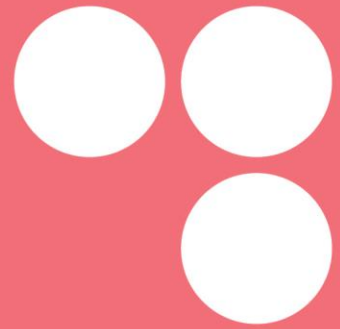


TWIN2EXPAND



Working Group Studio A3

REPORT

16.01.2025 - 17.01.2025 & 20.01.2025

ONLINE

twinning towards
research excellence
in evidence-based planning
and urban design



Document Description: This document provides a summary of discussions and panels that took place over the course of the Working Group Studio A3 (WGSA3) in January 2025, online.

February 2025

General Contact:

TWIN2EXPAND Project, Dr. Nadia Charalambous, Department of Architecture, University of Cyprus, Nicosia, Cyprus

For more information: charalambous.nadia@ucy.ac.cy

Please refer to this publication as follows:

University of Cyprus, Department of Architecture (2023). Working Group A3 Report, Online. TWIN2EXPAND project: 101078890 (Horizon Europe), 10052856 & 10050784 (UKRI).

This project has received funding from the European Union's Horizon Europe Research and Innovation Programme under Grant Agreement No. 101078890.

This project has received funding from the UK Research and Innovation (UKRI) under the UK government's Horizon Europe funding guarantee under grant numbers 10052856 and 10050784.

Views and opinions expressed are those of the author(s) only and do not necessarily reflect those of the European Union or the European Research Executive Agency (REA). Neither the European Union nor the granting authority can be held responsible for them.

Version Control Sheet

Report Name	Working Group Studio A3. Report.
WP / WP number	WP2
Type	Report
Dissemination level	Public
Lead beneficiary	UCY
Contributors	Ilaria Geddes
Reviewer(s)	Nadia Charalambous
Changes with respect to the Grant Agreement	None
Dissemination and uptake	Website

Revision history

Version	Date	Summary of changes	Initials	Changes marked
1	28/02/2025	First draft	IGe	
2	30/03/2025	Final version	IGe	

Working Group Studio A3 - introduction

The third and final TWIN2EXPAND Working Group Studio A on Research Capability focused on capacity building activities to enhance exploitation of the project's results and to increase research management and stakeholder engagement capacity of the Society and Urban Form Lab (SURF).

The Consortium representatives presented updates on the SURF Lab's Strategy and discussed funding opportunities, and shared knowledge and experiences with regards to data management, data sharing and metadata. External participants provided training on exploitation and stakeholder engagement.

1. Working Group Studio A3 - Day 1; 16th January 2025

1.1. Exploitation Plan Workshop

The morning session was led by Dr. Anastasia Constantinou, Senior Officer at the Research and Innovation Support Service of the University of Cyprus, who facilitated the discussion about potential exploitation mechanisms for the project's results and then presented to the consortium the Horizon Results Booster.

The discussion focused around how to exploit the project results while complying with open science requirements and how to make decisions about which results should be made freely accessible and which, if any, should be protected while complying with open science practices by making the metadata available.

A list of project results was provided to Dr. Constantinou ahead of the meeting. She highlighted how some of the results are valuable exclusively to the SURF Lab or the consortium (e.g. the SURF Lab Strategy), others are extremely valuable to the consortium and those working in the same field (e.g. teaching and training materials); others still are can be valuable to the broader scientific community, like datasets, and while the consortium might consider some of these 'simple' because of the effort to produce them was relatively limited, consideration should be given not only to effort, but also to the know-how required to create such datasets. These could be protected, while the methodology/workflow to create them could be published.

Consortium members suggested that to resolve the apparent contradiction between open access and exploitation, the latter can be thought of as 'valorisation' rather than monetization. Member from Chalmers shared their recent experience of inputting information about exploitation into their university's new application (figure 1) to record what is termed as 'research utilisation'. This application is documenting all activities relating to knowledge transfer and different types of impact. It started to show how different sectors all do utilization

just in different ways. The purpose of the application in the future is to inform budget distribution based on different criteria.

