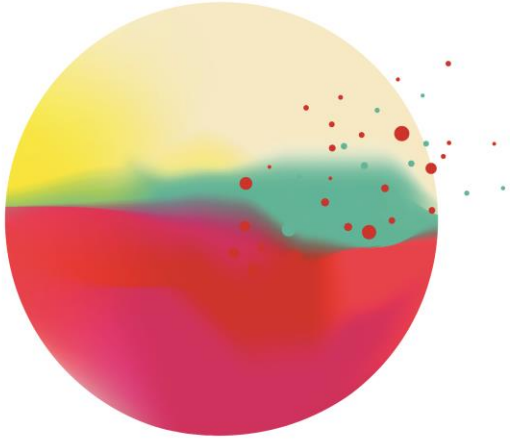
ENERGY EFFICIENCY WATCH

Making the energy transition happen…

Energy efficiency in Central and Eastern Europe: narratives and financing



ENERGYCITIES

www.energy-cities.eu

CEEC XIII, Bratislava, 18th November 2019

Energy Cities

The European association

Of 1000 local authorities in their energy transition from 30 countries for 25 years

Our vision:

Energy Cities want a radical transformation of the energy systems and policies, giving our citizens the power to shape a decentralised and renewable energy future.

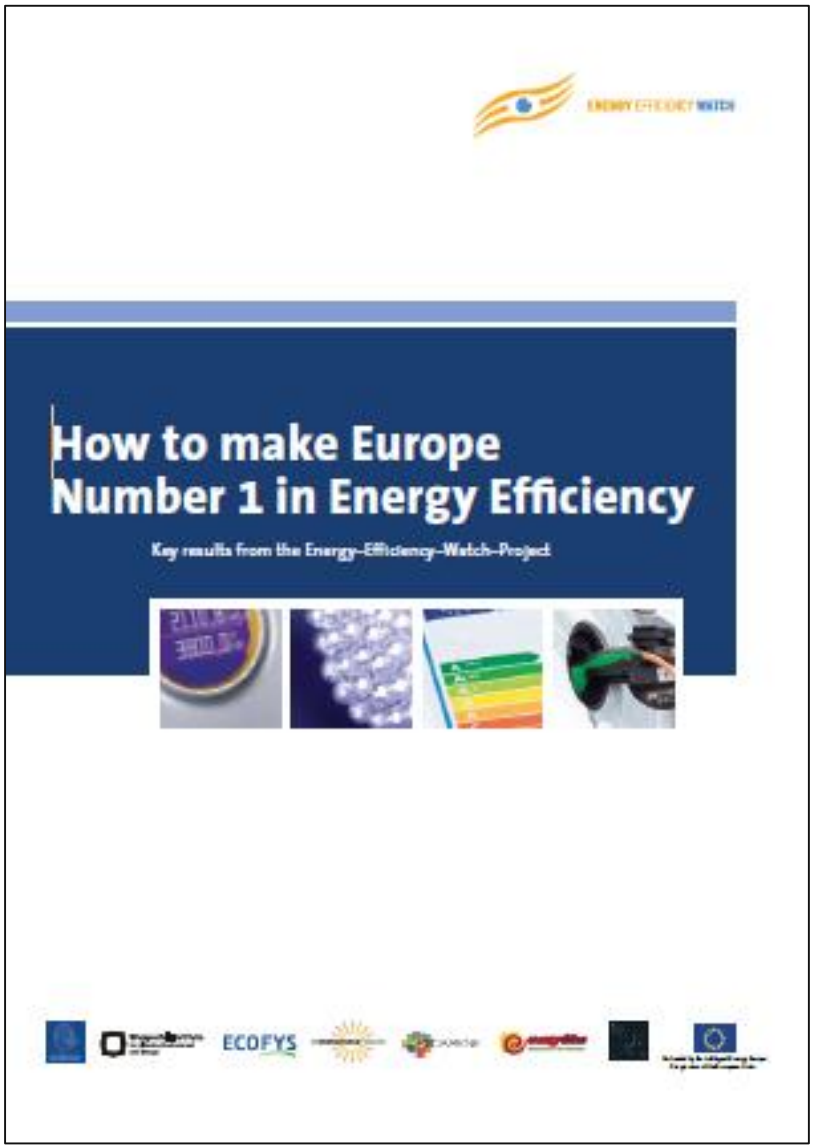
Covenant of Mayors

Europe's and now the world's broadest movement of local authorities in climate mitigation. Energy Cities leads its office since 2008.

