



Press release

REGEN aims to pave innovative pathways for the decarbonisation of EU neighbourhoods

- **REGEN is a new project co-funded by the European Commission that aims to tackle urgent socioeconomic, climate and built environment challenges**
- **Designing a multifaceted toolbox leveraging cutting-edge digital technologies and life cycle sustainability assessments are key to reach decarbonisation of neighbourhoods**
- **This is possible by engaging citizens and influencing behavioural change**
- **REGEN's strategy will be tested in four different demo sites throughout Europe**

Luxembourg city, January 30-31st, 2024. The REGEN project, starting this month, is set to transform urban regeneration across European neighborhoods and cities. With a focus on addressing socioeconomic, climate, and built environment challenges, REGEN aims to pave innovative pathways for decarbonisation through a multifaceted toolbox harnessing cutting-edge digital technologies and life cycle sustainability assessments.

At the core of REGEN's approach is the development of a holistic methodology and framework known as the Assessment Framework for Urban Regeneration (AFUR). This framework will validate a comprehensive catalogue of 50 urban regeneration interventions, estimating the revitalisation potential of urban infrastructure. Leveraging digital twins for monitoring and sustainability methodologies for evaluation, REGEN facilitates benchmarking and selection of intervention strategies.

REGEN prioritises engagement with citizens and stakeholders, ensuring that solutions are tailored to meet their needs. Through social and humanities studies, citizen science, participative design approaches, and living labs, REGEN fosters collaboration and empowers communities in the regeneration process.

The assessments conducted by REGEN will rely on proven life cycle methods, extended to encompass social and economic impacts, thus achieving a holistic sustainability approach. Importantly, end-users will actively participate in the evaluation and validation process, ensuring that interventions align with their needs and priorities.

Demonstration sites across four locations will serve as testing grounds, where individual buildings, streets, and districts will be continuously monitored for energy efficiency, mobility, and circularity. The net benefits of applied interventions will be meticulously assessed, with results informing key policy orientations and guiding broader deployment strategies at the city level.

Furthermore, REGEN plans to replicate regeneration interventions through 10 virtual projects, assessing their applicability across the European Union. This project will not only strengthen the credibility of the interventions catalogue but also facilitate knowledge transfer, laying the groundwork for resilient urban regeneration practices continent-wide.

“We are delighted to embark on this innovation journey with our 22 European partners. REGEN can count on a multidisciplinary team to address one of the great challenges of our society - the regeneration of our neighborhoods - in a holistic and people-centered way, while considering the role of technological innovations.” said Dr. Sylvain Kubicki, Lead Research and Technology Associate at LIST, and coordinator of the REGEN project.

Within the next four years, this 7.5M€ Innovation Action project co-funded by the European Commission will represent a paradigm shift in urban regeneration, merging technological innovation with community engagement to create sustainable and thriving urban environments. By fostering collaboration, harnessing digital tools, and prioritizing the needs of end-users, REGEN is poised to drive lasting change across Europe.

A multidisciplinary team formed by experts from both academia and industry

The consortium is formed by 23 European partners and is coordinated by Sylvain Kubicki, from Luxembourg Institute of Science and Technology (LIST). This includes four Research and Technology Organisations with a rich portfolio in research and innovation in the areas of environmental science, information and communication technology and material science ([LIST](#)), analysis of social changes ([LISER](#)), applied research and technological development on quality of life, energy transition and urban ecosystem ([TECNALIA](#)), sustainable development and innovation in the fields of construction, energy and environment ([NBK](#)). Additionally, the consortium includes four public organisations representing a municipality from the four REGEN demonstration sites of Beckerich, Laredo, Milan and Dublin ([BECK](#), [LAREDO](#), [MIL](#), [DDC](#) and [CODEMA](#)) and two private organisations, focusing on mobility, environment and territory ([AMAT](#)) and with city and regional planning expertise ([ISOC](#)). Finally, the consortium is complemented by a metrology SMEs with strong knowhow in software and consulting services for sustainable building design and environmental performance analysis ([IES](#)), monitoring impact measurement frameworks ([TIL](#)), carrying out specific studies by collaboration with engineers and architects ([S&A](#)), creating of knowledge and its transfer to society in the specific field of migrations and in the general field of social research ([BEGI](#)), capacity management and people counting ([DINYCON](#)), research and innovation in the field of sustainable development and energy transition (R2M FR) and ([R2M IT](#)), integrating electricity supply with energy management services ([ARDEN](#)), real estate information management ([DMO](#)), architectural design firms ([KAW](#)) and ([VAR](#)), realizing innovative building systems ([GTB](#)).

[Project factsheet on the EC database](#)

Project Partners



REGEN is contributing to the implementation of the co-programmed public private partnership in Horizon Europe's Cluster 5, Built4People (B4P) which brings together projects on climate, energy and mobility.



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