ENERGIAKLUB
CLIMATE POLICY INSTITUTE
APPLIED COMMUNICATIONS

CLIMATE STRATEGY FOR SZÉKESFEHÉRVÁR

László Magyar , Energiaklub

Climate Change Conference

2022.05.18 - Székesfehérvár

ENERGIAKLUB
CLIMATE POLICY INSTITUTE
APPLIED COMMUNICATIONS

BACKGROUND TO THE CLIMATE STRATEGY

In the 2010s, energy consumption and CO_2 emissions in Hungary and locally in Székesfehérvár have not been reduced

In 2019, Székesfehérvár emitted nearly 1 million tonnes of CO_2 of greenhouse gases. This means that each inhabitant of the municipality emitted almost 10 tonnes per year, which is significantly higher than the national and EU average.

It has become urgent for more and more municipalities to join the climate action initiatives, to prepare strategies and action plans, and in 2021 Székesfehérvár did the same.

ENERGIAKLUB
CLIMATE POLICY INSTITUTE
APPLIED COMMUNICATIONS

A VISION FOR THE CLIMATE STRATEGY

"The City of Székesfehérvár wants to ensure a high quality built and natural environment for future generations, so that the city's operations use as little energy and produce as few greenhouse gas emissions as possible, and the municipality is able to react flexibly to the challenges of climate change."

ENERGIAKLUB
CLIMATE POLICY INSTITUTE
APPLIED COMMUNICATIONS

THE OVERALL OBJECTIVES OF THE CLIMATE STRATEGY

HORIZONTAL OBJECTIVES

- Székesfehérvár's population is becoming more climate-conscious
- Székesfehérvár maintains a comprehensive partnership to effectively achieve climate goals

ADAPTATION OBJECTIVE

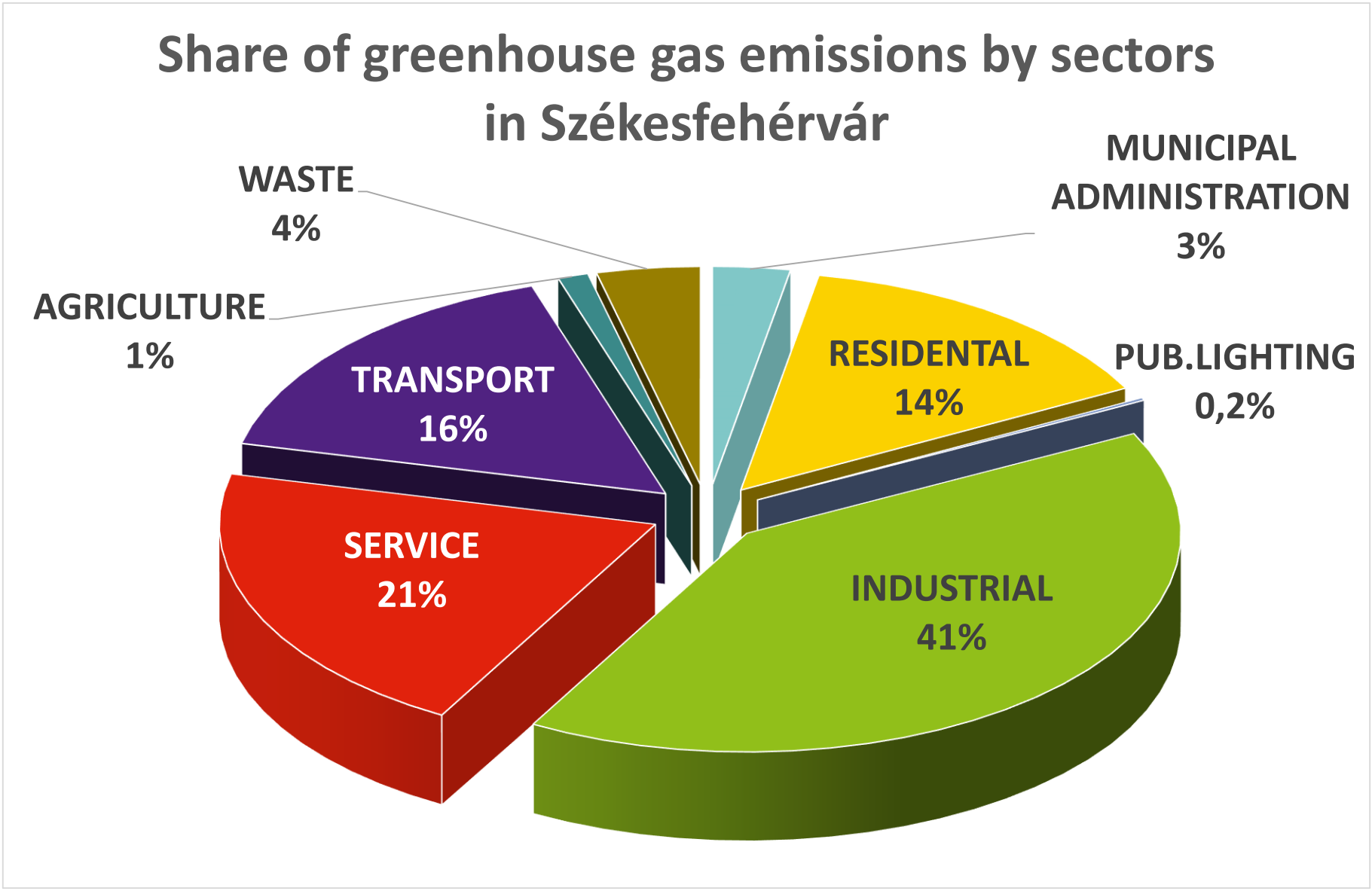
- Székesfehérvár increases its resilience to growing heat stress and more extreme precipitation distribution

