



D6.8 Cooperation with other EU initiatives, regional and local initiatives

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About SPARCS

Sustainable energy Positive & zero cARbon Communities demonstrates and validates technically and socioeconomically viable and replicable, innovative solutions for rolling out smart, integrated positive energy systems for the transition to a citizen centred zero carbon & resource efficient economy. SPARCS facilitates the participation of buildings to the energy market enabling new services and a virtual power plant concept, creating VirtualPositiveEnergy communities as energy democratic playground (positive energy districts can exchange energy with energy entities located outside the district). Seven cities will demonstrate 100+ actions turning buildings, blocks, and districts into energy prosumers. Impacts span economic growth, improved quality of life, and environmental benefits towards the EC policy framework for climate and energy, the SET plan and UN Sustainable Development goals. SPARCS co-creation brings together citizens, companies, research organizations, city planning and decision making entities, transforming cities to carbon-free inclusive communities. Lighthouse cities Espoo (FI) and Leipzig (DE) implement large demonstrations. Fellow cities Reykjavik (IS), Maia (PT), Lviv (UA), Kifissia (EL) and Kladno (CZ) prepare replication with hands-on feasibility studies. SPARCS identifies bankable actions to accelerate market uptake, pioneers innovative, exploitable governance and business models boosting the transformation processes, joint procurement procedures and citizen engaging mechanisms in an overarching city planning instrument toward the bold City Vision 2050. SPARCS engages 30 partners from 8 EU Member States (FI, DE, PT, CY, EL, BE, CZ, IT) and 2 non-EU countries (UA, IS), representing key stakeholders within the value chain of urban challenges and smart, sustainable cities bringing together three distinct but also overlapping knowledge areas: (i) City Energy Systems, (ii) ICT and Interoperability, (iii) Business Innovation and Market Knowledge.

Partners



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EXECUTIVE SUMMARY

Since its inception, SPARCS has developed links and relations with other projects and initiatives at EU, national, regional and local levels. Despite the huge impact that the COVID-19 pandemic had – and still has – on our lives, SPARCS partners have managed to create new connections and strengthen existing ties.

With the “new reality” in place, most of the events and collaborations have happened online or in a hybrid format. This transition to online activities has ensured continuity in collaboration, smooth exchanges with other projects and active participation in ongoing initiatives. Despite a surge of “Zoom fatigue” in recent months it is likely that online activities will continue to dominate communications in the near future.

This report summarises the most relevant collaborations developed during the first 24 months of SPARCS. The main achievements with regard to cooperation through horizontal cross-cutting initiatives and policymaking include acquiring leading positions in two research and policy-oriented networks – the IEA Annex 83 Positive Energy Districts and COST Action PED-EU-NET – as well as maintaining close collaboration with EU-level initiatives on smart cities and organisations targeting urban sustainability.



1. INTRODUCTION

1.1 Purpose and target group

This deliverable summarises the SPARCS cooperation in terms of its horizontal cross-cutting initiatives in the European innovation ecosystem as well as more policy-oriented initiatives.

The target group is divided into two main segments: (1) horizontal cross-cutting and policy-oriented initiatives, and (2) regional, national and local initiatives. Figures Figure 1 and Figure 2 below show the further sub-segmentation of those two categories.

Selected horizontal cross-cutting and policy-oriented initiatives

Positive energy districts initiatives



Smart City, smart energy and innovative construction related initiatives



Sustainable urban development initiatives



Figure 1: Segmentation of priority global and EU-level horizontal cross-cutting and policy-oriented initiatives, without EIP SCC Action Clusters

Selected national and regional smart city initiatives

Local and national

- 6Aika** Six-city collaboration 
- Energy Efficient Cities of Ukraine** 
- SCC01 cities' informal groups** 
- RNAE (National network for all energy agencies)** 
- Municipal Energy Managers Association** 
- NTNU Smart Sustainable Cities competence cluster** 

Regional

Connective Cities (Southeast Europe)

Urban Lab Network in Visegrad Countries (V4+) (Central Europe)

Figure 2: Priority national and regional initiatives selected for closer cooperation



1.2 Contributions of partners

Table 1 below depicts the main contributions from partners contributing to this deliverable.

Table 1. Contributions of partners

Partner	Contributions
GOPA	Editor of the deliverable. Content planning, summarising inputs from partners.
CVUT	Contributions to writing of the deliverable, content related to Task 6.3.
VTT	Contributions to writing of the deliverable.

1.3 Baseline

At the beginning of the project, the existing networks of the partners were identified, with a high priority for the ones directly relevant for SPARCS overall targets. This coordination work simplified the navigation and organisation of all the information flowing from individual partners and work packages to external collaboration networks, and vice-versa. It also brought benefits at a more granular (city) level, matching technical expertise with other technical experts from among all these initiatives. The coordination of cooperation aims to ensure a clear flow of communications and information, and to allow requests to be handled flexibly and reactively.