Our 3D vision

- Decentralisation
- Democratisation
- Divest (from fossils)

Energy Efficiency Watch



ENERGY EFFICIENCY WATCH

- Provides for a **constant feedback loop on the implementation of European and national energy efficiency policies** and thus enable mutual learning on effective policy making across the EU
- **Seeks successful narratives and screens progress** of national policies, seeks experts' knowledge via an EU-wide survey and creates new consultation platforms with a wide spectrum of stakeholders (parliamentarians, regions, cities, business and expert stakeholders)

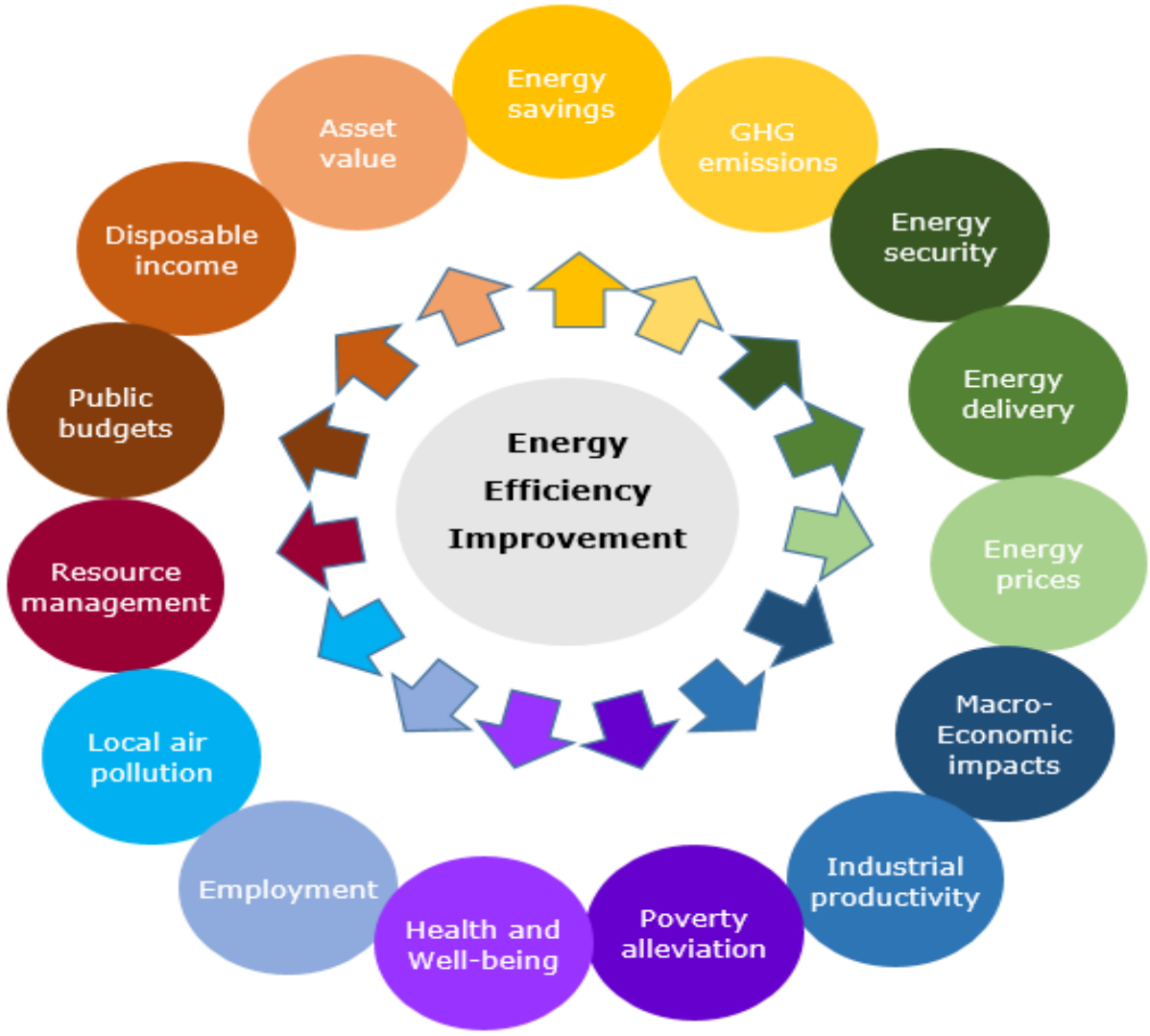
Multiple benefits of Energy Efficiency (IEA, 2014)

