

DISCOVER  
CiTUA  
RESEARCH UNIT

SINCE 2020

# DISCOVER CiTUA RESEARCH UNIT

SINCE 2020

This work has been funded by national funds, Fundação para a Ciência e a Tecnologia (FCT) in the framework of CiTUA project (10.54499/UIDB/05703/2020).



# The R&D Unit



## About CiTUA

CiTUA is an interdisciplinary R&D unit based at Instituto Superior Técnico (IST). Initially focused on the areas of Territory, Urbanism, and Architecture, it has since expanded to include Environment, Governance, and Public Policies. It aims to establish a knowledge base, co-learning and co-production processes addressing diverse contemporary challenges. This involves integrating expertise and encouraging creativity on the interconnectedness of multiple interdisciplinary factors in shaping future cities.

CiTUA also aims to enhance higher education and research, prioritizing research career paths for young PhD holders, advanced training, and international networking. CiTUA's research rationale embraces a holistic perspective, promoting a collaborative research environment.

In a context marked by global challenges such as climate change, digital transition and ageing of the population, in which it is urgent to pursue a sustainable and inclusive way of life, CiTUA questions:

How to strategically plan territory while fostering cohesion?

Which public policies are most adequate?

How can quality of decision be ensured? Is it a utopian vision or an attainable reality?

# Who is CiTUA

## Scientific Board

### EXECUTIVE COMMITTEE

President of CiTUA

1 Coordinator from each RL

1 Executive Secretary

Principal Investigator (PI)

Co-Principal Investigator (Co-PI)

### RESEARCH SUPPORT OFFICE (RSO)

Science and Communication Manager

Administrative Support

*CiTUA is organized in a simple but effective governance model to carry out the activities overviewed by the scientific council (SC) and managed by the six members of the Executive Board (EB): President of CiTUA, 1 coordinator of each Research Lab (RL), and one executive secretary.*

### EXTERNAL ADVISORY PANEL (EAP)

*The External Advisory Panel (EAP) at CiTUA has two branches: a scientific branch and a practice based branch, comprising members from academia and civil society. This EAP monitors progress and provides strategy advice every two years.*

### STAKEHOLDER ENGAGEMENT

*The CiTUA structure consistently engages with stakeholders, including funders, regulators, industry partners, and the public, to ensure alignment with broader societal needs and expectations.*

### EXECUTIVE COMMITTEE

President of CiTUA

1 Coordinator from each RL

1 Executive Secretary

Maria do Rosário Partidário *President*  
Ana Tostões *H Lab (coord.)*  
Franciso Teixeira Bastos *DH Lab (coord.)*  
Margarida Monteiro *Sensu Lab (coord.)*  
Rosário Macário *PPol Lab (coord.)*  
Rute Martins *Executive Secretary*

### RESEARCH SUPPORT OFFICE (RSO)

Science and Communication Manager

Administrative Support

### EXTERNAL ADVISORY PANEL (EAP)

Academic and Practice branch

Wilfried Wang  
*University of Texas at Austin - USA*  
Hoidn Wang *Partner - Germany*

Sophia Psarra  
*University College London - UK*

Francesco Lo Piccolo  
*University of Palermo - Italy*

Roger Vickerman  
*University of Kent - UK*

Lone Kørnøv  
*Aalborg University - Denmark*

Francisco Furtado  
*Competence Centre for Planning, Policy and Foresight in Public Administration - Portugal*

Maria do Carmo Figueira  
*Portuguese Environment Agency - Portugal*

Gonçalo Byrne  
*Gonçalo Byrne Arquitectos - Portugal*

31  
Integrated  
Members

73  
PhD Students



### Involved Institutions

Universidade da Beira Interior (UBI)  
Universidade de Coimbra (UC)  
Universidade de Évora (UE)

To enhance competitiveness, CiTUA's activity plan for 2025-2029 will maintain its current trajectory while adjusting key themes and research priorities to address contemporary challenges. This involves revamping the existing research agenda and fostering a collaborative research culture starting from mid-2024.

#### KEY OBJECTIVES

1. Reconfigure the research framework to prioritize CiTUA core research themes. Foster researchers' creativity, encouraging integrated research pursuits to ensure focused and innovative efforts.
2. Improve competitiveness through well-organized strategies. Foster increased participation in competitive research projects and enhance their capacity in securing external research funding.
3. Strengthen connections to real-world applications, enhancing impacts in multiple areas with benefit to individuals, communities and organizations through collaborations with public, private, and third sector.

#### Strategic Research Areas

The CiTUA research conceptual framework revolves around four main fundamental pillars in CiTUA genetics, represented by Research Labs (RL) that foster the development and interconnection of research projects across multiple thematic areas.

#### Research collaborative labs

**Strategies and Transitions for Sustainability - SENSU Lab** - focuses on transition pathways that enhance societal and environmental values in both urban and non-urban areas, based on sustainability policy, planning, design, and assessment. It involves multifaceted approaches that consider the interconnectedness of social, economic, and environmental factors.

