DATA SPACE FOR SMART AND SUSTAINABLE CITIES AND COMMUNITIES

D5.2 Capacity Building Programme report

Work package WP5 – Communications and Capacity Building

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Executive Summary

The Data Space for Smart and Sustainable Cities and Communities (DS4SSCC) preparatory action recognises the crucial role of Capacity Building activities in promoting mutual learning and knowledge-sharing within European data ecosystems. This report provides an insightful overview of the scope and structure of these activities.

Europe is in the midst of a transformation towards smarter and more connected communities. This shift necessitates a concerted effort to facilitate mutual learning and capacity building among local data ecosystems. DS4SSCC aligns with EU initiatives such as Living-in.EU, DT4REGIONS, LEAD, and DUET to champion AI-enabled data services and digital transformation.

DS4SSCC's Capacity Building activities are designed to create an interactive training program tailored specifically to data space ecosystems that goes beyond. The program offers accessible online short-term training opportunities for public managers and practitioners while concurrently acting as a knowledge hub for EU initiatives. This encompasses the critical steps of assessing capacity building needs, co-designing learning content, and actively engaging participants through webinars, workshops, and open debates.

The Capacity Building activities are structured around two main components:

- *The Training Programme: This element offers video lessons and accompanying materials via the DS4SSCC Training Hub. It targets a broad audience, including public managers, practitioners, and stakeholders, with content finely tuned to address the unique requirements of data space communities.*
- *Mutual Learning Initiatives: These initiatives are designed to facilitate collaboration and knowledge exchange. They include Stakeholder Forum meetings, webinars, workshops, and open debates, all conveniently hosted on the DS4SSCC Training Hub.*

Central to DS4SSCC's efforts is the DS4SSCC Training Hub, a centralized platform that grants access to various training resources. This repository encompasses video lessons, presentations, reports, and supporting materials, making it a valuable resource for enhancing knowledge and skills related to data spaces within smart and sustainable cities and communities.

Furthermore, it's crucial to underscore that DS4SSCC's Capacity Building approach is a long-term solution extending beyond the preparatory phase. As we transition from preparation to deployment, these initiatives will remain instrumental in maximising the benefits of our efforts in fostering smarter and more connected communities. This enduring commitment to capacity building will enable the deployment phase to fully harness the expertise acquired.

1 Introduction

In an era characterised by rapid technological advancements, the European Union has committed to placing people at the forefront of its digital endeavours. Central to this mission is the establishment of Common European Data Spaces. Moreover, the European Union recognizes the importance of mutual learning and capacity building as cornerstones for connecting local data ecosystems across its member states. The European Digital Strategy aims at capacity building through initiatives like enhancing digital skills, transforming businesses digitally, and advancing secure digital infrastructures. Targets for 2030 include having 20 million ICT specialists, 80% of the population with basic digital skills, and 75% of EU companies utilising Cloud, AI, or Big Data. The strategy also emphasises multi-country projects to address critical capacities, supported by investments from the EU, member states, and the private sector, in areas like digital skills and cybersecurity[1]. Within this context, the DS4SSCC project assumes a pivotal role, with capacity-building activities serving as linchpins in achieving this ambitious goal.

1.1 Background

The European Union is witnessing a paradigm shift towards smarter and more connected communities. To effectively harness the potential of data-driven decision-making and digital transformation, it is crucial to foster mutual learning and capacity building among local data ecosystems. DS4SSCC aims to address this imperative by leveraging the knowledge and experiences of different EU initiatives, including Living-in.EU[2], DT4REGIONS[3], LEAD[4], and DUET[5], to promote AI-enabled data services and digital transformation.

1.2 Scope of DS4SSCC Capacity Building activities

The central focus of this report is the effort of DS4SSCC to create an interactive training offer for data space ecosystems. This initiative provides online training opportunities for public managers and practitioners within these ecosystems, ultimately serving as a knowledge hub for various EU initiatives. The DS4SSCC project embarks on a comprehensive journey to enhance the knowledge and capabilities of data space communities. The approach involves shaping training content according to the specific needs and interests of these communities. To achieve this, the following key steps have been carried out:

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1. *Collection of Capacity Building needs and main interests*: ENoLL, in close collaboration with DS4SSCC partners, conducted a comprehensive assessment of the capacity building needs and primary interests of data space communities. The assessment, comprising a survey and workshops, was conducted by building upon the results of other similar initiatives, such as the Living in EU project.

