Smart Built4EU

The European Smart Buildings Community

Focus on smart buildings clusters

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

Buildwise

SMART BUILDINGS IN USE

by C-TECH SUSTAINABLE BUILDING INNOVATION

Introduction to the cluster ‘Smart Buildings in Use’

Local equivalent of SmartBuilt4EU

or at least sort of ☺

Ruben Delvaeye
Buildwise

Buildwise Embuild

Buildwise

Research & innovation center in the construction sector
At the service of belgian construction companies

3 main tasks:
perform scientific and technical research for the benefit of the members
supply technical information, assistance and advice to the members
to contribute to the general innovation and development in the construction sector

SKILLED TRADES

Helping construction professionals build according to the rules of art

GREEN DEAL

Building in a sustainable, environmentally conscious way

CONSTRUCTION 4.0

New digital technologies for construction

Buildwise

Cluster Smart Buildings in Use

A NETWORK ABOUT SMART BUILDINGS OF COMPANIES, FOR COMPANIES

SMART BUILDINGS IN USE

The Smart Buildings in Use cluster gathers progressive companies to exchange innovative ideas in the field of Smart Buildings. The ultimate goal is to contribute to the realisation of more sustainable, 'user-centred' buildings that are ready for the future.

Energy efficiency

Energy flexibility

Digital Twin

User interaction

Comfort & Convenience

FM · Maintenance

Quantifying smartness

Business models

Buildwise

SMART BUILDINGS IN USE

Contractors, active in general contracting, installation and maintenance of buildings and techniques

Smart building integrators

Providers of hardware and new technology for building control and monitoring

Providers of software and management and control algorithms

Designers and engineering consultants

Professional building owners and managers, facility managers, property developers

Technology investors

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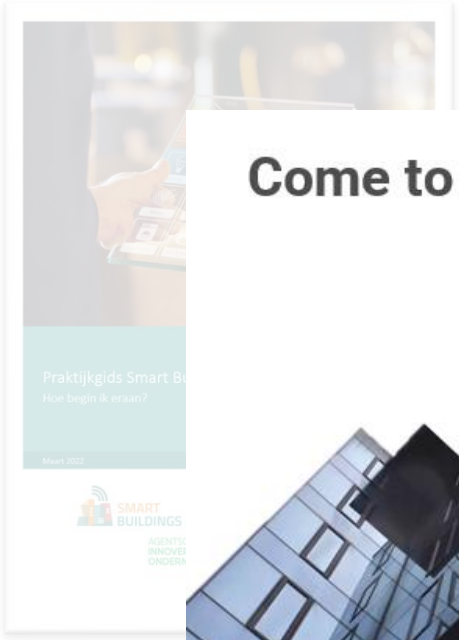
Visit / join us ! 👉 www.smartbuildingsinuse.be

Some results



Come to our next event!

Quantifying the 'smartness' of buildings

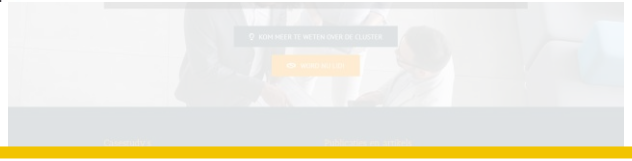
30/03 PM

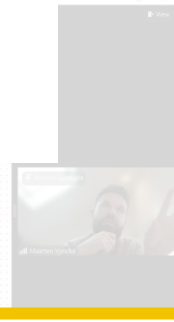
@ The HUBB (Arts-Loi, Bruxelles)

Register here:

NL

FR





Built4People (B4P) Partnership (Co-Programmed)

The Built4People R&I Partnership & the Nebula project and New European Bauhaus

March 2023

Nerea GÓMEZ
ECTP Project Officer

Anastasiya YURCHYSHYNA
ECTP Project Officer

European Commission

ECTP INNOVATIVE BUILT ENVIRONMENT

WORLD GREEN BUILDING COUNCIL

Built4People

Nebula
A Built4People Project

Built4People (B4P) Partnership (Co-Programmed)

Introduction to the Built4People (B4P) Co-Programmed Partnership

March 2023

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Built4People (B4P) Partnership (Co-Programmed)

A policy cross-cutting initiative, addressing buildings climate-neutrality but also broadly speaking sustainability, reducing resource intensity and increasing recyclability, taking into consideration other policies relevant to buildings, including the need to preserve our European Cultural Heritage.

