

NEXT B4P TOPICS AND EXPECTATIONS FOR POTENTIAL LUXEMBOURG TEAMS

HORIZON-CL5-2023-D4-02 ([Link](#))

2023/05/10

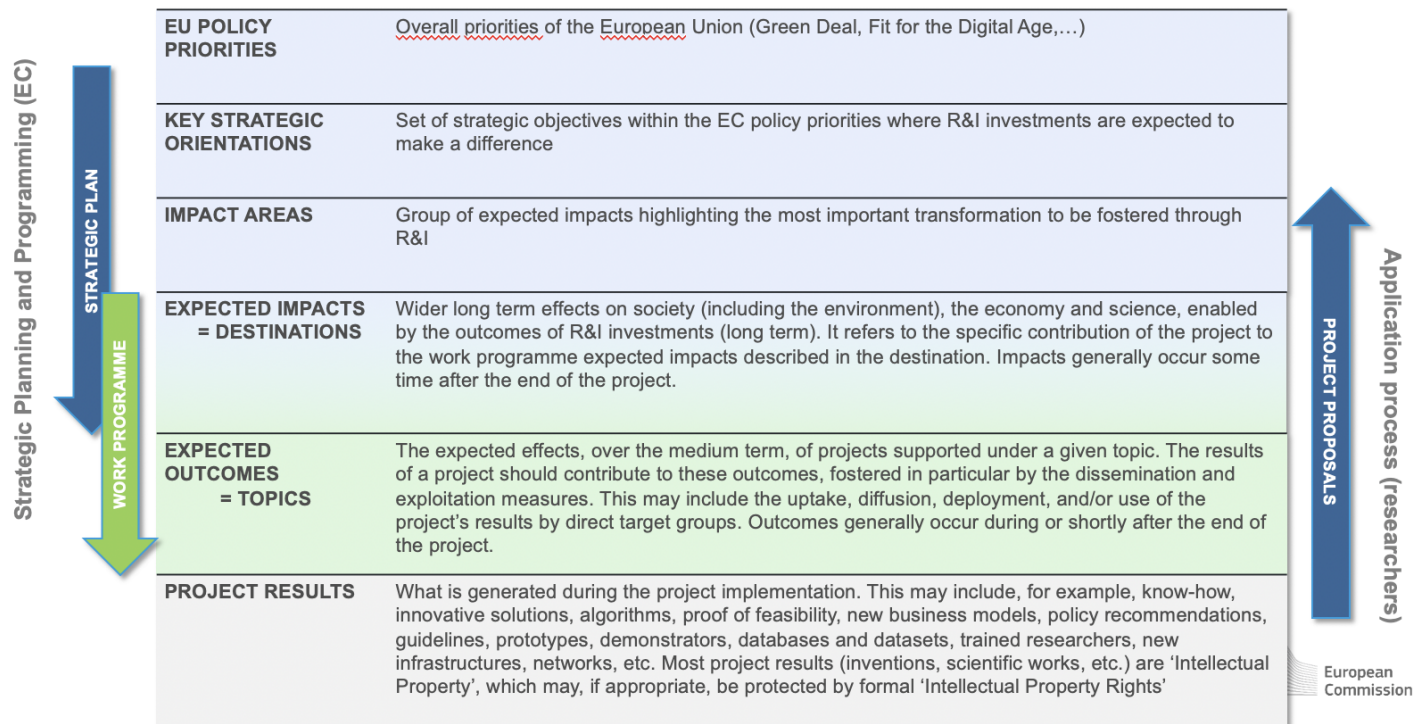
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Luxembourg Institute of Science and Technology