2. *Co-design of learning contents and materials*: Building upon the insights gathered in the previous step, ENoLL collaborates with project partners and external initiatives to co-design learning contents and materials. This process ensures a high level of interaction, tailoring the content to meet the specific requirements and interests of data space communities across domains in the context of smart communities..

3. *Engagement of participants and promotion*: To facilitate mutual learning and skills development, the project organised two webinars, two workshops, and a series of open debates. These activities are designed to provide accelerated access to knowledge on cross-sector and cross-community data services, including AI-enabled data services. Importantly, these training activities are open to a wide audience of potentially interested data space smart and sustainable cities and communities (SSCC).

The aims include increased awareness and understanding of cross-sector data services, enhanced capacity and skills among SSCC, and the creation of a knowledge hub that fosters mutual learning and knowledge exchange among these communities.

2 The structure of the DS4SSCC Capacity Building activities

The Capacity Building activities of the DS4SSCC project are structured to foster knowledge sharing and collaboration within data space communities. There are the two main components:

● The **Training Programme** is a core training initiative that provides short video lessons and supporting materials. It is designed for public managers, practitioners, and stakeholders. These resources are accessible through the DS4SSCC Training Hub on the project's website.

● The **Mutual Learning initiatives** aim to facilitate collaboration and knowledge exchange among stakeholders. This component includes Stakeholder Forum meetings, webinars, workshops, and open debates. All related materials and resources are hosted on the DS4SSCC Training Hub as well. The Mutual Learning Initiatives complement the Training Programme by promoting active participation and community engagement.

Together, these components form a comprehensive approach to capacity building, empowering stakeholders to effectively develop data services for smart and sustainable cities and communities.

The **DS4SSCC Training Hub** is an online platform designed to centralize and facilitate access to various training resources and materials developed within the DS4SSCC project. It serves as a one-stop repository for video lessons, presentations, reports, and supporting materials related to capacity building activities. The Training Hub is easily accessible through the DS4SSCC project's website, making it a convenient resource for public managers, practitioners, and stakeholders interested in enhancing their knowledge and skills in data spaces for smart and sustainable cities and communities.

3   Assessment of Capacity Building Needs and Interests

In this chapter, we delve into the assessment of capacity building needs and interests within the DS4SSCC project, focusing on insights gathered from related projects and initiatives. The chapter highlights the collaborative efforts to avoid duplication, to align with the Digital European Programme (DEP) goals, and to ensure the effectiveness of capacity building activities.

3.1   Inputs from other projects

The DT4REGIONS project conducted a survey to explore the training needs of partner municipalities, ENoLL and ERRIN Network members representing governmental actors from European regions and cities. Moreover, two interactive sessions and two workshops in collaboration with the DT4REGIONS partners and the Living-in.EU signatories from September 2021 until October 2022. Finally, on 7 February 2023, the Living-in.EU *Education & Capacity Building Workshop: Needs assessment of the Capacity building programme* took place, providing an analysis of the learning needs from Living-in.EU signatories and supporters and the broader Living-in.EU community.

The identified capacity building topics and needs regarding Data Spaces for SSCC are the following:

1. *Data platforms*: Participants emphasized the importance of data platforms as a critical area for capacity building. This involves developing and utilizing data spaces to facilitate improved data sharing and management among diverse stakeholders within urban environments.

2. *Data ethics*: The rise of data-driven cities has underscored the need to address ethical concerns surrounding data. This includes ensuring data privacy and security while ethically leveraging data to make decisions that benefit the community, encompassing both technical and ethical dimensions.

3. *Training for local government employees*: To enable local government employees to engage effectively with citizens on these topics, there's a need for dedicated training programs. These programs should prioritize providing employees with efficient and relevant learning models.

4. *Sustainable capacity building tools*: This is essential for long-term effectiveness, and it entails identifying innovative financial strategies to support the integration of Artificial Intelligence processes into public administrations and enhancing the capacities of groups that may typically be marginalized from such processes.

3.2 Survey

DS4SSCC conducted an online survey to gather information on capacity building needs related to the establishment of a data space for smart and sustainable cities and communities. The survey captured responses from 85 stakeholders. Here the key findings:

Topics of interest: The majority of respondents (70 preferences) expressed interest in data services, including AI-enabled data services. Cross-sector and cross-community topics were equally popular, each receiving 54 preferences, while only 4 preferences were allocated to 'other topics'.

Cross-sector	54
Cross-community	54
Data services, including AI-enab...	70
Other	4

Preferred training formats: Respondents had the option to select multiple training formats. The most preferred format was case studies and best practices, chosen 73 times. Webinars (65 preferences) and workshops (58) were also popular choices. Peer-to-peer training and expert coaching were indicated 32 times.