Scope:

- Decarbonisation, sustainability and better living (Europe & beyond)
- Gather partners across the built env. value chain for a *cleaner, safer, affordable, smarter, decarbonised & sustainable Built Env*.

Aim:

Produce & deliver on the market holistic innovation
→ long-lasting transformations & behavioural change
→ deliver long-term goals set by the EGD

Approach:

- People-centric holistic innovation
- High quality architecture → low carbon, highly energy & resource efficient built env.
- Drive the societal and economic transition towards sustainability.

Coordination:

- EC: DG ENER Lead contact → co-creation process among 12 EC services responsible for the policies focusing on the BE: ENER.B2, B3, B5; RTD.D1; GROW.C1; ENV.B2; MOVE.B3; CLIMA.C1; CNECT.H5; EAC.D1, D2; EMPL.C3.
- Partners others than the EU:

Built4People - Summary of objectives in MoU

3 general objectives		10 specific objectives		10 operational objectives	
GO1	**Generate holistic innovation in the built environment towards sustainability** by 2027/28	SO1	Develop holistic solutions that break "technological silos" in built environment, lower carbon and resource intensity and mainstreaming LCA-based approach	OO1	Cost-effective multi-functional and/or prefabricated holistic renovation packages
		SO2	Develop solutions that enable/increase interactions of building with networks or increase sectors integration	OO2	Set of smart-grid ready and smart-network ready buildings acting as active utility nodes
GO2	**Revitalise the sector through decarbonisation and sustainability transition** by 2030	SO3	Demonstrate profitability and job creation potential of new sustainable and circular business models	OO3	Tools and applications to facilitate a life cycle-based approach
		SO4	Demonstrate sector decarbonisation pathways across all the players in the value chain	OO4	New design models for buildings, infrastructure, public spaces and efficient and resilient cultural heritage
		SO5	Demonstrate industrialization potential and economies of scale, as well as applicability to a large share of the EU buildings stock/infrastructure	OO5	New protocols and approaches to zero-carbo construction and retrofitting and circular and bio-based economy
		SO6	Develop strategies, methods and tools to adapt skills, culture and way of working to the opportunities arising from the new solutions	OO6	New services from home and in the community, incl. solutions for healthier indoor and outdoor environment
GO3	**Induce lasting behavioral change towards sustainable living** by 2030	SO7	Engage the whole value chain as well as policy makers and civil society in the design, development and implementation of the new solutions	OO7	New solutions and tools for public and private (green) as well as new business/financing/risk mgt models
		SO8	Orientate and demonstrate innovation to achieving outcomes for users in terms of functionality, comfort, convenience, accessibility, health etc	OO8	Solutions for smart and responsive buildings exploiting an improved knowledge of user experience (BaaS)
		SO9	Demonstrate safeguarding and promotion of architectural elements that represent cultural / historical value and heritage	OO9	EU-wide open databases and digital Data Management Platforms on the performance of the built environment
		SO10	Develop strategies, solutions and tools to reduce time to market of the new technologies	OO10	Innovation clusters /ecosystems integrated with the construction value chain and other sectors

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Built4People - Summary of KPIs in MoU

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KPI's on general objectives			KPI's on specific objectives	
GO1	**Generate holistic innovation in the built environment towards sustainability**	1. R&I investment in the sustainable built environment area catalysed by the partnership 2. # innovative products/services/processes linked to sustainability that are catalysed by the partnership and number of jobs created 3. Contribution to the successful deployment of relevant EU instruments and frameworks 4. # training programmes developed for the sustainable built environment	SO1 SO2 SO3 SO4 SO5 SO6 SO7 SO8 SO9 SO10	13. # demonstrated innovative solutions and packages for sustainable construction and renovation 14. # demonstrated innovative solutions for the sustainability of the built environment value chain 15. # innovative services developed and demonstrated 16. # living labs established and involved in the partnership's projects 17. Total floor area and # buildings (residential or non-residential) directly involved in the partnership's projects demonstration activities 18. # and type of heritage buildings involved in/enhanced by the partnership's projects, in line with the safeguarding of the historical environment and architectural values of the building stock 19. # building occupants and users involved in the partnership's projects demonstration activities 20. # people trained across the whole value chain in the deployment of innovative sustainable technologies, systems and methods
GO2	**Revitalise the sector through decarbonisation and sustainability transition**	5. Energy savings (MWh) 6. GHG emission reduction (tCO2e) / Pollution reduction 7. Share of reused/recycled materials used in construction (%) 8. Share of buildings designed and constructed based on a life cycle approach. 9. # buildings with on-site RES production 10. # of workers trained on working methods and tools in the fields covering the B4P objectives		
GO3	**Induce lasting behavioural change towards sustainable living**	11. Share of the EU population living and working in green neighbourhoods 12. # of private and public building owners with sustainable behaviour in their building stock		

Built4People Overall governance

B4P Stakeholders Forum

A balanced representation of experts and stakeholders from across Europe to advise on priorities and suggest adjustments and re-orientations where necessary

- ≈200 persons (or more) meeting
- At least once per year
- Besides B4P representatives, a focus on involving of interested stakeholders

Other EU-level initiatives

Aim to cooperate and achieve synergies in overlapping domains

- Representatives from other co-programmed or co-funded Partnerships & Missions, or from relevant research and innovation initiatives

B4P Partnership Board

Main forum for dialogue and steering to reach the objectives set out in the MoU

- ~60 representatives, 3-4 annual meetings, co-chaired by EC and non-EC partners
- Representatives of partners: EC (all involved DGs), ECTP and WGBC
- Observers can join upon invitation

(Invitation as observers)

State Representatives Group

Advise and support the achievement of the B4P objectives and ensure complementarity with national policies, priorities and programmes and provide information or make proposals to the Partnership Board

- Representatives from Member states and associated countries (including from SET-Plan IWG5)

Ad hoc request for input and support on:

- *SRIA*
- *Draft call topics Work Programme*
- *Additional Activities Plan*
- *KPIs (informal subworking group)*
- *Innovation clusters (informal subworking group)*
- *Stakeholders Forum*

20 confirmed countries: *New countries can join at any time*
SRs invited as <u>observers</u> in the B4P PB (2022):

- **Annett KUHN** (*Germany*) – Chair of the SET-Plan IWG(5) on energy efficiency in buildings
- **Annabelle RONDAUD** (*France*): Overall interesting to consider linking (to some extent) one observer to the MS holding the presidency of the Council

B4P team

Coordination and operational management and preparation of meeting and support in deliverables and B4P Partnership's activities

- Representatives from ECTP and WGBC
- Currently: Alain Zarli, Stephen Richardson, Laura Pallares

(operational alignment between management teams where relevant)

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<u>**Synergies with SET-Plan**</u>: Through the B4P SRG and the IWG5-CSA in support to IWG5 activities (working on common policy recommendations, organising common events)

IWG5 BUILDINGS

<u>**Synergies with partnerships**</u>
Example: Process4Planet
In the future: CET, DUT, …

ASPIRE PROCESSES4PLANET RESEARCH ASSOCIATION

EURAMET

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https://www.ectp.org/built4people/

https://worldgbc.org/europe/built4people/

European Commission

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WORLD GREEN BUILDING COUNCIL

https://www.worldgbc.org/our-regional-networks/europe

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Nebula

A Built4People Project

Introduction to the NEBULA Project

Co-funded by the European Union

The NEBULA project: objectives

Built4People

Two critical challenges for the Built Environment:

- Become **more sustainable and resilient** in face of climate change and biodiversity reduction
- Become **more 'people-centric'** to improve individual well-being and social cohesion

Nebula
A Built4People Project

=> activate and nurture a **network of B4P Innovation Clusters (B4PIC)** and provide them with a package of supporting activities

