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ENERGY TRANSITION

**Climate-4-CAST**

# Tampere's experiences with the Climate Action Decision Support Tool

**22.5.2025 Climate-4-CAST Project Visit during Interreg BSR Conference**

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[interreg-baltic.eu/project/climate-4-cast/](https://interreg-baltic.eu/project/climate-4-cast/)



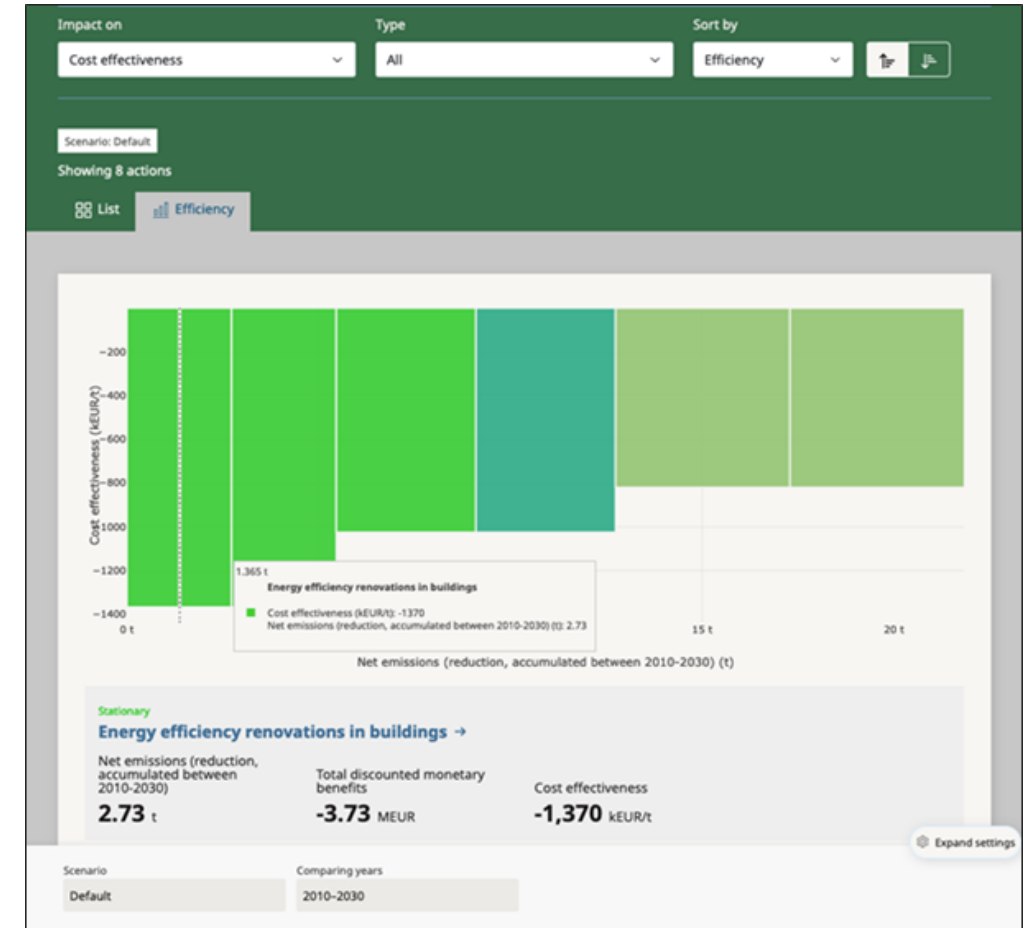
# Tool utilisation

## For whom?

- **Mostly for climate experts, who** use the tool to provide information for decision-making and planning processes.

## What we expect from the tool?

- Provide scenarios and visualisations that show the development of city level emissions and how we are achieving our climate neutrality goal.
- Provide information and estimations about the different impacts of climate measures, that are used in decision-making and planning.
- Identify the most cost-effective climate measures to reduce emissions. Here the **Marginal abatement cost curve (MACC)** is highly important.
- Allow us to play with different development scenarios (emissions and climate measures).



