

**UK
RI**

Innovate
UK

STARTING SOON...

**Horizon Europe- Decarbonisation of the
Built Environment Community Building and
Brokerage Event**

25th January 2024

**Opportunities in Horizon Europe The Energy Series
#EnergyHorizon**

**Host: Dr Jane Watkins
Regional Lead - Europe**

Introduction

1 Why are we here?

- What is Horizon Europe?
- What is the Built4People Partnership and the 'Call Topics'?
- Who (UK and international) is interested in collaborating?
- What support is there to help me start building a Horizon Europe project consortium?



Introduction

2 Agenda

09:30 Welcome & Aims of the Day – Jane Watkins

09:40 Introduction & Call Topic Overview – Built4People Partnership, Alain Zarli

10:00 Decarbonisation of the built environment Landscapes (5 mins each) + Q&A

Denmark – Christina Grann Myrdal, Head of Innovation at We Build Denmark

Sweden – Anna Land, Programme Manager at The Swedish Centre for Innovation and Quality in the Built Environment

UK – Mat Colmer in Construction Team at Innovate UK

10:30 (5 min) – Break.

10:35 How to get ready for Horizon Europe and find the right partners? Conall McGinley
National Contact Point for Energy

10:50 (10 min) Case Study – Simeon Oxizidis, Proposal Manager at Integrated Environmental Solutions

11:00 Q&A

11:10 Pitching Session

11:40 Closing Remarks

11:45 Meeting end



Introduction

3 House Keeping

- **Microphone off** unless speaking please.
- Please post Q using the **Q&A FUNCTION**.
- **Save the zoom chat** – we will not be sharing this.
- Please message **Michael Foster** in the Zoom chat if you are having technical issues.
- **The webinar is being recorded** and will be shared with the slides afterwards.



Introduction

4 Upcoming Opportunities

[OPEN - £700 European Travel Awards](#)



Introduction

5 Enjoy!





Innovate
UK

Alain Zarli ,
Built4People Partnership

ECTP Secretary General
B4P Management Team

Built4People
(B4P)
Partnership
(Co-Programmed)



Introduction to the Built4People (B4P) Co-Programmed Partnership

Alain ZARLI

*ECTP Secretary General
B4P Management Team*

January 2024



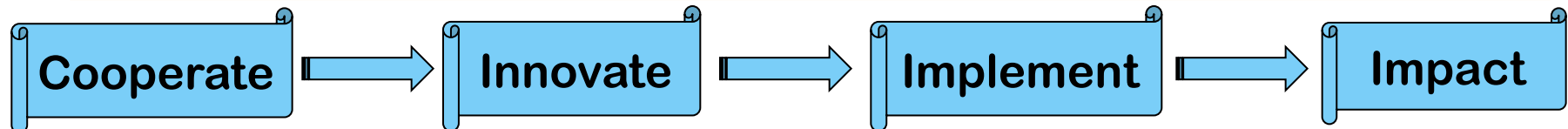
ECTP in a nutshell

European Construction, built environment & energy-efficient buildings Technology Platform

Continuously nurturing an integrated vision, roadmap and development approach on challenges such as **climate change, resources, efficiency & sustainable development** for the **Built Environment (buildings, infrastructures, utility networks...)** and **Construction sector**



- ECTP: *AISBL* legal entity, based in Brussels
- **155** member-organizations from the Construction sector and other sectors from the whole supply chain of the **Built Environment**.
- Main mission: develop new **R&D&I** strategies to improve **competitiveness**, meet **societal needs** & take up **environmental challenges**.

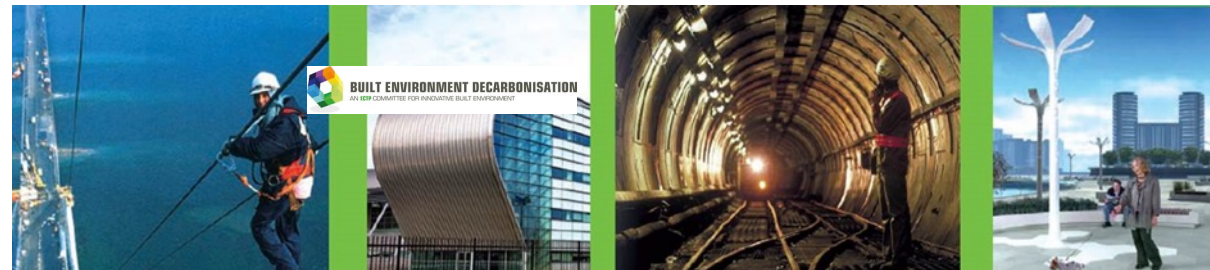


ECTP with 6
thematic
Committees

INFRASTRUCTURE  **MOBILITY**
AN **ECTP** COMMITTEE

HERITAGE  **REGENERATION**
AN **ECTP** COMMITTEE

MATERIALS  **SUSTAINABILITY**
AN **ECTP** COMMITTEE



 **BUILT ENVIRONMENT DECARBONISATION**
AN ECTP COMMITTEE FOR INNOVATIVE BUILT ENVIRONMENT



 **BUILT ENVIRONMENT DECARBONISATION**
AN **ECTP** COMMITTEE FOR INNOVATIVE BUILT ENVIRONMENT

 **DIGITAL BUILT ENVIRONMENT**
AN **ECTP** COMMITTEE

 **BUILT FOR LIFE**
AN **ECTP** COMMITTEE

ECTP & its ecosystem

- EMIRI - Energy Materials Industrial Research Initiative
 - ENCORD - European Network of Construction Companies for Research & Development
 - ETIP PV – European Technology and Innovation Platform for Photovoltaics
 - FEHRL – Forum of European National Highway Research Laboratories
 - IWBI – International WELL Building Institute
- Memorandum of understanding (MoU) / Agreements**

- IWG Action 3.2 – Positive Energy District
 - IWG Action 5 – Energy Efficiency Solutions for Buildings
- SET Plan IWG – Implementation Working Groups**

- DG Connect
 - DG Energy
 - DG Environment
 - DG Growth
 - DG REGIO
 - DG Research & Innovation
 - CINEA
- European Commission**

- AIOTI
 - BEA-SE4ALL
 - CoolingEU
 - EUMAT
 - MANUFUTURE
- Friends**

ECTP

- ECTP Members**
- Industry: 21 Members
 - SMEs: 35 Members
 - Research organisations: 86 Members
 - Other organisations: 13 Members

- ECTP Committees (composed of ECTP Members)**
- Built4Life Chairing: Eindhoven University of Technology (Faculty of Built Environment)
 - Digital Built Environment Chairing: PTPC
 - Built Environ. Decarbonisation Chairing: ACCIONA Construcción
 - Heritage & Regeneration Chairing: TECNALIA
 - Infrastructure and Mobility Chairin: DRAGADOS
 - Materials & Sustainability Chairing: Università Politecnica delle Marche

- Built4People Co-Programmed Partnership**
- European Commission
 - ECTP & World Green Building Council (WGBC ERN)

- NTP Network – National Construction Technology Platforms**
- Countries: Austria, Belgium, Cyprus, Denmark, France, Germany, Greece, Hungary, Italy, Lithuania, Netherlands, Norway, Poland, Portugal, Slovenia, Spain, Sweden, UK



ECTP - Reasons to join...