Energy efficiency

- ✓ can save EU consumers ca. EUR 78 billion annually by 2020
- ✓ strengthens competitiveness and energy security

EU policies have beneficial impacts

- ✓ The Energy Labelling and Ecodesign Directives alone have achieved about 175 million toe in primary energy savings annually, comparable to the energy use of 60 million households



Co-funded by the Intelligent Energy Europe Programme of the European Union

IEA 2019 WEO: Energy Efficiency

2018: primary energy intensity improved by only 1.2%, the slowest rate since 2010

Key factors driving the slowdown :

- Increase in heavy industry (e.g. steel), coal power generation (outside Europe)
- Lifestyle changes
- No new policies (affecting energy efficiency)
- Investment targeting efficiency unchanged since 2014.
- Climate change

IEA 2019 WEO: Energy Efficiency

How to reverse this trend?

How to use available financing effectively?

How to leverage on digitalisation?

What narratives could induce action?

Our Panel

- **Richard Paksi,** Analyst, Buildings for Future (B4F), SK
- ***Roman Chovanec,*** *Head of Energy Office, Bratislava, SK*
- ***Zsofia Hamza / Tamas Csoknyai,*** *Budapest, XII. District, HU*
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Moderated by: ***Kristina Dely,*** Energy Cities

BUILDINGS FOR THE VISEGRAD FUTURE

supported by Visegrad Fund

RECOMMENDATIONS FOR EFFECTIVE USE OF ESIF FOR ENERGY EFFICIENT RENOVATION

Project: More effective use of the 2021-2027 Cohesion Funds for energy security of the Visegrad

Richard Paksi
Buildings for Future (SK)

18th of November 2019, Bratislava

BUILDINGS FOR THE FUTURE

ENERGIAKLUB CLIMATE POLICY INSTITUTE APPLIED COMMUNICATIONS

CHANCE FOR BUILDINGS

NAPE NARODOWA AGENCJA POSZANOWANIA ENERGII S.A.

ESIF – MAJOR SOURCE OF FUNDING THE BUILDINGS PROJECTS IN ALL V4 COUNTRIES

HIGH SUBSIDY INTENSITY THAT REDUCES „OWNERSHIP“ OF THE PROJECT COST

USE OF NON-REPAYABLE GRANTS INSTEAD OF FINANCIAL INSTRUMENTS

THE CURRENT LEVEL OF INVESTMENT IS INSUFFICIENT

LOW NUMBER OF RENOVATED BUILDINGS AS WELL AS THE RESULTING QUALITY OF THE BUILDINGS

10 RECOMMENDATIONS FOR MEMBER STATES

BUDGET ALLOCATION RECOMMENDATIONS

1 Sufficient allocation.

- Effectively generate sufficient investment, i.e. investment to renovate 3 % of all buildings annually
- Achieving the National and European climate and energy targets

