

## REGEN

REGEN will pave innovative pathways for the regeneration of European neighborhoods and cities, tackling urgent socioeconomic, climate and built environment challenges.



REGENeration of neighbourhoods towards a low-carbon, inclusive and affordable built environment

## Inspiration

Our Built Environment, and the manner in which we design, construct and maintain it is significantly contributing to the climate breakdown that we are witnessing. Restorative and regenerative approaches can flip this phenomenon, enabling buildings, neighbourhoods and the broader built environment to become part of a broad climate regeneration solution.

## Innovation

REGEN will lead to environmental sustainability, economic revitalization and social inclusion driven by revisited participative urban planning and management approaches.

The proposed REGEN holistic methodology and framework (Assessment Framework for Urban Regeneration) will validate a catalogue of 50 urban regeneration interventions. This framework will be able to estimate the current revitalisation potential of urban infrastructure, with monitoring using digital twins and evaluation based on sustainability methodologies, facilitating the benchmarking and selection of appropriate intervention strategies.

Additionally, the REGEN solutions will be applied with the end-users and all stakeholders in mind, being complemented by social and humanities studies, citizen science, participative design approaches and living labs.

LIST will make the most of MUST, its participative technology for Managing Urban Spaces Together. Previously funded a.o. by the Luxembourg National Research Fund (FNR), this tool enables participative review and decision-making for citizens and stakeholders involved in urban planning projects.

## Impact

REGEN will achieve a holistic sustainability approach, with the end-user being an active participant in the evaluation and validation of urban regeneration interventions. REGEN will apply this in 4 demonstration sites where individual buildings, streets and districts are to be constantly monitored for their energy, mobility and/or circularity. The net benefits of applied interventions will be monitored and assessed on an individual basis. The results will be upscaled at city level, informing key policy orientations already in place and paving the way for broader deployment.

### Partenaires

Luxembourg Institute of Science and Technology (LIST) , R2M Solution (FR) , IES R&D (IE) , Fundación Tecnalia Research & Innovation (SP) , Luxembourg Institute of Socio-Economic Research (LU) , Nobatek INEF4 (FR) , The Impact Lab (LU) , Commune de Beckerich (LU) , Schroeder et Associés s.a. (LU) , Ayuntamiento de Laredo (ES) , Begirune Fundazioa (ES) , Dinycon Sistemas , Comune di Milano (IT) , Agenzia Mobilità Ambiente Territorio (IT) , R2M Solution SRL (UK) , Dublin City Council (IE) , Codema - Dublin's Energy Agency (IE) , Arden Energy Limited (IE) , Demo Consultants (NL) , KAW Architecten en Adviseurs 3 BV (NL) , Vervoort Architecten (NL) , GTB LAB (NL) , Isocarp Institute Center of Urban Excellence (NL)

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### Contact

5, avenue des Hauts-Fourneaux  
L-4362 Esch-sur-Alzette  
tél : +352 275 888 - 1 | [LIST.lu](http://LIST.lu)

Dr Arch. Sylvain KUBICKI ([sylvain.kubicki@list.lu](mailto:sylvain.kubicki@list.lu))  
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