Influencing innovation and strategic research

- Participate in the definition of the European Strategic Research Agendas
- Interact with the Built4People Partnership Board
- Close links with key representatives from the European Commission
- Take advantage of ECTP's strategic presence in the heart of Brussels



Access to knowledge, resource and expertise

- Information on upcoming European funding calls and programmes
- Access to ECTP publications and research
- Contribute to technology transfer and research exploitation
- Participate in experts and Committees meetings
- Private access to a Collaborative Workspace (CWS)
- Access to the dataset of sectorial projects funded by the H2020, Horizon Europe and LIFE framework programmes



Opportunities for networking, training & development

- Discount for participants in the ECTP Biennial Conference to disseminate project outcomes
- Seminars and workshops to discuss technical challenges and facilitate networking
- Meet potential partners for your research projects

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:



<https://built4people.eu>

Built4People PSIP (Partner-specific Impact Pathway)

Link to macro-level objectives: SDGs, Green Deal, OECD, World Bank, WEF, EU specific domain

Built4People Partnership vision

European Commission

ECTP
INNOVATIVE BUILT ENVIRONMENT

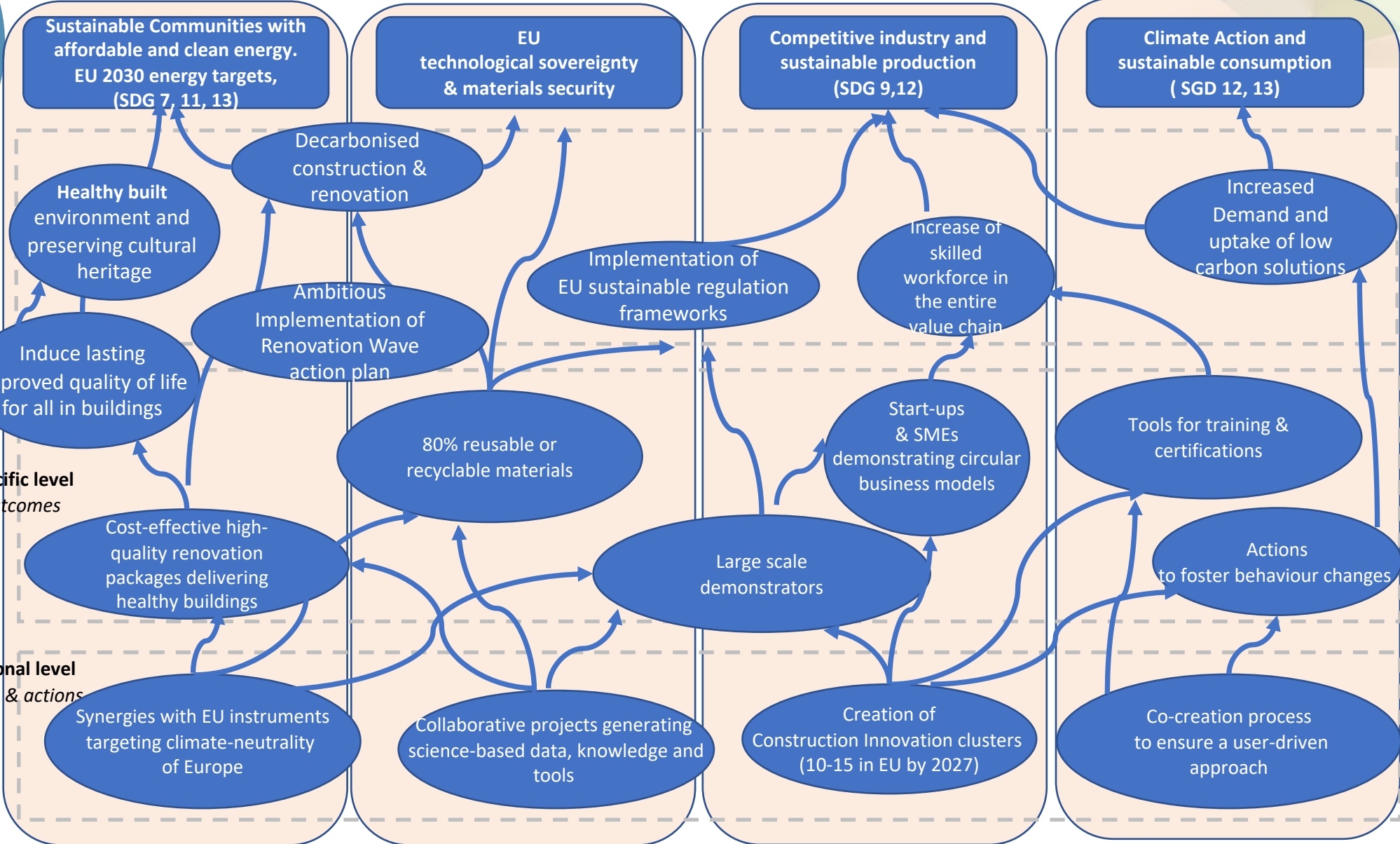
WORLD GREEN BUILDING COUNCIL

Built4People

General level
Impacts

Specific level
Outcomes

Operational level
Resources & actions



Built4People - Summary of objectives in MoU



3 general objectives

GO1 Generate holistic innovation in the built environment towards sustainability by 2027/28

GO2 Revitalise the sector through decarbonisation and sustainability transition by 2030

GO3 Induce lasting behavioral change towards sustainable living by 2030

10 specific objectives

SO1 Develop holistic solutions that break “technological silos” in built environment, lower carbon and resource intensity and mainstreaming LCA-based approach

SO2 Develop solutions that enable/increase interactions of building with networks or increase sectors integration

SO3 Demonstrate profitability and job creation potential of new sustainable and circular business models

SO4 Demonstrate sector decarbonisation pathways across all the players in the value chain

SO5 Demonstrate industrialization potential and economies of scale, as well as applicability to a large share of the EU buildings stock/infrastructure

SO6 Develop strategies, methods and tools to adapt skills, culture and way of working to the opportunities arising from the new solutions

SO7 Engage the whole value chain as well as policy makers and civil society in the design, development and implementation of the new solutions

SO8 Orientate and demonstrate innovation to achieving outcomes for users in terms of functionality, comfort, convenience, accessibility, health etc

SO9 Demonstrate safeguarding and promotion of architectural elements that represent cultural / historical value and heritage

SO10 Develop strategies, solutions and tools to reduce time to market of the new technologies

10 operational objectives

OO1 Cost-effective multi-functional and/or prefabricated holistic renovation packages

OO2 Set of smart-grid ready and smart-network ready buildings acting as active utility nodes

OO3 Tools and applications to facilitate a life cycle-based approach

OO4 New design models for buildings, infrastructure, public spaces and efficient and resilient cultural heritage

OO5 New protocols and approaches to zero-carbo construction and retrofitting and circular and bio-based economy

OO6 New services from home and in the community, incl. solutions for healthier indoor and outdoor environment

OO7 New solutions and tools for public and private (green) as well as new business/financing/risk mgt models

OO8 Solutions for smart and responsive buildings exploiting an improved knowledge of user experience (BaaS)

OO9 EU-wide open databases and digital Data Management Platforms on the performance of the built environment

OO10 Innovation clusters /ecosystems integrated with the construction value chain and other sectors

Built4People - Summary of KPIs in MoU



KPI's on general 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

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

KPI's on specific objectives

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

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

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*

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, Anastasiya Yurchyshyna, Stephen Richardson, Laura Pallares

(operational alignment between management teams where relevant)

(Invitation as observers)

Built4People States Representatives Group (SRG)

• **20 confirmed Countries**

- Austria
- Belgium
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Hungary
- Ireland
- Italy
- Luxembourg
- Malta
- Netherlands
- Poland
- Portugal
- Slovenia
- Spain
- Sweden
- Turkey

- SRs invited as observers in the B4P PB (2022, cont. in 2023):
 - **Annett KUHN** (*Germany*) – Chair of the SET-Plan IWG (5) on energy efficiency in buildings
 - **Annabelle RONDAUD** (*France*)
 - FR holding the rotating presidency of the European council Q1-Q2 '22
 - Overall interesting to consider linking (to some extent) one observer to the MS holding the presidency of the Council
 - 20 confirmed countries (@01/01/2024)
 - *UK ongoing*
 - *New countries can join at any time*



Built4People Stakeholders Forum (1/2)