🔵 Webinars	65
🟠 Workshops	58
🟢 Public debates	25
🔴 Case studies and best practices	73
🟣 Peer to peer trainings	32
🟤 Experts coaching	32
🩷 Other	4
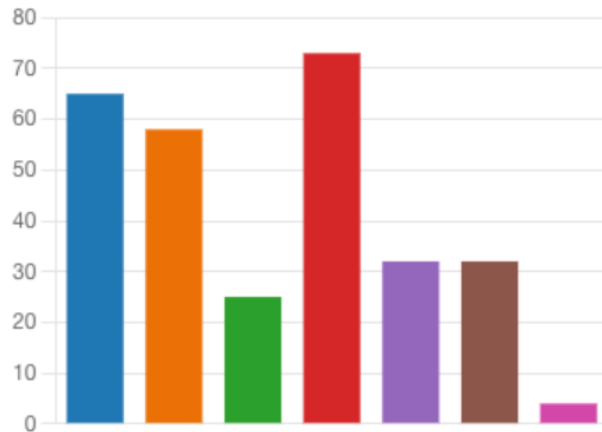
These insights are valuable in shaping capacity building efforts related to Data Spaces for Smart and Sustainable Cities and Communities, ensuring they align with the identified needs and preferences of stakeholders.

3.3 5ᵗʰ DS4SSCC Stakeholder Forum meeting

The 5th event of the DS4SSCC Stakeholder Forum, titled "Enhancing Competencies for Data Spaces: Sharing Best Practices and Lessons Learned," was held on the 7th of June 2023. The event aimed to explore challenges and opportunities in capacity building for data spaces, with a particular focus on the DS4SSCC Capacity Building programme and with the long term strategy to benefit the continuation of the preparatory phase, the Data Space for Smart and Sustainable Cities and Communities deployment action.

Challenges in digital transformation deployment: Participants engaged in interactive sessions highlighting significant challenges, including demonstrating utility and cost-effectiveness, coordinating municipal departments and companies, addressing information gaps, ensuring fair value distribution, and bridging the digital divide for citizens without access.

Barriers to digital transformation deployment: Barriers to successful deployment of digital transformation were discussed, including the lack of testing and validation, the absence of a business intelligence culture in the public sector, closed software ecosystems, and the early stages of data sovereignty mechanisms.

Focus areas for capacity building: Participants identified various fields of work for capacity building, encompassing aspects such as developing a common model of data maturity, establishing data sharing processes, conducting AI testing, and concentrating on smart data models.

Capacity building topics: Participants emphasized a range of capacity building topics to be addressed during deployment actions. These topics spanned governance, finance, legal, and technical aspects, encompassing areas such as certification mechanisms, private industry roles, data federation, trust labels, pricing

mechanisms, joint solution purchases, data asset validation, data security, contractual clauses, data ethics, data quality standards, identity/access management, and the distinction between sharing data and sharing information.

The outcomes of the meeting provide valuable guidance for shaping the deployment phase of DS4SSCC, offering insights into the challenges, capacity building priorities, and barriers that need to be addressed for successful implementation.

4   DS4SSCC Training Programme

The DS4SSCC project recognizes the importance of equipping its stakeholders with a comprehensive understanding of data spaces in the context of sustainable and smart cities and communities. In response, it has developed a comprehensive Training Programme hosted in the Training Hub section on the DS4SSCC website. This chapter outlines the key components of this Training Programme.

4.1   Training Programme overview

The DS4SSCC Training Programme on data spaces is designed to provide participants with a holistic and diverse perspective. It covers essential aspects, including effective governance frameworks, operational models, and various scenarios and use cases for establishing data spaces in cities and communities. The programme is accessible online on the DS4SSCC website, allowing participants to access video lessons at their convenience and revisit materials as needed. Each lesson is supplemented with supporting materials such as slides, handouts, and additional resources to enhance the learning experience.

The content of the Training Programme has been tailored to meet the specific needs and interests of data space communities. These needs and interests were identified through a survey and a dedicated meeting of the Stakeholder Forum. The Training Programme complements the broader Capacity Building Programme.

4.2   Training Programme details

Title: Data Spaces for Sustainable and Smart Cities and Communities (DS4SSCC) Training Programme

Duration: The training programme consists of a series of mini-training video lessons, with each lesson lasting 10-15 minutes (max 2 videos per lesson).

Target Audience: Public managers, practitioners, city and regional authorities, industry professionals, researchers, and implementing organizations interested in data spaces for cities and communities.

