

WEBINAR

Smart cities and digital twin technology: the case of Rotterdam

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6 December 2024

10:00 – 11:00 CET

Rules of the game



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Introduction



Flora Kopelou
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Georg Houben
Policy Officer,
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(Directorate General for
Energy)



Roland van der Heijden
Program Manager,
Digital City Rotterdam



Agenda

10.00 – 10.05

Opening and introduction – *Flora Kopelou*

10.05 – 10.15

‘The European urban context: Covenant of Mayors & Smart Cities Marketplace’ – *Georg Houben*

10.15 – 10.45

Open Urban Platform Rotterdam: A responsible, open & transparent digital infrastructure for the city – *Roland van der Heijden*

10.45 – 11.00

Q&A session and closing remarks





Webinar

Smart cities and digital twin technology: the case of Rotterdam

The European urban context
Covenant of Mayors & Smart Cities Marketplace

Georg Houben

DG ENER, unit B1 - Consumers, Local Initiatives & Just Transition

Challenges ahead: EU Green Deal & FitFor55 framework (1)

- **EU Green Deal:** make Europe the first climate-neutral continent by 2050.
- **FitFor55 package:** reach the goal of reducing net greenhouse gas (GHG) emissions by at least 55% by 2030.
- **RED revision:** 42.5% renewable energy share with an aspiration to reach 45% by 2030.
- **EED revision:** final energy consumption reduction of 11.7% by 2030 (based on 2020 levels), stepwise increasing annual energy savings to 1.9% from 2028 onwards (average of 1.49% of new annual savings for the period from 2024-2030), extending the annual 3% buildings renovation obligation to all levels of public administration.

Challenges ahead: EU Green Deal & FitFor55 framework (2)

- **EPBD revision:** aiming to contribute to reaching the target of at least **60% GHG emission reductions by 2030** in the building sector in comparison to 2015 and achieve **climate neutrality by 2050**.
- **Buildings:** **40%** of EU's energy consumption, **36%** of energy related GHG emissions, heating, cooling and domestic hot water account for **80% of the energy consumption by citizens**. Roughly **35% of buildings over 50 years old**, almost **75% energy inefficient**, only about **1% renovation rate**.
- Obligation to **promote local heating and cooling plans in large municipalities** having populations **above 45.000**.

Call to action:

Cities & towns at the frontline (1)

