CommitClimate CO_2 Simulator

SECTOR: WASTE MANAGEMENT

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Interreg Baltic Sea Region
Co-funded by the European Union
ENERGY TRANSITION
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Goal of the presentation

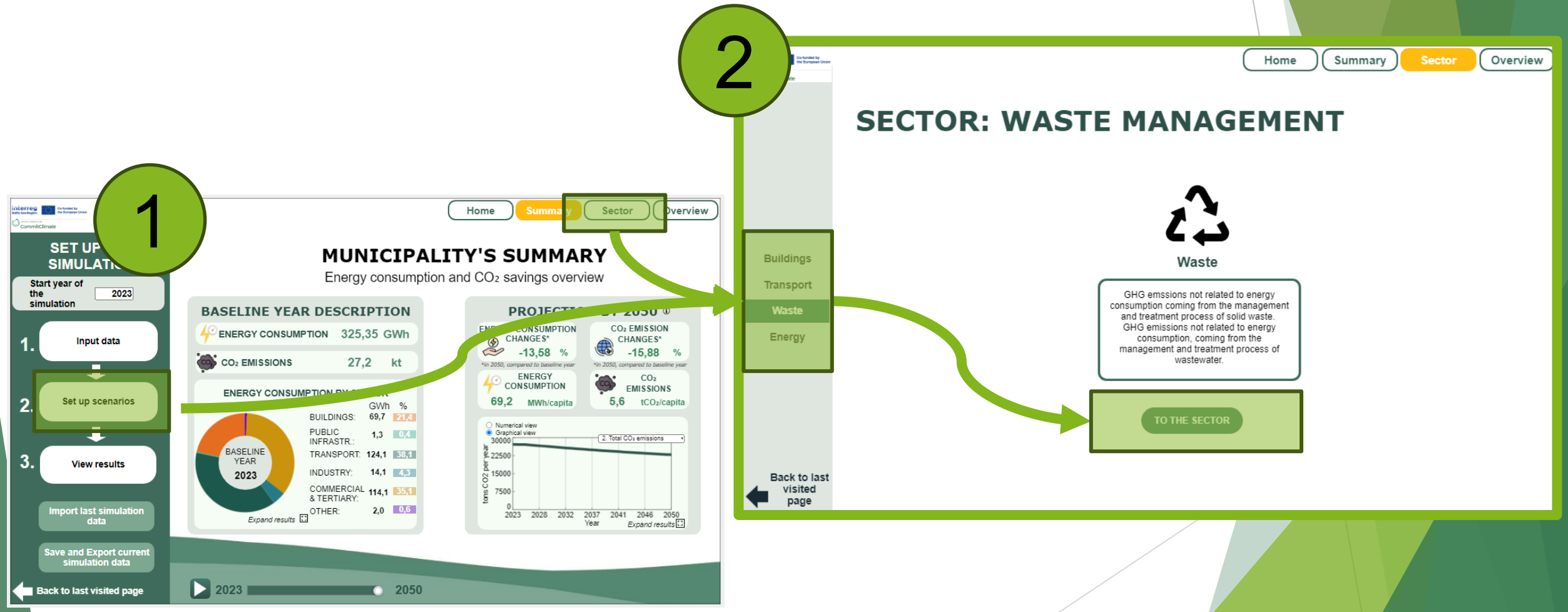
- What is included in the sector, which sub-sectors
- Calculation rationale
- Technical assumptions
- What can the user change? What cannot the user change? Linkages with other sectors
- List of policy measures
- Policy measures working principle

Waste Management Sector

- Waste management sector includes two categories:
  - Solid waste disposal and treatment
    - GHG emissions not related to energy consumption, coming from the management and treatment process of solid waste
  - Wastewater
    - GHG emissions note related to energy consumption, coming from the management and treatment process of wastewater

- *Note: All emissions from the use of grid-supplied electricity in waste and wastewater treatment facilities are reported under "Buildings, Public Infrastructure"*

Navigation to the waste management sector



Approach to calculating emissions in the waste management sector I

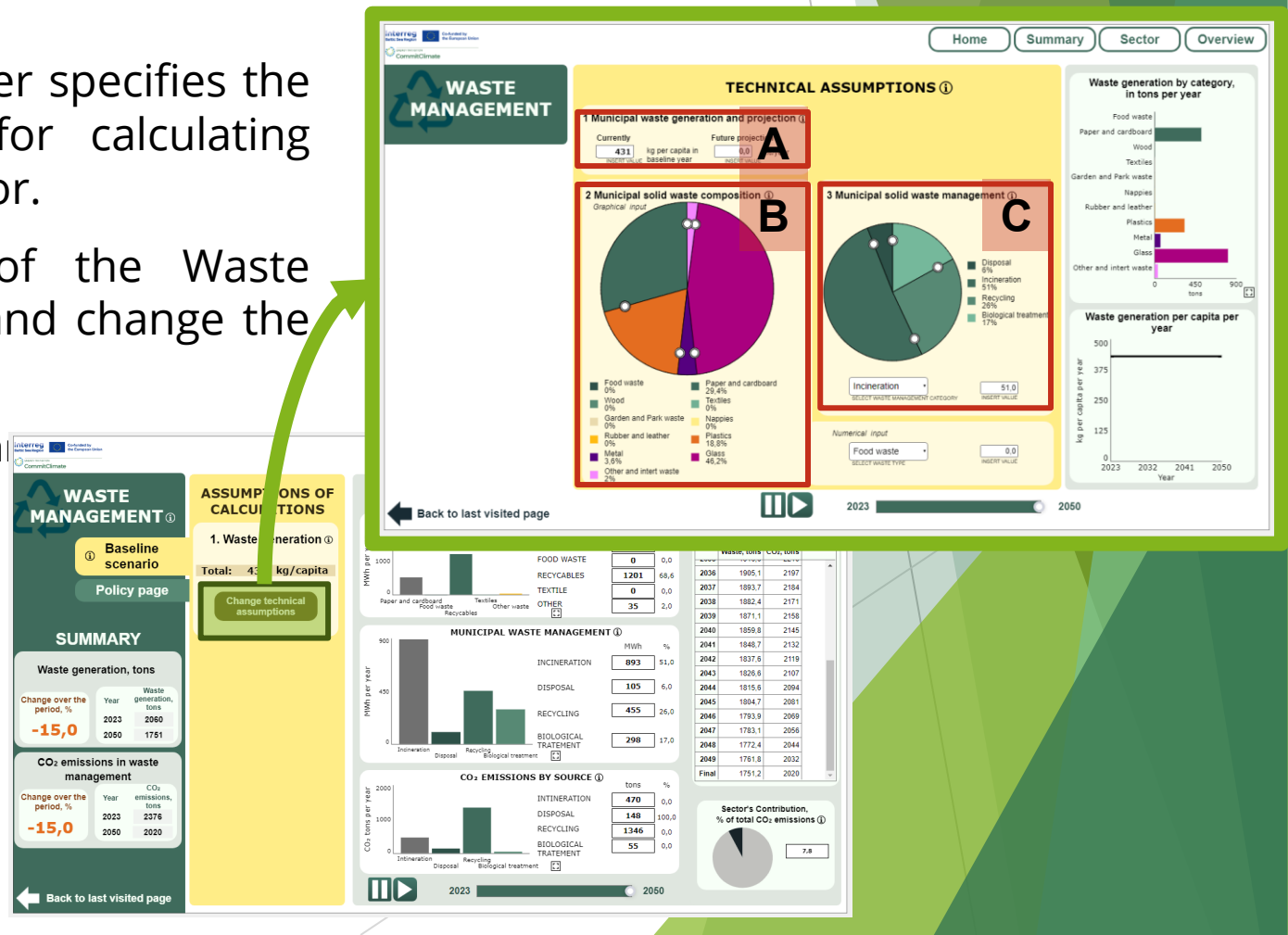
- The calculation of GHG emissions in the waste management sector is based on methodologies developed by specialized organizations:
  - Methodologies described in the Intergovernmental Panel on Climate Change (IPCC) 2006 Guidelines Volume 5, “Waste”
  - The Global Protocol for Community-Scale Greenhouse Gas Emission Inventory, An Accounting and Reporting Standard for Cities Version 1.1, Chapter 8, “Waste”

Approach to calculating emissions in the waste management sector II

- The waste sector emissions calculation includes GHG emissions: CO2, CH4, and N2O from the following waste management activities:
  - Solid waste disposal
  - Biological treatment of solid waste
  - Incineration of waste
  - Wastewater treatment and discharged
- Note: If methane is recovered from solid waste or wastewater treatment facilities as energy sources, this amount is removed from the waste management sector and added to the Energy sector. Emissions from waste incineration without energy recovery are reported under the Waste management sector. Emissions from waste incineration with energy recovery are reported in the Energy sector.