Format: The training programme is video-based and features partners presenting the main results and tools generated during the DS4SSCC project. It demonstrates how to effectively use and exploit these tools.

4.2.1 Lesson 1: The Broader Picture

This lesson provides an introduction to the world of data spaces in smart cities and communities. It covers topics such as:

- Introduction to Data Spaces in Smart Cities and Communities.

- An overview of EU actions related to data spaces and the Living-in.EU initiative.

- Understanding the data space ecosystem and deployment projects.

- Introduction to MIMs (Minimal Interoperability Mechanisms) and their role in data spaces.

Presenters: Sophie Meszaros and Thimo Thoeye from the Open & Agile Smart Cities (OASC).

4.2.2 Lesson 2: The Technical Blueprint

This lesson focuses on the technical aspects of setting up data spaces and includes:

- Building blocks for establishing data spaces: Interactive Catalogue of Specifications inventory.

- An overview of the Reference Architecture for data spaces.

- Using the Cookbook to guide the technical deployment of data spaces.

Presenters:

- Video 1: Clara Pezuela from FIWARE Foundation.

- Video 2: Martin Traunmüller from the Austrian Institute of Technology (AIT).

4.2.3 Lesson 3: Multi-Stakeholder Governance Scheme and Stakeholder Engagement

This lesson explores multi-stakeholder governance schemes and stakeholder engagement. It includes:

- Introducing 'the Data Cooperation Canvas': A tool for multi-stakeholder governance schemes in data spaces.

- Applying the Living Lab approach to Data Spaces to foster stakeholder engagement and collaboration.

Presenters:

- Video 1: Justine Gangneux from Eurocities.

- Video 2: Giacomo Lozzi from the European Network of Living Labs (ENoLL).

4.2.4 Lesson 4: Use Cases

This lesson delves into customizing high-level architecture for data spaces.

Presenter:

- Video 1: Martin Traunmüller from the Austrian Institute of Technology (AIT).

These video lessons aim to provide participants with practical insights and knowledge to effectively engage with data spaces in their respective roles and contexts.

The Training Hub section on the DS4SSCC website serves as a comprehensive resource center for all Capacity Building Programme resources, allowing easy access to all training materials and capacity-building content for the convenience of the audience.

As the transition from the preparation phase to the deployment phase unfolds, the Training Hub will continue to play a pivotal role in optimising the outcomes of our endeavours aimed at cultivating smarter and more interconnected communities. This capacity building activity will empower the deployment phase to fully leverage the accumulated expertise, seamlessly aligning with EU initiatives focused on AI-enabled data services and digital transformation.

5   Mutual learning initiatives

5.1 Stakeholder Forum meetings

The initiative organised seven meetings throughout its course to enable close collaboration with its stakeholders from both the supply and demand side. These occasions also served to brief stakeholders about our work-in-progress, announce any relevant events, and receive feedback, questions and inputs from participants.

The Stakeholder Forum meetings have made valuable contributions to our mutual learning initiatives through the following means:

- Offering feedback and input concerning the design and implementation of the data space.
- Sharing pertinent experiences and lessons acquired at local, regional, national, and EU levels.
- Identifying both challenges and opportunities associated with data sharing and reuse.
- Exploring potential synergies and partnerships with other stakeholders.
- Fostering awareness and facilitating the dissemination of the data space vision and its associated benefits.

The Stakeholder Forum was composed of 162 individuals from 26[6] countries.

DS4SSCC STAKEHOLDER FORUM MEETINGS 2023

Open to all members of the stakeholder forum + adhoc invitees

Date	Time	Title	Number of participants
16/01/2023	10 am - 12 pm	Building Blocks of the Data Space (Data Interoperability, Data Value Creation, Data Sovereignty and Trust, Data Space Governance)	46
02/03/2023	10 am - 12 pm	Governance of local data ecosystems & specifications for the data space	62
12/04/2023	10 am - 12 pm	Implementation of data spaces, uses cases, and data sets	37
03/05/2023	10 am - 12 pm	Defining the business models & governance framework for DS4SSCC	29
07/06/2023	10 am - 12 pm	Enhancing competencies for Data Spaces: sharing best practices and lessons Learned	44
05/07/2023	10 am - 12 pm	Iteration on the Data Space Governance Scheme, Architecture and Use cases	50
06/09/2023	10 am - 12 pm	Validation of the Blueprint	49

5.2 Webinars

Webinars are interactive online sessions designed to provide in-depth knowledge and insights on specific topics related to data spaces and smart cities. These webinars offer a platform for experts and participants to deepen their knowledge, engage in discussions, share expertise, and address key aspects of data space governance and technical foundations.