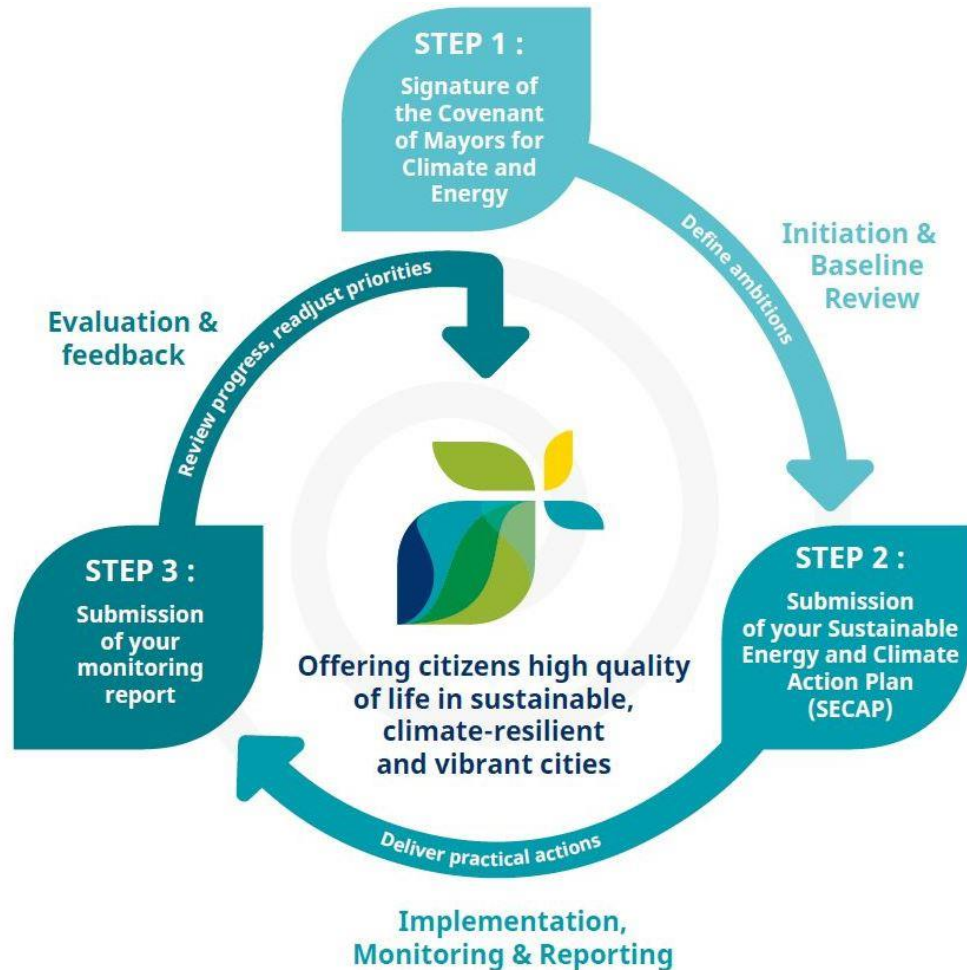
- Cities and towns, with **75% of population** of which **70% in cities and towns below 100.000 inhabitants**, are always **at the frontline of events**: during the COVID crisis, the energy crisis and – not least – the ongoing and **accelerating climate change** affecting **cities and towns**.
- And while **cities and towns** are responsible for the biggest share of GHG emissions, they are also **motors for change and job creation**.
- The **Covenant of Mayors** signatory cities are **frontrunning the journey to climate-neutrality** with their Sustainable Energy and Climate Action Plans.
- The **Covenant of Mayors** is part of a **wide range of EU-level initiatives**, only a few of which are introduced here.

Call to action:

Cities & towns at the frontline (2)

- **Support needed for the implementation:** lack of capacity and skilled staff, while suffering from complex application processes, confusion over existing funds and being confronted with regulatory and legislative constraints.
- EU, regional and national funding alone is not sufficient, we need to **mobilise private investment!**
- **EU City Facility** and **Smart Cities Marketplace** facilitate the preparation of **viable investment plans** and **matching them with private investment:** so far approx. **130 projects** equivalent with approx. **EUR 715 million** matched with investors' interest.
- Strong evidence that **European cities and towns** can tackle the challenge, being **drivers for the European project and the EU Green Deal!**

Covenant of Mayors in a nutshell



- World's largest movement of its kind
 - 11.000+ signatories
 - 7.500+ action plans, including
 - 2.000+ joint action plans
 - 200+ Covenant coordinators
 - 280+ Covenant supporters
- Political board
- Climate mitigation, climate adaptation and energy poverty

Smart Cities Marketplace in a nutshell



A repository of EU sustainable urban projects



A hub for those who look to bring sustainable urban solutions/projects to the market



A matchmaking process to create funding opportunities
“Engage-Explore-Shape-Deal”



A forum for knowledge exchange in dedicated Focus & Discussion groups

Terminology & links

- **RED:** Renewable Energy Directive, <https://europa.eu/!tnv7RM>
- **EED:** Energy Efficiency Directive, <https://europa.eu/!PVrGqq>
- **EPBD:** Energy Efficiency in Buildings Directive, <https://europa.eu/!66XvHt>
- **Covenant of Mayors (CoM):** <https://eu-mayors.ec.europa.eu/en/home>
- **Smart Cities Marketplace (SCM):** <https://smart-cities-marketplace.ec.europa.eu>
- **EU City Facility (EUCF):** <https://www.eucityfacility.eu>
- **Bydgoszcz use case** combining support by CoM, EUCF and SCM:
<https://europa.eu/!MgbWtf>

Thank you!