- Objective:
 - Advise and review on the priorities to be addressed, in line with the SRIA and the Horizon Europe strategic planning
 - Provide with suggestions & recommendations for adjustments or re-orientations to the PB, where and when necessary
 - Members:
 - should reflect a balanced representation of experts and stakeholders from across Europe within the scope of the priorities of the European Partnership
 - including e.g. from academia, industry, SMEs, end-users, non-governmental and civil society organisations, stakeholder associations and regulatory bodies
- ***objective is to create a strong community around B4P!***
- ECTP & WGBC affiliated entities, MS/AC via SRG...
 - DG ENER, ECTP, WGBC media channels (News,...)
 - Participants through European associations (not affiliated): CECE, EUREC, UIPI,...
 - ...
 - 1st B4P Stakeholder Forum meeting
 - Online – Wed 1st June 2022
 - Attendance: 250+ registrations & 170+ joining live
 - 2nd B4P Stakeholder Forum meeting
 - Online – Tue 3rd October 2023
 - Attendance: 243 registrations & 127 joining live

Built4People Stakeholders Forum (2/2)

- Next B4P Stakeholder Forum:

- on the **23rd of September 2024** – 13:30-17:30
- @ SP'2024 (Sustainable Places) / Luxembourg, 23-25/09/24
- Web site: <https://www.sustainableplaces.eu>



SUSTAINABLE PLACES 2024

23 - 25 SEPTEMBER 2024
EUROPEAN CONVENTION CENTER LUXEMBOURG

Europe's #1 destination for EU research collaboration and market opportunities

©Franck Muno

Logos: R2M RESEARCH TO MARKET SOLUTION, LUXEMBOURG INSTITUTE OF SCIENCE AND TECHNOLOGY LIST

The banner features a background image of a modern building at night with blue and purple lighting. It includes logos for R2M, LIST, and the event title "SUSTAINABLE PLACES 2024". The dates and location are prominently displayed in white text. A red banner at the bottom contains the slogan "Europe's #1 destination for EU research collaboration and market opportunities".

Built4People Additional Synergies (sample)

• Linking with SET-Plan

- Exchange of information:
 - Through the B4P SRG
 - Through the IWG5-CSA in support to IWG5 activities
 - Working on common policy recommendations
 - Organising common events
 - ...



Smart PEBs

- Positive-energy Buildings / Blocks
- Producing on a **yearly basis** more primary energy than used.
- Bioclimatic architecture, advanced materials, ICT...

Energy-driven Urban renovation

- Renovation wave
- Building Retrofitting
- Decarbonisation heating & cooling in Buildings



SET-Plan IWG 5
Energy Efficiency in Buildings

Built4People - Horizon Europe WP preparation



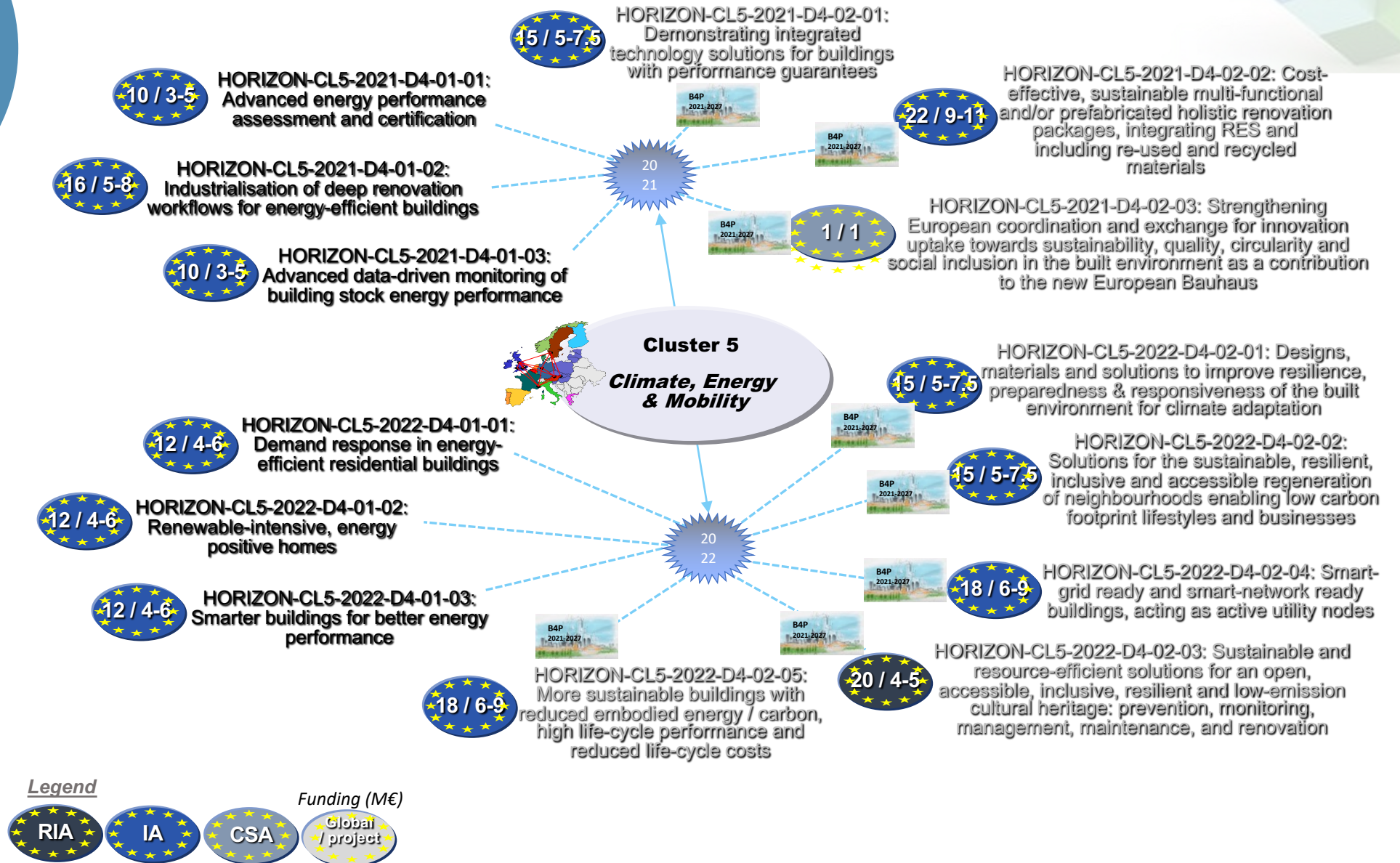
input



input



Built4People - Horizon Europe WP2021-2022



Built4People
- Horizon
Europe
WP2023-2024
Main Focus

Acknowledgement: not an official view from B4P Partnership!

- Keep on the renovation needs:
 - Low-disruption renovation process / prefabricated solutions for EE buildings
 - with more industrialised processes (for construction or renovation, as well as deconstruction / reuse) + focus on circular renovation as well as principles of circular economy
- Improve the role / coordination of construction stakeholders value chains towards innovation in renovation
- Innovative design(s) and decarbonisation pathways for people-centric / people-inclusive new & renovated buildings
- Resilience of buildings towards changing climate / disruptive events
- A strong accent is continuously put on Digitalisation at every stage of the construction process - e.g.
 - BIM, DTs, Automation (including e.g. Drones, Robotics) to improve renovation & optimise maintenance in a twin transition (green & digital)
 - Increased use of LC data / data lakes to manage buildings, data validation / certification
 - Increased involvement of users in participative design, planning, management, renovation, of buildings and districts