2 Better reflect the diversity of more developed regions and their needs in individual investment priorities.

- Disadvantage of smaller municipalities inside regions and public buildings (e.g. schools)
- Building owners need to be motivated to perform renovation and to perform it with higher ambition / quality regardless on how developed their region is

DESIGN RECOMMENDATIONS

3 Promote comprehensive and quality approach.

- It is important to enhance the overall quality of building
- The eligible costs of the project should also include:
  - improving quality of the indoor environment
  - measures for adaptation to climate change

4 Provide financial support that will motivate for more ambitious constructions and renovations.

- The financing rate of non-repayable support should reflect whether more ambitious measures are implemented

DESIGN RECOMMENDATIONS

5 Lower Support intensity.

SUPPORT INTENSITY 85 – 100 %
30 – 70 %

- Motivates for a good manager approach
- Allows for private funds to finance public good in the form of e.g. EPC service or financial instrument

6 Allow other financial instruments to be easily combined with subsidies.

- Financial instruments channel private funds into public goods
- Public budgets, including ESIF, are typically not big enough to ensure building renovation at the optimum rate only through non-repayable grants

DESIGN RECOMMENDATIONS

7 Prefer long-term continuous calls with stable conditions.

- The "start-stop system" of calls reduces the quality of individual projects
- The long-term stability of the support conditions alows to plan according to building owners options and needs

8 Ensure that the various programmes do not compete with each other.

- Avoid the situation from Czechia and Slovakia, where two support schemes aimed at supporting a certain type of building renovation or construction with different conditions

OTHER RECOMMENDATIONS

9 Ensure that technical assistance is provided and supported.

- Establish a network of counselling centres, such as one-stop-shops
- Sufficient resources need to be also earmarked for local authorities lacking the capacity to prepare quality projects

10 Simplify public procurement requirements.

- The public procurement requirements for supported projects should not exceed minimal legislative requirements
- Procurement should allow for evaluation based on life-cycle rather than only investment costs

SUMMARY OF RECCOMENDATIONS

- SUFFICIENT ALLOCATION
- LONG-TERM CONTINUOUS CALLS WITH STABLE CONDITIONS
- LOWER SUPPORT INTENS
- PROGRAMMES, WHICH DO NOT COMPETE WITH EACH OTHER
- COMPREHENSIVE AND QUALITY APPROACH
- SUFFICIENT TECHNICAL ASSISTANCE
- MOTIVATIONAL FINANCE SUPPORT
- FINANCIAL INSTRUMENTS EASILY COMBINABLE WITH SUBSIDIES
- SIMPLER PUBLIC PROCUREMENT REQUIREMENTS

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ENERGY EFFICIENCY IN BRATISLAVA

BRATISLAVA

CEEC 2019

Energy policy of the city

Objectives of the City

- secure reliable supply of all forms of energy in the desired volume and quality,
- reducing energy intensity, increasing energy efficiency
- ensuring such volume of energy production that covers demand on a cost- effective principle

BRATISLAVA

Key projects in Bratislava

- AP for sustainable Energy Development of Bratislava
- URBAN-E
- Waste management

BRATISLAVA

Action Plan for Sustainable Energy Development of Bratislava

The implementation of the SEAP will reduce demand for energy in municipal buildings and create conditions for using local renewable energy sources (RES) to cover local demand for energy in order to reduce emissions by 20 % by 2020.

A project has been developed by technical assistance from the ELENA financial instrument from EIB

We have been solving the energy efficiency in 120 buildings of city

BRATISLAVA

Steps towards the Implementation of the SEAP

- Each building will benefit from:
  - Identification of the current technical state of the building
  - Proposal how to reduce energy consumption of the building - energy audit
  - Preparation of documentation for the process of public procurement for the investment phase of the projects for sets of buildings