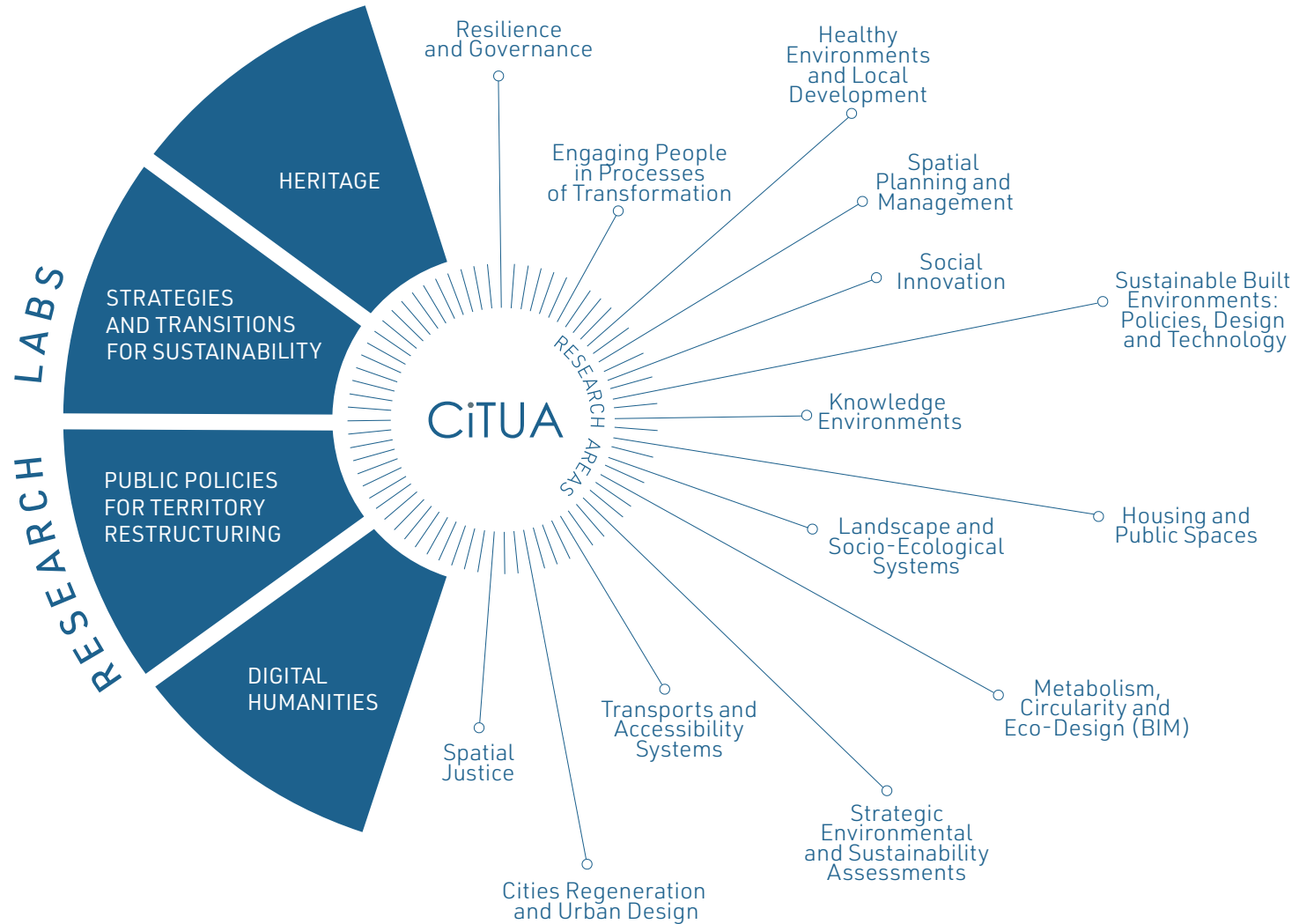
**Public Policies for Territory Restructuring - PPOL Lab** - focuses on the formulation and reformulation of territorial policies to support urban and non-urban restructuring through planning and management approaches. It aims for quality decision-making across various institutional levels, emphasizing ex-post analysis for better policy outcomes and regulation.

**Heritage - H Lab** - utilizes CiTUA international experience to deepen its understanding of territory and built spaces across historical, contemporary, and future contexts. The approach emphasizes the importance of heritage for environmental and urban recovery and resilience, prosperity, knowledge, and inclusion.

**Digital Humanities - DH Lab** - is an innovative component of CiTUA emphasizing data literacy. It is focused on digital technologies in mapping, data visualization, collection, and analysis as well as information management. The aim is to conduct reliable data work and advanced design techniques for clear communication and collaboration across disciplines, sharing spatial expertise and promoting responsible information dissemination.

These LABs create a broad space for knowledge co-creation and development, clustering a pool of multiple sub-theme priorities, acting as dynamic components of CiTUA research agenda, enabling research projects development in multiple combinations. Sub-themes are likely to intersect with more than one lab, facilitating cross-relations among distinct CiTUA research aims.

While CiTUA has made significant contributions within H Lab and SENSU Lab, PPOL lab and DH Lab are new and promising research pathways that stimulate connections in existing thematic fields.



# Projects

————— *Collaborative*

2018 ————— 2023

INTERNATIONAL

## TOPIO

Towards Democratic  
Landscape Observation  
Through Geoinformatics and  
Public Participation

Dec. 2023 – Nov. 2027 | MCSA SE Horizon Europe

TOPIO project harnesses the power of citizen science, geoinformatics, AI and public participation to empower individuals in actively shaping landscape decisions. It offers a dynamic solution to bridge the gap between acknowledgment and action in the pursuit of sustainable development. With an emphasis on interdisciplinary training, innovative monitoring techniques and socio-cultural dimensions, TOPIO fosters a dialogue among stakeholders and proposes actionable recommendations for policymakers. TOPIO aims to give people an active role in decision-making on landscape by means of Citizen Science, Geoinformatics (Earth Observation and GIS), Artificial Intelligence and Public Participation to promote the area's sustainable development.

*CiTUA's Team*  
Isabel Loupa Ramos  
Fátima Bernardo  
Jorge Batista e Silva  
Rute Martins

## IN:Transition

### Planning for Urban Transitions

Oct.. 2023 – Dec. 2024 | Erasmus + EMDS

The project In:Transition on planning for transitions allows students to examine phenomena attributed to a wide urban/regional domain, such as gentrification, the use of public spaces, multiculturalism, pervasive neoliberal urban developments and their effects, policies for migrants and minorities, the effects of zoning mechanisms, the role of place-based interventions, urban/rural synergies, biodiversity loss, etc. This form of learning experience contributes to the professional responsibility of future urban planners by enhancing their role in the field of law, negotiation, and mediation.

