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Baltic Sea Region



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ENERGY TRANSITION

**Climate-4-CAST**

# Introduction to the Climate Action Decision Support (CADS) Tool

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# Overview

## Introduction to the CADS Tool

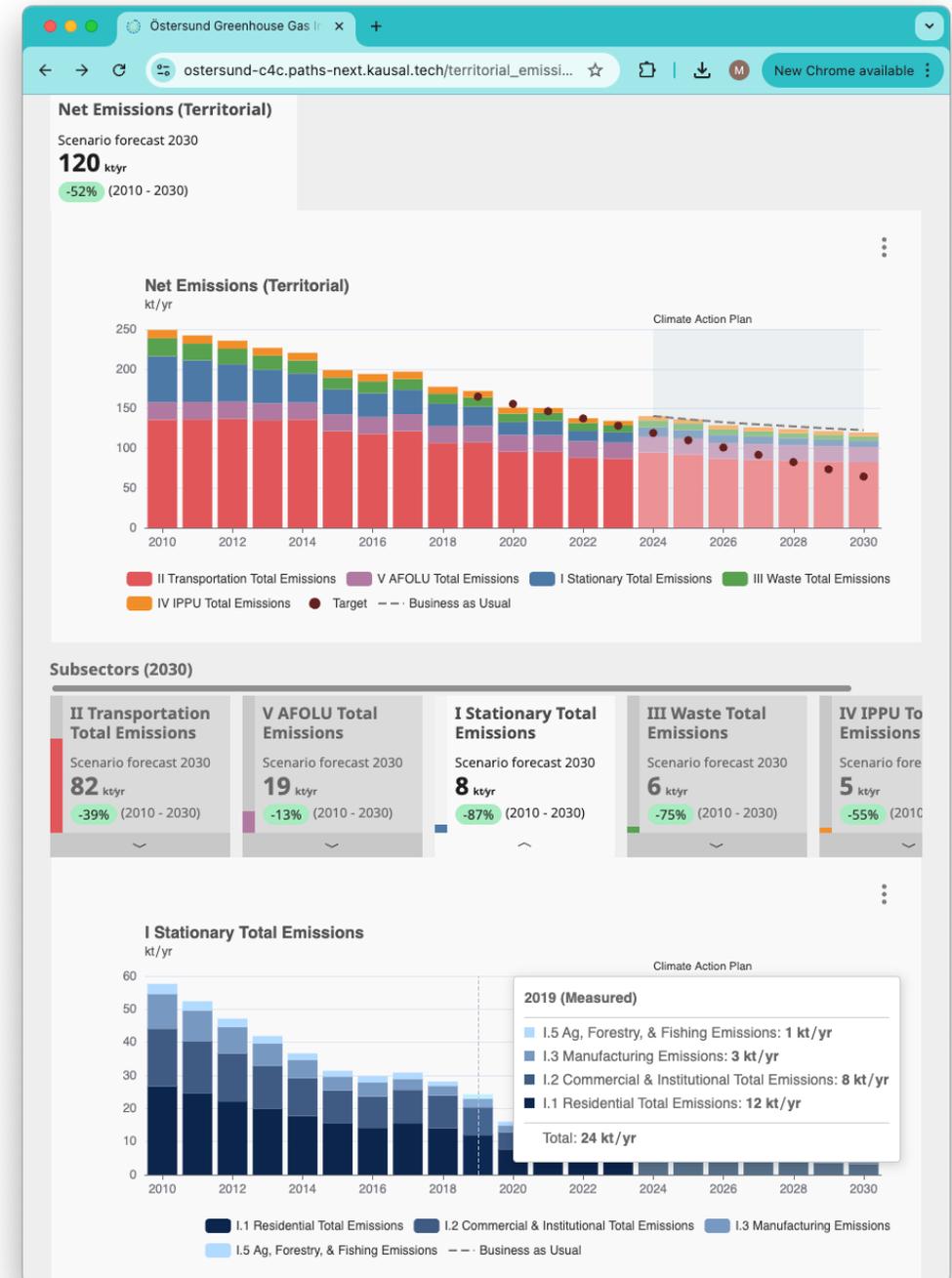
A decision support, communication, and calculation tool.