BRATISLAVA

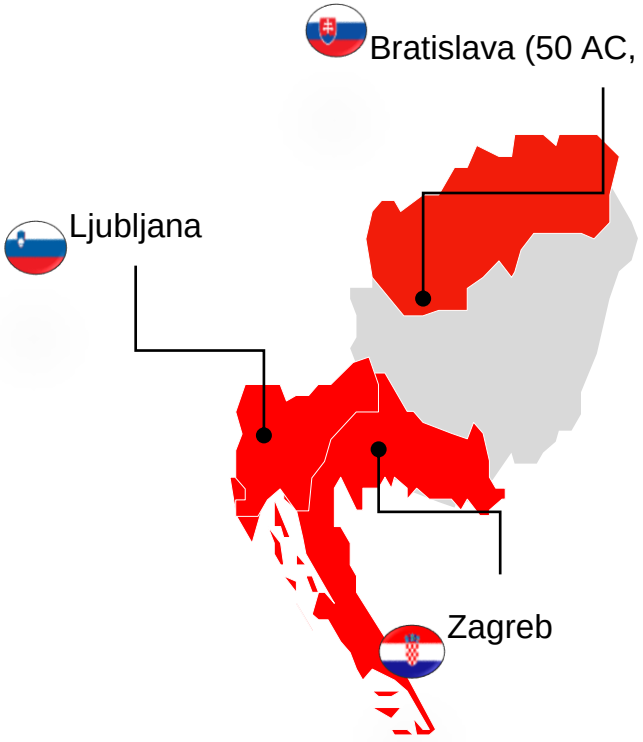
Present status

- Today we have 80 buildings audited from total amount 120
- We prepare 7 groups of buildings for investment and prepare Term of reference for public procurement
- The 4 groups was published up today it means 40 buildings are waiting for investment in amount of investment €15M covered by EPC contract supported by budget of the city Bratislava