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[6] Austria, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Portugal, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom.

5.2.1 Webinar #1: Governance for Data Spaces

This webinar focuses on the governance structures and practices essential for effective data spaces. Participants explored the principles, strategies, and models related to data space governance, with an emphasis on fostering collaboration and transparency.

The "Governance for Data Spaces" webinar held on June 26th, 2023, was a highly anticipated event aimed at highlighting the crucial role of effective data governance in smart cities and communities. Co-organized under the initiative of DS4SSCC, the webinar also featured the PrepDSpace4Mobility, GREAT, and DATES data spaces, collaborative projects funded by the European Commission. In order to maximise

dissemination, this event has also been embedded in the DSSC Insight Series[7]. The webinar aimed to facilitate collaboration among stakeholders involved in data governance, fostering discussions on governance approaches and sharing experiences in managing data spaces.

The webinar attracted significant attention, with a total of 333 registrations, reflecting a high level of interest and engagement in the topic. During the 90-minute event, there was a dynamic turnover of participants, totaling 211 attendees.

The webinar, hosted and moderated by Sophie Meszaros, OASC (DS4SSCC), was divided into two main segments: presentations and a Q&A session. Key presentations included:

1. **Overview of Data Spaces and Governance Frameworks** by Leona King from KU Leuven.

2. **Use-Case DATES: Tourism** presented by Eric Pol from aNewGovernance.

3. **Use-Cases DS4SSCC: Sustainable Mobility & Energy Flow Management** discussed by Justine Gangneux from Eurocities.

4. **Use-Case PrepDSpace4Mobility: Transport and Mobility** elaborated upon by Charlotte Ducuing from KU Leuven.

5. **Use-Case GREAT: Pollution** insights shared by Sergio Cinnirella from IIA CNR.

The presentations covered various aspects of data spaces and their governance, with a particular focus on real-world use-cases in sustainable mobility, energy flow management, pollution, and tourism. The event's presentations and discussions offered valuable insights into practical governance frameworks for data spaces across various domains, reinforcing stakeholders' dedication to advancing data governance practices in evolving ecosystems.

Recordings and presentation slides are available here: https://www.ds4sscc.eu/news/webinar-governance-for-data-spacesnbsp.

5.2.2 Webinar #2: Technical Common Grounds for Smart & Sustainable Cities' Data Spaces

Since September 2022, European data spaces initiatives have been collaboratively defining the technical building blocks for data spaces across various domains. In partnership with the Data Spaces Support Centre (DSSC), this collaborative effort has successfully identified and integrated common grounds for technical standards and software implementations presented during the event.

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[7] Monthly webinars, through which the Data Space Support Center, offers stakeholders a platform to engage with its activities, connect with key contributors, and track the development of the Data Space Blueprint. Find more on https://dssc.eu/

The webinar, featured two main segments: presentations and a Q&A session. Presentations:

1. **Overview of DS4SSCC preparatory and deployment actions** by Sophie Meszaros from OASC
2. **Technical common ground of data spaces (DSSC)** by Clara Pezuela from FIWARE
3. **Technical common ground of data spaces for smart and sustainable cities and communities (DS4SSCC)** by Thimo Thoeye from OASC

The webinar successfully achieved three main objectives:

- Domain-Agnostic Technical Insights: The webinar provided attendees with knowledge about the technical common grounds proposed by DSSC, which are applicable across all data spaces, regardless of the specific domain.
- Technical Insights for Smart & Sustainable Cities & Communities: Participants gained valuable insights into the unique technical requirements of data spaces within different domains, with a particular focus on their application in smart and sustainable cities and communities.
- Enhancing Efficiency and Transparency: The significance of common technical grounds in fostering efficiency and transparency within data spaces was emphasized, highlighting how these common elements can contribute to the growth of data space initiatives.

The webinar attracted a total of 76 participants, including professionals, researchers, policymakers, and stakeholders who are actively engaged or interested in the development of data spaces for smart and sustainable cities.
Recordings and slides are available here: https://www.ds4sscc.eu/news/technical-common-grounds-for-smart-amp-sustainable-cities-data-spaces

5.3 Workshops

Workshops in the DS4SSCC project serve as hands-on collaborative sessions that facilitate skill-building, idea generation, and practical application of concepts related to data spaces. These workshops provide a dynamic environment for participants to actively engage and contribute.