In the first month of the project (10/2019) the list contained 48 initiatives, including both horizontal (29) and regional/national (19) ones. The EIP SCC Action Clusters (6) were also listed among the horizontal initiatives. Based on an initial survey carried out in October and November 2019 each of those initiatives was assigned an ambassador. An internal Code of Conduct and a Quick Guide for Ambassadors were created, summarising the principles for communication and basic information about the initiatives, as well as the general and specific goals of ambassadors towards individual initiatives. The general goal for each initiative is to support knowledge exchange both outwards and inwards:

Outwards from SPARCS:

- dissemination of SPARCS activities and deliverables for events;

Inwards to SPARCS:

- publications on topics such as studies and practical guidance documents on local energy solutions, smart city strategies, building sustainability standards and public procurement methods;
- information on relevant activities, seminars, and potential demand for positive energy district (PED) solutions etc.

Throughout the first year of SPARCS the list of initiatives was further updated and ambassadors were confirmed. In some cases the ambassadors were changed based on the personnel changes in some of the teams of partner organisations. Some of the initiatives were reclassified as project-level collaborations. The consolidated list (Figure 3) includes the active ambassadorships as of 7/2021.



ID	Initiative	Type	Task	Priority	Confirmed	Organization(s)
H01	Covenant of Mayors	Horizontal		6,3	YES YES	Espoo
H02	Eurocities**	Horizontal		6,3	YES YES	City of Reykjavik
H03	Energy Cities	Horizontal		6,3	YES YES*	Not-assigned
H04	Joint Programming Initiative Urban Europe - City Panel / PED stakeholder group	Horizontal		6,3	YES YES	CVUT, KLD
H05	SET-Plan Action 3.2 on Smart Cities and Communities, Implementation Working Group	Horizontal		6,3	YES YES	VTT
H06	SET-Plan Action 3.1 on Smart Solutions for energy consumers, Implementation Working Group	Horizontal		6,3	YES	VTT
H07	EERA JP Smart Cities	Horizontal		6,3	YES YES	CVUT
H08	EERA JP Smart Grids	Horizontal		6,3	YES YES	VTT
H09	SCIS - Smart City Information System / Smart City Marketplace	Horizontal		6,3	YES YES	SUITE5
H10	ECTP (European Construction Technology Platform)	Horizontal		6,3	YES YES	RIL
H11	CIB (International Council for Building and Innovation) Task group of Smart Cities (TG88)	Horizontal		6,3	YES YES	RIL
H13	EIP SCC Action Cluster: Business Models, Finance and Procurement	Horizontal		6.1.2	YES YES	CivIESCo
H15	EIP SCC Action Cluster: Integrated Planning, Policy and Regulations	Horizontal		6.1.2	YES YES	RIL
H16	EIP SCC Action Cluster: Sustainable Districts and Built Environment	Horizontal		6.1.2	YES YES	RIL
H21	IUCN (International Union for Conservation of Nature)	Horizontal		6,3	YES	Lviv City
H30	International Energy Agency Annex 83 on Positive Energy Districts	Horizontal		6,3	YES YES	VTT
H31	COST Action PED-EU-NET	Horizontal		6,3	YES YES	CVUT
R20	Connective Cities	Horizontal		6,3	YES YES	Lviv City
H32	Open and Agile Smart Cities	Horizontal		6,3	YES	City of Reykjavik
H33	Bloomberg Smart City	Horizontal		6,3	YES	City of Reykjavik
H34	C40 Cities	Horizontal		6,3	YES YES	City of Reykjavik
H35	EIP-SCC Investor Network	Horizontal		6.1.2	YES YES	CivIESCo
R01	Gaika, Six City Strategy – Open and Smart Services 2014–2020 (Finland)	Regional		6,4	YES YES	City of Espoo
R02	NTNU Smart Sustainable Cities competence cluster (Norway)	Regional		6,4	YES YES	RIL
R05	Energy Efficient Cities of Ukraine (Ukraine)	Regional		6,4	YES YES	Lviv City
R06	Visegrad+ Network of Urban Labs (Hungary, Poland, Czech Republic, Slovakia, Ukraine, Armenia, Georgia)	Regional		6,4	YES YES	Lviv City
R07	Association of Ukrainian Cities (Ukraine)	Regional		6,4	YES	Lviv City (City Institute)
R08	Mayors for Economic Growth (Ukraine, Georgia, Azerbaidzhan, Armenia, Belarus, and Moldova)	Regional		6,4	YES YES	Lviv City
R13	RNAE (National network for all energy agencies) (Portugal)	Regional		6,4	YES YES	Municipality of
R16	Union of Towns and Municipalities of the Czech Republic (Czech Republic)	Regional		6,4	YES	Kladno
R17	SMS - Association of Local Administrations (Czech Republic)	Regional		6,4	YES	CVUT
R18	CZGBC (Czech Green Building Council) (Czech Republic)	Regional		6,4	YES	CVUT
R19	SEMMO (Municipal Energy Managers Association) (Czech Republic)	Regional		6,4	YES YES	CVUT

Figure 3: List of active horizontal (H) and regional/national (R) ambassadorships as of 8/2021. *Energy Cities' ambassador position has been temporarily un-assigned due to changes in the team.