BRATISLAVA

URBAN –E

- Implementation of 50 AC chargers and 5 DC



144 AC elektronabíjacích staníc

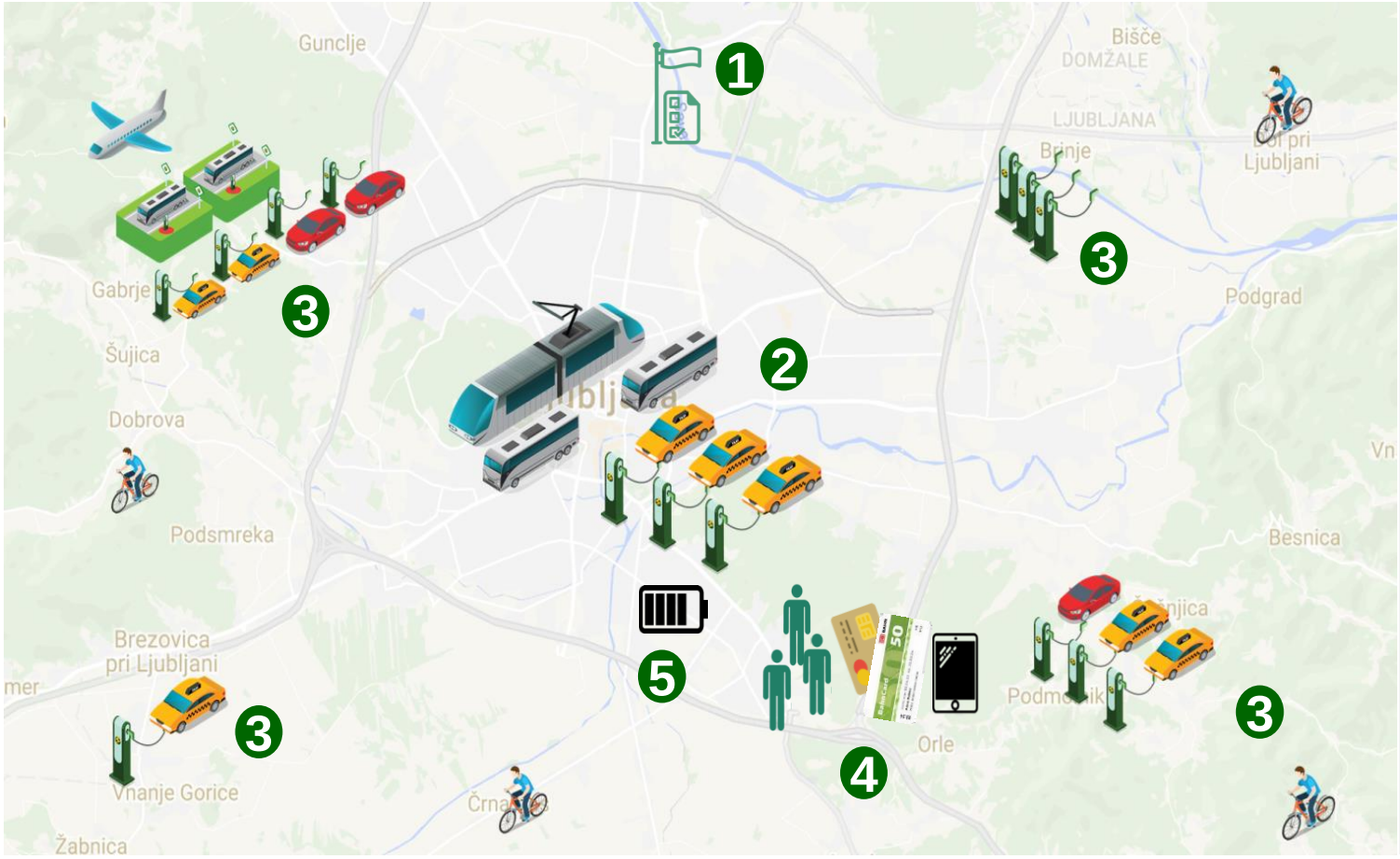
23 rýchlonabíjacích staníc

ZSE PETROL GO4 Slovenske železnice

GRAD ZAGREB BRATISLAVA City of Ljubljana GoOpti

BRATISLAVA

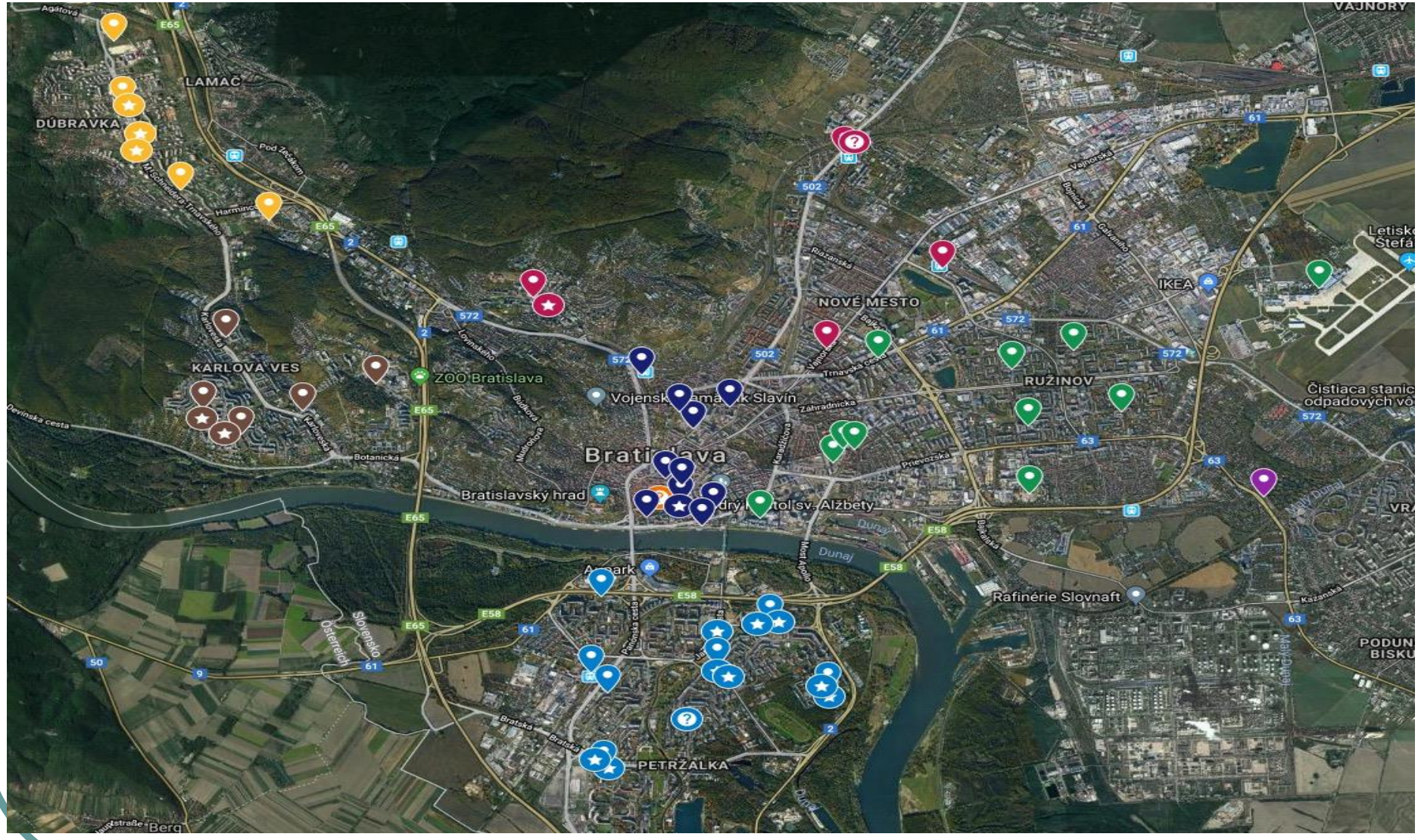
Project structure



1. Customer expectation
2. Intermodal hubs
3. Connectivity to the city infastructure
4. ICT pre B2B & B2C
5. Integrácia so SMART City

BRATISLAVA

Map of chargers



Type of chargers

BRATISLAVA

Waste management

- OLO waste company owned by city

- The purpose of technical equipment of the Bratislava municipal waste incineration plant is the thermal disposal (incineration) of solid municipal waste which can no longer be reused, combined with energy recovery of waste – heat and electricity production.
- More then 130tis ton of waste is incinerate yearly in two boilers.
- More then 40 000 MWH electricity production per year
- Now we need to increase a capacity and add a new combustion boiler

BRATISLAVA

Waste managament

- Heat generated by waste incineration and biogas is used for steam and electricity generation.
- The incineration plant technology uses some of the heat generated by waste incineration for its own consumption – heating of the primary combustion air, heating and thermal degassing of feed water and heating of the premises of the incineration plant; the rest is used for electricity production.

BRATISLAVA

Future waste in Bratislava

- **Urban municipal waste and bio waste:**
- will be disposed of by incineration in modern municipal incineration or heating plants incinerating waste. These are located within urban areas and recover energy from waste – by supplying heat to municipal networks and electricity to distribution grids of existing power plants that have been upgraded for municipal waste incineration and recovery of energy from waste – supply of heat and electricity to existing networks.