It is for all these reasons that this EMJM proposal for the creation of a EMJM makes, in our understanding, a lot of sense for the European context and beyond, namely by taking advantage of the excellence of the three HEI involved. The future EMJM programme includes the extra-European context, such as the Global South, with specific challenges of a diverse nature, and where innovative methodologies are urgent.

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#### *CiTUA's Team*

Jorge Gonçalves  
Maria do Rosário Partidário  
Isabel Loupa Ramos  
Margarida Monteiro  
Rute Martins

## GreeNexUS

### Green-health-safety Nexus for new Urban Spaces

Jan. 2023 – Dec. 2026 | Horizon Europe

On our increasingly anthropized planet, many cities face multiple societal and environmental challenges. The link between urban green spaces and people's health and safety is an emerging and urgent topic. Air pollution, urban climate, reduced contact with nature, limited access to quality green spaces, and infrastructure discouraging sustainable mobility and active lifestyles threaten the well-being of an aging society and increase social disparities. GreeNexUS consortium (20 institutions from 9 European countries) collaborate on a Training-through-Research program involving universities, research centers, companies, NGOs, and local authorities. They share a vision of fostering greener, healthier, and safer urban areas in Europe's cities and towns.

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*CiTUA's Team*  
Miguel Amado

## BOSS

### Bauhaus of Seas Sails

Jan. 2023 – Dec. 2025 | European New Bauhaus Initiative Horizon Europe

Presented as a manifesto in 2020, the Bauhaus of the Seas responded to the New European Bauhaus challenge posed by European Commission President Ursula von der Leyen. This vision addressed the climate crisis as a global, complex hyperobject resulting from generations of human exceptionalism and the humans vs nature dichotomy. Only an interdisciplinary, intergenerational, and interspecies movement can address the problem's complexity and scale to enact meaningful change.

The vision evolved into a New European Bauhaus mobilization around the most critical shared space: the seas, oceans, and other water bodies. From this mobilization, the Bauhaus of the Seas Sails consortium was created and granted EU funding in 2022 for the first New European Bauhaus 'lighthouse demonstrators'. Officially launched in Lisbon in early 2023, the consortium includes 18 academic, cultural, and territorial partners in 7 cities and regions across 4 aquatic ecosystems.

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*CiTUA's Team*  
Francisco Teixeira Bastos  
Teresa Heitor

## BioValue

### Biodiversity value in spatial policy and planning leveraging multi-level and transformative change

July 2022 – June 2025 | Horizon Europe

The aim of BioValue is to leverage transformative change in spatial policymaking, planning practices, and infrastructure development, thereby enhancing opportunities for valuing biodiversity in support of EU strategic actions. The project aims to safeguard and increase biodiversity by focusing on key steps of the mitigation hierarchy, addressing indirect drivers, renewing EU finance strategy within spatial planning, and better articulating instruments for mainstreaming biodiversity concerns into other sectors across different levels of governance. The consortium consists of three universities, a research institute, a non-profit organisation, a small and medium-sized enterprise (SME), and two local authorities (public bodies), representing a total of four EU Member States.

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*CiTUA's Team*  
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Margarida Barata Monteiro  
Isabel Loupa Ramos  
Jorge Batista e Silva  
Ana Sá  
Rute Martins



## MiLAND

The impact of migration on landscape identity in an urban and a rural context

Oct. 2021 – Dec. 2023 | Research Foundation Flanders (FWO)

The interactions between individuals and their environments are crucial in shaping their identities. People develop a sense of belonging to their surroundings through daily interactions, which significantly impacts their quality of life. Displacement, whether due to environmental conservation efforts, war, or voluntary migration, can profoundly affect this connection, making it difficult for individuals to feel at home in new settings. This research explores how previous living environments influence one's connection to a new landscape, with a focus on how migrants may seek familiar features that remind them of home. It also examines the role of cultural backgrounds and shared values in how landscapes are perceived and valued, which can lead to segregation between migrants and natives. The project involves four phases: participatory landscape character assessment, focus groups, surveys, and in-depth interviews, conducted in both rural and urban settings in Belgium and Portugal, to explore landscape identity formation across different contexts.

*CiTUA's Team*  
Isabel Loupa Ramos  
Fátima Bernardo

## SEA-UNICORN

Unifying approaches to Marine Connectivity for Improved Resource Management for the Seas!

Nov. 2020 – Apr. 2024 | Cost Action

This COST Action brings together a large, international and interdisciplinary group of scientists and stakeholders with diverse yet complementary expertise. Our goal is to advance knowledge and unify concepts and approaches in the emerging field of Marine Functional Connectivity (MFC) research to design and apply research effectively contributing to the conservation and sustainable management of the Seas.

*CiTUA's Team*  
Maria do Rosário Partidário  
Rute Martins

## DREAMS

Digitally supported Environmental Assessment for Sustainable Development Goals

Oct. 2020 – Set. 2023 | Innovation Fund Denmark

The background of the project is that environmental assessment (EA) is applied at the early planning and design stages of a proposed activity so that authorities, the public and other stakeholders can form a view about how acceptable the activity's sustainability performance is, and what conditions need to be applied to mitigate potential negative impact and support sustainability. EA is legally required and recognised as a critical part of authorities' development approval process and of public and private developers' design of strategies and projects (European Commission, 2018).

