

Themes from EUREC's Workshop "Mission on 100 climate-neutral cities by 2030"

In the framework of EUREC's networking activities, we organised the Workshop 'Mission on 100 climate-neutral cities by 2030', which took place online on the 8th of June 2020, from 1pm to 4pm. The workshop's title referred to a specific [Mission planned for the Horizon Europe funding programme](#). Below you will find a series of conclusions generated during the workshop exchange with focus on this Mission topic.

Governance of the Horizon Europe "Cities" Mission

"Gold-standard" governance essential



The governance needed to realise a task as huge as "100 climate-neutral cities by 2030" in the EU will need to be robust. That's assuming it really is whole cities that must reach this aim. But the Mission Board is to allow districts that achieve climate-neutrality to count towards the 100. In practical terms, 99% of the non-muscle energy for mobility will need to be either eliminated or derived from carbon-free non-fossil fuels. Gothenburg intends to electrify all its vehicles including small ferries and rubbish trucks and to fly an electric commercial plane from its airport.

Climate city contracts to bind administrations and the private sector

The [Mission Board](#) wants cities to sign "climate city contracts". Described as a "strategic umbrella" "all relevant parties should sign it", specifically private companies and local and national public administrations.

But first the support of citizens must be obtained. Climate-neutrality-aspiring Lappeenranta consults its citizens. Citizens need to see the benefit of carbon-neutrality in the form of a better quality of life

in their city. Making a climate-friendly choice must be easy for them (us). But the Mission and its implementation must adapt to their changing tastes, behaviour and consumption.

Monitoring implementation

There is agreement between the Mission Board and our panel that a city's progress should not be assessed only in terms of avoided GHG emissions. A set of quantitative socio-economic indicators should be defined in the city contracts, and monitored. On both points, the Mission Board agrees. Gothenburg showed some of the indicators it uses¹.

City selection for the Mission

Cities that execute climate city contracts are expected to be entitled to privileges that are yet to be defined. There was support for a competitive process to select these cities.

Funding

The Horizon Europe budget should only fund work that has R&I content. Alongside it, the Driving Urban Transition Co-funded European Partnership will fund transnational green-city-related R&I from 2021.

At EU level, the European Green Deal, boosted by the revised MFF and Next Generation EU, could provide funding. The EGD's Just Transition Fund will give grants and loans to regions with weak economies that prepare Just Transition Plans. City transformation could be part of those plans. The EGD's 'Renovation Wave' could also contribute.

The EC could choose to take a tough line with regions as they negotiate the activities for which they may receive European Structural and Investment Funds. Those negotiations are happening now and the agreements struck will apply 2021-2027. The EC could demand action on climate-neutrality in cities.

Effective knowledge-sharing

An appeal was made for a body that would collect cities' experience and disseminate best practice. Such a body exists: the [EU Smart Cities Information System](#).

Climate-neutrality enabled by Big Data

The speakers felt climate neutral cities would not be achievable without sensors and processors gathering and using data to anticipate energy flows. In Lappeenranta, the university LUT has access to data from buildings. A technology developed by DLR adapts streetlights to charging points for USB devices or EVs and directs users to the ones where plugging in a load would best support the grid.

Intelligence will be needed for the thermal grids of the future.

¹ Slides 4 and 5 of [Anna Ledin's presentation](#)

City planning tools will need to be based on models fed with large and up-to-date data sets. The City of Gothenburg has gone as far as to create a “digital twin” of itself, at least concerning its GHG generating and mitigating activities.

EUREC’s work

EUREC members are active in research for climate-neutral cities. The event showcased some of their work.

Project	Organisation	Speaker
RESIN-cities and Citykeys	TNO	Vera Rovers
E neuron project: innovative tools for the optimal design and operation of Local Energy Communities	FOSS	Venizelos Efthymiou
Renewable Heating and Cooling Platform	Fraunhofer-ISE & RHC ETIP	Gerhard Stryi-Hipp
Energyville	IMEC	Ivan Gordon
SmartePfoften	DLR Networked Energy Systems	Babak Ravanbach