## CADS Tool Demo

Demo of the public website and admin portal.

## Tool Requirements and Examples

Using and understanding the CADS tool.



# The CADS Tool in Numbers

Tools online for **7** cities, in **6** countries, covering a total city population of **2.3M** residents.

**123** actions included, resulting in...

...a total emissions reduction of **8.7M** tonnes CO<sub>2</sub>e, from baseline to target year.

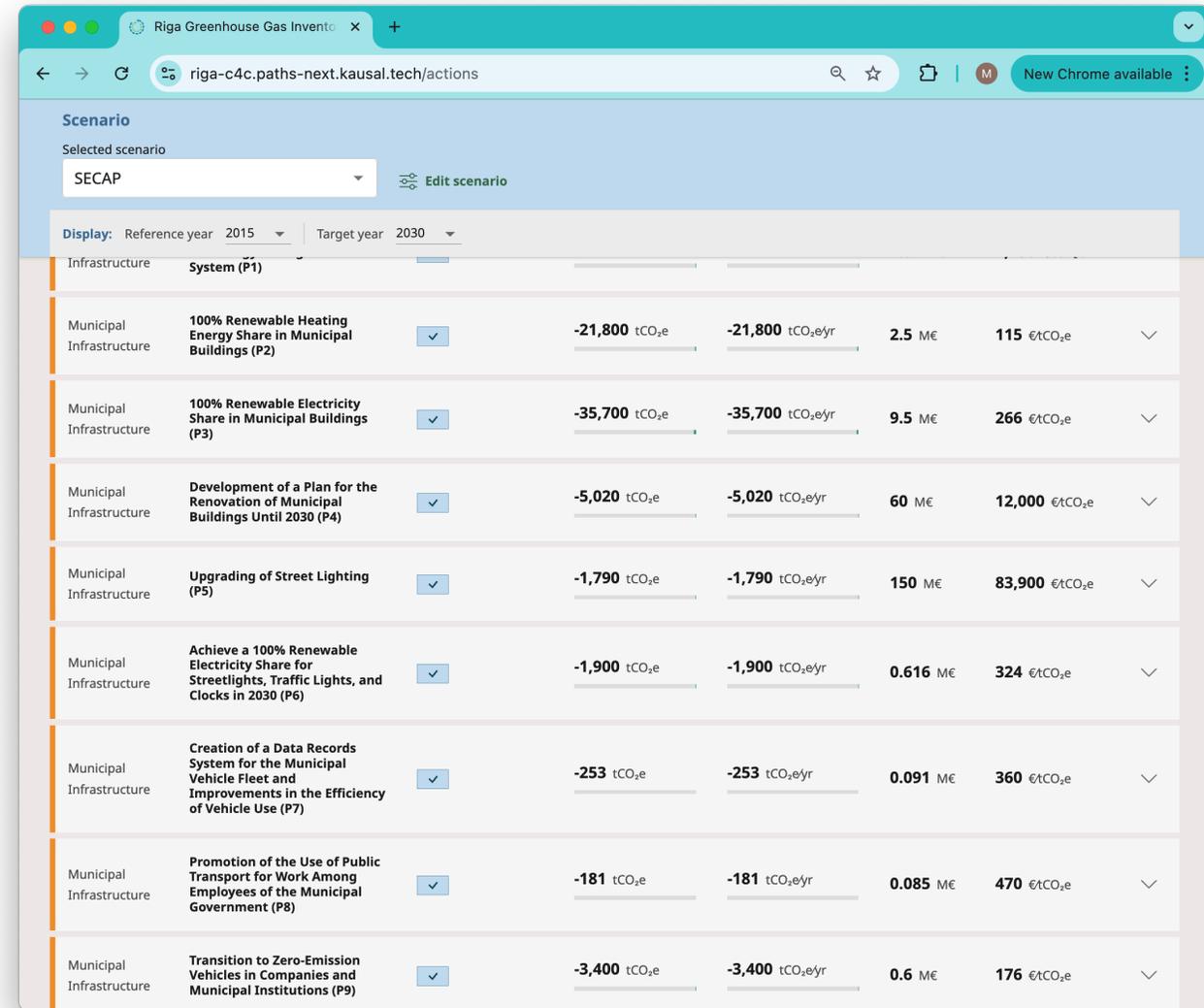
...total costs of **5.2B** and benefits of **179M** EUR, in three currencies (EUR, SEK, PLN).