Built4People - Horizon Europe WP- 2023

Open: 4 MAY 2023

Closed: 5 SEPT 2023



- 
HORIZON-CL5-2023-D4-01-01:
 Innovative cost-efficient solutions for zero-emission buildings
- 
HORIZON-CL5-2023-D4-01-02:
 Future-proofing historical buildings for the clean energy transition
- 
HORIZON-CL5-2023-D4-01-03:
 Interoperable solutions for positive energy districts (PEDs), including a better integration of local renewables and local excess heat sources
- 
HORIZON-CL5-2023-D4-01-04:
 Thermal management and energy optimisation of high energy demand IT systems equipment in tertiary buildings
- 
HORIZON-CL5-2023-D4-01-05:
 Innovative solutions for cost-effective decarbonisation of buildings through energy efficiency and electrification



Cluster 5
Climate, Energy & Mobility

Legend

Funding (M€)

-  RIA
-  IA
-  CSA
-  Global project



HORIZON-CL5-2023-D4-02-01:
 Innovative uses of lifecycle data for the management of buildings and buildings portfolios



HORIZON-CL5-2023-D4-02-02:
 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



HORIZON-CL5-2023-D4-02-03: Demonstrate built-environment decarbonisation pathways through bottom-up technological, social and policy innovation for adaptive integrated sustainable renovation solutions



HORIZON-CL5-2023-D4-02-04:
 Fast-tracking and promoting built environment construction and renovation innovation with local value chains



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

Built4People - Horizon Europe WP- 2024

Open: 17 SEPT 2024
Closed: 21 JAN 2025



HORIZON-CL5-2024-D4-01-01:
Low-disruptive renovation processes using integration of prefabricated solutions for energy-efficient buildings



HORIZON-CL5-2024-D4-01-02:
Smart grid-ready buildings



HORIZON-CL5-2024-D4-01-03: Alternative heating systems for efficient, flexible and electrified heat generation in industry



Cluster 5
Climate, Energy & Mobility

Legend

Funding (M€)

- RIA
- IA
- CSA
- Global project



HORIZON-CL5-2024-D4-02-01:
Industrialisation of sustainable and circular deep renovation workflows



HORIZON-CL5-2024-D4-02-02:
Robotics and other automated solutions for construction, renovation and maintenance in a sustainable built environment



HORIZON-CL5-2024-D4-02-03:
BIM-based processes and digital twins for facilitating and optimising circular energy renovation



HORIZON-CL5-2024-D4-02-04:
Design for adaptability, re-use and deconstruction of buildings, in line with the principles of circular economy



HORIZON-CL5-2024-D4-02-05:
Digital solutions to foster participative design, planning and management of buildings, neighbourhoods and urban districts

Built4People - Horizon Europe B4P Innovation Clusters (1/2)

Built4People Partnership vision



Built4People - Horizon Europe B4P Innovation Clusters (2/2)

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



=> **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

- An innovation cluster (IC): a local or regional socio-technical ecosystem bringing together actors of the built environment sector where pools of capital, tacit knowledge, expertise, and talent foster the development of new innovations, their demonstration and their market uptake.
- A Built4People IC (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. This process is supported and monitored by the B4P Partnership partners (ECTP & WGBC)

Built4People
- Horizon Europe
B4P Innovation
Clusters - *Maturity
Framework*

B4PIC network is composed of the B4PICs that:

- have formally engaged in the B4P maturing process (i.e., signed the B4PIC Charter)
- assure the exchange of good practices
- foster collaboration among B4PICs

B4PIC addresses **Six B4PIC 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

**mandatory*

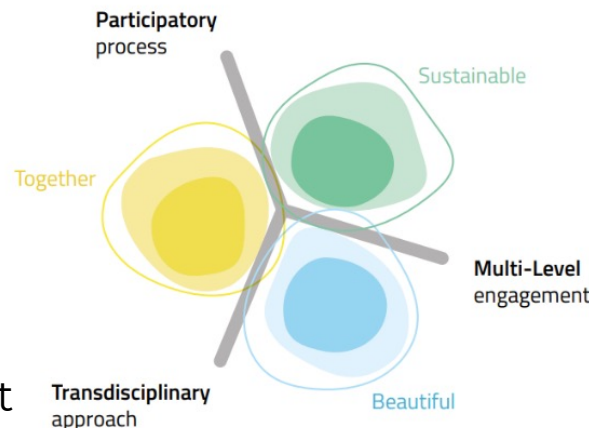
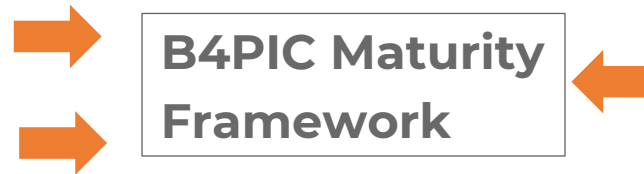
B4P Objectives

(3 General + 7 Specific)

NEB

Core values & working principles

- Beautiful
- Sustainable
- Together
- Participatory process
- Multi-level engagement
- Transdisciplinary approach



Built4People - Horizon Europe B4P Innovation Clusters - Expression of Interest



B4PICs: Call for application information sheet

The Built4People Innovation Cluster Network is a powerful accelerator of sustainable innovation in the built environment.

The call for applications to become a Built4People Innovation Cluster is now open. Join a new network that will foster partnerships across Europe and give you access to resources, support and guidance.

What is a Built4People Innovation Cluster?

A Built4People Innovation Cluster (B4PIC) is a group of innovation-driven stakeholders.

These are typically formed by one or two local or regional clusters, that engage in a transformative maturing process to foster EU-scale, multidisciplinary and sustainable innovation in the built environment.

Find out more here about the objectives of [Built4People](#).

What is the purpose of the Built4People Innovation Cluster network (B4PIC network)?

The purpose of the B4PIC Network is to support Innovation Clusters to become B4PICs through establishing innovation ecosystems at multiple scales (local/regional/national).

The network will provide access to resources as well as support and guidance to the existing hubs or clusters that want to engage, connect and scale sustainable innovations.

Together the network will help to drive progress towards the ambitions of the [New European Bauhaus \(NEB\)](#) for a built environment that is fit for purpose, sustainable and accessible to all, as well as delivering on the goals of the EU Green Deal to make Europe climate neutral by 2050.

Why joining a Built4People Innovation Cluster can be a game changer

The Built Environment contributes to 39% of global CO₂ and emissions are still rising. We cannot wait for innovations to scale organically. Innovations need the right conditions and networks to reach the market quickly and B4PICs can help companies, large and small to find those solutions and opportunities for growth.

By leveraging their collaborative ecosystem, expertise and resources, clusters are a proven vehicle to accelerate the development, adoption and scale-up of green technologies and solutions. Below are three ways in which research demonstrates that the establishment of an Innovation Network can yield positive results.

1. INCREASED PRODUCTIVITY

Companies that are part of Innovation Clusters are around 40% more productive compared to non-clustered organisations.

2. ACCELERATED GROWTH

Companies in innovation clusters experience 2.5 times faster employment growth and generate 18% higher gross value added (GVA) compared to non-clustered firms.

3. SCALE AND SUPPLY CHAIN EFFICIENCY

Collaboration within clusters can result in up to a 48% reduction in supply chain lead time, positively impacting productivity.

What added value does the Built4People network bring?