MITIGATING OBJECTIVE

- Székesfehérvár decreases its GHG emissions with 20% until 2030

ENERGIAKLUB
CLIMATE POLICY INSTITUTE
APPLIED COMMUNICATIONS

GHG EMISSIONS IN SZÉKESFEHÉRVÁR



ENERGIAKLUB
CLIMATE POLICY INSTITUTE
APPLIED COMMUNICATIONS

TARGETS AND MEASURES TO REDUCE EMISSIONS

Mitigation-specific targets	*Measures related to the targets*
M1 Reduction of GHG emissions related to municipal operations	M 1.1 Establishment of a municipal energy management database and monitoring system
	M 1.2 Use of renewable energy sources in municipal buildings
	M 1.3 Energy efficiency investments in municipal buildings
	M 1.4 Modernisation of street lighting
	M 1.5 Green public procurement
M2 Reduction of emissions from the residential sector	M 2.1 Residential energy efficiency investments
	M 2.2 Use of renewable energy sources in residential buildings
	M 2.3 Promotion of residential energy efficiency investments
	M 2.4 Integrating renewable energy into the local district heating system
M3 Reduction of emissions from industry and services sector	M 3.1 Use of renewable energy in industry and services
	M 3.2 Modernisation, technology development, energy efficiency in industry and services
M4 Reduction of GHG emissions from urban transport	M 4.1 Modernisation of the fleet of municipal and public service companies
	M 4.2 Modernisation of local and long-distance bus fleet
	M 4.3 Other measures to support public transport
	M 4.4 Dev. of cycling and other micro-mobility transport facilities
	M 4.5 Traffic limitation measures
M5 Municipal waste reduction and energy recovery	M 5.1 Composting of bio-waste
	M 5.2 Selective waste collection and recycling
	M 5.3 Energy recovery from sewage sludge
M6 Construction of renewable energy power plants	M 6.1 Construction of industrial-scale solar power plants
	M 6.2 Construction of biogas power plant
M7 Increasing CO_2 sequestration	M 7.1 Increase of urban (peri-urban) tree stock, afforestation
	M 7.2 Green walls, green roofs

ENERGIAKLUB
CLIMATE POLICY INSTITUTE
APPLIED COMMUNICATIONS

LOCAL GOVERNMENT AND CITIZENS

MUNICIPALITY

- Municipal energy management database
- Use of renewable energies
- Energy efficiency investments
- Modernisation of street lighting

CITIZENS, HOUSEHOLDS

- Renewable energy investments
- Energy efficiency investments
- Encouraging residential energy investments
  → setting up an advisory office