5.3.1 Workshop #1: Online matchmaking event for DS4SSCC

On September 13th, 2023, DS4SSCC hosted a significant online matchmaking event. In view of the deployment actions starting in October 2023, the event aimed to facilitate connections and foster collaboration among diverse stakeholders, including cities, communities, regions, research centers, civil society, and companies, all united by a shared interest in data spaces for smart cities and communities across Europe.

Key objectives included:
1. Networking: Attendees had the opportunity to forge connections with like-minded professionals and entities from across Europe.
2. Collaboration: Participants discovered partnership opportunities and synergies, promoting collective progress in the field.
3. Knowledge sharing: Insights were shared by experts and practitioners who are actively shaping the future of smart cities and communities.

4. Information exchange: Attendees stayed updated on the latest developments and initiatives in the data spaces domain.

The event saw the participation of 60 individuals, representing a diverse range of backgrounds and expertise. This strong turnout highlighted the keen interest and importance of bringing stakeholders together to drive advancements in data-driven development.
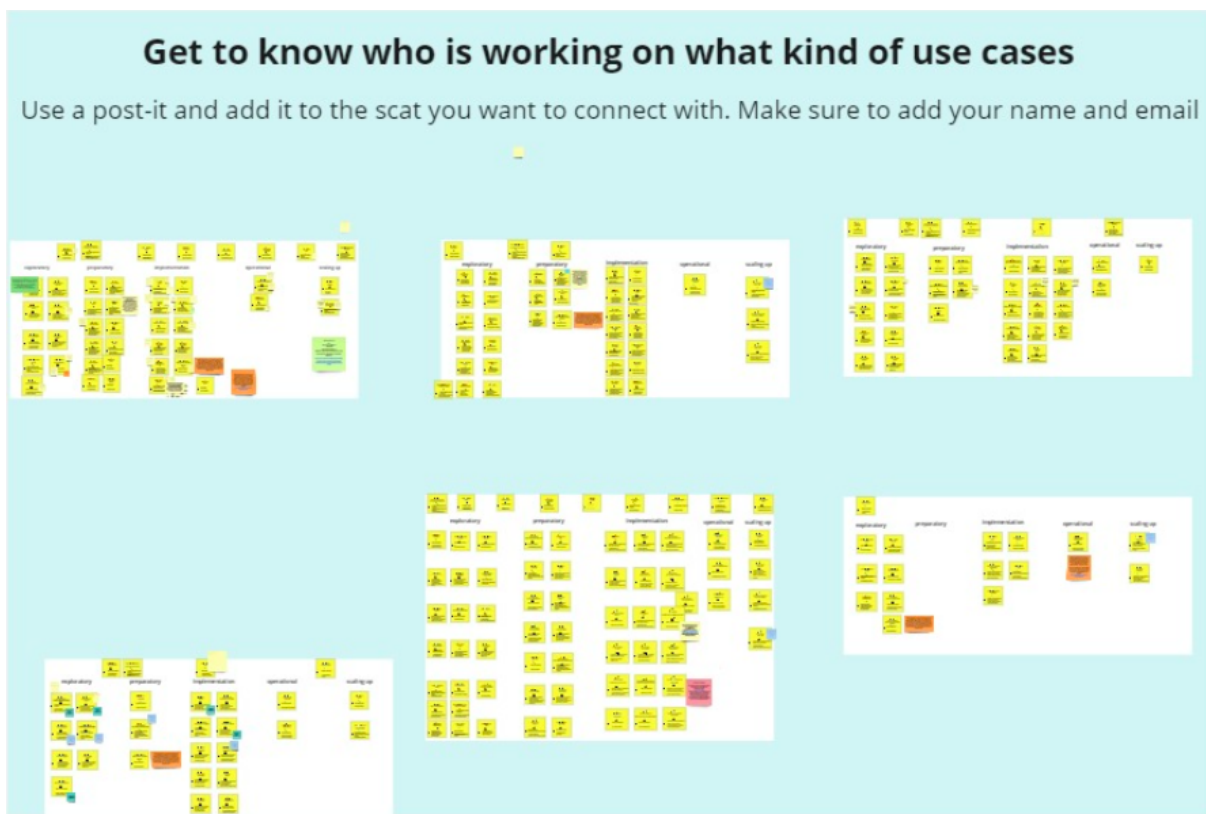
5.3.2 Workshop #2: Session on DS4SSCC Blueprint

Workshop #2 was a dedicated workshop hosted within the Eurocities Digital Forum in Riga on September 29th. During the workshop, an overview of the DS4SSCC Blueprint, including its various components and the Data Cooperation Canvas, was provided. The session also featured presentations from Porto Digital and Riga Digital Agency, showcasing real-world use cases of data collaboration:

● Porto Digital presented a mature use case involving public-private reciprocal data collaboration across multiple municipalities, focusing on energy as part of the CityCatalyst project[8]. They successfully utilised the Data Cooperation Canvas, highlighting its effectiveness in identifying partner responsibilities.