B4P partnership



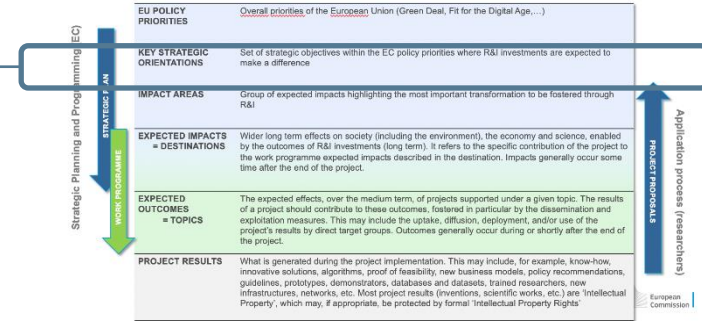
HORIZON EUROPE

LINK BETWEEN EU POLICY PRIORITIES AND PROJECT RESULTS



DESTINATION 4 AND B4P TOPICS

Efficient, sustainable and inclusive energy use



This Destination contributes to the following Strategic Plan's **Key Strategic Orientations (KSO)**:

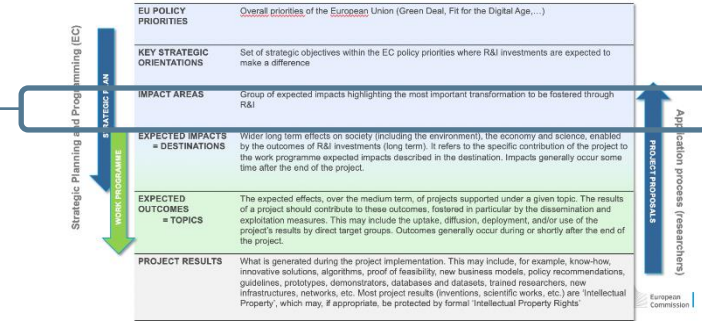
- *C: Making Europe the first digitally enabled circular, climate-neutral and sustainable economy through the transformation of its mobility, energy, construction and production systems;*
- *A: Promoting an open strategic autonomy²⁰² by leading the development of key digital, enabling and emerging technologies, sectors and value chains to accelerate and steer the digital and green transitions through human-centred technologies and innovations.*

DESTINATION 4 AND B4P TOPICS

Efficient, sustainable and inclusive energy use

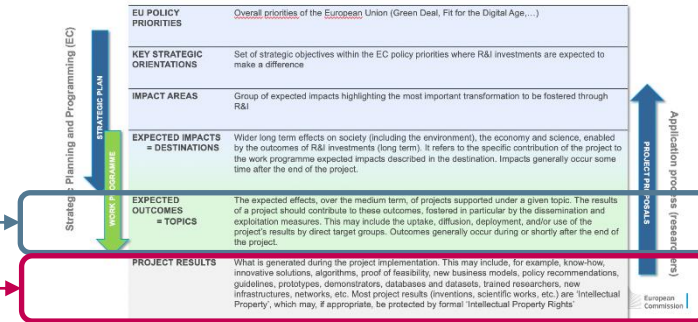
It covers the following **impact areas**:

- Industrial leadership in key and emerging technologies that work for people;
- Affordable and clean energy;
- Circular and clean economy.



SOME CONSIDERATIONS WHEN REACHING OUT TO / JOINING CONSORTIA

- How does the topic reflect the **innovation actions / strategies / interest** of my institution/company
- How can I **bring value** to the coordinator / consortium
 - By helping to cover the expected **‘scope’**: *“Proposals are expected to address [...]”*
 - By helping to achieve the **‘expected outcomes’**
 - Offering a case study / pilot / demonstrator for the team to apply its results and measure its impacts
 - By linking to EU-wide networks (e.g. associations)
 - By contributing to dissemination, standardization



Administrative information

- Profile on the EC platform – PIC number
- PM rate - (cost of 1 person-month effort)
- Previous projects / relevant outputs (publications, tech assets, business methods)

READING THE TOPIC

- **EU Contribution** foreseen for the whole project
 - Real budget is usually higher when considering all costs
- **Funding rate**
- **Type of action**
 - Innovation Action (IA), Research and Innovation Action (RIA), Coordination and Support Action (CSA)
- **Technology Readiness Level**
 - Expected TRL at the end of the project
 - Consider and justify a credible TRL shift

HORIZON-CL5-2023-D4-02-05: Supporting the creation of an accessible and inclusive built environment (Built4People Partnership)

Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 5.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 10.00 million.
<i>Type of Action</i>	Innovation Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply: If projects use satellite-based earth observation, positioning, navigation and/or related timing data and services, beneficiaries must make use of Copernicus and/or Galileo/EGNOS (other data and services may additionally be used).
<i>Technology Readiness Level</i>	Activities are expected to achieve TRL 6-8 by the end of the project – see General Annex B.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025). ²²⁴ .
	The funding rate is 60% of the eligible costs, except for non-profit legal entities where the funding rate is up to 100% of the total eligible costs.