# Experiences with data collection

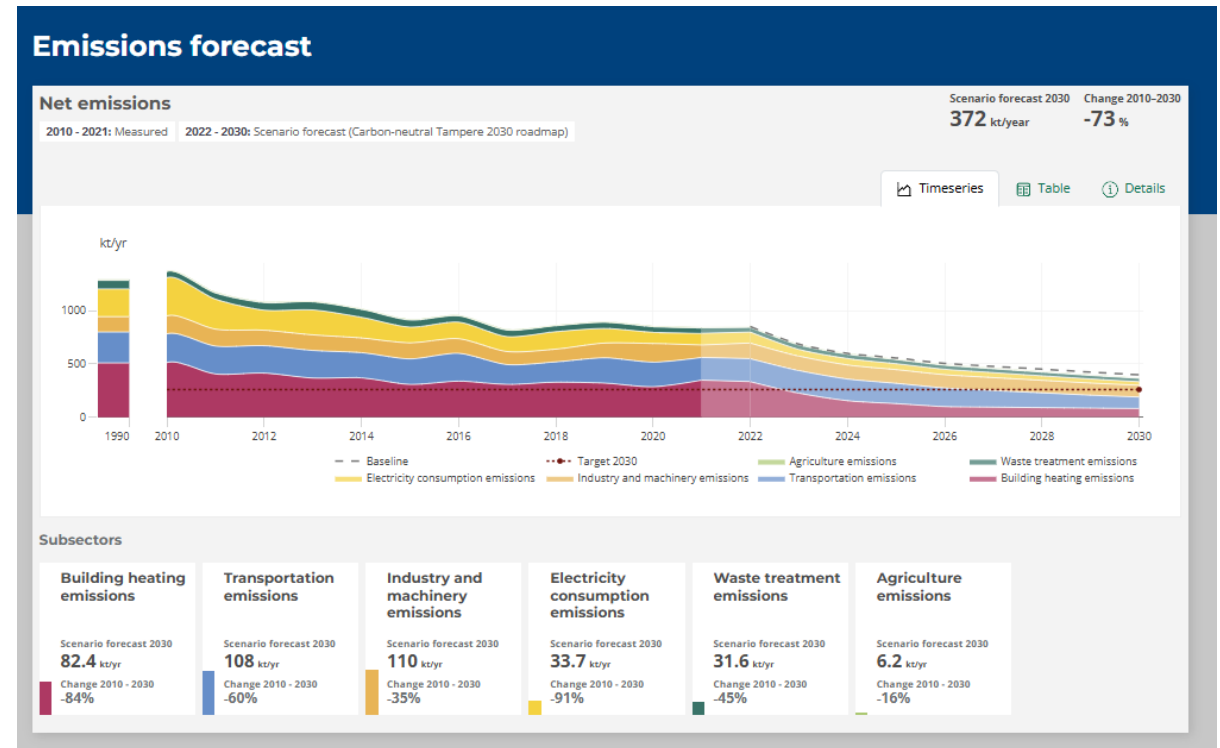
## Baseline emission inventory and emission forecasts

### Emission inventory (2010-2023):

- We purchase CO<sub>2</sub>-report yearly from a consultancy company.
- For C4C tool, need to breakdown the total emission data to emission factor and consumption data.
  - Plenty of different data sources and statistics are followed yearly.