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[8] http://citycatalyst.pt/?lang=en

- Riga Digital Agency and Riga Energy Agency presented a use case centred around a Positive Energy District. While their data cooperation was in a preliminary stage, they also found value in using the Data Cooperation Canvas to comprehensively address technical and organisational aspects of collaboration.

Key Takeaways:

1. Positive feedback was received from several cities regarding the Data Cooperation Canvas. They found it to be a valuable tool, particularly for defining cooperation in the early stages. Several cities expressed their intention to use and further develop it.
2. Participants suggested that the canvas could facilitate internal discussions, including engagement with legal departments, and serve as a means to engage external stakeholders effectively.
3. The session highlighted the need for more matchmaking efforts in preparation for the upcoming deployment call. This underscores the importance of connecting potential partners and fostering collaborative initiatives in the context of DS4SSCC.

In conclusion, the workshop showcased the practical utility of the Data Cooperation Canvas, eliciting positive feedback from participating cities and emphasizing its role as a valuable tool for shaping early-stage data collaboration, both internally and externally, while also underscoring the imperative for increased matchmaking efforts.

5.4 Open Debates

The Open Debate is a forum for in-depth discussions and exchanges of ideas concerning the transition to sustainable and digital cities and communities in Europe. This event brings together experts, stakeholders, and thought leaders to explore policies, projects, and perspectives on this critical transformation.

Panellists engaged in dialogues covering a wide range of topics, including sustainability, digitalization, and the role of data spaces in shaping the future of cities and communities across Europe. The Open Debate serves as a platform for sharing diverse viewpoints and fostering collaboration toward common goals.

5.4.1 Open and Agile Smart Cities Summit

The OASC Annual Summit 2023 took place in Brussels on June 14 to foster knowledge exchange and cooperation between stakeholders, such as politicians, researchers and industry partners and to reflect on societal challenges from a digital and local perspective. More than 100 stakeholders in the field of smart cities and communities, data spaces, AI and standards attended the 2023 OASC Annual Summit.

During the Summit DS4SSCC was presented among the smart cities' projects and

initiatives by the project Coordinator Sophie Meszaros. Presentation available here: https://docs.google.com/presentation/d/14DjsbpOfF2r2NypcCNKrSYlll2t0Nyr6/edit #slide=id.p1

5.4.2 OpenLivingLab Days: Transitioning sustainable and digital cities & communities in Europe

The OpenLivingLab Days took place in Barcelona on September 21-23, gathering more than 400 participants to focus together on the transitions at the heart of the conference: Green, Digital, Social, Just and Living Lab Transitions.

Moreover, it was at the centre of the Open Debate "Transitioning sustainable and digital cities and communities in Europe: policies, projects and perspectives", together with CommuniCity[9] and Living.in EU.

Giacomo Lozzi, ENoLL (DS4SSCC), presented the project and moderated an interesting debate with Margit Noll (European Partnership Driving Urban Transitions) Federica Bordelot (Eurocities), Karl-Filip Coenegrachts (OASC) and Dimitri Schuurman (imec) on how systematic experimentation at the urban level accelerates the mainstreaming and replication of successful projects, supporting decision-making and policy formulation.

The debate also gave the opportunity to analyse the key challenges: enhancing community engagement, ensuring interoperability, and empowering local authorities to lead digital and green transitions. The European Commission has been at the forefront with initiatives like Living-in.EU, DS4SSCC, CommuniCity, Urban Transitions Mission Centre, and more, opening up opportunities for communities to actively participate in this transformation. Collaborative efforts among networks are fostering peer-to-peer exchange and learning.

https://openlivinglabdays.com/transitioning-sustainable-and-digital-cities-communities-in-europe-policies-projects-and-perspectives/

Key Takeaways:

- *European Commission's Initiatives*: The European Commission has launched several initiatives such as Living in EU, DS4SSCC, CommuniCity, and the Urban Transitions Mission Centre. These initiatives offer opportunities for communities to actively engage and participate in the transformation process, fostering peer-to-peer exchange and learning.
- *Role of Living Labs*: Living Labs emerged as crucial entities in driving urban transitions, supporting decision-making and policy formulation. They help in enabling systematic experimentation at the urban level, which in turn,

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[9] https://communicity-project.eu/

accelerates the replication of successful sustainable and digital projects across communities.