BUILT4PEOPLE (B4P) PARTNERSHIP



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.



BUILT4PEOPLE - SUMMARY OF OBJECTIVES

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 for life cycle-based assessment
		SO4	Demonstrate sector decarbonisation pathways across all the players in the value chain	OO4	New design models for buildings, infrastructure, public spaces, efficient and resilient
		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 standards for zero-carbon construction 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. smart indoor and outdoor
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 business models for 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 needs
		SO9	Demonstrate safeguarding and promotion of architectural elements that represent cultural / historical value and heritage	OO9	EU-wide open data for Data Management and 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

Holistic approaches (methods and tools)

Multi-scale (buildings <-> Districts <-> Grids)

Occupant-centric & user involvement

Innovation Clusters & ecosystems

B4P 2023

Review of topics

Innovative uses of lifecycle data for the management of buildings and buildings portfolios (Built4People Partnership)

Scope and expectations

- **Develop new or upgrade existing building management systems** enhanced with **data analytics** and real-time **digital twinning tools** [...]
- **Develop new or upgrade existing decision support tools for the management of building assets and portfolios of buildings** [...] (e.g. energy monitoring, renovation optimisation) and non-energy services (investment planning, risk assessment [...]). The tools should be **co-developed with the potential users** [...] and tested in real market conditions.
- **Develop new or upgrade existing data sharing platforms including lifecycle data of buildings or buildings portfolios.** The platforms should connect relevant market actors [...] with relevant user groups [..., policy makers and the financial sector and offer innovative services (e.g. flexibility, prediction, investment planning etc.). [...] and tested in real market conditions linking, where relevant, to digital logbooks and to and other relevant initiatives (e.g. the Smart Readiness Indicator under the Energy Performance of Buildings Directive).

Expected Outcomes

1. **Increase in the availability of key energy and environmental performance indicators** [...]
2. **Improved tools** for the planning and management of building assets and portfolios of buildings [...]
3. **Increased availability and access to lifecycle data** of buildings and buildings portfolios and enhanced interoperability [...]

Info

- Innovation Action TRL 6-8
- Min 3 large scale pilots
- 5 M€ /project - 10M€ available
- Funding rate 60% or 100%
- DL 05/09/2023

Solutions for the identification of vulnerable buildings and people-centric built environment, and for improving their resilience in disruptive events and altered conditions in a changing climate (Built4People Partnership)

Scope and expectations

- Develop **approaches and tools for the identification and categorisation of the vulnerability of [...] built environment, [...]**
- Develop **innovative designs, materials and solutions** to improve safety [...] and resilience of the built environment to extreme climatic events [...]
- Ensure [...] that the proposed solutions also improve **accessibility for persons with disabilities, improve the local environment**, and minimise any **negative impacts on biodiversity, [...]**
- [...] ensure the proposed approaches and solutions **address deep renovation, [...]**
- Explore **the use of relevant data**, such as weather forecasts and / or catastrophe warnings [...]
- Investigate the potential of asset management and life cycle approaches to **optimise costs of resilience [...]**
- Ensure that the **whole value chain [...]** is covered.
- Demonstrate the solutions in at least **two demonstrators [...]**
- Contribute to the activities of the Built4People partners [...]

Expected Outcomes

1. **Increased awareness of approaches** for the identification and categorisation of the vulnerability of existing and future buildings and infrastructures.
2. **Increased number of demonstrated innovative solutions** to improve safety and resilience [...]
3. **Increased use of relevant data** such as weather forecasts or catastrophe warnings [...]
4. **Improved understanding of new business models** allowing to optimise the costs of resilience, [...]
5. **Increased awareness of building occupants** and other key stakeholders [...]

Info

- Innovation Action TRL 6-8
- Effective contribution of SSH disciplines
- 2 demos - 5 M€ /project - 10M€ available
- Funding rate 60% or 100%
- DL 05/09/2023

Demonstrate built-environment decarbonisation pathways through bottom-up technological, social and policy innovation for adaptive integrated sustainable renovation solutions (Built4People Partnership)

Scope and expectations

- **Demonstrate a value chain approach and pilot decarbonisation pathways** in at least **two deconstruction/re-use/construction demonstrators** and supply chain approaches of market-scale renovations.
- **Demonstrate low disruptive** and simpler construction and retrofitting processes, [...] alignment with **EU Level(s) framework** indicators.
- **Test the enabling conditions** (technological, social, and policy) that can boost innovation and reduce time from research to market [...]
- **Establish and operate demonstrative regulatory sandboxes** [...]
- Where rel., **explore fast tracking of cost-effective standardisation** [...]
- Where rel., **investigate non-standard contractual relationships** [...] including 'as a service' approaches for the built environment.
- **Develop solutions that can stimulate the market for reused construction products** [...] and which can contribute to increased rate and depth of renovation [...]
- **Develop design solutions that address inclusion and accessibility** [...]
- Contribute to the activities of the Built4People partners [...]

Expected Outcomes

1. **Increased number of innovative solutions and packages** for sust. construction and renovation.
2. **Increased number of options for built-environment decarbonisation pathways** [...] considering the whole value chain [...]
3. **Increased engagement and participation** [...]
4. **Reduced time** from 1st demo to market [...]
5. **Increased awareness** [...] on construction products for reuse and circular businesses
6. **Creation of new business opportunities** [...]
7. **Enhanced engagement** [...]

Info

- Innovation Action TRL 6-8
- Effective contribution of SSH disciplines
- 6 M€ /project - 12M€ available
- Funding rate 60% or 100%
- DL 05/09/2023

Supporting the creation of an accessible and inclusive built environment (Built4People Partnership)

Scope and expectations

- Develop **innovative methods** to ensure and facilitate the implementation of **accessibility** [...]
- Demonstrate [...] **innovative planning and design tools** [...] for people's use [...] for improving comfort [...] making them accessible and inclusive [...] transforming the built environment towards sustainability [...], climate change mitigation & adaptation [...]
- Address the adaptability of the built environment over its lifecycle, to ensure flexibility for accessibility adaptations [...]
- Make the facilities of the BE [...] more energy efficient overall, [...]
- Ensure the involvement of persons with disabilities by means of a **participatory approach**.
- Consider the possible creation of new job opportunities [...]
- Demonstrate the solutions in at least **two demonstrators**.
- [...] removing barriers, improving storage of [...]bicycles, improving charging possibilities for electric [...]bicycles in an inclusive way [...]
- [...] design public spaces to promote soft and active modes of mobility [...]
- [...] develop solutions to ensure the mobility of person with disabilities [...] inside buildings in an autonomous, ubiquitous, and pervasive way.
- [...] new digital tools [...] ensure their accessibility [...]
- [...] actions targeted to contributing to the activities of the NEB [...]

Expected Outcomes

1. Improved accessibility [...] for persons with disabilities and older persons [...]
2. Improved comfort for larger shares [...]
3. Increased uptake of accessible and inclusive active mobility solutions [...]
4. Improved sense of inclusiveness and social cohesion in larger shares of the population.
5. Availability of a common evaluation and certification framework for accessibility and inclusiveness [...]
6. Improved consideration of accessibility and inclusiveness in the transformation of the BE [...]
7. Reduced energy consumption and lifecycle GHG emissions of the facilities of the BE

Info

- Innovation Action TRL 6-8
- Effective contribution of SSH disciplines
- 5 M€ /project – 10 M€ available
- Funding rate 60% or 100%
- DL 05/09/2023

Fast-tracking and promoting built environment construction and renovation innovation with local value chains (Built4People Partnership)

Scope and expectations

- Delivery of a long-term [...] structure for B4P **innovation clusters**
- Support adoption of the enabling conditions [...]
- Deliver methods and tools for [...] assessment of innovation maturity [...]
- Monitor growth of Built4People construction innovation clusters [...]
- Stimulate co-financing of innovation [...]
- Disseminate exemplary practices for fast tracking of cost-effective standardisation and certification [...]
- Prepare the value chain [...] for uptake of innovative [...]
- Stimulate engagement in Built4People innovation clusters [...]
- Promote design solutions that address inclusion and accessibility [...]
- [...] contribute to the activities of the NEB Community, [...]
- Seek to ensure consistency and complementarity [...] with the project funded under the HORIZON-CL5-2021-D4-02-03 topic (*NEBULA).

Expected Outcomes

1. Expansion and strengthening of the Built4People **network of Construction Innovation Clusters**.
2. **Increased awareness** and improved access [...]
3. **Increased engagement and participation** of the whole value chain [...]
4. Strengthened, long-lasting and multi-disciplinary networking and collaboration on **locally rooted, bottom-up innovative holistic solutions** [...].
5. Enhanced **engagement** [...]
6. Establishment and reinforcement of **European value chains** [...]
7. Creation of **new business opportunities** [...]
8. **Reduced time** from research to market [...]
9. **Increased public and private co-financing** of innovation [...]

Info

- **Coordination and Support Action**
- **Effective contribution of SSH disciplines**
- **2 M€ /project – 2 M€ available**
- **Funding rate 100%**
- **DL 05/09/2023**

CALLS 2024

Digital solutions to foster participative design, planning and management of buildings, neighbourhoods and urban districts (Built4People Partnership)

HORIZON-CL5-2024-D4-02-05

Call for proposal

Grant

Programme	Horizon Europe (HORIZON)	Status	Forthcoming
Type of action	HORIZON Innovation Actions	Deadline model	single-stage
Opening date	17 September 2024	Deadline date	21 January 2025 17:00:00 Brussels time

Robotics and other automated solutions for construction, renovation and maintenance in a sustainable built environment (Built4People Partnership)

HORIZON-CL5-2024-D4-02-02

Call for proposal

Grant

Programme	Horizon Europe (HORIZON)	Status	Forthcoming
Type of action	HORIZON Research and Innovation Actions	Deadline model	single-stage
Opening date	17 September 2024	Deadline date	21 January 2025 17:00:00 Brussels time

Industrialisation of sustainable and circular deep renovation workflows (Built4People Partnership)

HORIZON-CL5-2024-D4-02-01

Call for proposal

Grant

Programme	Horizon Europe (HORIZON)	Status	Forthcoming
Type of action	HORIZON Innovation Actions	Deadline model	single-stage
Opening date	17 September 2024	Deadline date	21 January 2025 17:00:00 Brussels time

Design for adaptability, re-use and deconstruction of buildings, in line with the principles of circular economy (Built4People Partnership)

HORIZON-CL5-2024-D4-02-04

Call for proposal

Grant

Programme	Horizon Europe (HORIZON)	Status	Forthcoming
Type of action	HORIZON Research and Innovation Actions	Deadline model	single-stage
Opening date	17 September 2024	Deadline date	21 January 2025 17:00:00 Brussels time

BIM-based processes and digital twins for facilitating and optimising circular energy renovation (Built4People Partnership)

HORIZON-CL5-2024-D4-02-03

Call for proposal

Grant

Programme	Horizon Europe (HORIZON)	Status	Forthcoming
Type of action	HORIZON Innovation Actions	Deadline model	single-stage
Opening date	17 September 2024	Deadline date	21 January 2025 17:00:00 Brussels time

CONCLUSION

OPPORTUNITIES FOR LUXEMBOURG TEAMS

Lots of opportunities for:

- Built Environment private stakeholders (developers, arch./eng., construction companies, consultants...)
- Public actors (municipalities, 'public-owned institutes')
- Building Technology developers (companies)
- IT Technology developers (companies)
- Innovation support
- Academics and research

Various approaches:

- Offer **skills & methods**, innovative **building technologies**, **technological assets**, **testing environment**
- Relevance of **demonstration 'ecosystems'**
 - e.g. companies + researchers (benchmark), companies + public (standardize, implement), developers + companies + researchers (demonstrate)

Thank you for your attention!

2023/05/10

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