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Q&A



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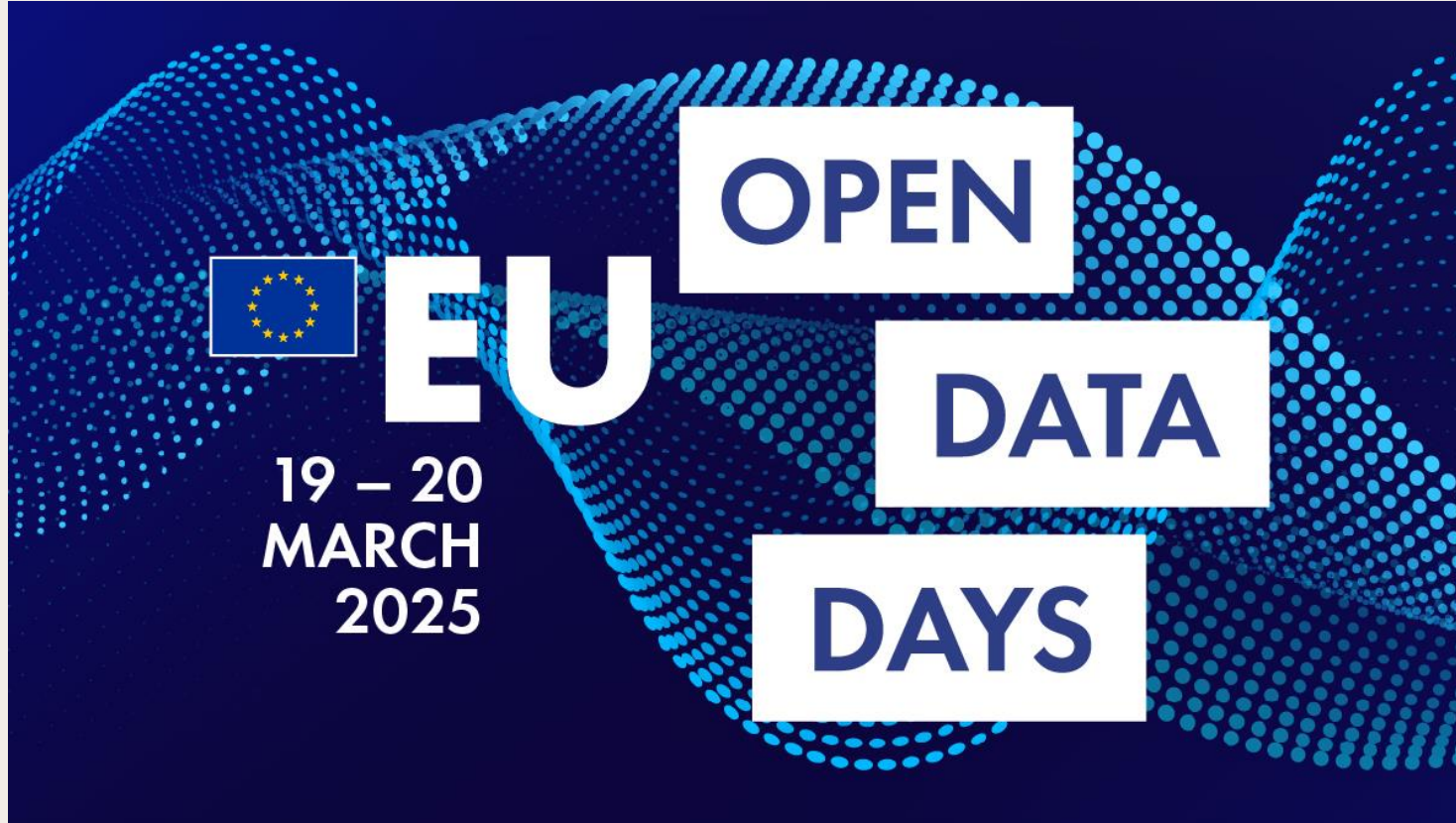