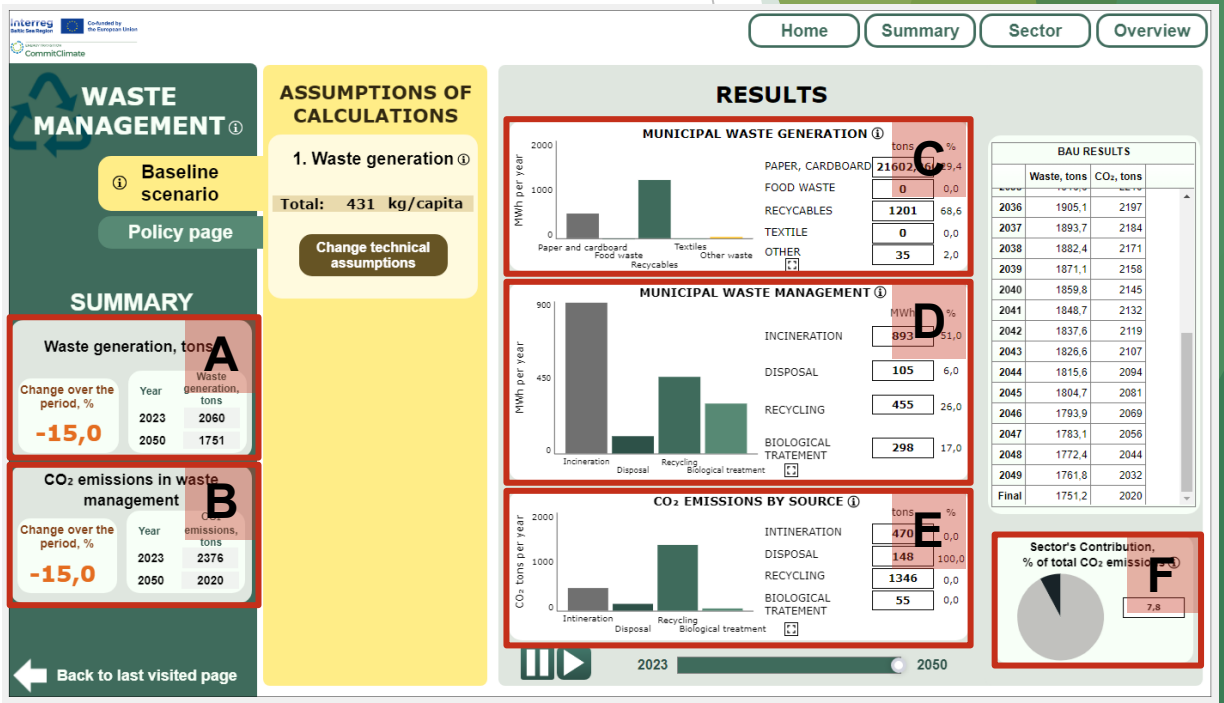
Approach to calculating emissions in the waste management sector III

- In the General Input data section, the user specifies the population size, which is the basis for calculating emissions in the waste management sector.
- In the Technical Assumptions view of the Waste management sector, the user can view and change the default assumptions:
  - Amount of waste generated [kg/capita/year] and future change forecast [%/year] (A)
  - Municipal solid waste composition [%] (B)
  - Municipal solid waste management [%] (C)



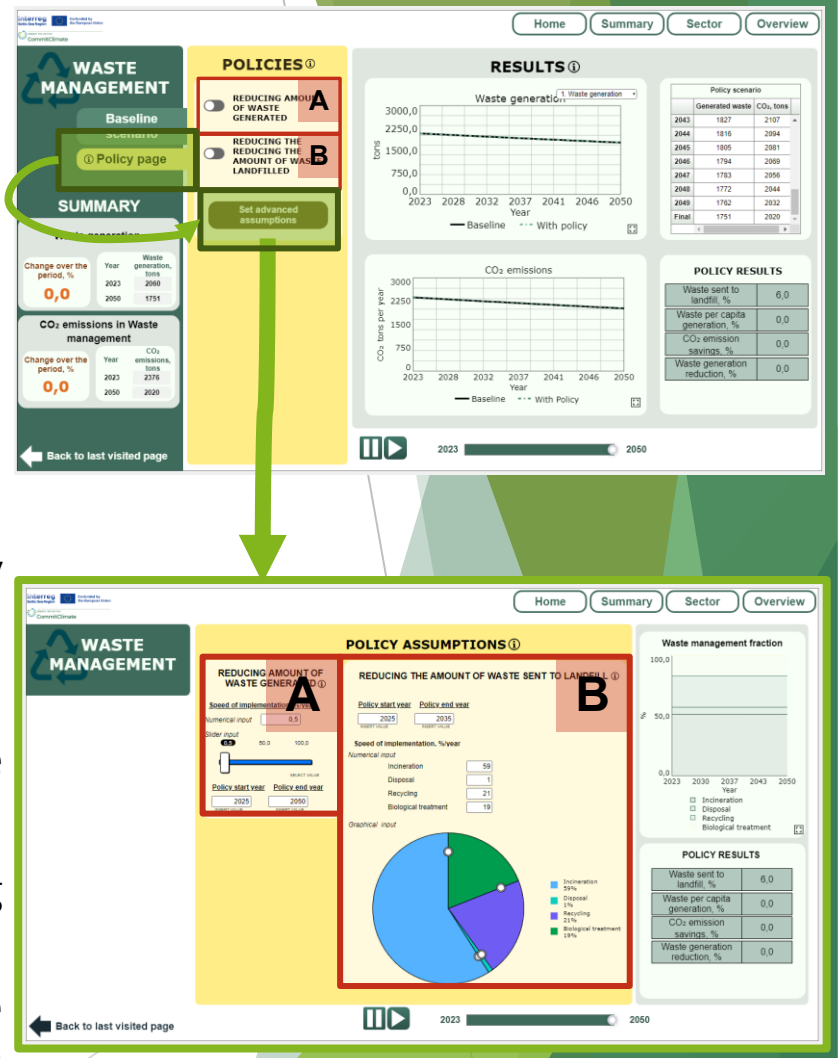
Baseline scenario in the waste management sector

- After the user has input data on the population and specified technical assumptions (optional), the Simulator can calculate GHG emissions in the baseline scenario in the waste management sector.
- The baseline scenario describes the continuation of the current situation (in the base year), but taking into account changes in the population and the amount of waste generated.
- The baseline scenario is visible in the first view after opening the sector page (Fig.)
- In the baseline scenario, it is possible to view the results for:
  - Waste generation in baseline year and in 2050 (A)
  - GHG emissions in baseline year and in 2050 (B)
  - Municipal solid waste generation by category (C)
  - Municipal solid waste management by category (D)
  - GHG emission breakdown by management category (E)
  - Sector's contribution of total GHG emissions in the municipality (F)



Policy measures in the waste management sector

- The user has the opportunity to analyze the impact of two policy measures on GHG emissions in the waste management sector:
  - Reduction of the amount of waste generated
    - The user specifies in the Policy Assumptions view the speed at which the policy is implemented (%/year) and the year in which the policy implementation starts
  - Reduction of the amount of waste landfilled
    - The user specifies in the Policy Assumptions view the target for the distribution of waste management categories and the time frame in which these changes will be achieved (start year and target year). The simulator assumes a linear gradual progress towards achieving the target
- In addition, policies related to energy consumption for waste management and the amount of wastewater generated can be viewed in the “Buildings, Public Infrastructure” section.



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SECTOR: WASTE

To view information on the emission calculation approach in other sectors, go to the sections “Buildings”, “Transport”, “Energy” and “AFOLU”

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