# What Is the CADS Tool?

## A Decision Support Tool

- Bring all relevant information together
- Present the economic impact of climate actions alongside the mitigation impact
- Bring climate actions, and climate considerations, into city budgeting processes



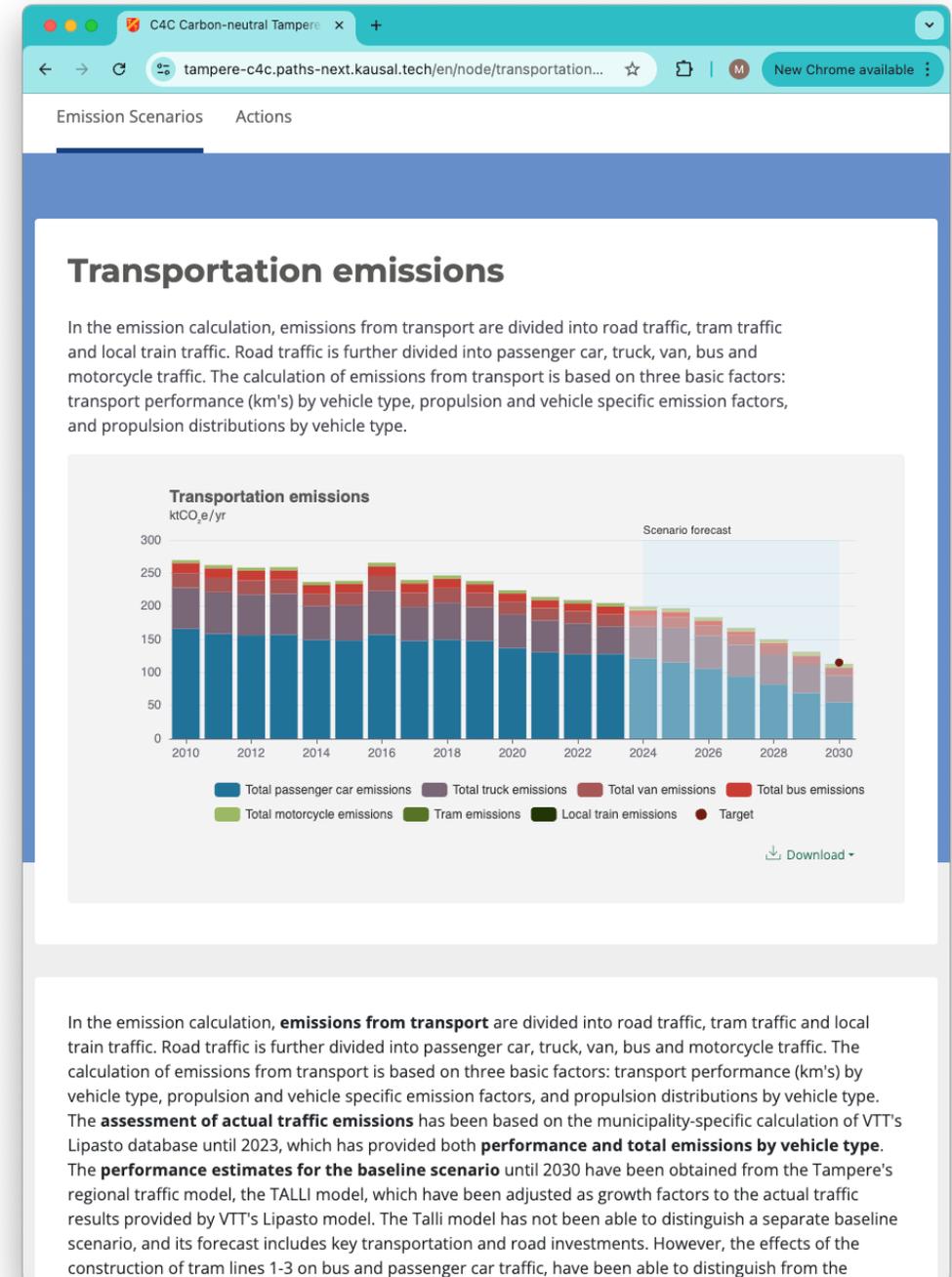
The screenshot displays the CADS Tool interface for the 'Riga Greenhouse Gas Inventory' scenario. The selected scenario is 'SECAP', with a reference year of 2015 and a target year of 2030. The table lists various climate actions, categorized as 'Municipal Infrastructure', and provides data on their mitigation impact (tCO<sub>2</sub>e and tCO<sub>2</sub>e/yr), economic cost (M€), and carbon price (€/tCO<sub>2</sub>e).