DREAMS project aims to promote progress on Sustainable Development Goals (SDGs) by digitally transforming the way society accesses and communicates information about environmental impacts of projects and plans in order to enable the best decisions towards green transition in a transparent and inclusive democratic process. This project has 14 partners from Denmark and Portugal

*CiTUA's Team*  
Maria do Rosário Partidário

## SEA-ASIA

Strategic Environmental Assessment for Capacity Development in Higher Education in Asia

Jan. 2019 – Nov. 2023 | Erasmus+ Capacity Building in Higher Education

The purpose of the Erasmus+ SEA ASIA programme is to strengthen cooperation between the universities in the EU (Denmark, Portugal and Sweden) and Southeast Asia (Bangladesh, Laos and Vietnam) and strengthen the capacity of universities to carry out high-quality higher education in strategic environmental assessment (SEA).

*CiTUA's Team*  
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## TULIPS

Demonstrating lower polluting solutions for sustainable airports across Europe

Jan. 2022 – Dec. 2025 | Horizon 2020

The TULIPS consortium, supported by the EU under the European Green Deal, aims to enhance sustainability at airports by advancing low-carbon mobility over the next four years. This collaboration involves leading airports, airlines, knowledge institutes, and industrial partners across Europe, focusing on significantly boosting sustainable aviation practices. The project will demonstrate various actions at four diverse airports to highlight their impact on European climate goals and promote the decarbonisation of the aviation sector. The results, including practical roadmaps and innovative solutions, will be shared widely, aiding other airports and the broader aviation industry in adopting these sustainable practices. Notably, demonstrator projects are planned at Amsterdam Airport Schiphol, with Oslo, Turin, and Larnaka airports also participating in implementing these innovations.

*CiTUA's Team*  
Rosário Macário  
Jorge Miguel dos Reis Silva

## HiTimber

Sustainable High-Rise Buildings Designed and Constructed in Timber

Sep. 2017 – Dec. 2020 | Erasmus + Strategic Partnerships

HiTimber project aims to fulfill the future demands in higher education including innovation, sustainability, international, trans-disciplinary and entrepreneurial approaches for the development of a new study module/elective element in sustainable high-rise timber buildings.

The wider objective of this project is to develop a trans-disciplinary and international course/ elective element in the EU HEIs in the design, construction and management of sustainable high-rise timber buildings to enhance the quality and relevance of students' knowledge and skills for future labour market needs. The strategic partners had the competences and the motivation to develop higher education as trans-national cooperation involving industrial partners. Each HEI have their own fields of expertise in sustainability, teaching methodology, design, construction and management. Transnational character of project supported to development of international and inter-cultural competences of the students and teachers. This project has 6 international partners and IST.

*CiTUA's Team*  
Miguel Amado

## ROBUST

Urban Outlooks: Unlocking Synergies

Jan. 2017 - Feb. 2021 | H2020

ROBUST is a European research project involving 24 partners from 11 countries. It is coordinated by Wageningen University in the Netherlands. The project receives funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement No 727988. ROBUST kicked off in June 2017 and will run for 48 months until 2021.

The overall goal of ROBUST is to a) advance our understanding of the interactions and dependencies between rural, peri-urban and urban areas and b) to identify and promote policies, governance models and practices that foster mutually-beneficial relations. Improved governance arrangements and synergies between rural, peri-urban and urban areas will in turn contribute to Europe's smart, sustainable and inclusive growth, maximizing the creation of rural jobs and value-added.

To achieve these goals, ROBUST works with 11 Living Labs and five Communities of Practice.

*CiTUA's Team*  
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Isabel Loupa Ramos  
Margarida Barata Monteiro  
Rute Martins

## SPHERA

Supporting the Professionalisation of Health Engineering studies and Related areas in Asia

Oct. 2016 – May 2020 | Erasmus+ Capacity Building in Higher Education

The project deals with forms of socio-urbanistic and housing intervention in the urban margins of African cities of Lusotopia, in the new millennium, focusing on those that contribute to improving the quality of inhabit and the sustainability of habitat of low-income groups. In the current context of accelerated urbanisation, globalisation and increasing socio-spatial inequalities, inscribed in the neoliberal paradigm, it is urgent to reflect on the impact of such interventions, as well as on how to construct a more inclusive habitat and on how and what to do to reinforce them. Luanda and Maputo, with similar structural constraints, are taken as case studies.

*CiTUA's Team*  
Jorge Gonçalves

## RMB

Reuse of modernist buildings.  
Design tools for sustainable  
transformations

Jan. 2016 – Dec. 2019 | Erasmus+ EMJM

RMB is focused on the refurbishment of the existing housing stock, as well as conversion from other building typologies such as warehouses, offices and public building with special focus on the post WW2 modern era.

The goal is to initiate an educational framework of common definitions, approaches and methodologies on a European level, based on existing research, educational practices and reference projects in the program countries and associated states. The follow up is a Joint Master program on reuse, offered by a consortium of five European universities.

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### *CiTUA's Team*

Teresa Valsassina Heitor  
Alexandra Alegre  
Ana Tostões  
Francisco Teixeira Bastos  
João Vieira Caldas  
Miguel Amado  
Patrícia Lourenço

NATIONAL

## R2U

'Technologies | modular  
system

Sep. 2022 – Dec. 2025 | PRRR

The "R2U Technologies | modular system" Innovation Pact aims to develop a groundbreaking modular construction concept tailored to meet market demands and sustainability challenges. This pact intends to equip businesses, academia, and HR with the necessary resources, knowledge, and skills to establish a national cluster for the global modular construction sector, aiming to launch 18 internationally viable PPS by project end. R2U Technologies organizes into 7 Work Packages, each targeting a different part of the construction value chain, from design to operation and maintenance, to foster a synergistic network that reduces reliance on external markets. The project involves around 50 participants.

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### *CiTUA's Team*

Alexandra Alegre  
Francisco Teixeira Bastos  
Teresa Heitor

## SIZA\_3CITY

Habitação colectiva de Álvaro Siza: projetos, contextos e vivências (Porto-Lisboa-Nova Iorque)

Feb. 2022 – July 2024 | FCT

This project aims to examine the evolution of Álvaro Siza's collective housing designs over the past five decades, analyzing both the architectural projects – spanning social and private housing – and their social and urban contexts, as well as the dynamics of the residents within these spaces. Employing a comparative study of three distinct Siza housing projects, each representing a different phase in the architect's career and societal changes, the research seeks to explore how changes in Siza's designs reflect broader social transformations. Key areas of focus include the motivations behind the housing projects, differences and similarities in design across different times and contexts, impacts of urban changes on how these spaces are used and valued, the evolving social profiles of the residents, and their reasons for choosing and living in Siza-designed homes. This approach highlights the innovative nature of examining temporal sequences to understand architectural and social evolution.

*CiTUA's Team*  
Alexandra Alegre  
Teresa Valsassina Heitor

## SIZA baroque

Sep. 2021 – Sep. 2024 | FCT

The “Siza Baroque” research project explores the potential connections between Baroque concepts and Álvaro Siza's architectural work. This project aims to examine Siza's design methodology, the evolution of his work over time, and the transformations within his projects through a Baroque perspective. By juxtaposing Baroque elements with Siza's architecture, the research seeks to uncover deeper insights into what constitutes the Baroque and enhance understanding of Siza's architectural genius. The primary goal is to assess the influence of Baroque ideals in Siza's designs, suggesting that his architecture transcends time, aligning more closely with historical figures like Borromini rather than contemporary architectural trends.

*CiTUA's Team*  
Ana Tostões

## SIZA

A monumentalidade crítica de Álvaro Siza: Projetos de Renovação Urbana depois da Exposição internacional de Lisboa de 1998

Sep. 2021 – Mar. 2024 | FCT

The research project 'Álvaro Siza's Critical Monumentality - Urban Renewal Projects after the 1998 Lisbon International Exhibition (Expo'98)' aims to identify, characterize, discuss and reflect on Álvaro Siza's projects within the context of the urban policies launched at the beginning of the 21st century. The project's starting point is to analyse the work of the Portugal Pavilion in the context of the urban renewal project that the Lisbon International Exhibition provided. The Pavilion, which was conceived without a specific programme beyond the temporary programme of being Portugal's representative building at Expo'98, is currently seen as a laboratory for Álvaro Siza's architecture and a reference project within Portuguese architectural culture. In this sense, an interpretative and analytical study is essential to map and qualify its qualities and concepts.

*CiTUA's Team*  
Ana Tostões

## BRIDGE

Bridging science and local communities for wildfire risk reduction

Mar. 2021 – Mar. 2024 | FCT

BRIDGE is an action-research project aimed at integrating different forms of knowledge and action to reduce wildfire risk. Local populations possess experiential knowledge that should be cross-checked with scientific information for detailed risk assessment. Mitigation measures need to be incorporated into local governance and the daily routines of forest users.

The integrated approach will be implemented through participatory-action research (PAR) in the Monchique region. PAR involves cooperation among scientists, governance agencies, decision-makers, communities, and local leaders to: i) assess territorial vulnerabilities and resources, and ii) identify risk reduction alternatives. This local involvement builds knowledge with the community, raises wildfire risk awareness, and fosters commitment to risk reduction policy.

*CiTUA's Team*  
Maria do Rosário Partidário  
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Isabel Loupa Ramos  
Margarida Barata Monteiro  
Rute Martins

## CUCA\_Re

Healthcare facilities: strategies for the future of cure and care

Feb. 2017 – Dec. 2020 | FCT

The goal is to study 20th-century healthcare buildings and their role in welfare policy, addressing future challenges driven by technological and medical advancements and the need for a sustainable built environment. Healthcare buildings, crucial to civilization, face potential alteration, deactivation, or demolition due to societal transformations.

In the last 50 years, global improvements in healthcare, education, and emancipation have reduced poverty and famine, thanks to innovations in science and technology. However, this progress has also had damaging effects. Renewing existing structures conflicts with the pursuit of the new, which dominates our behavior.

This study aims to develop knowledge for responsible planning and design, addressing environmental and cultural sustainability. It will significantly contribute to understanding healthcare buildings and their rehabilitation by surveying existing types, developing technological know-how, and considering conservation and rehabilitation strategies.

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*CiTUA's Team*  
Ana Tostões  
Daniela Arnaut

## MetroGov3C

Governance in Lisbon Metropolitan Area in a Context of Conflict, Competition and Cooperation

Jan. 2018 – Feb. 2022 | FCT

The MetroGov3c project (PTDC/GES-URB/30453/2017) intends to face the challenge of institutional weakening in the metropolitan context, seeking to contribute to the effectiveness of public policies at metropolitan scale, and also at more local scales, as well as to an efficient management of the scarcity of resources that societies face today.

Thus, MetroGov3c seeks to make a critical evaluation of the models successively designed over time, of the respective advances they proposed, but also of the obstacles that were placed in their way to prevent them from becoming reality. At the same time, the project will provide an update of knowledge based on recent scientific and technical production, the evaluation of metropolitan governance models in similar economic, political and cultural contexts and the current situation in the Lisbon Metropolitan Area (LMA).

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*Team*

Jorge Gonçalves  
Maria Beatriz Condessa  
Fernando Nunes da Silva  
Isabel Loupa Ramos  
Joana Castro e Almeida  
Jorge Batista e Silva  
José Antunes Ferreira  
Pedro Pinto

## TRUST

social innovation sTRategies for sUSTainability transitions

Sep. 2018 – May. 2022 | FCT

TRUST is a FCT research project that focuses on sustainability transition initiatives supported by social learning and innovation as important factors that drive transformative change in social-ecological systems for community development.

The goal is to contribute to create locally based sustainability transitions initiatives, boosting transformative processes, through social innovation strategies, that can enable changes in approaches, routines, practices, systems and mind-sets.

The project adopts a participatory research and multi-actor approach with empirical observations in both urban and rural social-ecological contexts from three Portuguese case study regions: Lisbon, Aveiro and Évora.

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*CiTUA's Team*  
Maria do Rosário Partidário  
Margarida Barata Monteiro  
Isabel Loupa Ramos  
Joana Dias

## Africa Habitat

From the sustainability of habitat to the quality of inhabit in the urban margins of Luanda and Maputo

Jan. 2018 – May 2022 | FCT

The project deals with forms of socio-urbanistic and housing intervention in the urban margins of African cities of Lusotopie, in the new millennium, focusing on those that contribute to improving the quality of inhabit and the sustainability of habitat of low-income groups. In the current context of accelerated urbanisation, globalisation and increasing socio-spatial inequalities, inscribed in the neoliberal paradigm, it is urgent to reflect on the impact of such interventions, as well as on how to construct a more inclusive habitat and on how and what to do to reinforce them. Luanda and Maputo, with similar structural constraints, are taken as case studies.

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*CiTUA's Team*  
Manuel Correia Guedes

## ASAP-EH

Atlas of School Architecture in Portugal – Education, Heritage and Challenges

Oct. 2016 – May 2020 | FCT

Atlas of School Architecture in Portugal – Education, Heritage and Challenges (ASAP-EHC) is a research project funded by the Fundação para a Ciência e Tecnologia (FCT – Foundation for Science and Technology). It involves researchers from various universities and fields: architecture, education, history, town planning, interior design, construction, energy efficiency, and documentation. ASAP-EHC aims to deepen the understanding of school architecture in Portugal, focusing on secondary and middle school buildings promoted by the State and built between the late 19th century and the early 1970s, when a major educational reform occurred.

The project is supported by the historical archive of the Secretaria-Geral do Ministério da Educação e Ciência (SGMEC – General Secretariat of the Ministry of Education and Science), which houses significant documentary resources on public school buildings.

*CiTUA's Team*  
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Francisco Teixeira Bastos  
Patrícia Lourenço

## PSSS

Public Space's Service System

July. 2016 – March. 2019 | FCT

This project is about public space as service provider to cities and city users.

Service values and Systemic qualities are therefore the main central concepts needed to provide a rational framework for evaluation.

Public investment in public space grew much in recent years, with new typologies, uses and users, territorial scopes and a new awareness of its qualities. Despite this, regional or local level projects often need better continuity or integration, so as to promote real meaning as urban systems and provide more social, environmental and economic value return, so as to assure time-life Public Space sustainability.

So we need to address Public Space service values diversity, new scales and scopes, with tools, methods and assessment procedures, and understand them as central concepts in the production processes.

*CiTUA's Team*  
Jorge Baptista e Silva  
Jorge Gonçalves  
Maria do Rosário Partidário  
Teresa Heitor

## POLAR LODGE

A sustainable modular building for research development in the Antarctica

Feb. 2018 – Dec. 2026 | FCT

POLAR LODGE is part of ongoing PROPOLAR Portuguese Polar Programme that has the mission of promoting and supporting the development of Portuguese polar science of excellence, allowing Portuguese researchers access to the Arctic and Antarctic. Through strong international cooperation and logistics management, PROPOLAR encourages multidisciplinary research in order to promote knowledge about the polar regions, pillars of the global climate system. All polar bases currently face three major challenges: Extreme meteorological phenomena and trends are on the rise. In a rapidly warming climate, record-breaking extreme weather events are occurring and increasing around the world. Much work is being done on the overheating of buildings, but little is being done on the development of buildings resistant to the extreme cold phenomena that are a particular problem for polar bases. Polar lodge aims to develop, at minimal cost, a mobile and sustainable base for Portuguese scientists in Antarctica.

*CiTUA's Team*  
Manuel Correia Guedes

# Projects

## PAILTS

CiTUA-funded projects

In 2022, CiTUA initiated a comprehensive internal call to boost Acceleration of research Projects in the Thematic Lines (PAILT) and advance knowledge in specific fields. This effort led to the development of seven internal PAILT, each with a 15-month timeline and a funding commitment.

At the end of the first trimester and again at the conclusion of the 15 months, CiTUA organized forums to discuss the concepts and strategies of each PAILT project. These forums featured workshops, debates, and conferences on key themes relevant to the research pursuits of the projects, fostering in-depth theoretical and methodological discussions.

**ROLE** – The (Re)Design Of  
The Learning Environment.  
What is changing?

The "ROLE" project's central motivation is to contribute to the (re)design of innovative, effective, and meaningful educational environments, anchored in the values of sustainability at social, environmental, economic, and cultural levels. It explores various types of educational built spaces across different scales.. It examines their potential in educational practices and knowledge transfer, evaluates their value as educational opportunities, and explores their roles as educational contexts, agents, and content (Trilla, 1993). The approach focuses on the educational needs and expectations (formal, non-formal and informal) of different target audiences (compulsory education, extracurricular education, adult and senior education, lifelong education), considering socio-economic implications and contexts of permanence, temporality or unpredictability.

*Trilla, Jaume Bernet. 1993. "La Educación y La Ciudad." In Otras Educaciones: Animación Sociocultural, Formación de Adultos y Ciudad Educativa, 177-203. Barcelona: Universidad Pedagógica Nacional de Barcelona y la Editorial Antropos.*

CiTUA's Team

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Patrícia Lourenço

## reHAB – Habitat regeneration as cradle for resilient healthy communities

The “reHAB” project investigates the built environment, design, and construction processes, considering all participants from architects to politicians and inhabitants. The research focuses on rehabilitation, renovation, and reuse for sustainable, decarbonized circular design. Understanding the existing built environment is crucial for its transformation to meet contemporary demands of comfort, security, safety, and wellbeing, addressing climate crises. By examining modern housing buildings, reHAB engages with collective housing and domestic spaces in a holistic approach, including public areas for renewing local community strengths. Contemporary resilient neighborhoods must embrace design and social porosity, learning from vernacular architecture to achieve balanced sustainability. In response to the housing crisis and climate challenges, reHAB aims to bridge the gap of modern construction, emphasizing heritage as the foundation for innovative, sustainable communities crucial for the future.

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*CiTUA's Team*  
**Ana Tostões**  
**Daniela Arnaut**  
João Appleton  
Bárbara Coutino  
Susana Lobo

## Lis|PIH – Lisbon Pre-Industrial Housing. Diagnosis and contribution for policies to foster a sustainable urban and housing regeneration

The “LIS|PIH” project focuses on diagnosing and developing strategies for regenerating Pre-Industrial Urban Housing (PIH) in Lisbon. These multi-family buildings from the Early Modern Age are significant to the city’s architectural heritage.

The project has achieved key stages: mapping zones with relevant pre-industrial housing, characterizing representative buildings, analyzing their current condition, and creating a database for urban management and building regeneration. A systematic inventory of over 200 files has been created, documenting these buildings, along with a nearly complete bibliographic database on industrial housing in Portugal and Europe.

Future developments will evaluate the cultural, environmental, and social values of these buildings using a multicriteria approach, with findings provided to the City Council for potential acquisition and rehabilitation. Additionally, planning strategies and redesign measures will be defined based on similar European projects.

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*CiTUA's Team*  
**João Vieira Caldas**  
**Joana Mourão**

## Fire-B-aware – Wildfire risk perception and preparedness amongst school children and their families in Portugal

The “Fire-B-aware” project intends to investigate the wildfire risk perception and preparedness amongst school children and their families in Portugal. To do so, two main objectives were established to guide the development of the project:

(i) understand how middle school students living in Portugal perceive wildfire risk, how they are prepared to respond to wildfire risk events and how their attitudes and behaviours shape their preparedness and

(ii) understand which is the middle school student’s families perception of wildfire risk mitigation in the scope of spatial planning. Associated to each of these objectives, respectively, one type of questionnaire will be conducted to collect the required data. As Fire-B-aware outputs, it is expected to submit two papers in scientific journals, to present communications in international conferences, to develop a guide for schools rising awareness on this subject and to organise a seminar on wildfire risk perception.

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*CiTUA's Team*  
**Isabel Loupa Ramos**  
**Fátima Bernardo**  
Joana Dias  
Jorge Silva  
Pedro Pinto

## Cidade Tejo – Um Estuário de Oportunidades: dinâmicas, desafios e ameaças nas Frentes de Água da Área Metropolitana de Lisboa

The “Cidade Tejo” project addresses the challenges posed by climate change and the implementation of the Sustainable Development Goals (SDGs) during the “Decade of Action” (2020-2030). These challenges underscore the urgent need for new paradigms in planning and governance systems. This project aims to critically diagnose the Tagus estuary waterfront to identify: (i) urban dynamics leading to current land uses; (ii) key characteristics and functionalities of these areas, particularly regarding sustainable development and responses to hydrological risks; and (iii) the visions and strategies within various instruments affecting these territories, assessing their effectiveness, coherence, and coordination with other governance tools, programs, and projects. In its final phase, it proposes an integrated vision to tackle climate challenges, promote social revitalization, and guide “Water Risk Sensitive Urban Planning,” aiming for urban regeneration of riverside areas with central functions.

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*CiTUA's Team*  
**Ana Morais de Sá**  
**Fernando Nunes da Silva**  
Beatriz Condessa  
Isabel Loupa Ramos  
Jorge Baptista e Silva  
Jorge Gonçalves  
José Antunes Ferreira  
Fátima Bernardo



**Território.justo.pt** –  
Territories of Space Injustice  
in Portugal

The “Território.justo.pt” project aims to be an exercise in transdisciplinary knowledge production that applies the concept of spatial justice, in all its complexity, to the reality of Portugal at the municipal level. This work initially focuses on the most relevant dimensions that explain territorial asymmetries and, at a secondary level, explores possibilities to mitigate them through the implementation of public policies or other measures, using the rationale (objectives, goals, indicators) present in Sustainable Development Goals 10 and 11 of the Urban Agenda 2030. The diversity of the team, consisting of integrated researchers and collaborators from CiTUA, supported by consultants from external research centers and specialists in various identified fields, will provide a broader dimension to this research.

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*CiTUA's Team*  
**Jorge Gonçalves**  
**Silvia Jorge**  
Alexandra Alegre  
Ana Morais de Sá  
Beatriz Condessa  
Carlos Mourão Pereira  
Daniela Arnaut

**TRAGOF** – Transformative  
Governance in Forest  
Territories for Fire Risk  
Reduction

Forests, as complex territories, involve intricate interactions between social and ecological systems that are influenced by and influence the social, economic, and political contexts. In Portugal, non-natural forest fires, often stemming from problematic interactions in social-forestry systems, are viewed as “pathologies.” To address the complexity, non-linearity, and uncertainties of forest fire risk management, a transformative approach to forest governance is being pursued. This strategy aims to reverse unsustainable forest use and management patterns linked to an increasing trend of severe fire events. The case study in Monchique, a southern Portuguese region with extensive areas at “very high” forest fire risk and designated as a priority by the Institute for Nature Conservation and Forests (ICNF), focuses on critically analyzing the current forest governance structure. The research will identify constraints and opportunities and propose strategies for a transformative governance approach. Results will be shared with stakeholders and the scientific community through a scientific publication, conference presentations, and a roadmap to facilitate replication in other fire-prone forests in Portugal and beyond.