INCREASE VISIBILITY IN HIGH-LEVEL EUROPEAN NETWORKS THROUGH COMMUNICATION TOOLS

NETWORK WITH THE B4P PROJECTS AND WIDER STAKEHOLDERS' COMMUNITY

BENEFIT FROM GUIDANCE INCLUDING PRACTICAL MATERIAL AND PEER-LEARNING ACTIVITIES ON THE NEW EUROPEAN BAUHAUS

TAKE A BROADER APPROACH TO RESEARCH AND INNOVATION THROUGH BEST PRACTICES AND CASE STUDIES

ATTRACT NEW RESOURCES AND FUNDINGS THROUGH SELECTED PUBLIC OPPORTUNITIES, PRIVATE INVESTORS AND SUPPORT MATERIAL

COMMUNICATE KEY MESSAGES TO THE EUROPEAN COMMISSION THROUGH THE ACTIVE PARTICIPATION IN THE B4P NETWORK

Guidance through the maturity process

The B4PIC Network aims to help clusters progress along a unique evolution process, with a dedicated timeline, to integrate the six B4PIC Success Factors and improve their maturity level through a step-by-step progression:

- WHOLE VALUE CHAIN** Integrating all stakeholders from the whole built environment innovation value chain (e.g. academic & industrial innovators, architects and contractors, and users associations, local authorities, etc.).
- MULTI-OBJECTIVES** Targeting several B4P objectives as well as NEB principles.
- CROSS-SECTORAL** Integrating the different disciplines of the new Bauhaus (co-design, inclusiveness, circularity, etc.).
- LOCALLY ANCHORED WITH NATIONAL OUTREACH** Connecting a local territory with networks at national and European levels (e.g. national or European associations).
- CROSS-BORDER** Interconnecting with clusters from other regions or Member States (e.g. euro-regions).
- ACCESS TO TESTBEDS AND DEMO SPACES** Integrating or connecting to test beds, pilot buildings, and living lab facilities to demonstrate innovations.

How to get involved

Who: The call is open to existing hubs or clusters across Europe within the built environment and innovation. Please check the [website for more information](#).

How: Fill out the [expression of interest form](#), and you will receive more information about the following steps to start the application process.

When: Expressions of interest and formal applications are being accepted on a rolling basis.

If you have any questions about the process, please contact: info@built4people.eu

Supported by

European associations and their affiliated entities

Applied research centers

Innovation management experts

Regional clusters, co-designers & testers of B4PIC network services



The B4PIC Network has been launched with support of the NEBULA project. NEBULA has received funding from the European Union's Horizon Europe research and innovation programme under Grant Agreement No 101079859



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

Stephen Richardson
Europe Regional Network
Director
srichardson@worldgbc.org

Laura Pallares
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Regional Network
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Innovate
UK

Decarbonisation of the built environment Landscapes

Denmark

Christina Grann Myrdal, Head of Innovation at We Build Denmark

Sweden

Anna Land, Programme Manager at The Swedish Centre for Innovation and Quality in the Built Environment

UK

Mat Colmer Innovation Lead Construction Team at Innovate UK



Innovate
UK

How to get ready for Horizon Europe and find the right partners?

Conal McGinley
UK National Contact Point for Energy

Decarbonisation of the Built Environment: Rebound effects in households with Heat Pumps – lower overheating risks



Proposed Approach & Experience

Most energy-efficiency upgrades result in at least some ‘comfort taking’, where potential energy savings are reduced by residents taking back some of the savings as higher internal temperature or other benefits. Our hypothesis is that this is less likely with heat pumps running at low temperature, often with lower total output than the gas or oil heating they replace.

We have undertaken extensive modelling of heat pumps, as well as taking detailed measurements of internal temperatures in homes, and comprehensive analysis of energy use before and after adopting thermal upgrades – including heat pumps.

Organisational Capabilities

Deep understanding of rebound effects and comfort taking in homes. Quantitative analysis skills. Historic smart-meter data for tens of thousands of homes to normalise historic energy use for changing energy prices. Knowledge of past research work on internal temperature and rebound effects.

No-one else appears to have considered how the UK roll-out of heat pumps will be affected by rebound effects – despite the government target of installing 600,000 heat pumps a year by 2028.

Partners

Ideally, partners with detailed data from households before and after they have installed heat pumps – ideally one year of data before and after installation (or failing that at least one heating season before and after)

Administrative Information

CAR is an SME. We have been trading successfully and working on energy efficiency since 1987.

We could act as Project Coordinator.

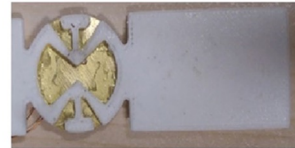
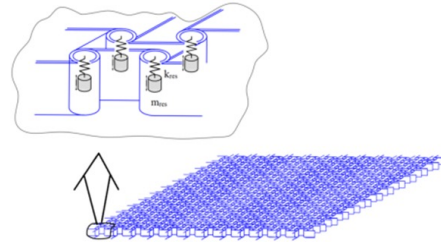
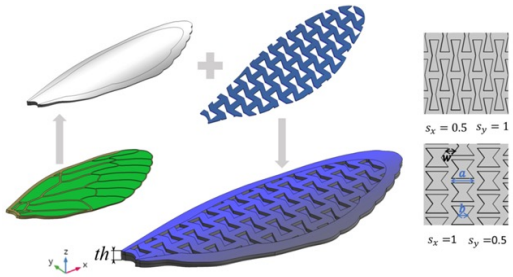
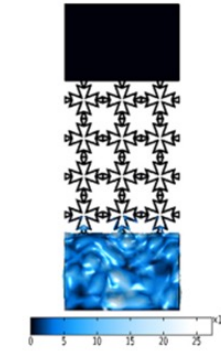
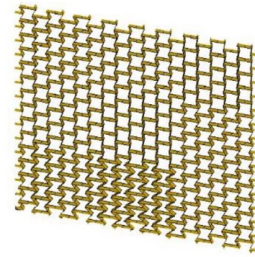
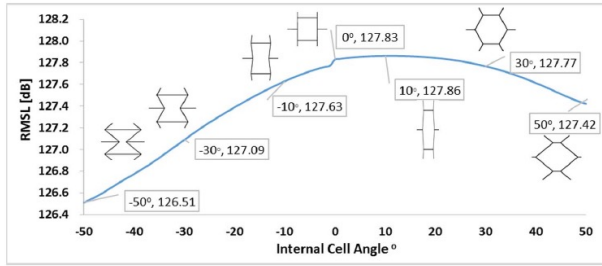
Contact Details: Dr Jason Palmer, Jason@carltd.com,

07806 276223

Country: UK

PIC: 996564712

Bioinspired Structures for Noise and Vibration Control in Sustainable Energy Applications



Organisational Capabilities

- More than a decade of experience in design and development of the vibroacoustic metamaterials for various application
- Wind tunnel
- Manufacturing and testing capabilities in large-scales
- Pioneering of energy and sustainability research

Partners

We are looking for an industrial partner in wind and tidal energy area , however any academic and research collaboration is welcomed.

Administrative Information

Cranfield University is a public institution based in Cranfield, UK.

We are planning on being either the Coordinator or a Partner.

Dr Mostafa Ranjbar, mostafa.ranjbar@cranfield.ac.uk,
Tel. 00447951528282, United Kingdom, PIC 999440762

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**

Digital solutions to foster participative design, planning and management of buildings, neighbourhoods and urban districts (Built4People Partnership) **HORIZON-CL5-2024-D4-02-05**

Proposed Approach & Experience

Proposal writing stage: *Project's pathways towards impact; Measures to maximize impact – Communication, Dissemination and Exploitation; IPRs management; Pathways to impact table: C & D & E measures; Target groups definition; Work package description; Critical risks for implementation; Business case or business plan.*

Implementation stage: *Communication & Dissemination Plan, Communication Pack Development, Day-to-day communication, Events organization, Use case monitoring, IPRs and Exploitation Strategy, Market Analysis, Business Plan, LCA, s-LCA, Social Acceptance Analysis, ESG reports, Field surveys, Replication of results.*

Partners

Seeking roll as a Partner for tasks:

- IPRs
- Commercial exploitation
- Dissemination
- LCA, s-LCA
- Social Sciences and Humanities

Organisational Capabilities

Pilots' development and monitoring through Chambers, Academic Labs, Regional and Local Authorities.

Network of Interest development and engagement.

Social Sciences and Humanities expertise and experience.

Administrative Information

SME

Seeking roll as a Partner

Mr Manolis Tsantakis

manolis.tsantakis@enateam.gr +30 6944 83 51 51

Greece

PIC 916359292

Industrialisation of sustainable and circular deep renovation workflows (Built4People Partnership) (HORIZON-CL5-2024-D4-02-01, 05-Sept-24, IA,)



Proposed Approach & Experience

What is your understanding of the part of the problem/challenge you can solve?