- *Collaborative efforts & network enhancement*: The collaborative innovation emphasised at OpenLivingLab Days highlighted the significance of mutual efforts and shared knowledge among networks in achieving sustainability and digital objectives. It reaffirmed the collective commitment to leveraging collaborative innovation for transitioning to digital and sustainable communities.
- *Challenges and path forward*: However, challenges persist in enhancing community engagement, interoperability, and in empowering local authorities to spearhead digital and green transitions. Addressing these challenges is vital for the successful implementation of sustainability and digital transformation strategies.

Conclusion:

The #OLLD23 session offered insights into the transformative journey to sustainable and digital cities and communities in Europe. Living Labs and the European Commission's initiatives are pivotal in facilitating this transformation, promoting collaborative innovation, and fostering learning and exchange among communities. However, to ensure the successful realisation of these objectives, it is essential to address ongoing challenges related to community engagement, interoperability, and empowerment of local authorities.

6 Recommendations and conclusions

Recommendations for the DS4SSCC Deployment Phase of the DS4SSCC Project include:

1. **Disseminate the Training Hub**: One of the primary recommendations for the Deployment Phase is to actively promote and disseminate the Training Hub developed as part of the DS4SSCC Capacity Building initiative. This is essential for equipping stakeholders with the necessary skills and competencies to navigate the challenges of digital transformation effectively.

2. **Governance focus**: Given the considerable number of participants in the webinar on Governance and the discussions around governance challenges, it is imperative to prioritize governance issues in the Deployment Phase. Special attention should be given to it when engaging with public authorities.

3. **Leverage Stakeholder Forum insights**: The insights and recommendations generated during the 5th DS4SSCC Stakeholder Forum meeting should be carefully considered and integrated into the planning and execution of the DS4SSCC Deployment Phase. These insights provide a comprehensive understanding of challenges, capacity building priorities, and barriers, serving as a valuable resource for successful implementation.

4. **Actively share the broader digital landscape:** This initiative works towards enabling the sharing and reuse of data to create data-driven services. As such, it is important to help the community identify relevant tools (Local Digital Twin Toolbox, CitCom.AI Testing and Experimentation Facility, domain specific data spaces) and communities (Living-in.EU movement).

The DS4SSCC Capacity Building Programme signifies a significant step forward in promoting mutual learning and knowledge-sharing among European data ecosystems. As we move forward, our future endeavours will continue to focus on strengthening the capacity and engagement of data space communities. By doing so, we aim to ensure the sustained success of AI-enabled data services and digital transformation across smart and sustainable cities and communities throughout Europe. These efforts are crucial in contributing to the ongoing transformation of Europe's digital landscape and furthering its commitment to sustainable and interconnected communities.

About Data Space for Smart and Sustainable Cities and Communities (DS4SSCC)

Data is a central aspect of the twin green and digital transformation, and European cities, regions, towns, and rural areas play a vital role in safely leveraging its potential. This preparatory action for a Data Space for Sustainable and Smart Cities and Communities (DS4SCC) provides a coordinated starting point for public, private, and individual stakeholders to contribute and use data, aligned with European values and policies.

This preparatory action emphasises the sustainability aspect – green, social, and economic – and the diversity of communities, and aims to:

- Develop a multi-stakeholder data governance scheme by bringing together European cities and their local stakeholders ('quadruple helix') to collaborate on use cases relevant to Green Deal objectives through operational local data governance core group".
- Create a blueprint for the European DS4SSCC by co-creating with stakeholders a methodology for setting it up, from the vision of a full-fledged pan-EU DS4SSCC, not only from a technical perspective but also giving operational guidance e.g., for procurement.
- Bring an agreed set of priority datasets into conformity with the new blueprint by delivering a catalogue of domains, use cases and related data sets for DS4SSCC.
- Develop a roadmap and action plan towards a mature, connected pan-EUDS4SSCC.
- Shape and implement the data space on the local, regional, national and EU levels, taking into account their different levels of maturity, will be an exercise in co-creation with the stakeholder forum.

Documentation will include recommended actions for standardisation, business models and strategies for running data spaces, and a vision for the federation of platforms. Building on core European networks of cities and communities that have championed the Living-in.EU movement, DS4SSCC is a timely, ambitious, and essential contribution towards the sustainability goals of European citizens.

Our consortium: