#28
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Re-UNITA RESEARCH Newsletter

Editorial

Living Lab approach is transformative for societal challenge-driven research and innovation

The **Living Lab approach is transformative for societal challenge-driven research and innovation**, exemplified by the UNITA alliance's commitment to this methodology. Living Labs are open innovation ecosystems in real-life environments, utilizing iterative feedback processes throughout the innovation lifecycle to create sustainable impact. This paradigm allows anyone to contribute to knowledge generation, ensuring broad and inclusive participation.

Key features of Living Labs include co-creation and testbed facilities, offering physical and virtual spaces for ideation, validation, and deployment of innovative projects. They operate in real-life settings for observation and impact assessment, emphasizing user-centric innovation by gathering data from users at all stages of the innovation process. The Quadruple Helix Model involves academia, the public sector, private sector, and civil society in the innovation system.

At the alliance level, the Living Lab approach has led to significant achievements, such as increased territorial impact through the synergic efforts of Work Packages 2, 5 and 6 of the Re-UNITA project. This initiative has driven participatory transformation projects, provided innovative solutions to community challenges, and enhanced the technological maturity and societal acceptance of research results. It has also developed entrepreneurial initiatives meeting community needs.

The UVT Digital & Green Living Lab, a member of the European Network of Living Labs (ENoLL), exemplifies this approach. The recent election of the UVT Living Lab coordinator and Director of the UVT Centre for Innovation and Technology Transfer to the ENoLL Board of Directors highlights UVT's leadership.

The UVT Living Lab focuses on meaningful digital and green transformation for community well-being, structured around three pillars: Digital, Green, and Wellbeing, with Education and Research & Innovation as catalysts. Key projects include a digital tool for text readability assessment for children, domestic and industrial sorting robots, 3D modelling and printing for circular economy prototypes, and biodiversity-centric urban regeneration projects. Other initiatives involve converting organic waste to fertiliser, digital tools for agricultural land assessment, urban and rain gardens, an atlas for the visually impaired, sign language translation hardware and software, and a cancer prevention behaviour assessment tool.

The UNITA community is invited to the Open Living Lab Days, held in Timisoara from September 25-27, 2024, to engage with the global network of open innovation practitioners.

This event promises to be a hub for exchanging ideas and fostering collaborative projects that can drive meaningful societal change.

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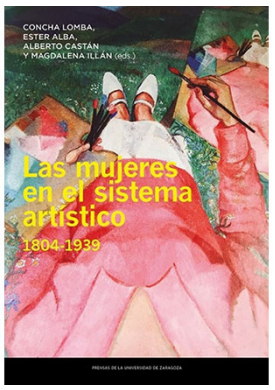
Cultural Heritage



Women Artists in Spain and Europe in the Contemporary Era

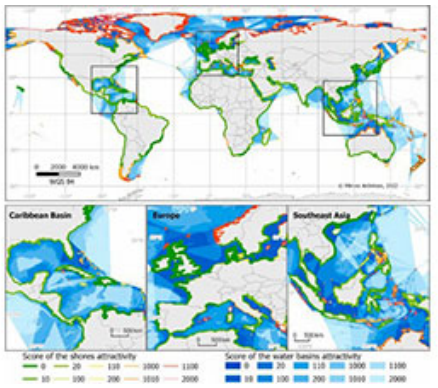
The University of Zaragoza is currently leading the research project *Las artistas en la escena cultural española y su relación con Europa this project, 1803-1945,* funded by the Spanish State Research Agency (2021-2025), which focuses on the study of the artistic heritage created by women during the contemporary period. It is a continuation of a previous project (2018-

Circular Economy

Rethinking the value of objects. Death and rebirth in the circular economy

Our lives are increasingly linked to the objects we buy, but their disposal takes place where it is cheapest, causing environmental and social damage. The circular economy aims at a new semiotics based on Reduce, Recycle and Reuse. Just as the funeral is a sacred rite for human beings, we should rethink the value and end of objects, to prevent them from

Renewable Energies



The suitability of seas and shores for building submarine power interconnections

The need for electricity will increase exponentially in the near future, with the electrification of important sectors of the economy (e.g. transport, home heating), a need that will increasingly be met by renewable energy sources, especially solar and wind. For an optimal and efficient use of the electricity produced, it must be able to be transported in large quantities and over long distances between production and consumption areas,

2021), both led by Professor of Art History, Dr Concha Lomba, and involving specialists from other Spanish universities.

