

Welcome to the BUILDSPACE Project! Explore our sixth newsletter and embark on a journey of cutting-edge updates, industry insights, and more.

[View in browser](#)



Enabling Innovative Space-driven Services for Energy-Efficient Buildings and Climate-Resilient Cities

Welcome to our Winter Holiday Newsletter. The project is soon coming to an end, and in this special edition we will explore our most recent material now available on the website!

Take a blanket, pour yourself a hot chocolate and enjoy.



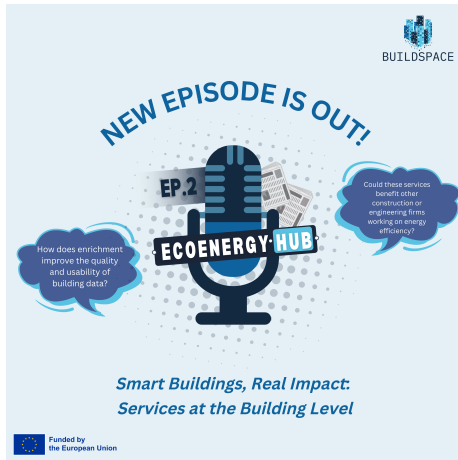
The EcoEnergy Hub Podcast

[EcoEnergyHub Ep. 1: BUILDSPACE Technology for Resilient Cities](#)

We kick off the series with a deep dive into BUILDSPACE. To guide us through this story, we're joined by three distinguished guests:

- **Valeria Fantini** – Project Manager and Environment & Climate HUB Coordinator at ALDA.
- **Stamatia Rizou** – R&D Manager at SingularLogic and Project Leader of BUILDSPACE.
- **Valeria Catalano** – Project Officer at EUSPA, the EU Agency for the Space Programme.





EcoEnergyHub Ep. 2: Smart Buildings. Real Impact - Services at the Building Level

In this episode, we dive into two cutting-edge services developed within Buildspace:

- 1 **Digital Twin Generation.**
- 2 **Digital Twin Enrichment.**

Joining us in this episode are the experts making it happen:

- **Ya Wen** (University of Cambridge)
- **Luis Javier Sanchez** (Universidad Politécnica de Madrid)
- **Piotr Dymarski** (Mostostal Warszawa)

EcoEnergyHub Ep. 3: Future-Proof Power - Predicting and Cutting Building Energy Use

In this episode we're focusing on the energy side of urban resilience with Buildspace's **Built Environment Climate Scenarios Service**.

Joining us are the experts behind this tool:

1. **Victor Ivan Serna** (CARTIF), leading development of the tool
2. **Iason Dimitriou** (NTUA), responsible for solar potential features
3. **Valdis Ratniks** (Riga Planning Region), overseeing pilot implementation



EcoEnergyHub Ep. 4: Beating the Heat - Urban Heat Analysis and Resilience

In this episode, we dive into Buildspace **Urban Heat Analysis and Resilience Service**, a tool that helps cities understand where and why heat builds up and how to respond with effective, targeted solutions. Joining us are the experts behind the service:

- **Patricia San Nicolas Vargas** (Universidad Politécnica de Madrid) – co-leading development
- **Michail Bourmpas** (Municipality of Piraeus) – providing real-world experience from the pilot project



EcoEnergyHub Ep. 5: Staying Above Water - Urban Flood Analysis and Resilience

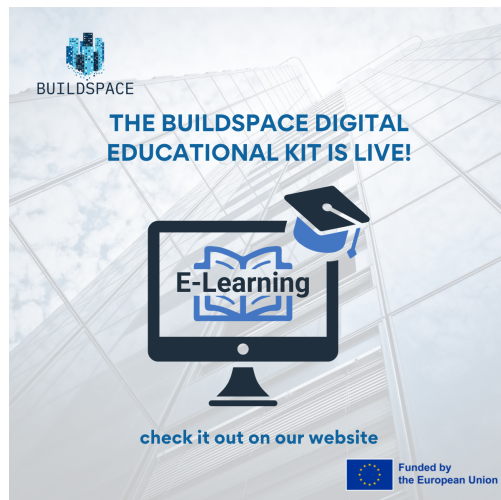
In this episode, we explore one of the most urgent climate challenges for cities: **floods**.

We focus on **Buildspace Service 5: Urban Flood Analysis and Resilience**. Joining us are:

- **Tijs Maes** (Nazka Mapps) – contributing to satellite data integration and flood modelling visualization
- **Kristina Klemen** (IMZI) – both a developer of the service and pilot lead for Ljubljana



The Digital Educational kit



The Digital Educational kit is highly interactive and consists of presentations, pictures, videos, and interactive maps.

This format assists the trainees to navigate themselves easier through each section and explore the various aspects of the project, as well as best practices. In this interactive format and user-friendly environment, the user has the opportunity to understand in depth the processes of the BUILDSPACE services and their applications, through dynamic visualization and interaction with the results.

The kit has been developed in English and is open and available to the public on the [project's website](#).



See Implementation in Action Across Our Pilots

The experience of the building level services in Poland

The University of Warsaw and the Poznan University of Technology provided an ideal setting for testing digital twin and energy efficient building technologies, thanks to their strong academic base and focus on green urban development.

The 2 pilots managed by Mostostal Warszawa demonstrated how combining drone-based and LIDAR data collection with innovative software tools can significantly enhance construction monitoring and thermal auditing. These solutions offer measurable benefits in terms of construction processes' efficiency.






LATVIAN PILOT

Built Environment Climate Scenarios for the Municipality of Riga, Latvia

BUILDSPACE brought its innovative digital services into practice through four pilot sites across Europe. Each pilot addressed a different local challenge. The pilots demonstrate how BUILDSPACE solutions can support smarter construction, sustainable energy planning, and better protection of cities against heat and flooding.

CONTEXT & OBJECTIVES

Pilot Overview

Riga, the capital city of Latvia, is located in Northern Europe and experiences a climate characterized by cold winters and mild summers. With around 600,000 residents, it is crucial to improve the city's heating networks, promote residential house renovation, and encourage the acquisition of alternative energy sources.

Location: Riga, Latvia



Challenges

- Many buildings are poorly insulated and rely on solid fuel.
- Inefficient heating networks and high energy costs.
- The city needs to align with EU climate neutrality goals.

Opportunities

- The large number of unrenovated buildings offers significant opportunities for improving its energy efficiency and climate resilience.
- Rapid growth in solar capacity through installation of panels on unused rooftop, especially flat roofs with high potential.
- Strategic alignment with Riga's Energy and Climate Action Plan 2030 and the EU 100 Climate Neutral Cities by 2050 mission.



The experience of Urban Heat Analysis and Resilience in Piraeus

The pilot demonstrated the potential of the city scale services to support informed decision-making and enhance urban resilience.

Through the identification of urban heat hotspots, the visualization of energy demand, and stakeholder training, the pilot demonstrates the value of combining scientific data with local knowledge. It also highlights the importance of clear communication, user-friendly interfaces, and sustained capacity building to support long-term impact.




SLOVENIAN PILOT

Urban Flood Analysis and Resilience service in Ljubljana Urban Region, Slovenia

BUILDSPACE brought its innovative digital services into practice through four pilot sites across Europe. Each pilot addressed a different local challenge. The pilots demonstrate how BUILDSPACE solutions can support smarter construction, sustainable energy planning, and better protection of cities against heat and flooding.

CONTEXT & OBJECTIVES

Pilot Overview

Ljubljana, the capital of Slovenia, is located between two rivers: the **Ljubljanica** and the **Sava**. Due to its vulnerability to flooding, Ljubljana has a long history of implementing various flood protection measures, yet many parts of the city remain heavily threatened by floods.