1.4 Relations to other activities

This report will be periodically updated according to the progress of the cooperation. The updates will be consolidated in a final deliverable of this task at the end of the project. This deliverable has links with the following activities:

- D6.1 presents the coordination of collaboration; this deliverable and the SCC1 clustering activities follow the same workflow and process.
- Task 6.2 will elaborate and consolidate joint recommendations based on the defined cross-cutting issues.
- D6.2 presents the Collaboration task force and outlines individual memberships in initiatives for H2020 SCC1, among others.
- D6.3 focuses on fostering collaboration with horizontal cross-cutting and policymaking initiatives in the areas where there is the highest learning potential.
- Close relation to WP8 Dissemination and Communication.
- Topic-specific relevance and collaboration with corresponding work packages in SPARCS: WPs 1-5, and WP7.



2. COLLABORATION AT EUROPEAN AND GLOBAL LEVEL

2.1 Overview of collaboration at EU and international level

At European level, SPARCS collaborates with various other initiatives including the Smart Cities Marketplace (see below).

SPARCS contributes actively to several research networks working on positive energy districts. The most important research collaborations include IEA EBC Annex 83 on positive energy districts and COST action 19126 – Positive Energy Districts European Network.

2.2 Smart Cities Marketplace and SCC1 projects

In November 2020 the Smart Cities Marketplace¹ was created as a merger of two former European Commission initiatives: the Marketplace of the European Innovation Partnership on Smart Cities and Communities (EIP-SCC) and the Smart Cities Information System (SCIS). This implied that all the 18 SCC1 lighthouse projects (REMOURBAN, TRIANGULUM, GROWSMARTER, SMARTENCITY, REPLICATE, SMARTER TOGETHER, SHARING CITIES, RUGGODISED, MYSMARTLIFE, IRIS, SMATCH UP, STARDUST, +CITYXCHANGE, MAKING-CITY, SPARCS, POCITYF, ATELIER, REPONSE) flow into this bigger family.



SPARCS partners have collaborated with SCIS over the long term. Suite5 has been working with the self-reporting tool to provide information for the SCIS database on smart city projects.



Figure 4: Title and excerpt from the PED solution booklet

¹ <https://smart-cities-marketplace.ec.europa.eu/>



In 12/2020 the collaborative [solution booklet on Positive Energy Districts](#) was published as a guide to the PED concept (Figure 4). This is one of the tangible results that was edited by SCIS and co-authored by ATELIER, MAKING-CITY, +CITYXCHANGE and SPARCS.

All the SCC1 projects mentioned above work together to demonstrate the processes, technologies and business models they built in the lighthouse cities and aim to replicate in the follower or fellow cities. They also collaborate in organising events and dissemination activities.

Since the start of SPARCS, the partners have been active participants in this network and its functioning organs, namely:

- The **Board of Coordinators** – the executive board of the network – formed of all the 18 project coordinators. SPARCS is represented by VTT and regularly participates in the monthly teleconferences and dissemination activities.
- The five thematic **Task Groups** (TGs), composed of partners belonging to different SCC1 projects that share the same objectives and challenges. All the sub-groups organise regular teleconferences and activities in which SPARCS partners participate. The following list shows the different TGs and active SPARCS partners:
 - Communications and Dissemination (GOPA Com.)
 - Replication (FHG)
 - Business Models and Finance (CiviESCo)
 - Monitoring and Evaluation (Suite5, VTT and CVUT)

As part of this network, SPARCS regularly takes part in joint communication and dissemination activities. An example is the one arranged around the EU Mobility Week 2020 where a common social media campaign was organised under the hashtag #WeMoveSmart. SPARCS also often re-shares content on its Twitter page (@SPARCSeu) from other SCC1 social media channels, while through its website² and monthly newsletter SPARCS publishes details of workshops, webinars and other events organised by sister projects.

The SCC1 Monitoring and Evaluation task group exchanges information on topics including KPIs, normalisation, baselining, exchange of best practices, and lessons learned. As part of that process there are two presentations each month, chosen either from the list of projects or from specific agreed topics. The SCIS collaboration has now to a large extent merged under this task group collaboration.

The collaboration is further strengthened via common participation in bigger events (such as Smart City Expo World Congress in November 2019) as well as joint organisation of webinars and workshops (such as a common POCITYF/SPARCS/Response webinar on citizen engagement in the framework of the EU Week of Cities and Regions 2021).

² <https://www.sparcs.info/>



To better coordinate, structure and support the activities of the SCC1 family, a new project – SCALE – has been put in place in October 2021. Inside SCALE, SPARCS is represented by CiviESCO, which leads SPARCS WP7 and is in charge of content creation for SCALE.

Another example of collaboration between SCC1 projects is the MOOC (“massive open online course”) on PEDs initiated by ATELIER and joined by SPARCS, Making City and +CityXChange. CiviESCO, on behalf of the SPARCS consortium, is working to create a global MOOC on how to develop a full PED and transfer capacity-building to representatives of the cities concerned and other stakeholders. The first action was to agree on the MOOC’s common rules, then to create a common framework based on the topics. As such, SPARCS will cover the topics related to the Governance model and the Funding and Financing Mechanisms.