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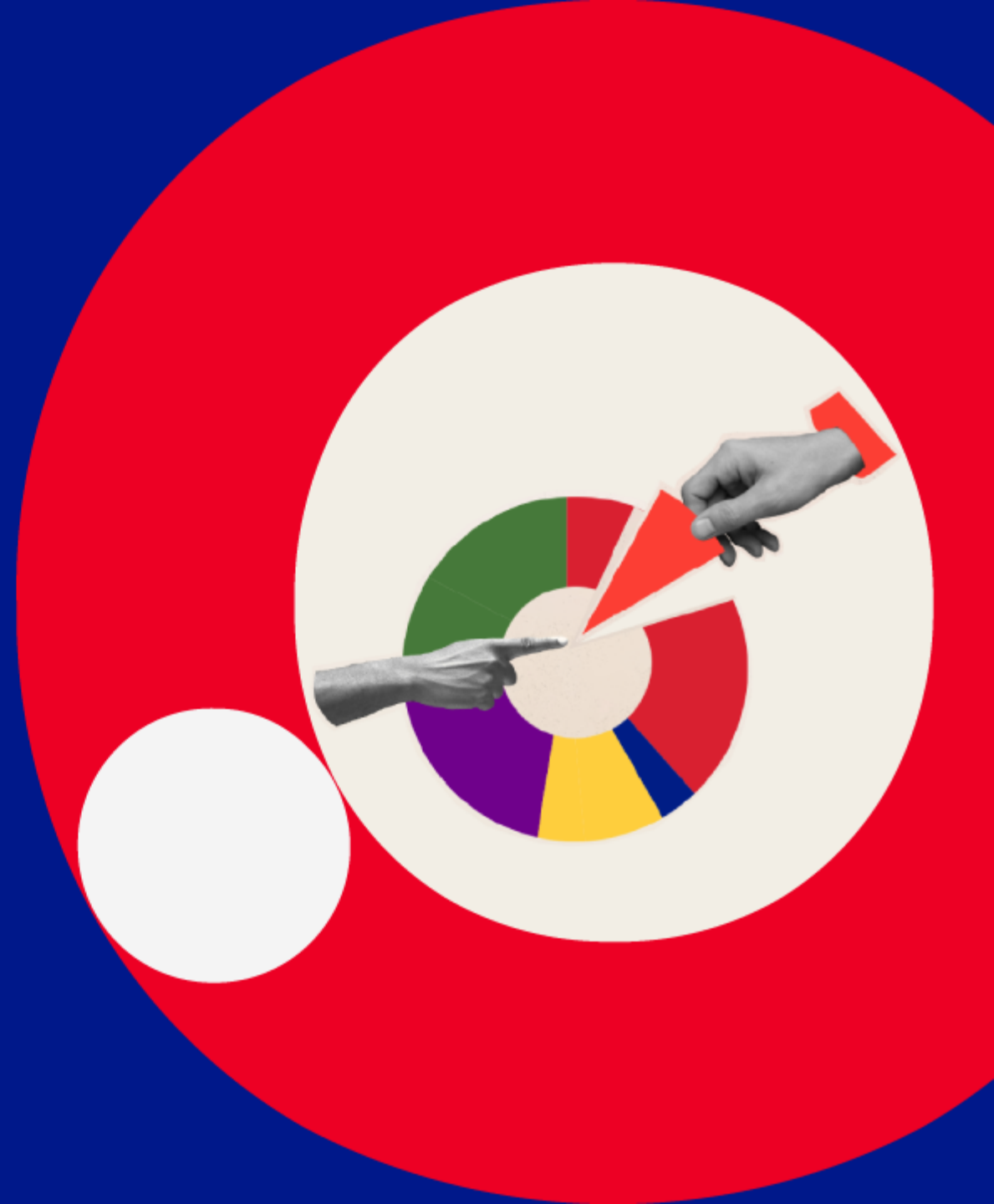
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