Location: Ljubljana, Slovenia



Strategic Importance



The Ljubljana pilot served as a living laboratory for integrating climate resilience, digital innovation, and stakeholder participation. It not only strengthened Ljubljana's own flood preparedness but also provides a transferable model for other European cities seeking to adapt to climate change through data-driven, nature-based, and socially inclusive approaches.

The experience of Built environment Climate scenarios in Riga

This service will become an integral part of the city's efforts towards climate neutrality, supporting the broader goal of creating a sustainable and resilient urban environment. Riga can make significant strides towards its climate neutrality goals by combining efforts to improve energy efficiency and promote solar power. The service's ability to provide actionable insights and facilitate informed decision-making will be key to driving tangible improvements in both energy efficiency and renewable energy adoption across the city.




GREEK PILOT

Urban Heat Analysis and Resilience for the Municipality of Piraeus, Greece

BUILDSPACE brought its innovative digital services into practice through four pilot sites across Europe. Each pilot addressed a different local challenge. The pilots demonstrate how BUILDSPACE solutions can support smarter construction, sustainable energy planning, and better protection of cities against heat and flooding.

CONTEXT & OBJECTIVES

Pilot Overview

Piraeus, a major Greek urban center and one of Europe's most important ports, faces significant challenges related to urban heat and climate change resilience. The city has a high population density and some of the lowest levels of green space per capita in the EU—just 1.56 m² per resident. Its urban fabric is further characterized by extensive areas of abandoned industrial buildings.

Location: Piraeus, Attica, Greece



Strategic Importance

- Protects public health by reducing risks from heatwaves and urban heat islands.
- Enables evidence-based urban planning through high-resolution data and heat maps.
- Can provide support to efficiency and building resilience, reducing cooling demand and energy poverty.

The experience of Urban Flood Analysis and Resilience in Ljubljana

The pilot achieved its objectives, showcasing the potential of city-scale services to promote informed decision-making and boost urban flood resilience.

By identifying urban flood hotspots and visually assessing expected flood damage and urban runoff with BGI impact, the pilot shows the value of combining scientific data with local knowledge.

The pilot also emphasizes the importance of clear communication, user-friendly interfaces, and sustained capacity building for long-term success.



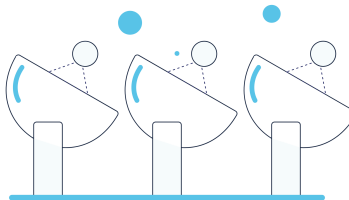
Meet the winners of the Open call

Thank you to all the organisations that applied to enter our BUILDSPACE Community. We are happy to announce the winners:

1. [DAEM S.A.](#)
2. [Qendra Active Mobility](#)
3. [NGO MAKE OUR PLANET GREAT AGAIN](#)
4. [Center for development of varдар planning region](#)
5. [Association for sustainable local and rural development DRENKA](#)
6. [Support Fund for Bucha School](#)
7. [iRevolucija](#)
8. [Association BizByte Hub](#)
9. [Sustainable City Network](#)



Stay tuned! Subscribe to the Newsletter



BUILDSPACE is a Horizon project funded by the EUSPA European Program that developed innovative applications to support buildings' energy efficiency and cities' resilience and sustainability. To develop its services the project utilised cutting-edge technologies, such as satellite data analysis, digital twins, virtual and augmented reality (AR/VR), and drones equipped with thermal cameras.



This newsletter has been produced with the financial support of the European Union within the framework of the Horizon Europe programme. The contents are the sole responsibility of the BUILDSPACE consortium and can under no circumstances be regarded as an expression of the position of the European Union.

SingularLogic

SPACE

EPU
N · T · U · A

[TECHNOLOGY CENTRE] CARTIF



ECMWF

nazka

mobics

alda
European Association
for Local Democracy

Mostostal
WARSZAWA



IMZI
Blue-green Infrastructure
Institute

RIGA
PLANNING
REGION

UNIVERSITY OF
CAMBRIDGE

BUILDSPACE PROJECT

You received this email because you
signed up on our website.

[Unsubscribe](#)

SENT BY
mailerlite