

Brokerage event

Green technologies, energy and
digitalisation for a sustainable future



Espoo learnings from participating in H2020 project SPARCS: from preparation to replication.

Elina Wanne, City of Espoo

15th February 2024

The event is organized in the framework of the project KR PAN - Strengthening Research Support and Activities for Progress in European Research Projects, co-financed by the Republic of Slovenia, Ministry of Higher Education, Science and Innovation, and the European Union - NextGenerationEU.



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REPUBLIC OF SLOVENIA
MINISTRY OF HIGHER EDUCATION,
SCIENCE AND INNOVATION



THE RECOVERY
AND RESILIENCE
PLAN



Funded by
the European Union
NextGenerationEU

Espoo facts & figures



The second largest and the fastest growing city in Finland

- 300 000 inhabitants with yearly population growth by 1,6 %
- The youngest population with highest level of education of the major Finnish cities

A big city close to nature

- Part of the Helsinki Metropolitan area
- Five city centers connected by rails
- Land area of over 300 square kilometers, 95 lakes and 58 km of seashore
- Nuuksio National Park, 95 nature reserves and 32 protected habitats

The innovation driver of Finland

- Home of Finland's most valuable companies with almost 50 % of the Helsinki Stock Exchange turnover
- 6th in patents in Europe (1 252 patents in 2021)
- 8th by capital invested in European tech hubs (2020)
- European Capital of Innovation Award finalist in 2019, 2020 and 2022

HOME FOR STARTUPS AND CORPORATIONS



Home for Finland's most valuable companies [📄](#)



680 international companies [📄](#)



Most of Finland's unicorns were born in Espoo: MySQL, Rovio, and Supercell



Espoo Story – the city strategy



1. Top city for culture and education in Finland

2. Services together with the entire Espoo community

3. Economically sustainable and offers competitive taxation

4. Internationally attractive capital of entrepreneurship and innovation

5. Attractive city close to nature and a safe place to live

6. Carbon neutrality by 2030

7. Finland's best city for integration of immigrants

Sustainable Espoo Programme

Innovative cross-sectoral governance

- Launched first in 2013
- Supports the implementation of the city strategy, the Espoo Story
- Steering group with political leaders and city officials
- Owned by the Mayor and supported by a team of 25+ experts in the Centre of Excellence for Sustainable Development

Co-operation for systemic change

- Shared vision and commitment
- Multi-level partnerships
- Concrete actions towards a climate neutral city
- Project portfolio with EU and national funding