The project aims to establish a new theoretical framework applying the gender perspective to develop a non-exclusionary historiographical discourse. In this way, it has approached the study of artistic creations by women as well as their performance in other cultural fields (such as art criticism and theory), bearing in mind the gradual changes that have taken place in contemporary Spanish and European society.

Part of the results of these projects have been included in the online database of women artists created for the purpose [maes.unizar.es], on which work continues with the aim of raising awareness of the role of women in contemporary cultural scene.

University of Zaragoza

becoming polluting waste, increasing the social divide in areas close to landfills and incinerators. This study is conducted by Dr. Grazia Sveva Ascione, of the Department of Economics and Statistics 'Cognetti de Martiis' of the University of Turin.

University of Turin
You can read more here: https://urly.it/3atr0

generally by means of overhead high-voltage lines and underground and submarine electrical cables. The crossing of seas and oceans by electric cables raises problems specific to the environment crossed: the depth of the water basins, the distance between the points on the shore, as well as the transfer potential of the areas put in contact: the electricity generation potential and the consumption potential.

This study assesses the favorability and suitability of ocean basins and shore areas through the lens of physical characteristics that can constitute limiting factors against the construction of these infrastructures.

The analysis reveals that over 40% of the total length of coastlines and over 20% of the maritime surface is favourable for the construction/installation of submarine electric cables with the current level of technology, which highlights the vast expansion potential of this type of infrastructure.

The study was carried out in collaboration with the Joint Research Centre Petten – The Netherlands, part of the Directorate for Energy, Transport and Climate of the European Commission.

University of West of Timisoara
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Mircea Ardelean (UVT & EC-JRC) & Philip Minnebo (EC-JRC)

PhD student of the month

Carmen Rodrigo Carbó, a predoctoral researcher at Institute for Health Research Aragón. She is currently pursuing a PhD in Medicine at the University of Zaragoza, Spain, under the supervision of Drs. Fernando
Civeira, Rocío Mateo, and Itziar Lamiquiz. The aim of her thesis is to investigate various nutritional interventions in patients with type 2 diabetes mellitus.

Carmen was one of the finalists in the latest edition of the "My 3min PhD Thesis" european contest, and this was her experience: “It has been a very intense week where I have learned a lot and met wonderful people. The atmosphere with the colleagues was fantastic; we all supported and helped each other, forming an incredible team. We were taught to speak in public more effectively, even with theater classes, which was very enriching. It was a pleasure to spend this week with some of the kindest, most supportive, and amazing people I have ever met. I am grateful to all the people and institutions that made this week possible, and I encourage other colleagues to participate in these events”

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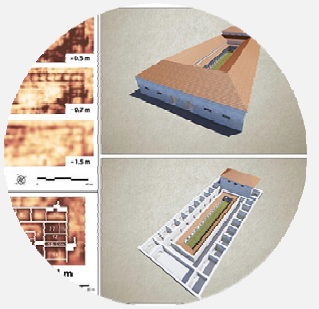
https://www.linkedin.com/in/carmen-rodrigo-carb%C3%B3-a69184229/

Woman researcher of the month

Alessia Giordana is a researcher in Inorganic Chemistry at the Department of Chemistry, University of Turin. Among her research topics, she has been mainly concerned with the synthesis and characterization of inorganic materials, using innovative and green synthetic procedures and focusing on a circular economical approach, particularly on the valorization or transformation of agrifood waste. Her actual project deals with the study of bioactive inorganic materials with antimicrobial activity, with application in food packaging and wound healing.

Infrastructure of the Month



The **Geoarchaeology Laboratory** at the Institute of Advanced Environmental Research, West University of Timisoara, was established to pioneer advancements in geophysical and environmental research. Our laboratory excels in innovative methodologies for shallow geophysics and high-resolution remote sensing. Beyond this, we are deeply engaged in soil science and absolute dating, equipped with cutting-edge technology like advanced ITRAX systems and OSL dating equipment. Guided by leading experts, our interdisciplinary team unites researchers from UVT, other Romanian institutions, and various international collaborations. This collective effort fosters a dynamic and collaborative environment, driving forward comprehensive advancements in environmental and archaeological studies.

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