ENERGIAKLUB
CLIMATE POLICY INSTITUTE
APPLIED COMMUNICATIONS

SERVICES AND INDUSTRY; WASTE MANAGEMENT

INDUSTRY, SERVICES

- Use of renewable energy
  - Solar panel installations (roofs, parking lots)
  - Heat pump systems
- Technology development, energy efficiency in operation and production

WASTE MANAGEMENT

- Bio-waste composting
- Selective waste collection and recycling
- Energy recovery from sewage sludge

ENERGIAKLUB
CLIMATE POLICY INSTITUTE
APPLIED COMMUNICATIONS

TRANSPORT SECTOR

TRANSPORT

- Modernising the fleet of municipal and public service companies
- Modernisation of local and long-distance bus fleet
- Other measures to support public transport
- Development of cycling and other micro-mobility transport options
- Traffic restriction measures (car-free zones, lane reduction, access restrictions, P+R parking, parking restrictions, charges)

ENERGIAKLUB
CLIMATE POLICY INSTITUTE
APPLIED COMMUNICATIONS

RENEWABLE ENERGY POWER PLANTS; GREEN SPACES (CO_2 SEQUESTRATION)

RENEWABLE ENERGY POWER PLANTS

- Construction of industrial-scale solar power plants
- Construction of biogas power plant(s)

CO_2/CARBON SEQUESTRATION

- Green roofs, green walls
- Urban (peri-urban) tree planting, afforestation
  - Increase urban green cover ratio
  - Afforestation of open spaces

ENERGIAKLUB
CLIMATE POLICY INSTITUTE
APPLIED COMMUNICATIONS

ADAPTATION GOALS

Urban adaptation targets	*Measures related to the targets*
A 1 Improving adaptive capacity to increasing heat stress	A 1.1 The municipality is prepared for extreme weather conditions
	A 1.2 Improving the thermal performance of public buildings
	A 1.3 Shading of open spaces and buildings with high traffic and exposure
A 2 Climate-smart green space development	A 2.1 Development and extension of urban green spaces
	A 2.2 Creation of bee-pastures
	A 2.3 Forest planting
	A 2.4 Maintenance of nature reserves
A 3 Implementing resilient and/or adaptive improvements	A 3.1 Prioritising adaptation solutions in the final design of planned investments
	A 3.2 Improving adaptation to local legislation
A 4 Increasing water conservation	A 4.1 Improving stormwater management in urban areas
	A 4.2 Improvement of water management through the construction of a storm water reservoir
A 5 Protecting vulnerable social groups and local assets	A 5.1 Monitoring and management of insects and pathogens from the South
	A 5.2 Protecting local assets at risk

ENERGIAKLUB
CLIMATE POLICY INSTITUTE
APPLIED COMMUNICATIONS

IMPROVING ADAPTIVE CAPACITY, DEVELOPING GREEN SPACES

- The municipality is preparing for extreme weather conditions
- Improving the thermal performance of public buildings (shading, insulation...)
- Shading of open spaces and buildings with high traffic and exposure

- Development and expansion of urban green spaces
- Creation of bee pastures
- Forest planting
- Maintenance of nature reserves

ENERGIAKLUB
CLIMATE POLICY INSTITUTE
APPLIED COMMUNICATIONS

INCREASING WATER RETENTION; RESILIENT AND/OR ADAPTIVE IMPROVEMENTS

- Improving stormwater management in urban areas
  - Detailed plan for hotspots
  - Residential rainwater collection and retention
  - Stormwater management in municipal buildings
  - Permeability instead of paved surfaces
- Improving water management by building a storm water reservoir

- Prioritising adaptation solutions in planned investments:
  - permeable pavements, green roofs, green facades, shading, light façade and cladding colours, rainwater harvesting, drainage
- Adaptation through local legislation
  - Local planning, local taxes, private green space maintenance

ENERGIAKLUB
CLIMATE POLICY INSTITUTE
APPLIED COMMUNICATIONS

HORIZONTAL MEASURES

- Setting up an expert group to support implementation
- Public awareness raising, information
- Training
- Integration of climate objectives into development plans (ITS, Environmental Programme, etc.)
- Awareness-raising of workers on energy saving


Common cause, common goal
All sectors are involved
Partnerships
An overall change in approach
Positive vision for the future

Thank you for your attention!