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*CiTUA's Team*  
**Maria do Rosário Partidário**  
**Margarida Barata Monteiro**  
Joana Dias

# Outputs



2018 ————— 2023

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# INTEGRATED

AINA  
SÁ



Urban and Spatial Planning  
Land Policies  
Land Value Capture

Educational Spaces  
Post-occupancy Methodologies  
Collaborative Practices



ALEXANDRA  
ALEGRE

ANTÓNIO RICARDO  
DA COSTA



Urban Design  
Heritage  
Sustainability

Heritage  
Modern Architecture  
Wellbeing and Housign



ANA  
TOSTÕES

BEATRIZ  
CONDESSA



Urban and Regional Planning  
Urban Management  
Equity in Land Use Planning

Design Museum  
Curatorship  
Design and Architecture



BÁRBARA  
COUTINHO

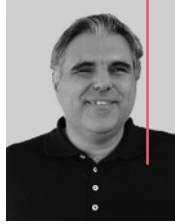
# Members

DANIELA  
ARNAUT



Architecture  
Healthcare  
Wellbeing

Resilient Architecture  
Spatial Justice  
Transition Space



CARLOS  
MOURÃO PEREIRA

JOANA  
MOURÃO



Ecological Built Habitat  
Affordable Housing  
Vacant Buildings

Social Innovation  
Sustainable and Resilient Communities  
Territorial transformation Towards  
Forest Fire Risk Reduction



JOANA  
DIAS

FERNANDO  
NUNES DA SILVA



Urban Planning  
Sustainable Mobility Plans  
Municipal Management

Social and Environmental Psychology  
Place Identity and Intergroup Relations  
Risk Perception and Behavioural Change



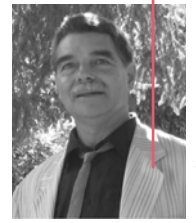
FÁTIMA  
BERNARDO

JORGE  
BATISTA E SILVA



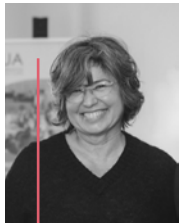
Spatial Planning  
Urban  
Evaluation

Architectural Heritage  
Construction History  
Ordinary Housing



JOÃO  
VIEIRA CALDAS

ISABEL  
LOUPA RAMOS



Landscape Identity  
Nature-based Planning  
Collaborative Processes

Design Process  
Design Protocols  
BIM



FRANCISCO  
TEIXEIRA BASTOS

JORGE MIGUEL  
DOS REIS SILVA



Economics and Management  
of Air Transport  
Aircraft Operations  
Flight Safety

Geography and Regional Planning  
Metropolitan Governance  
Spatial Justice



JORGE  
GONÇALVES

MANUEL  
CORREIA GUEDES



Architecture  
Sustainable Building  
Environmental Design

Spatial Planning  
Urban Management  
Procurement



JOSÉ  
ANTUNES FERREIRA

MARIA EMÍLIA  
BALTAZAR



Air Transport  
Global Decision Analysis  
Airport Performance

Strategic and Environmental Assessment  
Collaborative Governance  
Sustainability Transitions



MARGARIDA  
BARATA MONTEIRO

PATRÍCIA  
LOURENÇO



Sustainable  
Knowledge  
Environments

Architecture  
Urban Planning  
Regenerative Urbanism



MIGUEL  
AMADO

PEDRO  
PINTO



Environmental Governance  
Sea-level Rise Adaptation  
Study of the Human-river Interface

ROSÁRIO  
PARTIDÁRIO



Strategic thinking for Sustainability  
Participatory Processes  
Collaborative Governance

Transport  
Policy  
Planning



ROSÁRIO  
MACÁRIO

SILVIA  
JORGE



Urban Margins  
Housing Policies  
Spatial Justice

Spatial Planning  
Ecosystem Services  
Environmental Assessment



RUTE  
MARTINS

TERESA  
HEITOR



Architecture  
Space-use Analysis  
Knowledge Environments

Urbanism, Architecture and Tourism  
Portugal 20th Century  
Furniture Design



SUSANA  
LOBO

# COLLABORATORS

ANA MOREIRA



Housing  
Space Use and Living Modes  
Dwelling Programme and Models

Urban Landscape  
Public Space  
Urban Planning



ALEXANDRA CAMPOS

RUI PATRÍCIO



Design Innovation  
Workspace Innovation  
Patient Experience

Land Use Planning  
Land Consumption  
Sustainable Urban Development



RITA NICOLAU

CLÁUDIA ANTUNES



Architecture  
Art  
Public Space

Age-friendly Housing  
Inter-generational Spaces  
Inclusive Environments



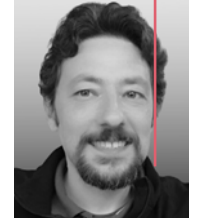
ANTÓNIO CARVALHO

SILVIA SPOLAOR



Architecture  
Space-use Analysis  
Knowledge Environments

Urbanization  
Social Policy  
Regional Policies



SERKAN ÖNGEL

MARGARIDA QUINTA



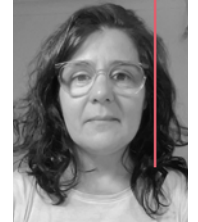
Angola  
Modern Architecture  
Climate-Responsive Design

Airports  
Modelling  
Applied research



LILIANA MAGALHÃES

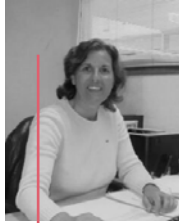
Urban design  
Health  
Wellbeing



SUSANA PEREIRA

# RESEARCH SUPPORT

ROSA  
NUNES



Administrative Support

Communication  
Graphic Design  
Visual Identity



MARINA  
BORBA

Science Manager  
Strategy Advisory  
Proposal Support



RUTE  
MARTINS

DISCOVER  
CITUA  
RESEARCH UNIT

SINCE 2020