Category	Action Name	Checkmark	2015 tCO <sub>2</sub> e	2030 tCO <sub>2</sub> e/yr	Cost (M€)	Price (€/tCO <sub>2</sub> e)
Infrastructure	System (P1)					
Municipal Infrastructure	100% Renewable Heating Energy Share in Municipal Buildings (P2)	✓	-21,800	-21,800	2.5	115
Municipal Infrastructure	100% Renewable Electricity Share in Municipal Buildings (P3)	✓	-35,700	-35,700	9.5	266
Municipal Infrastructure	Development of a Plan for the Renovation of Municipal Buildings Until 2030 (P4)	✓	-5,020	-5,020	60	12,000
Municipal Infrastructure	Upgrading of Street Lighting (P5)	✓	-1,790	-1,790	150	83,900
Municipal Infrastructure	Achieve a 100% Renewable Electricity Share for Streetlights, Traffic Lights, and Clocks in 2030 (P6)	✓	-1,900	-1,900	0.616	324
Municipal Infrastructure	Creation of a Data Records System for the Municipal Vehicle Fleet and Improvements in the Efficiency of Vehicle Use (P7)	✓	-253	-253	0.091	360
Municipal Infrastructure	Promotion of the Use of Public Transport for Work Among Employees of the Municipal Government (P8)	✓	-181	-181	0.085	470
Municipal Infrastructure	Transition to Zero-Emission Vehicles in Companies and Municipal Institutions (P9)	✓	-3,400	-3,400	0.6	176

# What Is the CADS Tool?

## A Communications Tool

- Visualize outcomes of interest - emissions, financial balances - for a given scenario
- Create financial visuals: cost efficiency, cost-benefit, and return on investment
- When hosted online, an interactive public website is available for all



# **CADS Tool Demo: Public Site & Admin Portal**

# What Is the CADS Tool?

## Behind-the-Scenes: A Calculation Tool

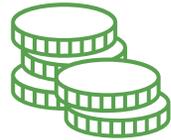
Calculations incorporate causal relationships, which allows:

- Complex scenario-building
- Interventions at multiple steps in emissions-generating processes
- Interactions between climate actions: synergies and dampening effects

# What's needed to use the CADS Tool?

## Types of Data to Gather



- **Emissions-generating activities** within the city: electricity usage, vehicle mileage, ...
- **Emission factors**: greenhouse gases released per kWh, vehicle mile, ... 
- **Unit prices**: costs per kWh, vehicle mile, ... 
- **Action impacts**: activity or emissions reductions, investment costs, ... 

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# Questions?

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