximately **EUR 120 Million/year**



Engagement



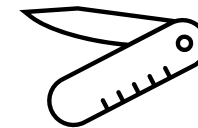
Communication

Objective ②

Supporting Innovation

Roll-out component:
**Implements and scales up
NEB solutions**

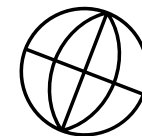
Funding mixed sources (EU, private and national funds), ambition: **EUR 120 Million/year**



Tools

Objective ③

Enabling Change



International Dimension

NEB Academy

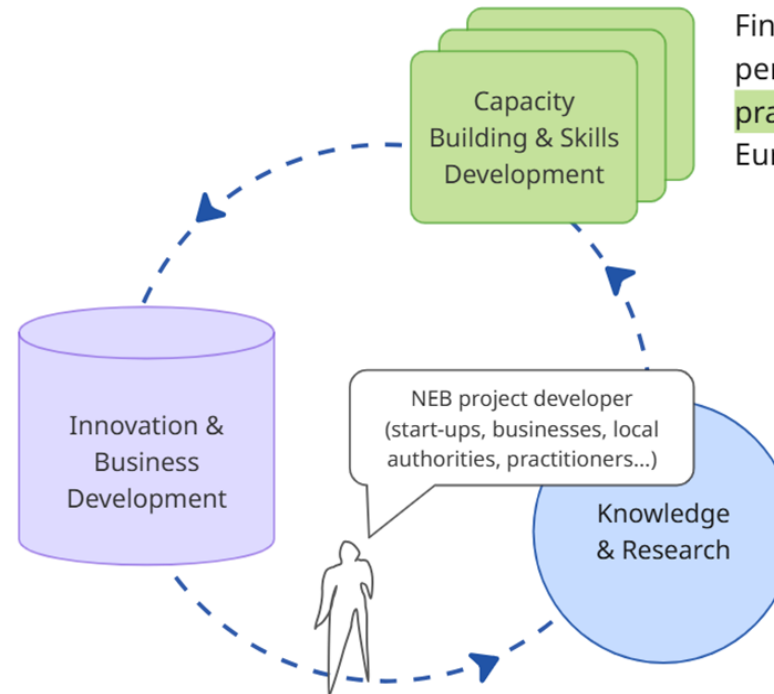


Capacity
Building &
Skills
Development

Knowledge &
Research

Innovation &
Business
Development

Test ideas in controlled environment
receive support for piloting,
access funding mechanisms,
technical assistance or
entrepreneurial support



Find relevant training, online or in-person, connecting local knowledge and practices with innovation and expertise at European and International levels.

Discover inspiring NEB best practices and blueprints, connect with others, build synergies + make sense of trials, inform, collect and share data

NEB Junction + NEB Catalogue



My Goal ▼ Thematic Area ▼ Region ▼ My Role ▼ Filter by Tags 🔍



Interaction schemes for artists and local communities

20 examples on how citizens, artists and local organisations can collectively address complex environmental issues

Take Action



Rock the Block : Integrated action plans for aesthetic, circular and inclusive housing

A participatory regeneration initiative demonstrating that successful retrofit begins with people as much as buildings.

Get Inspired



SHARE: Community revitalisation to improve life in central Fuenlabrada

An intergenerational housing model demonstrating how homes, care and community life can be planned together to reduce isolation and strength...

Get Inspired



Grand Parc – Bordeaux : post-war social housing renovation

A pioneering retrofit programme demonstrating how post-war social housing can be renewed without demolition while significantly improving qu...

Get Inspired



Tour Bois-le-Prêtre: exemplary renovation of a social housing building

A landmark Paris housing retrofit demonstrating how existing buildings can be transformed into affordable, high-quality homes without demoli...

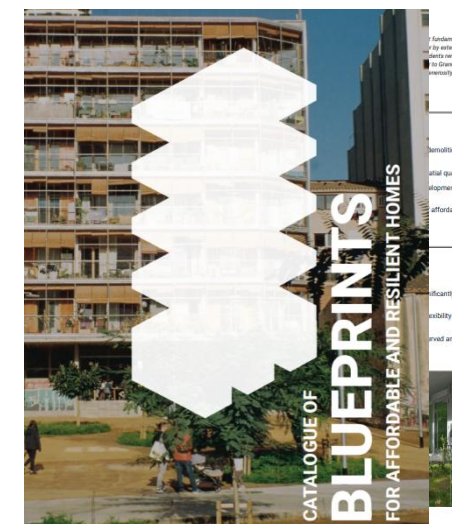
Get Inspired



21 NEB Housing projects: lessons learned and replicable actions

A catalogue of blueprints providing inspiration and guidance for housing development

Take Action



CATALOGUE OF BLUEPRINTS FOR AFFORDABLE AND RESILIENT HOMES

Transferable Actions:

Extend Rather Than Replace (Climatic & Economic Resilience)

The project demonstrates how high-rise housing can be transformed through extension rather than demolition. By adding prefabricated balconies and winter gardens to the existing structure, the architects significantly increased usable space and improved living conditions without rebuilding. This approach reduces embodied carbon, construction costs, and project timeline. The lightweight additions are installed externally, avoiding major structural intervention. The strategy proves that even large-scale, outdated towers can be upgraded economically and sustainably through carefully designed extensions rather than complete replacement.

Retrofit In Situ to Maintain Occupation (Social Resilience)

A key principle of the project is that residents remain in their homes throughout the transformation. Construction is organised so that new extensions are added externally, allowing internal spaces to be upgraded with minimal disruption. This avoids displacement, preserves social networks, and maintains continuity of everyday life. By eliminating the need for temporary relocation, the project reduces both financial and emotional costs for residents. It demonstrates how sensitive construction planning can enable large-scale housing upgrades while protecting community stability and social resilience.

Use Passive Envelope Upgrades to Improve Performance (Climatic & Economic Resilience)

The addition of glazed winter gardens and improved facade systems enhances the building's thermal performance. These elements act as buffer zones, capturing solar gain in winter and enabling ventilation and shading in summer. This reduces reliance on mechanical systems, lowering energy consumption and operational costs for residents. At the same time, the improved facade increases daylight and comfort. The project shows how upgrading the building envelope can deliver both environmental performance and improved quality of life through simple, passive means.

Upgrade Spatial Quality to Increase Value Without Increasing Cost (Economic & Social Resilience)

Rather than focusing solely on technical upgrades, the project prioritises spatial quality—adding generous, flexible living spaces that residents can use in multiple ways. These extensions significantly enhance everyday living conditions without requiring large increases in construction cost. By improving usability, light, and connection to the outdoors, the project increases the perceived and functional value of the homes. This demonstrates that affordability is not only about reducing cost, but about maximising the value delivered through design.

Leverage Public Housing Frameworks to Enable Transformation (Economic & Social Resilience)

The project is delivered within a public housing system that supports long-term investments in existing stock. This framework allows for decisions that prioritise durability, quality, and resident wellbeing over short-term financial return. Public oversight ensures that improvements do not lead to rent increases that would displace residents. By aligning funding, policy, and design, the project demonstrates how public housing systems can act as enablers of large-scale, equitable, and resilient housing transformation.

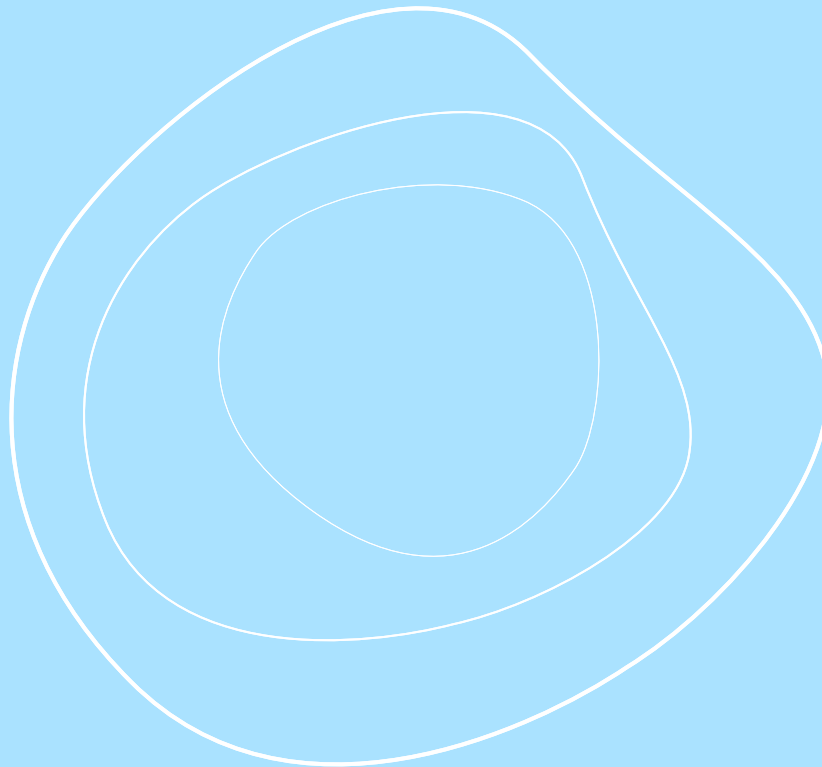


TOUR BOIS-LE-PRÊTRE

Location & Visual Impact
Paris, France
Urban Context
Thème Habitat
Primary Contact
Your blueprints respond to the economic context by upgrading an existing high-rise through cost-efficient extensions and facade improvements, delivering significant gains in space, comfort, and energy performance without the expense of demolition or displacement.

Thank you!

*Please feel free to share
your feedback and questions:
Vera.WINTHAGEN@ec.europa.eu*



Help us map R&I Gaps for the New European Bauhaus

**Last chance to
take the survey!**

Deadline 16th October



Survey on the R&I component of
the NEB Facility





Special Session on B4P network



**Co-funded by the
European Union**



Special Session on B4PIC network

16h05 – 16h20



Nerea GÓMEZ

ECTP

Moderator



Co-funded by
the European Union



Built4People partnership – Overview

- **The Built4People partnership brings together the whole value chain to accelerate people-centric innovation for a sustainable built environment.**
- Built4People (B4P) is a European co-programmed partnership under Horizon Europe
- Running for 7 years from 2021 – 2027
- The objectives of the B4P are specified in the [Memorandum of Understanding](#)
- Coordinated by ECTP and ENCORD

KEY FACTS AND FIGURES

Horizon Europe Pillar and Cluster: Pillar II – Cluster 5 Climate, energy and mobility

Type of partnership: Co-programmed

Coordinating entity: ECTP & ENCORD

Total estimated budget: EUR 780 m

EU commitments: EUR 380 m

Partners' commitments: EUR 400 m

Predecessor under Horizon 2020: Energy-efficient Buildings (EeB) cPPP

- In European Partnerships the EU Commission and private and/or public partners work together in shaping Research and Innovation Programs
- European partnerships generate an added value for research and innovation in Europe and also support political priorities of the EU-Commission in R&I



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Built4People (B4P) Partnership: outline

A policy cross-cutting initiative for a cleaner, safer, affordable, smarter, decarbonised and sustainable Built Environment, with respect to European Cultural Heritage, individual and collective well-being

- produce and deliver to market people-centric holistic innovation
- deliver long-term goals set by the European Green Deal
- long-lasting transformations & behavioural change: drive towards sustainability



In line with: **Affordable Housing Plan**, **HLCF** + focus on **Rebuild Ukraine** activities



- ✓ Purposeful innovation, scale-up, implementation, deployment

B4P transition strategy
=> FP10

Coordination:

- EC: DG ENER Lead contact → co-creation process among 13 EC services responsible for the policies focusing on the Built Environment: **ENER** B2, B3, B5; **CINEA** C.2, **RTD** C2; GROW H1; ENV B1; MOVE B3; CLIMA C1; JUST D4; EAC D2; EISMEA O1; JRC B4, C2, E3; CNECT; EMPL
- Partners others than the EU:



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B4P General and Specific Objectives

3 B4P General Objectives:

1. **“Scientific”**: to generate holistic innovation towards sustainability
2. **“Economic”**: to revitalise the sector through decarbonisation and sustainability transition
3. **“Societal”**: to induce lasting behavioural change towards sustainable living

7 B4P Specific Objectives:

- A. Develop holistic solutions in a systemic approach
- B. Demonstrate overall performance in the life-cycle perspective
- C. Demonstrate clean energy transition potential
- D. Demonstrate sector decarbonisation pathways
- E. Demonstrate sustainable, circular business and value chain
- F. Demonstrate affordability and cost-effectiveness
- G. Demonstrate no trade-offs on economy, comfort, health, functions, cultural heritage



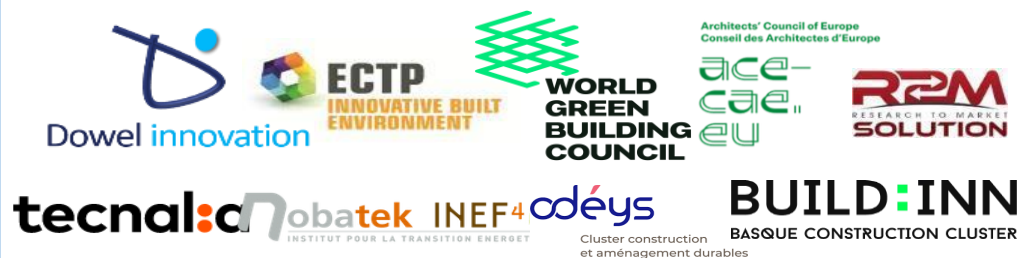
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CSA projects supporting B4PICs: NEBULA and STAR*track



- **NEBULA provides support to the B4P Partnership to:**
 - develop and nurture the network of B4P Innovation Clusters
 - make the bridge with the New European Bauhaus
- Running from October 2022 to March 2025
- Website: https://built4people.eu/nebula_project/
- Coordinated by DOWEL Innovation
- Consortium:



With the support of: EMI, Federcostruzioni, VTT, and the Green Building Councils of Finland, Serbia, Croatia, Ireland, Poland and Greece



- **The STAR*track project aims at:**
 - expanding the Built4People Innovation Cluster (B4PIC) network developed in the HE project NEBULA
 - strengthening and supporting B4PICs and their members to deliver sustainable and people-centric innovation and accelerate uptake by regional value and supply chains
- Running from May 2024 to April 2027
- Website: <https://built4people.eu/startrack-project/>
- Coordinated by Nobatek/ INEF4
- Consortium:



B4P Innovation Cluster

A Built4People Innovation Cluster (**B4PIC**): a group of innovation-driven stakeholders, typically formed by one or two local/regional cluster(s), that engage in a maturing process to foster EU-scale, multidisciplinary and sustainable innovation in the Built Environment.

3 B4P General Objectives:



1. **“Scientific”**: to generate holistic innovation towards sustainability
2. **“Economic”**: to revitalise the sector through decarbonisation and sustainability transition
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- A. Develop **holistic solutions** in a systemic approach
- B. Demonstrate **overall performance in the life-cycle** perspective
- C. Demonstrate **clean energy transition** potential
- D. Demonstrate sector **decarbonisation pathways**
- E. Demonstrate **sustainable, circular** business and value chain
- F. Demonstrate **affordability and cost-effectiveness**
- G. Demonstrate **no trade-offs** on economy, comfort, health, functions, cultural heritage

NEB Core Values



- Beautiful
- Sustainable
- Together

NEB Working Principles

- Participatory process
- Multi-level engagement
- Transdisciplinary approach



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B4PIC framework: respecting YOUR own strategy

Maturation process

**Innovation
cluster /
hub /
platform**

Diversification of innovation actors

Alignment with B4P & NEB values & objectives

Cross-sectoral collaboration

National & European integration

Cross-border collaboration

Facilitation of testing & demonstration



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ECTP



B4PIC Success Factors

- 1 Whole Built Environment ecosystem***: integrating as many as possible different stakeholder types from the whole Built Environment innovation value chain (e.g. any entity or organization representing academia, research and industrial innovators, architects and contractors, end users' associations, local authorities, etc.);
- 2 Multi-objectives***: targeting several B4P objectives as well as NEB principles;
- 3 Cross-sectoral**: integrating different industrial sectors, whose members might be transdisciplinary;
- 4 Locally anchored with National and European outreach**: connecting a local territory with networks at national (national clusters or meta-clusters, e.g., Construction National Technology Platforms) and European (European clusters or meta-clusters) levels;
- 5 Cross-border**: interconnecting with clusters from other regions or Member States, establishing and promoting interregional activities between two clusters operating in two different local markets or economies;
- 6 Access to testbeds and demonstration spaces**: integrating or connecting to test beds, pilot buildings, living labs or other facilities to demonstrate innovations and/or facilitate market uptake.

**mandatory*



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Three types of B4PICs

Towards increasing maturity, while exchanging good practices and fostering collaboration



- **Prospective B4PIC:** an Innovation Cluster (hub/platform) expressed interest and is exploring becoming a B4PIC
- **Emerging B4PIC:** a Prospective B4PIC applied and been accepted (the B4PIC Charter is signed) on the basis of a commitment to progress towards required maturity (not meeting minimum requirements yet)
- **Established B4PIC:** an Emerging B4PIC has demonstrated it meets the required maturity level in the defined timeline, as agreed in their signed B4PIC Charter



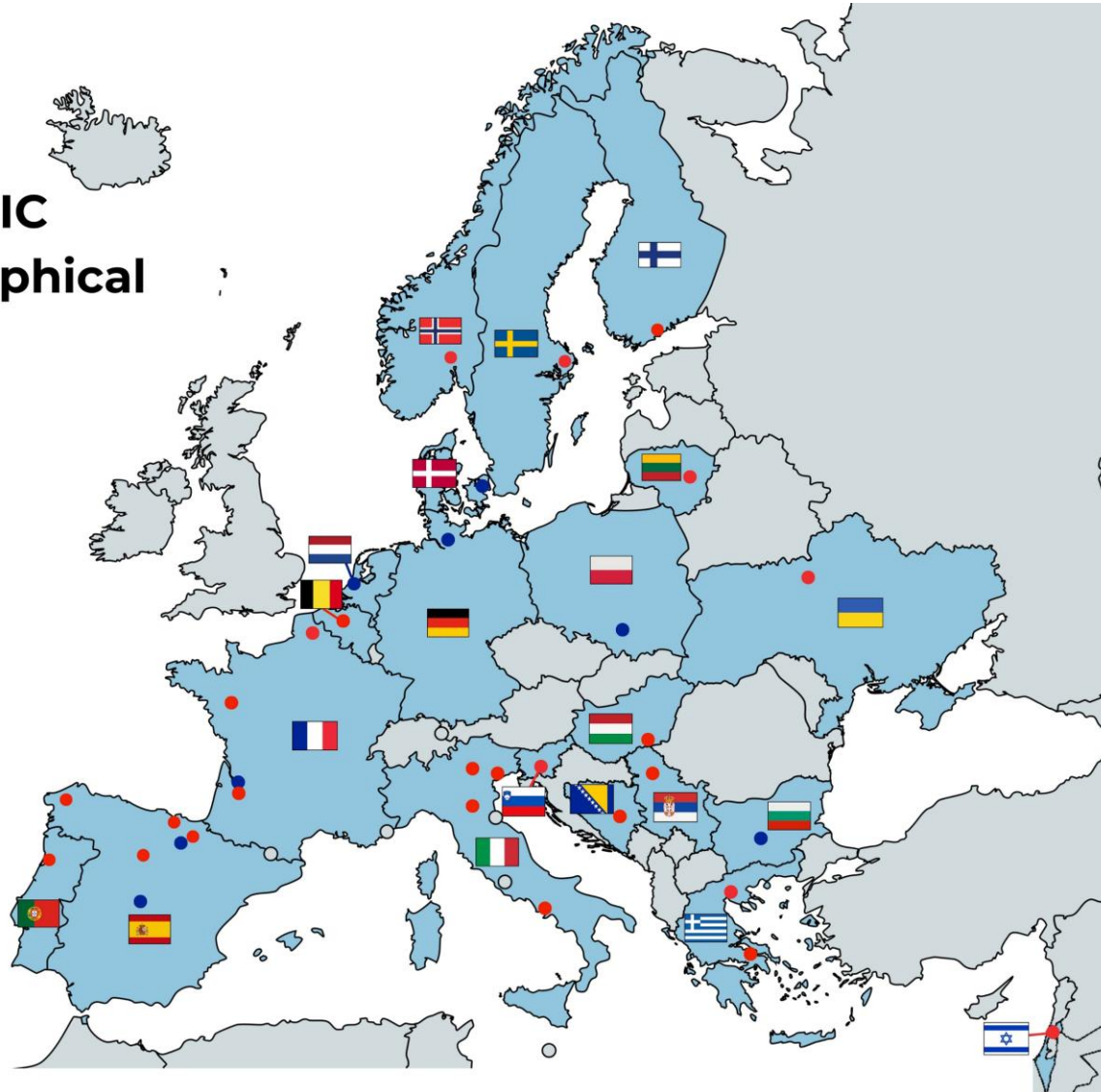
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B4PIC network today: October 2026

The current B4PIC Network geographical coverage

- Emerging B4PICs
- Prospective B4PICs



B4PIC network is growing

21 countries in EU27 and beyond

34 B4PICs

- **29** Emerging B4PICs
- **5** Prospective B4PICs

as of 7 October 2026

More to come!

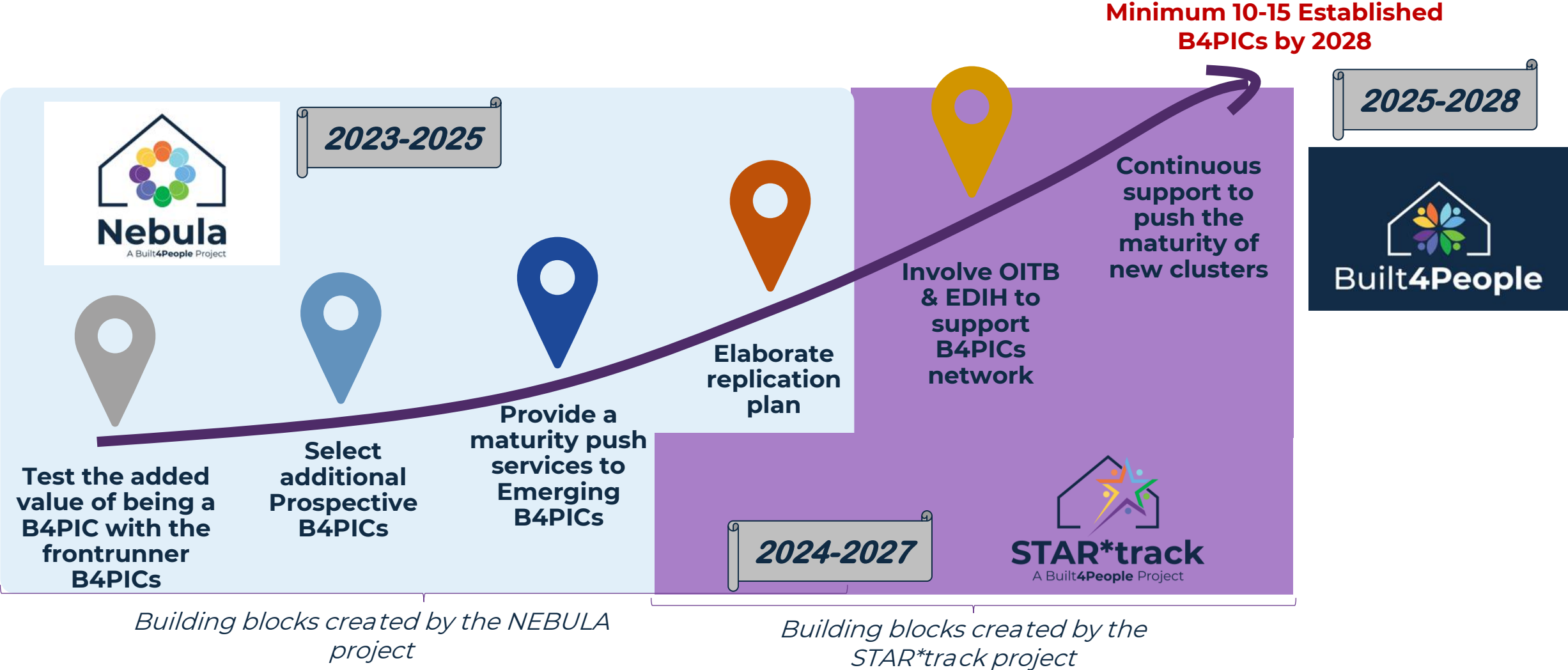
[Learn about the B4PIC Network here !](#)



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B4PICs and B4PIC network: roadmap





Closing remarks



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Built4People

info@built4people.eu



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