Sustainable Espoo focus areas 2021-2025

Energy systems

Circular economy and
sustainable living

Transport and mobility

Sustainable land use
and construction

Nature and biodiversity



**”We succeed when we
have our residents,
companies and
communities involved”**

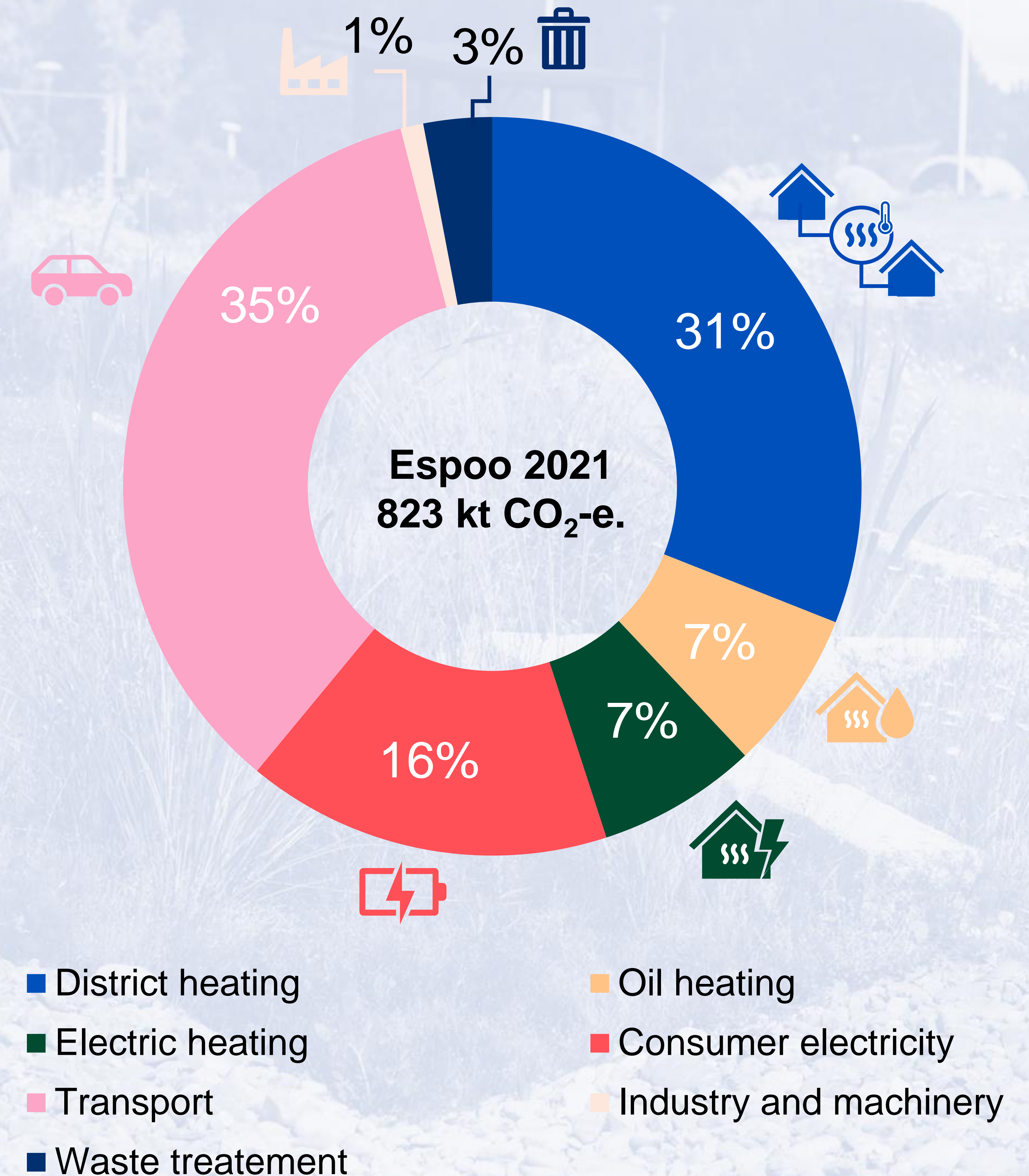


- Jukka Mäkelä, Mayor of Espoo

Climate-neutral Espoo 2030

- In 2021, we were ranked by CDP as one of 95 leading global cities in climate change mitigation and adaptation.
- Part of Covenant of Mayors since 2010 (SECAP 2019)
- Part of the European Mission for 100 Climate-neutral and Smart Cities by 2030
 - **Climate-Neutral Espoo 2030 Roadmap and Climate City Contract** in 2023 in a participatory process to engage local stakeholders and citizens
 - Pilot Cities project approval 2024

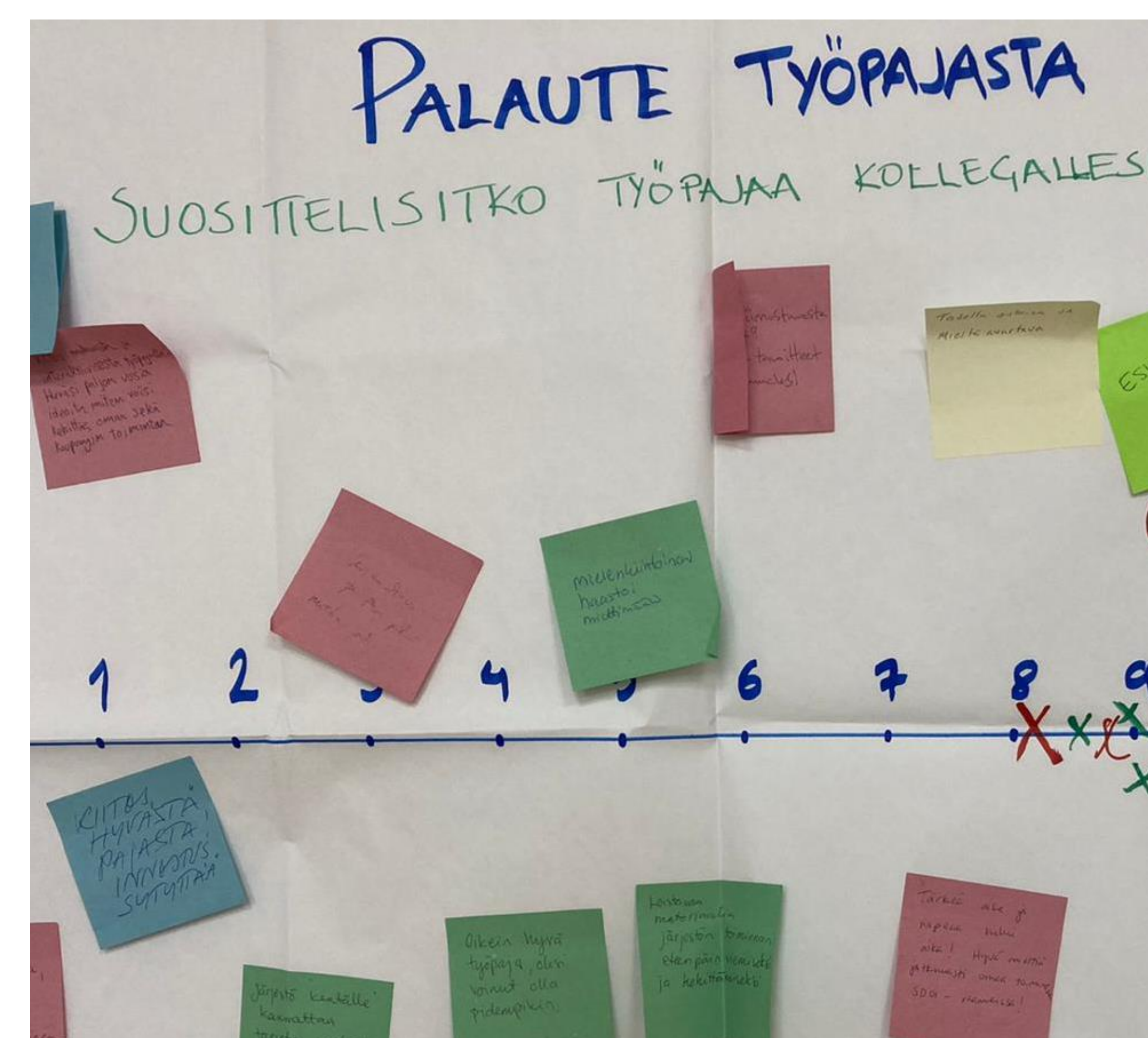
Distribution of greenhouse gas emissions in Espoo [%]



Collaboration for carbon handprint

- Espoo's cooperation with universities, research organisations and businesses generates solutions with significant carbon handprint – positive impact elsewhere.
- Together with partners such as VTT Technical Research Centre, Aalto University, Kone and Nokia we are not only cutting our own emissions but piloting emerging smart and sustainable technologies that will help to tackle the global climate challenge.
- We are looking to solve the systemic solutions piece by piece with innovations that are both sustainable and commercially successful.
 - Focus areas include smart energy, mobility, circular economy, city design and built environment.





**Engaging citizen
and co-designing
together**



H2020 SPARCS

SPARCS at a glance

SPARCS supports European cities in transforming into Sustainable energy Positive & zero cARbon CommunitieS by creating citizen-centric ecosystems that are equipped to bring about meaningful change.

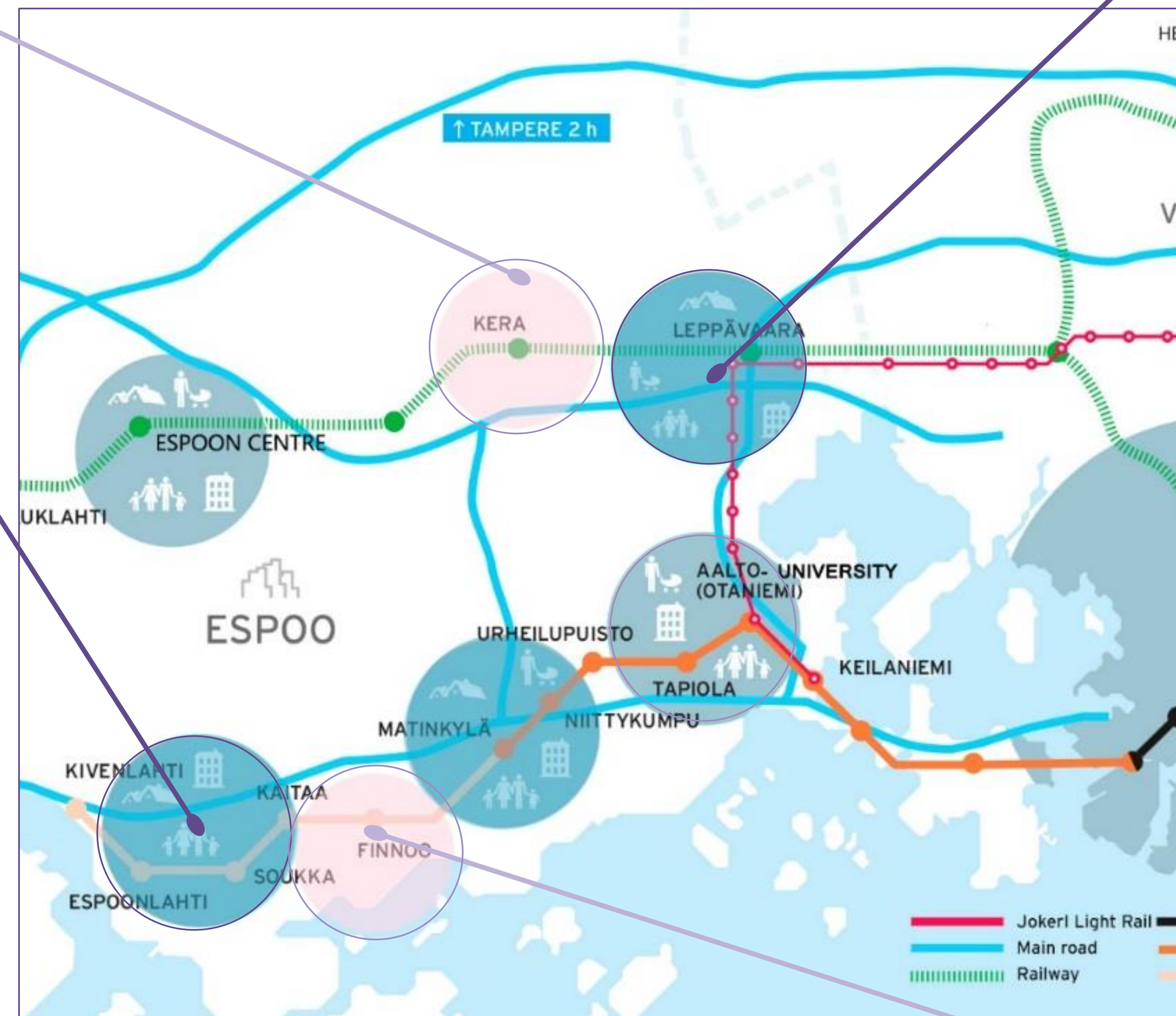
- ▶ Co-funded by the European Union's Horizon 2020 research and innovation programme (23,7 Meuros) 2019 – 2024
- ▶ Lighthouse cities: Espoo & Leipzig
- ▶ Fellow cities: Maia, Kifissia, Reykjavík, Kladno, Lviv
- ▶ 31 partners
- ▶ www.sparcs.info

Demonstration areas

Kera / Leppävaara district
District planning demo area
 City Development
 Smart Technologies
 Co-creation
 Mobility solutions

Espoonlahti district:
Lippulaiva blocks

- RES
- Energy Storage
- Citizen engagement
- Multi-modal transport



Leppävaara District:
Leppävaara Centre

- RES
- Energy Storage
- Smart Technologies
- E-mobility

Finnoo area
 Replication

From preparation...

The preparation phase began in 2017

- ▶ Finnish research institute VTT as main coordinator
- ▶ For Espoo it was important that the project had similar goals with the city
- ▶ Three demo sites from Espoo and Espoo consortium partners were chosen
- ▶ Meetings with all project participants
- ▶ Dedicated partners writing the project plan
- ▶ First try in spring 2018: SPARCS not funded, but the evaluation was promising: The same consortium decided to apply again in 2019
- ▶ Working on the documents according to the feedback
- ▶ In spring 2019: Best application of the round

... to Action:

In October 2019 SPARCS begins

- ▶ Working methods
- ▶ Trust building, getting to know each other
- ▶ After 5 months of project, Covid-19 began
- ▶ First year was for creating common understanding of the project

Current activities and learnings

- ▶ Final year with focus on replication and up-scaling
- ▶ Well-defined roles and tasks and open and supportive working
- ▶ SPARCS is still supporting city's sustainability in many ways
- ▶ Replication plan includes plans for future European smart city projects
- ▶ Dissemination and communication
- ▶ Learning from city perspective happens in many levels: from technical solutions to district-level development with new tools to support change
- ▶ Strong connection with Espoo's climate neutrality 2030 goal

Thank you!

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