=> make the bridge between the B4P partnership and the New European Bauhaus (NEB) initiative, with **three objectives**:

1. Spreading a **trans-disciplinary and participative approach to innovation**
   - Peer learning activities on NEB
2. **Facilitating networking and collaboration** between innovators, locally and EU-wide
   - Open innovation support to clusters
3. Improving **access to public & private finance** for innovators
   - Finance toolbox & helpdesk

Co-funded by the European Union

ECTP INNOVATIVE BUILT ENVIRONMENT

The NEBULA project: partners

Built4People

WORLD GREEN BUILDING COUNCIL

ECTP INNOVATIVE BUILT ENVIRONMENT

ARCHITECTS' COUNCIL OF EUROPE
CONSEIL DES ARCHITECTES D'EUROPE

European associations and their affiliated entities

Nobatek INEF4 INSTITUT POUR LA TRANSITION ENERGETIQUE

tecnalia

Applied research centers

Innovation management experts

Dowel innovation

R2M RESEARCH TO MARKET SOLUTION

Regional Clusters as co-designers & testers of NEBULA services

odéys
Cluster construction
et aménagement durables

ERAIKUNE
Construction Cluster

Co-funded by the European Union

ECTP INNOVATIVE BUILT ENVIRONMENT

The NEBULA project: the B4PIC network

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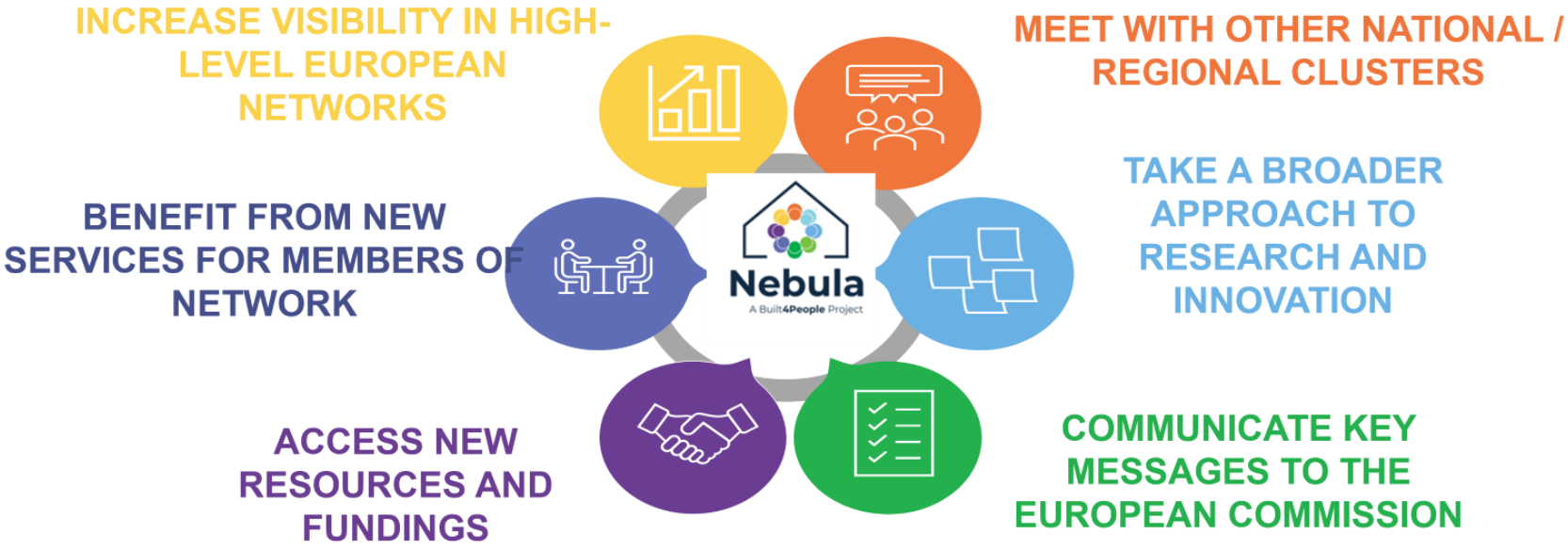
B4P Objectives (3 General + 7 Specific)

NEB core values and working principles

B4PIC Maturity Framework

Innovation clusters can apply to become B4P Innovation clusters and benefits from tailored support



NEBULA will support a selection of regional/national innovation clusters in **maturing** along **six success factors**

(1) Whole value chain*

(2) Multi-objectives*

(3) Cross-sector

(4) Locally anchored with National and European outreach

(5) Cross-border

(6) Access to testbeds and demonstration spaces

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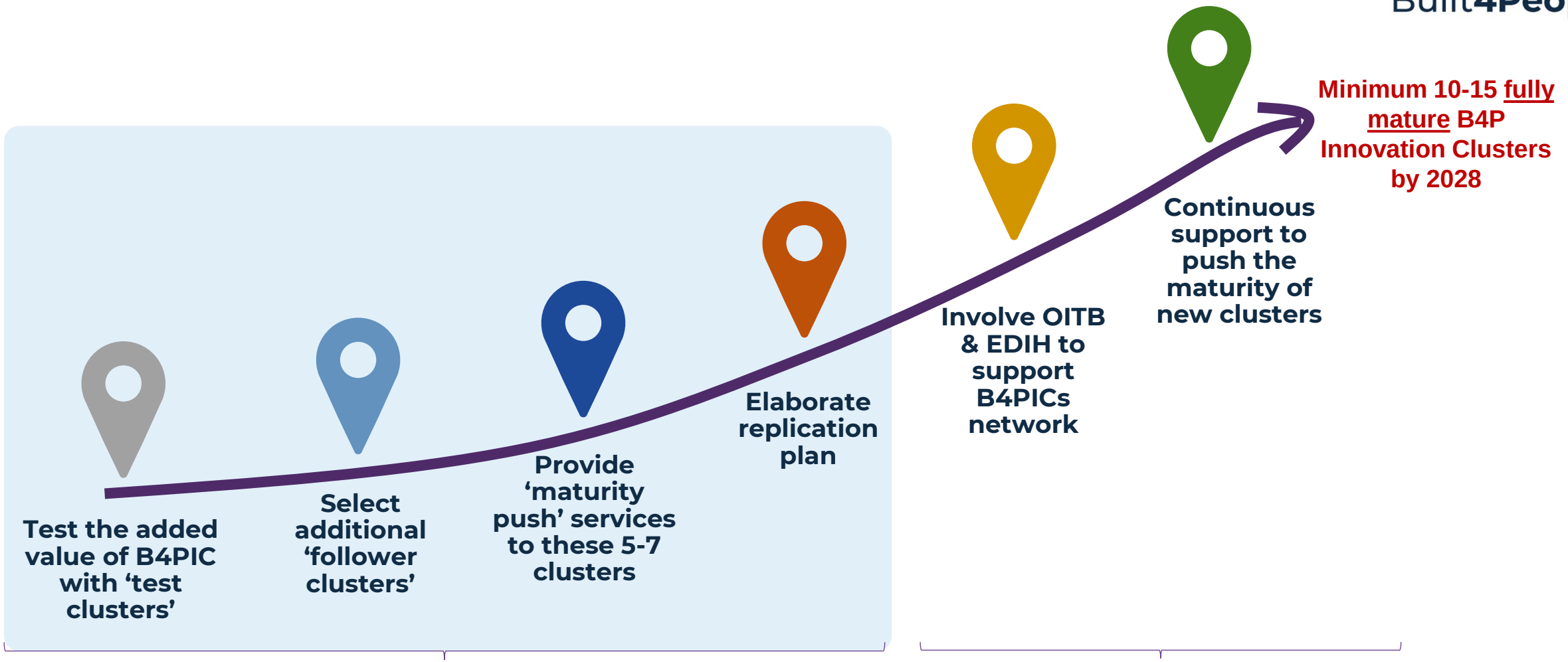
The NEBULA project: as part of the B4P roadmap



Building blocks to be created by the project

Building blocks to be created later by the B4P partnership

Co-funded by the European Union