### Emission forecasts: (2024-2030)

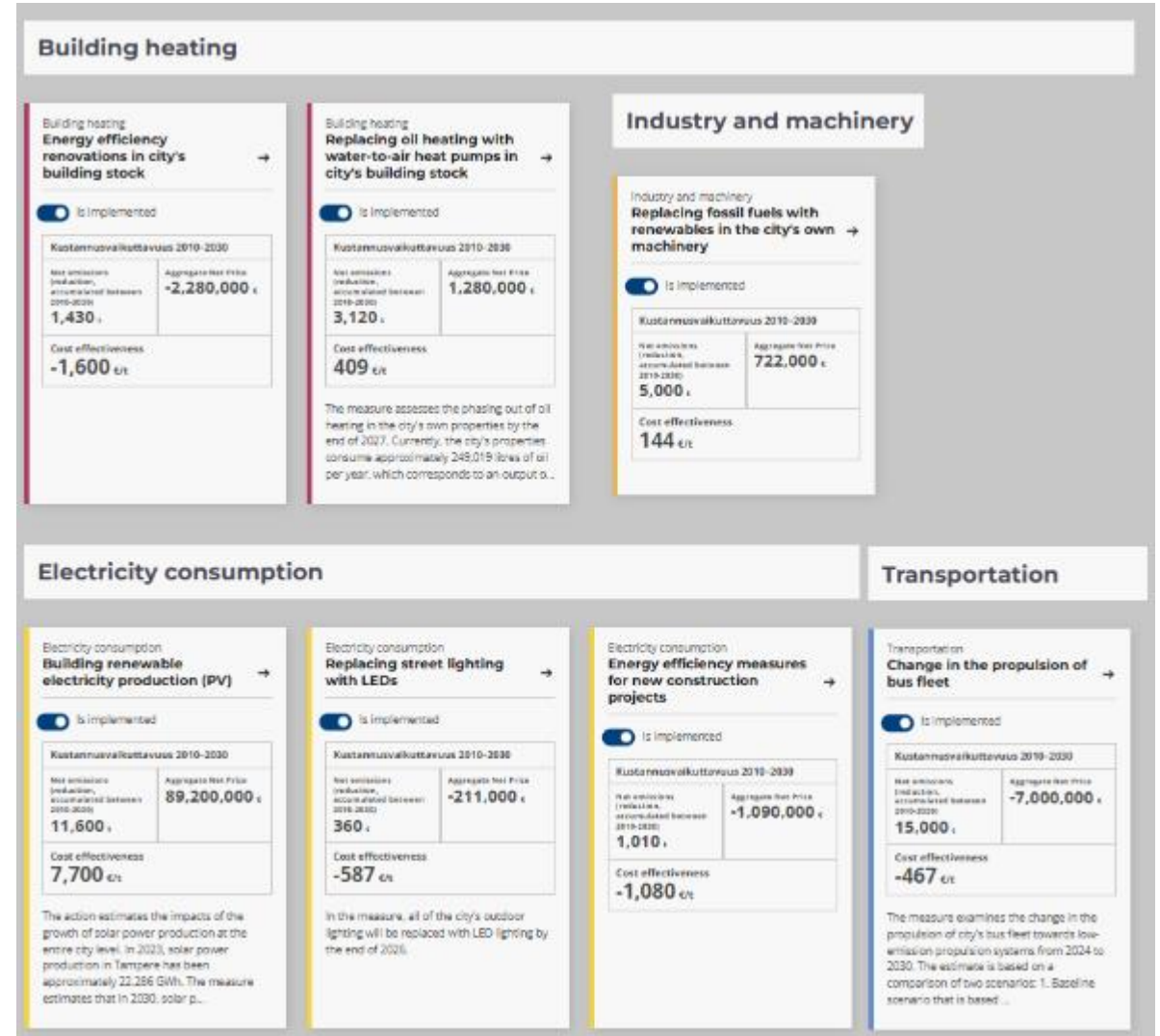
- Done in the city since 2019, update along the Climate Neutral Tampere 2030 Roadmap updates. (every two years)
- BAU scenario / forecast
  - technological developments and trends, key policies, laws and regulations in the national and EU level, already implemented roadmap measures
- Climate neutral Tampere roadmap scenario
  - measures from the roadmap, to which we can estimate the emission reduction



# Experiences and expectations

## Climate Action Impact Data

- **Emission impact data is the crucial.** Had to drop out many actions from the tool, because we haven't found a way to estimate the emission impacts.
  - **Requires skills and expertise (or money) to make the assessments.**
- **Direct cost data** related to investments/operating costs is gathered from the city organisation and the subsidiaries. This information is supplemented with more detailed calculations that consider the cost effects of e.g. changed energy use.
- **Economic impact assessment** (own work + external expert work)
  - Regional economic impact assessments
  - Validation of existing cost-benefit analysis model of sustainable transportation
  - Monetising emission impacts through the shadow price of carbon
- For the tool we also look forward to a functionality that allows us to change parameter values (**parameter sliders** for prices or emission factors)



# Requirements and resources

## Requirements:

- A lot of data and work is required to set-up the tool to its full extents. For us it has been years of constant work with emission inventories, emission forecasts and impact assessments of climate measures.

## How we manage?

- Two experts that work with data collection and calculations (energy and climate specialist, environmental economist)
- Purchase of CO2-report yearly, additional works with external experts (research and academia) to validate data, prepare scenarios etc.
- Involved in projects that helps us develop these aspects further (such as Climate4CAST)

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# Kiitos! Thank you!

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