2.3 COST Action on Positive Energy Districts: PED-EU-NET

Two SPARCS partners (VTT and CVUT) and one SPARCS lighthouse city (ESPOO) are involved in the research and dissemination activities related to the COST Action on Positive Energy Districts (PEDs).³

This COST Action, whose activities started in September 2020, has objectives of two distinct types. The first covers research-oriented objectives, including the harmonisation and dissemination of knowledge on PEDs among different target groups, the co-creation of an innovative PEDs ecosystem and the consolidation of a common definition of PEDs. The second objective revolves around capacity-building, such as establishing a list of interdisciplinary practitioners, providing training and learning opportunities, and creating dedicated scholarships in the field of PEDs.



SPARCS partners have been particularly active in two out of four working groups:

In Working Group 1 (WG1): PED Mapping, Characterisation and Learning (led by CVUT), PED-EU-NET’s main outcome between 9/2020-7/2021 was a framework for an EU-wide PED database. This challenging process involved some SPARCS partners as well as alignment with the working group focusing on PED Labs (an experimental variety of PED projects), IEA Annex 83, SCC1 TG Replication, and the JPI Urban Europe PED programme. The database entered its programming phase as of 7/2021 and is expected to be released in autumn 2021. SPARCS case studies are planned to be involved in the first wave of information collection on PED case studies. The CVUT SPARCS team co-authored two papers for the SEB-21 conference, focusing respectively on PED database development and PED definition.

In Working Group 4 (WG4): Dissemination, Outreach and Exploitation (co-led by VTT) the main objective is to achieve effective dissemination within both research and

³ <https://pedeu.net/>



municipal communities. WG 4 has important role towards all other working groups since one of its main activities is to organize PED-EU-NET workshops and events with stakeholders.

SPARCS partners have also intensive collaboration with the other two working groups of PED-EU-NET focus on PED Guides and Tools (Working Group 2) and PED Laboratories, Monitoring and Replication (Working Group 3).

SPARCS cities are vital stakeholders in the COST Action as they contribute to building up the PED database and taking active part in dissemination activities.

1.3 ANNEX 83 on PEDs

VTT is also the coordinator (operation agent) for the International Energy Agency Annex 83⁴ on PEDs and contributes to all of its subtasks. Annex 83 aims to enhance cooperation on PED development at an international level through the collaboration initiatives of the IEA. Its main objectives include mapping relevant PED stakeholders and their needs, creating a shared definition of PEDs and developing guidelines on replication of technical solutions, planning and implementation of PEDs.

With regard to Annex 83 meetings, the discussions have resolved around SPARCS case studies, earlier experience and lessons learnt. The discussions helped to head towards broader international research and scientific publications. As an example, one of the first submitted Annex 83 scientific publications relating to stakeholder mapping in PEDs used case studies from SPARCS.

IEA Annex 83 knowledge sharing and collaborative research (e.g. joint scientific publications) are kept up to date continuously.



2.4 COVENANT OF MAYORS

The EU Covenant of Mayors for Climate & Energy (CoM)⁵ launched in 2008 covers more than 9000 local governments who have voluntarily committed to achieve or exceed the EU climate and energy targets. Its signatories – and all our lighthouse cities and fellow cities are members of the CoM – endorse a shared vision for 2050 that includes accelerating the decarbonisation of their cities or regions, easier access for their citizens to green, secure and sustainable energy, and better tools to adapt to the unavoidable impacts of climate change.



Each signatory commits to submitting a Sustainable Energy and Climate Action Plan (SECAP) within two years from signing the CoM. The SECAP outlines the key actions each city plans to support the EU 40% greenhouse gas reduction target by 2030. After submission, the cities commit to report every two years on the progress of their plans.

⁴ <https://annex83.iea-ebc.org/>

⁵ <https://www.covenantofmayors.eu/>



The cities of Maia and Kladno are among the newest signatories of the CoM (Maia submitted its SECAP in February 2021 while Kladno signed the CoM last June). Through Covenant meetings and events they have the chance to learn from the other cities and share SPARCS results and experience.

2.5 SET-Plan 3.2 on Smart Cities and Communities

SPARCS has collaborated with the SET-Plan Action 3.2⁶ on Smart Cities and Communities as follows:

- The city of Espoo was nominated from SPARCS to join the activities of the **SET-Plan Action 3.2 PED city panel** from November 2019 while the city of Kladno attended several events that targeted cities.
- Contributing to the **Strategic Research and Innovation Agenda for the Clean Energy Transition Partnership**, Input Paper for the Strategic Research and Innovation Agenda for the Clean Energy Transition 12/2020.
- Joining the **Clean Energy Transition Partnerships (CETP)** and **Driving Urban Transitions Partnerships (DUTP)** **Strategic Research and Innovation Agendas (SRIA)** at a side event of the 14th **SET Plan conference** on 23 November 2020.



In addition, VTT has participated in the Implementation Working Group and in the stakeholders' group of the PED programme.

2.6 European Energy Research Alliance



SPARCS partners have been participating in the European Energy Research Alliance's Joint Programmes⁷ [EERA JP Smart Grids](#) (VTT) and [EERA JP Smart Cities](#) (VTT, CVUT). EERA JPSC proved to be very active in producing its own content (e.g. position papers and workshops), in match-making, and in acting as the intersection for multiple other initiatives. It has worked as a facilitator fostering alignment and closer collaboration between PED-EU-NET, Annex 83, JPI UE, TG Replication and other initiatives, for instance on defining PEDs.

SPARCS was introduced to the JPSC partners back in 6/2019. Since then, it has interacted steadily with the programme, such as via contribution by Dr. Francesco Reda (VTT) and Michal Kuzmic (CVUT) to the SSPCR Bolzano conference in 12/2019, and later through participation in online meetings.

⁶https://setis.ec.europa.eu/implementing-actions/positive-energy-districts-implementation-working-group_en

⁷<https://www.eera-sc.eu/>



2.7 OTHER COLLABORATIONS at EU LEVEL

On top of the networks described above, SPARCS partners collaborate with other EU initiatives through which they are able to learn as well as share what they have achieved within and through SPARCS:

- Four SPARCS cities (Espoo, Leipzig, Lviv and Reykjavik) are represented in the Eurocities network, seeking knowledge and updates from their peers to implement their sustainability strategies.
- The fellow city of Maia participated as an observer in the European project CIVITAS Eccentric⁸. This focused on sustainable mobility in peripheral areas, which have previously received less attention in urban mobility policies. Through this collaboration Maia worked on an implementation plan that was also useful for its 2050 City Vision. Maia is also a follower in the CIVITAS SUMP Plus⁹ project, which aims to help cities and towns become more accessible, green and liveable, allowing people to move around easily. Maia is also involved in the H2020 project COM RES¹⁰, which aims to facilitate the market uptake of renewable energy sources (RES) in the electricity sector and the development of RES in nine EU countries. Maia participated in the Portuguese kick-off meeting (29 January 2021) and a workshop dedicated to RES on 22 June 2021. A further meeting at which Maia will present its experience within SPARCS is planned for autumn 2021.
- The fellow city of Kladno, along with City of Espoo, participates in the PED City Panel of the JPI Urban Europe¹¹. Participants meet approximately every three months to discuss developments, issues and success stories. As Kladno will deliver outcomes in the form of PED designs for SPARCS, participating in this network is particularly beneficial since Kladno can benefit from the experience and insights of other cities that are already very active on PEDs. Kladno is also part of the H2020 project URBAN greenUP¹² which aims to mitigate the effects of climate change, improve air quality and water management, and increase the sustainability of our cities through innovative nature-based solutions.

The fellow city of Reykjavik is part of the IMPULSE¹³ H2020 project that aims to develop common secure e-identification. IMPULSE is supporting Reykjavik's smart city ambitions by investigating the possible impact of AI and blockchains on the public sector. This close collaboration between SPARCS and IMPULSE – thanks to the fact that Reykjavik's SPARCS and IMPULSE teams are part of the same city department – means that SPARCS gets a boost from IMPULSE

⁸ [ECCENTRIC | CIVITAS](#)

⁹ [SUMP-PLUS | Home](#)

¹⁰ [COME-RES | Home](#)

¹¹ [Positive Energy Districts \(PED\) | JPI Urban Europe \(jpi-urbaneurope.eu\)](#)

¹² [Urban GreenUP](#)

¹³ [IMPULSE. Identity Management in PUBlic SERVICES. - IMPULSE - Identity Management in PUBlic SERVICES \(impulse-h2020.eu\)](#)



in terms of both professional input and potentially widened networks. The same exchange of ideas and stimuli applies to Reykjavik's participation in COST Action Net4AgeFriendly¹⁴ where an interdisciplinary team aims to foster awareness and support the creation and implementation of smart, healthy indoor and outdoor environments for present and future generations.

The fellow city of Kifissia is a member of the network of cities in the H2020 project URBAN GreenUP. This project is expected to create a tailored methodology to support the implementation of nature-based solutions to improve quality of life in urban areas. Kifissia has participated in relevant webinars and shared information locally.

- RIL is collaborating regularly with CIB¹⁵. A TG88 Smart Cities webinar about smart city solutions was held in June 2021, with participants sharing information and learning from each other. In addition, RIL has been organising four webinars a year with participants around Europe. Working with the Mission Board on Climate-neutral and Smart Cities, RIL also organised a webinar in March 2020 on citizen engagement practices towards climate neutrality, with over 70 participants. RIL held another webinar with 32 participants from European countries in May 2021, with the title “Does sustainability create value in the real-estate sector?” The material can be found at <https://www.ril.fi/fi/jasenyyys-2/alan-ajankohtaiset-aineistot.html>. The main outcome was a discussion on how sustainability can create value for building owners and how it might reduce risk for investors.
- BABLE is a partner in EIT Urban Mobility¹⁶, an EU project designed to accelerate positive change on mobility to make urban spaces more liveable. BABLE joins in the project's Central Hub calls every second Friday. During these bi-monthly virtual meetings the participants discuss events and projects, and new partners present themselves. In a future call BABLE plans to talk about interesting mobility projects taking place under SPARCS.
- KONE is one of the partners in the EIT Digital¹⁷ ecosystem. This project, launched in 2010, aims to answer specific innovation needs, for example through matchmaking, scaling-up start-ups and attracting young talent. Through KONE's participation in this network, SPARCS has access to a platform for knowledge sharing and new digital innovation.

¹⁴ [NET4Age-Friendly](#)

¹⁵ <https://cibworld.org/>

¹⁶ [EIT Urban mobility – Solving the mobility changes facing our cities](#)

¹⁷ [Home // EIT Digital](#)



3. COLLABORATION AT NATIONAL AND REGIONAL LEVEL

Cooperation and networks at the EU level are only a fraction of all the interconnections that SPARCS partners hold. Collaborations at regional and national levels are continuously developing and strengthening as part of their involvement in SPARCS. They also play an important role in knowledge exchange as well as in the dissemination of SPARCS activities and results.

3.1 ESPOO

The city of Espoo is part of the Finnish SCC1 Smart City collaboration group. The group – composed of the SCC1 lighthouse cities of Helsinki (MySmartLife), Tampere (Stardust), Oulu (MakingCity) and Espoo (SPARCS), as well as the fellow cities of Kerava (MatchUp) and Vaasa (IRIS) – meets at least twice a year to share the project status and discuss implementation challenges and how to overcome them. This collaboration is proving very useful since it focuses on peer support and the perspective of peer cities. It was presented to the SPARCS fellow cities as a replicable model for knowledge exchange at national level.

As part of this collaboration, Ms. Elina Wanne, the Project Manager for SPARCS at the City of Espoo, facilitated a webinar on energy communities attended by around 90 participants from academia, ministries and local administrations on May 26th, 2021. In addition to that, the Smart Finnish Cities collaboration group participated in a conference organised by the Finnish Association of Municipalities on the topic “Responding to energy transition in smart cities”. Espoo’s targets in energy transition and SPARCS were presented at this event. This collaboration group organises several national-level webinars and other events annually. These include a webinar in 2020 on digital solutions as part of Kuntamarkkinat, a national conference for municipalities.

3.2 LEIPZIG

The city of Leipzig is a partner in the German federal project Connected Urban Twins (CUT). The project aims to develop innovative applications for urban development and citizen engagement. As SPARCS and CUT share some common topics, especially around district energy data, Leipzig is working to create synergies between both projects. The development of a digital twin in Leipzig can benefit the objectives of SPARCS, while SPARCS actions can potentially contribute towards CUT’s objectives.

Apart from its participation in national initiatives, Leipzig also has regular informal contact with the other German lighthouse city of Dresden (MatchUP).

3.3 MAIA

The city of Maia has contact with the National Association of Portuguese Municipalities and the Portuguese Energy and Environmental Agencies Network, with both of whom Maia would like to create synergies and share information on SPARCS and its impact on the development of Maia’s ambitions. Maia also regularly follows activities



implemented in the Portuguese cities of Evora (one of the POCITYF lighthouse cities) and Matosinhos (a neighbour of Maia and a fellow city in the Atelier project).

3.4 KLADNO

The city of Kladno and CVUT are part of the Energy Community Forum organised by the Czech Ministry of Industry and Trade. The platform – composed of around 30 regional and national partners – focuses on suggesting specific measures to support cities and municipalities in energy policy and project realisation. Kladno has been invited to share its practical experience with SPARCS and energy communities.

On top of that, Kladno has strong working connections with the Czech Union of Towns. This is the biggest association of its kind in Czechia and regularly organises events and workshops. On more than one occasion Kladno has presented SPARCS and Kladno's activities within the project.

Kladno together with CVUT and the City of Brno (RUGGEDISED) initiated an informal group of fellow cities in the Czech Republic (together with Prague, Pisek and Litomerice). The first meeting took place at the Urbis international smart city fair in 9/2020 (a physical event). Urbis was attended by Kladno, CVUT and Prague again in 6/2021 in the form of an online panel. Collaboration with Brno was progressing as of 7/2021.



Figure 5: Photos from teaming with Brno in 11/2019 (left) and 9/2020 Urbis fellow city panel (right)

A newcomer to this community, the city of Karvina, took part in the ARV demonstration project (under the Green Deal call) together with CVUT, starting in mid-2021. Kladno has shared with Karviná its experience in smart solution financing, e.g. through an online business roundtable in 5/2021.

3.5 LVIV

The city of Lviv cooperates with the regional project Connective Cities¹⁸, which aims to establish a formal network of urban practitioners in south-east Europe. The group meets regularly in different formats to discuss topics linked to urban resilience,

¹⁸ [Connective Cities \(connective-cities.net\)](https://connective-cities.net)



sustainable urban mobility and sustainable urban energy. In 2021, Lviv's team has participated in several events:

- a virtual dialogue event on Sustainable Urban Energy Planning (17-22.05.2021), in which Lviv's team presented SPARCS and the Lviv City Vision to urban practitioners from south-east Europe (including the Western Balkans) and MENA regions;
- mobility working group meetings (27.05.2021, 08.06.2021 and 14.06.2021) where Lviv, Krusevac (Serbia) and Kutaisi (Georgia) discussed their plans for SUMP implementation, including SPARCS support.

In central Europe Lviv also took part in Urban Lab Network in V4+ (Visegrad treaty plus selected countries)¹⁹.

Additionally, Lviv started a cooperation with the NGO co2online (Berlin, DE). City Institute and co2online had a meeting (30.07.2021) on knowledge and experience exchange in energy consumption monitoring. Further knowledge exchange was planned within a project named "Energy consumption monitoring in the housing sector in Lviv" included in the Lviv Implementation Plan.

On a national level, Lviv is the organiser of an annual event for local government representatives, the All-Ukrainian Local Self-Government Forum. Topics related to energy management in Ukraine are discussed every year, after which a resolution is submitted to the Ukrainian government. In 2022, the city of Lviv plans to present SPARCS and its actions at the Forum.

Lviv also organises the Ukrainian Home Owner Associations Forum, an annual national event. This is open to representatives of homeowner associations, housing experts and the government. The participants discuss state policies that influence the development capacity of homeowner associations in Ukraine and draft resolutions to be later submitted to the Ukrainian government. In 2021 the topic of energy management in buildings and at district level will be discussed and Lviv will present its activities within SPARCS.

3.6 REYKJAVIK

The city of Reykjavik is a leading partner in the PaCE project²⁰ that is exploring the phenomenon of populism in Europe and how democracy should respond, including through digital technologies. PaCE is especially relevant to SPARCS with regard to ideas on democracy and citizen engagement.

¹⁹ [About the Project | IRMiR](#)

²⁰ [Populism and Civic Engagement – For a firmer democratic and institutional foundation for the citizens of Europe \(popandce.eu\)](#)



3.7 RIL

RIL hosted a webinar on energy communities on 25 May 2021, with lively discussion between Finnish lighthouse cities. It was held in Finnish, with the title *Kohti energiayhteisöjä* (Towards energy communities). Ms. Elina Wanne from the City of Espoo moderated the event. It provided good insights into energy communities, practicalities and future challenges to be solved. Material (in Finnish) can be found at: <https://www.ril.fi/fi/jasenyyks-2/alan-ajankohtaiset-aineistot.html>.

3.8 BABLE

BABLE cooperates with the E-world community²¹ in some of their events. BABLE's role there is as content creators and content managers. The core topic of the E-world community's events is energy, and they cater for a wide audience including energy suppliers, utilities, engineers, and municipalities (especially in Germany). Due to the pandemic the E-world community has completely changed its offer, moving from a single annual event in Essen to a full year of events and activities. BABLE organised one of these events, titled Positive Energy Districts and the Quest of Smart Cities towards a Carbon-Neutral Future. There they presented some of the insights prepared for the training (Task 5.2) and had a panel discussion with one of the SPARCS partners (CITYCON).

3.9 CVUT

CVUT hosted a series of three workshops called Mutual Learning Exercise between 11/2019 and 11/2020 as part of its EERA JPSC activities. The events consolidated and activated a group of national PED ecosystem stakeholders including funding agencies, the Ministry of Industry and Trade, and leading Czech municipalities (Prague, Pisek, Litomerice, Brno, Kladno). The event in 5/2020 hosted a presentation from Espoo, inspiring Czech partners from around 30 organisations. The ecosystem is an informal network of the organisations that are instrumental in replicating PED in the Czech Republic. The events helped to identify key barriers to PED implementation and the MLE format was thus successfully piloted. In parallel, a similar exercise was carried out in Italy by the ENEA research institute. One of the side effects of this initiative in the Czech Republic is participation in the Driving Urban Transition and PED partnerships, including the pilot call that was organised for soft PED projects. Besides

²¹ [Home | E-world Community \(e-world-essen.com\)](https://www.e-world-essen.com)



those systematic activities, many ad-hoc presentations of the SPARCS project took place (usually within the scope of WP8), targeting:

- architects and construction sector practitioners (Rethink Architecture: Sustainable Concepts, Prague, 4.3.2020, presentation); and
- municipal representatives (Innovation in Municipalities webinar in 2/2021 under the auspices of the Czech Ministry of Interior).

3.10 FRAUNHOFER

Fraunhofer is the national coordinator of the Morgenstadt network²². Its objectives are to think, develop and test innovative solutions for the cities of tomorrow. The network comes together multiple times annually and looks at the integration and sustainability of urban development. The roles of SPARCS and of FHG within SPARCS have been presented several times.

3.11 NECU

NECU participated in the ENI cross-border project NET4SENERGY²³ and workshops organised as part of this project on energy management. During one of those workshops the NECU team presented the SPARCS project and its agenda among other participants and organisers.

3.12 KONE

KONE started a new innovation programme at national level (KONE Veturi Programme) in Finland, focusing on sustainable people flow and new technologies for smoother and safer urban living. The new programme will draw on expertise from a variety of companies and organisations, to address some of the key ecological, social and economic challenges and opportunities created by urbanisation. The programme is co-funded through national innovation funding in the form of Business Finland. The programme will enable KONE and its network of partners to increase the scope of their research, development and innovation operations in Finland. KONE's work in this area will contribute to the Finnish government's targets for carbon neutrality by 2035. The aim is for the solutions developed to be used globally and to play a strong role in the transformation and development of cities, making them more sustainable, resilient and inclusive. Currently and for the upcoming months, the initiative is connected to SPARCS through knowledge sharing both internally and with partner networks.

²² [Morgenstadt - City of the future Initiative](#)

²³ [Cross-border Network of Energy Sustainable Universities | HUSKROUA ENI CBC \(huskroua-cbc.eu\)](#)



4. COLLABORATION AT LOCAL LEVEL

Some of the activities and collaborations of the SPARCS cities take place on a more local level.

As an example, within the objectives of SPARCS the city of Maia organised two open sessions: on city vision and PED replication activities respectively. More than 40 stakeholders representing schools, industries and civil society participated in these sessions, helping the municipality to prepare its 2050 City Vision. Maia also arranged school activities (City Vision Kids and the ImPEC schools contest) where the team challenged pupils to present their visions for the city's future.

The city of Kladno established a platform to attract partners from the city, as well as at regional and national levels, for regular interaction and questions on realising energy policy and SPARCS outcomes.

The city of Lviv organised a City Vision Workshop in September 2020 where representatives of local government institutions and NGOs brainstormed the city's vision for 2050 and its strategic goals for climate-neutral development. The following month, additional meetings with local NGOs were organised to discuss the draft City Vision 2050. Several collaborations were established between SPARCS and other local initiatives related to Lviv's development as a climate-neutral and energy-independent city, in particular:

- Collaboration between the SPARCS working group and the Municipal Energy Plan working group, which include Lviv City Council and the NGO Energy Efficient Cities of Ukraine. SPARCS activities were integrated into a Municipal Energy Plan that Lviv is developing to improve local energy policies and actions, with a view to further applications for a European Energy Award. In total, six joint workshops were organised to prepare a list of actions and projects to be implemented in the next five years:
 - Spatial development and city planning (04.03.2021)
 - Supply and disposal (08.04.2021)
 - Municipal buildings and construction (06.05.2021)
 - Mobility (07.05.2021)
 - Communication and cooperation (17.06.2021)
 - Inner organisation and capacity development (01.07.2021).
- Collaboration between the SPARCS working group and the Spatial Energy Plan working group involves Lviv City Council, municipal district heating companies and the local GIS office. The Spatial Energy Plan will support the achievement of SPARCS objectives in Lviv through energy-efficient refurbishment of buildings and district heating infrastructure. Six workshops involving the GIS office, appropriate experts and responsible institutions from Lviv City Council were organised to discuss different aspects of the Spatial Energy Plan. One meeting with the GIS office was organised in June 2021 to build further collaboration for scaling up the Spatial Energy Plan in Lviv and integrate it with SPARCS as a project idea for the Lviv Implementation Plan. Further onsite workshops took place in August 2021 within Task 5.3 to develop a project idea description.



- Collaboration with NECU and Umuni, a startup company that provides energy monitoring services for public buildings in Lviv. NECU together with Umuni will implement a project idea for energy monitoring in Lviv's housing sector within the SPARCS project. A meeting between Lviv City Council representatives, NECU and Umuni was organised (20.05.2021) to discuss how NECU and Umuni could help to meet the needs of the City Council.

The city of Kifissia and the local SPARCS team participated in a public event under a local initiative called Citizens and Green Energy, at which the SPARCS project was presented. The initiative is a cooperation between municipalities, NGOs, citizens and engineers. The objective of the project was to highlight the benefits of green energy for citizens. The beneficiaries were Kifissia and the nearby municipality of Pallini. Communications and information exchange followed the event.

During the preparations for Kifissia city vision workshop, communications and open discussions took place with various stakeholders including members of the city council, local associations, the national association of architects, local museums, representative of the organisation for regional urban road transport, citizens, experts and local schools, who asked students to draw their visions of the city in 2050.

Similar communication with local experts and representatives from different departments of the municipality and local organisations took place during the innovation workshop and the preparation of project ideas.

The local team is in continuous contact with the municipality's technical department, financial and procurement office to support the goals of SPARCS.

5. LINK TO ONLINE PLATFORM (WP8)

Since the beginning of the project SPARCS has used Microsoft Teams to create an Ambassador working space coupled with a repository of materials useful for implementation of the SPARCS objectives. The latter includes expert as well as more general documents published by partner initiatives (JPI UE, Energy Cities, EIP SCC clusters etc.) and projects and serves SPARCS partners as they build their capacity. For external communications WP6 works in synergy with WP8, with key updates being shared with SPARCS stakeholders and partners through both the website (news and events) and the monthly newsletter.

6. CONCLUSIONS

Despite being still quite young, SPARCS has already established a large number of important collaborations and connections. Thanks to the active involvement of its cities and partners, SPARCS collaborates and participates in many different networks and



projects that are active at the international and EU level as well as at regional, national and local levels.

The restrictions resulting from the Covid-19 pandemic had an initial impact on activities relating to knowledge sharing and dissemination. Events, workshops and face-to-face meetings stopped abruptly in February-March 2020. However, the SPARCS partners swiftly switched to online operations and adapted to the new reality.

Almost two years after the inception of the project, SPARCS is entering a mature stage in which its contribution to the development of innovative solutions for the city of tomorrow is becoming more and more evident. In return, this visibility will help to further strengthen SPARCS's activities in knowledge sharing and dissemination, making SPARCS a pivot among stakeholders interested in sustainable, green and citizen-centred cities.