What previous, relevant, work or track record can you bring to the team?

- SME builders lack knowledge of circular deep renovation for building typology, and homeowners have little confidence in builder's ability to conduct retrofits
- Deliver an innovative cloud-hosted, process-based demonstrator toolkit for wide scale adoption by SME builders to quickly survey, assess, design, automatically model, and perform energy and cost analysis for homeowners undertaking retrofit
- Easy-to-use, affordable and practical BIM toolkit will streamline the retrofit process and provide an extensive retrofit knowledge base, thus reducing the cost of retrofit through accurate estimating and scheduling
- HBXL and the UWE (Bristol), in a prior Innovate UK project, produced a prototype for a single, multi-purpose BIM retrofit toolkit for SME builders

Organisational Capabilities

What skills, capabilities, facilities does your organisation have that will be vital for this project?

- HBXL has developed award winning software for over 20 years for the construction sector, with over 12000 licences delivered to the SME market
- HBXL's team has expertise in building and programming technically challenging integrated toolkits such as H&S/SAP/Code for Sustainable Homes
- UWE has a track record in the creation of technical guides for specification and installation, in combination with research into both existing and novel materials
- UWE will also bring together all the data associated with those materials, including physical properties, costs, waste ratios, embodied energy and packaging waste

Partners

If you are looking for partners, what type of partners are you looking for?

- European based manufacturers of retrofitting products and services
- Building products' merchants, installers, local authorities
- European academia to help with European building typologies
- European contractors to test demonstrator toolkit

Administrative Information

Is your organisation academic, SME, big business, etc.

Are you planning on being the Coordinator or a Partner?

HBXL is an SME and planning on being a Partner

UWE Bristol is academic and planning on being a Partner

Your contact details including:

- Joanna Mulgrew (Managing Director –HBXL Group, UK)
joanna.mulgrew@hbxl.co.uk, 07919 150382
- Lamine Mahdjoubi (Director of CABER-UWE, UK),
lamine.mahdjoubi@uwe.ac.uk, 0117 32 83915

Off grid, ultra-fast, zero emission EV charger module

HI XAL

Proposed Approach & Experience

Our Founder & CEO, Ian Parry-Jones has led the design on some of the most advanced projects in Europe, from submarine launched drones, to market leading excavators, he has a proven track record for delivering customer needs on time.

Problems we address:

- **Grid connections** - Slow, unavailable, insufficient, costly and <50% EV capacity by 2050.
- **Off grid charging** - No solution for zero emission, high power construction charging.
- **“Range Anxiety”** - Availability of wide spread ultra-fast EV chargers.

Our product:

We have designed an off grid, ultra-fast, zero emission EV charger module, the electrical modules critical to our IP have been built and tested.

We now seek funding to build the full product for which we have a customer ready to trial.

Organisational Capabilities

Our team of six come from the forefront of technology in a wide variety of sectors from across Europe.

- Mechanical design, including structures, packaging & design for manufacturing.
- Electrical design, including high and low voltage along with physical implementation.
- Software Controls using a full suite of “New Eagle” and “MATLAB”.

Partners

We are looking for partners in the following areas:

- Partners to use our mobile charging units.
- We are looking for partners where our product complements an existing product.
- Hydrogen storage and supply partners.
- Compliance and safety partners.
- Test and validation of facilities relating to high voltage EV charging.

Administrative Information

We are a UK based SME.

We would prefer to be a partner for this funding and we have the capabilities to assist the co-ordinator as required.

Ian Parry-Jones

IanPJ@hixal.net

07866515216

UK

Proposed Approach & Experience

Inadequate communication of verifiable information across the built environment causes financial losses, inefficiencies and wasted resources. Missing is the accessible collaborative systems to share data for TRUSTLESS sign-offs, reporting, and automated workflows.

KATLAS has invested in 10,000 hours of R&D and thought leadership to address the most urgent societal challenges. Specializes in tailoring cutting-edge solutions for SMEs and governments, ensuring privacy, security, and sustainability in global trade, health and energy.

Our solution is a system of digital twins/verifiable personas/asset portfolios that feed information to AI acting all along supply chains - enabling different needs to be met to meet social, resilience, climate change and circular economy imperatives, through 24/7 network communications (digital exchange/marketplace).

Organisational Capabilities

Guided by CEO Edward Cole's regulatory acumen and bolstered by Development Lead Marcos Mayorga's aeronautics and physics proficiency, the project builds on our existing core software development work, our TRL4/5 award winning data management solution for AI assisted healthcare pathway, and offers a highly relevant use case and set of use cases that can transform accountability and planning for the Built Environment, bringing leading operational efficiencies and a launchpad for KATLAS to advance our platform to a leading world solution. We have already developed the critical software components and have access to talent globally through our board level technology partnership and academic relationships.

Partners

We lack industry domain knowledge to inform the early high value role2role protocols (aka smart contracts), forming a catalogue of sharable IP for industry Standards of Care.

We have the expertise to plug-in analytics but we do not have the industry applications and Data Scientists with skills and industry knowledge.

We seek R&D in federating data for analysis – in health or built environment to design a scalable solution across industry.

We seek front-end taskforce to design applications for fail-fast MVPs in an agile framework.

In general, we cooperate with suppliers across the industry that wish to utilise a single sign-on unbroken chain of custody for trustless communications.

Administrative Information

We are an SME with 2 FTE punching above our weight.
Planning on being a Partner

Your contact details including:

Edward Cole, CEO, edward.cole@katlastechnology.io,
mobile:07738460812

London, UK

PIC - 896708838

<https://www.mmu.ac.uk>

Our Expertise: Specialise in big data/machine learning/AI and have applied these techniques to different domains in energy, smart cities, precision agriculture, health, smart cities, manufacturing, etc. to address societal challenges such as in energy, environments, food security, manufacturing, smart cities etc.. We have built capacity and capability in handling and analysing various big datasets such as images including remote sensing (e.g. satellite, drones, robotics), biomedical scans, IoT sensors, smartphones, texts, videos, etc. and capable of rapidly developing scalable AI driven digital platforms/solutions. Some of our exemplar works include:

1. Energy/Smart City: Automatic Real-Time Prediction of Energy Consumption based on Occupancy Pattern for Energy Efficiency Management in Buildings ,

<https://www.youtube.com/watch?v=tvpNNMp8hso>

2. Agriculture: <https://youtu.be/LGKd5Q4Gaig> ; <http://agrione.farm> ;

<https://www.youtube.com/watch?v=cIOWOZ23Tjs> ;

<https://play.google.com/store/apps/details?id=uk.co.mmu.tams.agrilyse>

3. Healthcare: <https://www.youtube.com/watch?v=kNosRndGK9g> ;

<https://braidd.wordpress.com> ; <https://youtu.be/mCwd5kTAweA> ; <https://youtu.be/SnIR-3PWNAw> ;

Organisation capability/offering:

Manchester Metropolitan University (<https://www.mmu.ac.uk>): one of the largest universities in the UK . The University has been a pioneer in modern education since its origins in 1824. It is ranked within the top 200 young universities worldwide, with 90% of research impact graded 'world leading' in Recent REF, and the University is proud to have ambitious plans for the future. **A wide range of the broad expertise and skills for this call we can offer:**

- **Big data analytics/Machine Learning/AI and Robotics**
- **Software/Mobile App development/Digital platform development**
- **Gaming / virtual/augmented reality**
- **IoT, Cyber Physical Systems, Digital Twins, etc.**

The Proposed Idea/Topics: Our aim is to develop novel data-driven AI powered digital solutions for automation, decision making for improved energy efficiency and resource efficiency, achieving Zero-emission in the mentioned calls. With a particular interest in Digital solutions to foster participative design, planning and management of buildings, neighbourhoods and urban districts (Built4People Partnership-HORIZON-CL5-2024-D4-02-05)

Experience in Energy: We have proven track record in developing machine learning models/AI solutions in energy-efficient in building environment by harnessing various data such as environmental sensing data collected by IoT sensors, occupancy data. e.g.

- 1) **Big data analytics platform for Real time detection and decision making for energy consumption in building based on occupancy and environmental measures**
- 2) **Occupant Behaviour Pattern Modelling And Detection In Buildings Based On Environmental Sensing and novel machine learning/AI models.**

Administrative Information

Organisation : *Academic. Prefer to be a project partner*

Contact:

Professor Liangxiu Han,

Faculty lead for AI, Digital and Cyber Physical Systems Theme,

Deputy Director of Big Data Centre,

Department of Computing and Mathematics, Faculty of Science and Engineering,

Manchester Metropolitan University, UK

l.han@mmu.ac.uk

<http://www2.docm.mmu.ac.uk/STAFF/L.Han/>

Proposed Approach & Experience

We can contribute to the Building Information Modelling (BIM) and Digital Twinning with the following

- Integrating buildings monitoring data (e.g. from sensors and IoT devices) into an interoperable Digital Twin for automated, optimised building performance monitoring and management, and preventive maintenance.
- Enabling buildings data interoperability, quality and integrity across the life cycle, in particular to reliably assess and track building performance over the lifecycle, enabling tailored data access for all life cycle's stakeholders (architects, engineering companies, contractors, building owners, financing institutions, etc.).
- We have extensive expertise in building condition monitoring, data traceability, digital product passport techniques for construction products, digital twin, sensors and IoT.
- Environmental and social lifecycle assessment for buildings and products.
- The eco-accounting method developed in our H2020 CIRC4Life project can be integrated within the BIM. The methods for sustainable buildings developed in two Construction iNET projects supported by the EU regional development programme will be valuable for the digital twin of this proposal.

Organisational Capabilities

The ADMEC successfully conducted/conducts a number of collaborative projects, acting as coordinator or core partner, including the EU projects (Horizon Europe REBRLION, H2020 CIRC4Life, FP7 myEcoCost, FP7 cycLED, FP7 CBM Agitators, CIP Eco-innovation Ecolights, Asia link and Asia ICT, etc), project supported by UK Research Councils, Departments, regional development agencies, industries, and other international funding organisations.

We are the school of architecture and built environment, having a rich knowledge base, laboratories and workshops in the areas required by this call topic, including circular energy, building construction and renovation, and others.

The School's well-established **Centre for Sustainable Construction and Retrofit** has a wide network with stakeholders in construction, including industry, consumers, local authorities, and policy makers.

Partners

We are looking for the partners:

- Technology providers in buildings construction and renovation
- SMEs and companies in local and regional value chains to demonstrate the building information (BIM) and digital tools developed by the project
- Developers/organisers of demonstration cases of the project outcome in at least two different countries, with diverse climatic conditions.
- Partners of construction materials recycling and reuse.

Administrative Information

as an academic organisation, we can be the coordinator or a key partner of the proposal.

Contact person: Professor Daizhong Su,
daizhong.su@ntu.ac.uk Tel. +44 115 8482306,
Head of Advanced Design and Manufacturing
Engineering Centre (ADMEC).
School of Architecture, Design and the Built
Environment. Nottingham Trent University, UK.
PIC: 999824494

Distributed Thermal Storage



University of
Sheffield



Proposed Approach & Experience

What is your understanding of the part of the problem/challenge you can solve?

What previous, relevant, work or track record can you bring to the team?

- **Challenge:** *There is a need to better manage peak energy demand through increased flexibility including over longer time periods (multi-day and seasonal) particularly in relation to local heat supply and demand as these decarbonise. This needs to be done while ensuring disadvantaged consumer segments are not left behind and are able to benefit from the decarbonisation of energy supply.*
- **Approach:** *The Advanced Distributed Storage for grid Benefit project is a multi-partner collaboration developing and trialling novel thermal storage technologies that provide inter-day and month storage capabilities. The project is advancing the control technologies required to enable these store to provide grid and consumer benefits, while minimising end-user engagement requirements.*

Partners

If you are looking for partners, what type of partners are you looking for?

- **Trial hosts:** *Municipalities able to host a larger scale deployment of the technology. This could include mixed use dwellings, tower blocks or district heating networks.*
- **Manufacturing scale-up expertise:** *Experience of moving technologies from TRL 7 to 9, and into commercialisation.*
- **Energy service providers and network operators:** *Particularly those interested in exploring or trialling experimentation with tariffs or flexibility services.*
- **Consumer behaviour insights:** *Lifecycle user research to understand technology and tariffs use and acceptance.*

Organisational Capabilities

What skills, capabilities, facilities does your organisation have that will be vital for this project?

- **Existing multi-disciplinary partnership:** *Ready to scale current trial*
- **Storage technologies:** *Novel (IP under development) phase change and thermochemical storage technologies being developed towards TRL 7.*
- **Facilities:** *Test beds across scales from material characterisation to in-home trials, including environmentally controlled testing of full scale thermal stores.*
- **SME partner:** *Offering commercialisation insights, controls platform and potential route to market.*
- **Modelling, optimisation and control:** *Unique intelligent controls development capabilities, utilising data-informed model predictive control.*

The trial site is live so if you'd like to know more, we can arrange a site visit.

Administrative Information

We are an academic organisation, currently partnered on this project with Loughborough University, University of Nottingham and Mixergy Ltd.

We aim to be a project partner.

Contact details:

Dr Robert Barthorpe

r.j.barthorpe@sheffield.ac.uk

United Kingdom

The University of Sheffield PIC - 999976881

CALL – Climate, energy and mobility

Proposed Approach & Experience

Energy use modelling
and routing in vehicle
fleets

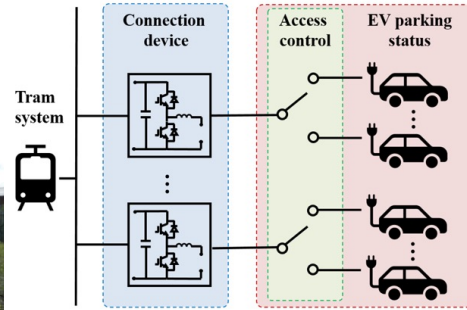
<https://doi.org/10.3390/smartcities3030054>



Simulated collection route



2MW grid connected test
facilities



The schematic of the connection between EV and tram

Experience with direct
tram to vehicle bi-
directional charging

<https://doi.org/10.1016/j.trd.2020.102254>

Partners

Seeking industrial / academic partners to explore holistic approaches to energy and fleet transport systems, Including:

- Light rail to vehicle charging (Road to Rail R2R),
- Fleet vehicle energy simulation,
- Vehicle to grid (V2G) etc.
- Energy Logistics

Organisational Capabilities

We have significant experience in modelling energy generation, storage and stand-alone microgrids.

A 2MW, 1MWh grid connected Lithium based storage facility which can be operated as a stand-alone system for model validation or equipment testing

Development of vehicle and microgrid models for energy systems

Competent in building demonstrator systems

Currently running EPSRC funded FEVER project

(<https://gow.epsrc.ukri.org/NGBOViewGrant.aspx?GrantRef=EP/W005883/1>)

Administrative Information

Prof David Stone – Department of
Electronic and Electrical Engineering
d.a.stone@Sheffield.ac.uk

Dr Erica Ballantyne – Transport Logistics,
University of Sheffield Management School
e.e.Ballantyne@Sheffield.ac.uk

University of Sheffield,
Mappin Street
Sheffield, S1 3JD
UK



<p>Proposed Approach & Experience</p> <p>The lack of live residential building operations data poses development challenges at the property owner level, heightening the risk of missing emissions targets. Our climatetech platform enables data sharing between EU residential building occupiers and owners, emphasising collective principles.</p> <p>The digital solution gathers and shares data on building performance and occupiers' behaviour, fostering a participatory approach for property management. Prioritising energy efficiency, resource sharing and sustainability our solution engages occupiers in data collection, ensuring their inclusion and shared data ownership benefits. This initiative addresses operational challenges, contributing to the transition and aligning with the data-sharing economy objective.</p> <p>With a proven track record in architecture delivery for residential developments, emphasising sustainable impact and community engagement. Our joint expertise excels in translating digital solutions into real-world applications to meet climate reporting demands for sustainable investments to future-proof decision making.</p>	<p>Partners</p> <ol style="list-style-type: none">1. Data and Systems Partner specialising in property, IoT, community data collection, adept at collaborating with external parties for API integration, ensuring secure data handling, and facilitating data sales.2. Digital Product Development Partner3. Energy Supplier and Billing Partner/s4. ESG / Climate Reporting Partner/s5. Energy Behaviour Analysts/Behavioural Scientists Partner6. Sustainable Payment Partner7. Sustainable Reward Partner/s
<p>Organisational Capabilities</p> <p>We bring a unique blend of strategic leadership and product development skills to decipher and integrate multifaceted elements and diverse processes through digital technology solutions, operating at the intersection of sustainable investments, energy poverty, climate issues with a specific focus on the domestic sector.</p>	<p>Administrative Information</p> <p>SO Systems (UK) - SME, Partner</p> <ul style="list-style-type: none">• Weronika Janusek wjanusek@icloud.com EU and UK +48 601287725• Sarah Ho sarah@hoyys.com UK +44 07886732280

Horizon Europe Decarbonisation of the Built Environment Community Building and Brokerage Event

Proposed Approach & Experience

Problem: SME firms and households need help to rapidly reduce carbon emissions

- 1. Renewable energy generation needs to be stored** to adjust to energy consumption patterns and peaks. Businesses and households struggle with **energy storage investments and costs**
- 2. Expensive and cumbersome to obtain green finance** for energy reduction and decarbonisation. Banks want credible control of energy transition capital and carbon impact

Approach: Proposed solution

- **Pools of EVs as a distributed energy storage with an AI model.** Firms and households save capital investments, obtain green finance, reduce emissions, report to the lender with a click
- **AI community energy system for firms, households and vehicle owners.** AI keeps at minimum energy, emissions and critical minerals consumption. Everyone reduces energy costs and scope 3 emissions

Experience: Previous relevant work and track record

- **AI-based analytics & Energy transition.** Oil fracking production and aviation sector. Oil & Gas and energy investments for the global bank. EV transition at the leading UK bank. Commercial AI-based FX analytics trading transactions and real-time control platform.
- **22 years of international leadership.** Sustainability and energy in UBS and EY. Worked with the European Commission. MD in a major European bank. Background leading 30 FTE teams

Organisational Capabilities

Our competitive advantage and capabilities

- **AI model and operational know-how** to forecast business energy flows, predict energy storage capacity of EVs, match and optimally manage renewable energy demand and storage
- Expertise and **business network with financial service partners** required to establish customer acquisition partnerships
- Methods to **manage SME and retail risks** and relationships at scale
- **Collaboration with Newcastle University.** Smart energy systems modelling, artificial intelligence, system optimisation, predictive modelling and control
- **Pilot project at a leading private school** in south London starting April'24 for 9 months

Partners

Looking for collaborations with technical and business partners

1. Electric vehicles and energy distribution

Technical expertise in EV charging points, batteries in EV and BESS. Vehicle-to-grid (VTG) or vehicle-to-house (VTH) technology, EV charging modes in time, extracting consumption and travel data from the electric vehicles

2. Renewables generation technologies

Deep understanding of renewable technologies abilities and limitations (degradation of PV, geothermal engineering, reversible heat pumps, and innovative solar technologies)

3. Energy market operators

Expertise to understand relationships and contract structures acceptable to energy off-takers and renewable energy generators

4. LLM and unstructured data

Expertise and ability to build Large Language Model applications applying commercial AI. Unstructured data and tech specification mining. Enterprise data for LLM.

Administrative Information

SME (<10 people) capable to be a Coordinator or a Partner

TK Services Ltd

Company registration number: 12129131

Registration Date: 30th July 2019

<https://tymurkhusainov.com>

Dr. Tymur Khusainov

me@tymurkhusainov.com

<https://www.linkedin.com/in/tymurkhusainov/>

United Kingdom (London)

CALL/TOPIC - multiple

Design for adaptability, re-use and deconstruction of buildings, in line with the principles of circular economy (Built4People Partnership) – [HO 2024-D4-02-04](#) (21/01/25)

Industrialisation of sustainable and circular deep renovation workflows (Built4People Partnership) - [HORIZON-CL5-2024-D4-02-01](#) (21/01/25)

(Low-disruptive renovation processes using integration of prefabricated solutions for energy-efficient buildings [HORIZON-CL5-2024-D4-01-01](#) (18/04/24))

Proposed Approach & Experience

I have been an academic for the last 15 years (at Cambridge, then the OU, now UWE), but also have many years previous experience of working in industry as a civil and structural buildings engineer.

In academia I have developed a long track record in understanding routes to reduction of carbon emissions from new and existing buildings, both through technical understanding of whole life and embodied carbon, and socio-technical understanding of how transitions happen and decisions are made. I am currently a subtask leader for International Energy Agency [Annex 89](#) on Ways to Implement Net-zero Whole Life Carbon Buildings. I have participated in several Horizon calls previously as well as funding applications to UKRI (including Innovate UK). In the UK I was heavily involved in the development of the RICS whole life carbon assessment first edition, and on the working group of the second edition, and am a member of the UK Net Zero Carbon Buildings Standard and the National Retrofit Hub.

Profile: [here](#), Publications: [here](#)

Partners

I would be interested in talking to anyone who is looking to develop a proposal for one of the above calls, or others in which I could play a useful role. I am likely to be too busy to have much input to D4-01-01 (deadline in April), although happy to discuss with any established team. Calls with a later deadline preferable!

Organisational Capabilities

UWE has considerable institutional experience of and capacity for developing Horizon Europe projects with a dedicated (and excellent) research management team.

I am part of a large and multi-disciplinary School of Architecture & Environment with a team of supportive fellow academics. Close links to the Engineering School and the Bristol Robotics Lab.

UWE is experienced at leading and participating in large multi-disciplinary projects and has excellent networks of industry partners.

Administrative Information

Academic organisation, with experience of Horizon projects Partner, Work Package or Task Leader, or potentially Coordinator

Contact details:

Alice Moncaster, Professor of Sustainable Construction
University of the West of England – UWE (Bristol)

Alice.Moncaster@uwe.ac.uk (UK)

[Participant Identification Code \(PIC\)](#) 999839432

Horizon Europe Decarbonisation of the Built Environment Community Building and Brokerage



Proposed Approach & Experience

Event

Expertise on ethics and fairness/just transitions

SSH and philosophy-based methods

Calls

Horizon-cl5-2024-d4-02-05 on equitable participation

Ethics/SST aspects of all calls

Track Record

- Top 4 in UK for Research Power and 1st in UK for Research Environment
- Over 40 funded projects across more than 10 years, including many Horizon Europe, Horizon 2020, and FP7

Partners

Looking to join a consortium as ethics and/or SSH partner

Organisational Capabilities

Interdisciplinary Ethics Research Group

- Department of Politics and International Studies, University Warwick
- SSH Social Science and Humanities methods
- Expertise in: research ethics, data ethics, climate ethics, democratic participation
- Can bring in other researchers from other Warwick departments if required

Administrative Information

Professor Keith Hyams,
k.d.hyams@warwick.ac.uk
University of Warwick, UK
www.warwick.ac.uk/ierg

PIC code: 999976784