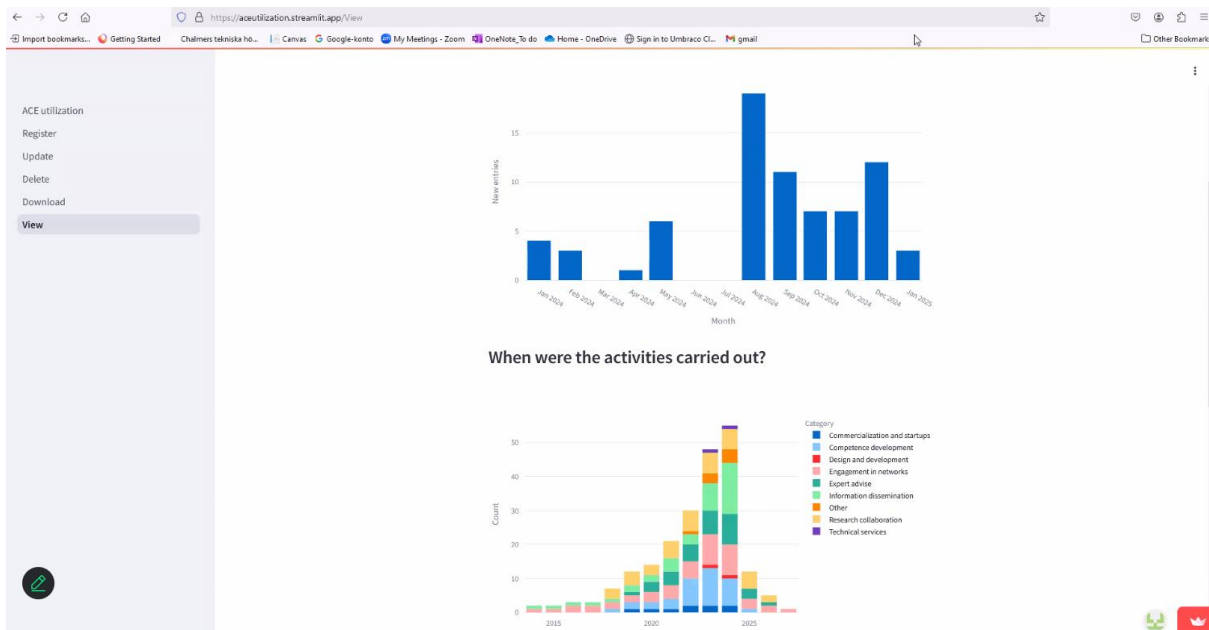


Figure 1. Screenshot of Chalmers' Research Utilisation Application.

The Consortium further discussed the fact that the EU Commission's attitude towards impact is no longer longer just economic, but also societal and now impact should be assessed to show that solutions are actually addressing a problem identified by stakeholders. The most challenging part is not involving stakeholders from the beginning, but actually understanding if there is an impact (how to measure it). KPI should not only be numbers and there needs to be different types of impact measurements and researchers need to start thinking outside the box to decide what suits a project and their objectives in terms of KPIs and impact measurements.

Actions:

- Update the About section of the project website to reflect what the consortium offers in terms of results and services.
- Revised the exploitation action plan to categorize results into according to different ways in which they can be utilized (possibly using the Chalmers categorization)
- Having agreed that using the Horizon Results Booster is a good exercise, supporting dissemination and service as a basis to provide information to the Cyprus Central

Knowledge Transfer Office, the Consortium should register on the Booster. Pantelitsa Eteokleous from the UCY Research Support Office will send a template.

1.2. SURF Lab Strategy Review and Funding Opportunities

The POLITO team presented the SURF Lab Strategy (D2.2) which is due for delivery in M26. The strategy was circulated to the whole consortium ahead of the meeting and Marco Trisciuglio facilitated the session to gain feedback. The document includes a review of the current status of the SURF Lab and its activities within the TWIN2EXPAND project, data collected and analyzed from 40 Urban Laboratories worldwide to set benchmarks for the Lab, and the strategy itself, which was agreed with the Project Coordinator through task meetings to retain a visionary outlook.

The consortium discussed the methodology used by POLITO to carry out what is effectively a ‘systematic review of labs’ and all agreed on the high quality of the research content, constituting in itself a scientific result beyond the Lab strategy itself. The potential to include more labs in future research and create an interactive map of the labs were considered along with ways of exploiting the research done and achieving impact, by directly contacting the labs analysed and providing them with the results.

Marco put forward for discussion the idea of a global hub for evidence-based design and planning (figure 2), functioning as a ‘round table’ for consultation and ad an advanced centre for education in urban spatial studies, specifically targeting decision makers and offering consultancy, thus becoming a privileged interlocutor of decision makers in politics, economy, science and technology.



Figure 2. Diagram from D2.2 presented at the meeting: strategies for establishing a worldwide hub for evidence-based design.

The strategic plan for the SURF Lab was then outlined to include developing best practices, hosting global conferences, offering specialized programs, creating policy advisory committees, publishing influential reports, establishing support office for decision makers,

nurturing partnerships, adopting advanced project management tools, implementing a long-term data strategy, engaging in research and design for new tools, and creating collaborative platforms.

The possibility of applying for a Teaming project included in the strategy was discussed. Many consortium members expressed concerns about the feasibility of applying for Teaming in the short-term, suggesting that it may remain included in the strategy as a longer-term objective. An alternative proposal was made to initially transition from a lab to Research Centre and to function as a regional hub, rather than a global one, in the Mediterranean area, which could provide more opportunities for research and consultancy. The team agreed to include a SWOT analysis in the strategy document to identify strengths, weaknesses, opportunities, and threats, and to propose short-term, medium-term and long-term actions, taking into consideration concerns about the practicality of the visionary strategy (resources and funding needed), the importance of datasets and the relationships between them, and the developing role of the lab providing consultancy to public authorities.

The concept of a worldwide network of labs rather than a single hub was proposed and discussed. Such a network could indeed function as a hub for international work and benefit those in Europe to develop intercontinental collaborations. The team agreed to add a chapter outlining the vision and strategic steps to achieve this over the next few years. The session concluded with a view to discuss data challenges further in the related session the following day.

Actions:

- The POLITO team will finalize the SURF Lab Strategy document incorporating feedback from the consortium and preparing it for submission by the end of the month.
- The consortium members will provide further detailed feedback on the draft document to the POLITO team to finalize the document.
- The POLITO team will add a chapter outlining the transition of the Lab into a Research Centre through more practical and achievable steps over the next few years.
- The POLITO team will add a section in the final chapter outlining the long-term visions for the Lab to become a regional hub and international network of excellence.
- The POLITO team will consider: a) developing the research component of the strategy into a paper to be presented at the ISUF 2025 conference; b) developing an interactive map showcasing summary information for the labs reviewed by the team.

2. Working Group Studio A3 - Day 2; 17th January 2025

2.1. Data Management, metadata and datasets release

The team discussed the importance and challenges of data management, including the exploitation of project results, data sets, codes, and metadata, and the need for data security, backup, and retention.

The Chalmers team presented their experience with data management, specifically using the Darwin Core standard for sharing data on biodiversity, and the Swedish National Data Repository, which provides a user-friendly interface for metadata creation, explaining the process of adding information to the repository meeting metadata and documentation standards. The Chalmers team highlighted the fact that while they have been managing data effectively, they have not been systematic about it and they have been learning by doing, so they want to document their processes better for future reference and collaboration. Ahmed Eldesoky emphasized the importance of understanding the type of data collected, the software required for processing, and the infrastructure needed for storage. Data papers or data descriptors should be used to document the data collection process using configuration files, readme files, and version controlling for data organization.

The UCY team presented their recent experience of managing and sharing data internally between teams and between team members. The approach to date has been to work with Shapefiles, which are easy to use by all with different skill levels, but messy; using Geopackages is a better solution, but requires proper indexing and structure and therefore higher-level skills within the teams; the use of PostGIS would be ideal but requires a dedicated server and SQL knowledge. The team highlighted that the complexity of data sharing within the lab is growing, due to the growing number of projects and therefore staff members and teams working on them. While Ahmed Eldesoky advocated for using a PostGIS database for sharing data, as it allows for efficient querying and processing, the team at UCL suggested that as an interim standard, the Lab can work with GeoPackages, using separate files instead of combined ones to ensure ease of use by team members with different skills levels.

The consortium agreed that it would be beneficial to arrange a data management session during the upcoming WGSb3 at Chalmers with teaching staff who developed a data sharing system for teaching purposes.

Finally, Gareth Simons from the UCL team discussed the importance of documenting and sharing workflows for data processing and the benefits of using a Git repository system like Github which provides versioning. Gareth also highlighted the benefits of using readme files for documentation and specifying package dependencies. He then moved on to presenting the methodology to define urban cluster using the EU high density clusters definition and the use of open-source data, including Copernicus datasets, statistical datasets and building heights.

A key discussion was about the sharing of derivative datasets and whether the datasets themselves should be shared or just a reproducible workflow, possibly saving and sharing a version of the derivative dataset or sharing the data by layers or themes. Another option could be sharing a sample dataset instead of the full dataset and/or reducing the size of the data by eliminating specific entries (e.g. smaller cities) or attributes. The consortium was intrigued by the potential of creating a longitudinal dataset, but there would be various challenges and considerations, including environmental, costs and storage.

Actions:

- Arranging a data management session during the upcoming WGSb3.
- Chalmers to consider: a) internal knowledge transfer from Ahmed about data management and metadata creation; b) inviting a data scientist or data manager to collaborate with the group and help with data management and sharing; c) documenting their data management processes and standards for future reference and to facilitate collaboration.
- UCL (Gareth Simons) to investigate reducing the dataset size to around 50GB.
- UCL (Gareth Simons) to explore creating a QGIS plugin that allows users to select a polygon and automatically download and compute metrics for that specific area.
- Further discuss the best approach for storing and sharing output datasets, considering factors like environmental impact, accessibility, research needs and exploitation, during the project meeting.

3. Working Group Studio A3 - Day 3; 20th January 2025

3.1 Stakeholder Engagement Workshop

On the final day of the WGSa3, external trainers came to the SURF Lab in person to provide a hybrid session on stakeholders' identification and engagement, and running stakeholders workshop using the Structured Democratic Dialogue (SDD) methodology (figure 3). The workshop included sessions on the theoretical background of system dialogic science, the ethics of identifying, selecting and engaging all stakeholders and the SDD methodology, including preparatory steps, implementation method and specialized software.



Figure 3. Hybrid Workshop on Stakeholder Identification and Engagement.

Yiannis Laouri, Lead Scientist of the Future Worlds Centre, led the workshop and started the sessions by focusing on the importance of stakeholder identification and engagement in project management. He explained the cascading model of stakeholder identification, which involves categorizing stakeholders into internal and external groups, and then identifying members of these groups. He also mentioned the use of a stakeholder requisite variety matrix to score and prioritize stakeholders. Yiannis emphasized that stakeholder identification is not about perfection, but about achieving a good enough representation of interests and introduced the concept of Structured Democratic Dialogue (SDD), which involves a group of stakeholders discussing and identifying obstacles to collaboration.

He then presented the evolution of stakeholder theory, tracing the concept back to the 1960s and 1970s, and introducing the stakeholder salience model, which considers three key attributes for stakeholder analysis: power, legitimacy, and urgency. He also touched upon visualization techniques various philosophical concepts, including the idea of stakeholder engagement and the notion of agency. He introduced the concept of "modes of existence" and the idea of decentering the human as the sole stakeholder, suggesting that other entities like birds and future generations should also be considered as stakeholders. He also discussed the

concept of "auto epistemological, intra-action," which involves blurring the distinction between ideas and stakeholders, and the idea of implementing this concept in object-oriented software and artificial intelligence.

The SDD Methodology was explained starting from the importance of having a triggering question in place before the session, which helps to keep the discussion focused and prevents diversions, and involving the sponsor, key participants, and facilitators in formulating the question. Developing the triggering question involves brainstorming sessions and feedback from potential participants. Yiannis stressed the importance of logistics, such as the room setup, and the need for participants and facilitators only, with no observers.

The process of generating and evaluating ideas in a structured democratic setting was then explained. Yannis emphasized the importance of individual contributions, equal opportunity for all participants, and the use of the nominal group technique to ensure creativity and avoid premature judgment. He also highlighted the role of clarification in the process, noting that it often leads to further understanding and refinement of ideas. Video recording of ideas can help capture their essence and facilitate further discussion. He concluded by noting that the process is iterative, with ideas evolving and refining over time.

The specialized software used for recording and analysis, provides the means to perform bottom-up clustering technique, where ideas are grouped based on similarities, and the relational reasoning approach, which focuses on the relationships between ideas rather than the ideas themselves. This enables the identification of issues which bear a relevance and influence on other issues. Challenges in facilitating structured dialogues include the difficulty of making tough decisions and ensuring fairness among participants.

The workshop ended with a discussion on the importance of ownership and authenticity in stakeholder engagement, the use of new technologies such as AI for efficient not-taking and the concept of relational reasoning. Further discussions focused on the process of idea generation and classification, the level of consensus that can be achieved in decision-making and the importance of understanding the relationships between different ideas and actions in achieving a solution.

Actions:

- Kevin will prepare a 5-minute review of stakeholder theory to share with the team.
- The SURF Lab team will consider using agent-based philosophy and object-oriented democracy concepts in stakeholder engagement.
- The SURF Lab team will consider the possibility of integrating SDD methodology in the stakeholder engagement activities either by using trained facilitators or further training staff in the practice of the SDD methodology.