BRATISLAVA

Thank you for your attention

Ing. Roman Chovanec

director of the Department of Energy Management

City of Bratislava

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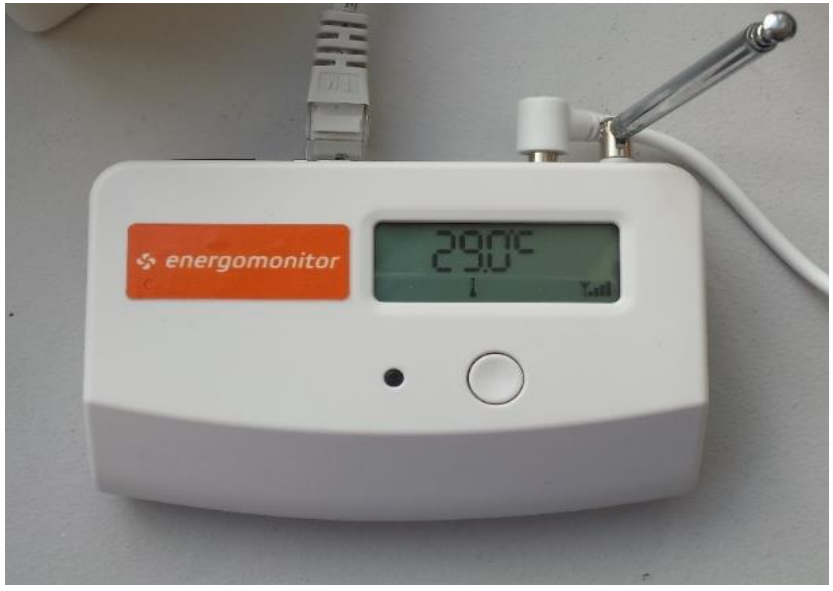
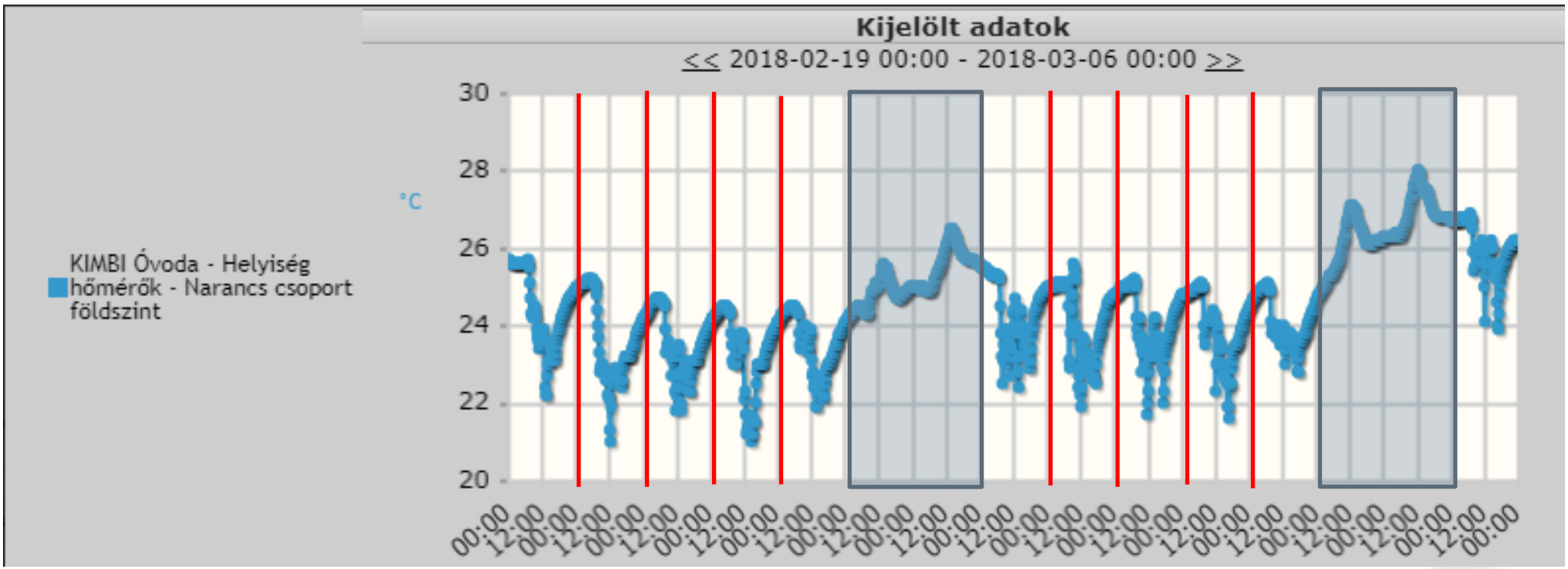
SMART METERS



KINDERGARDEN



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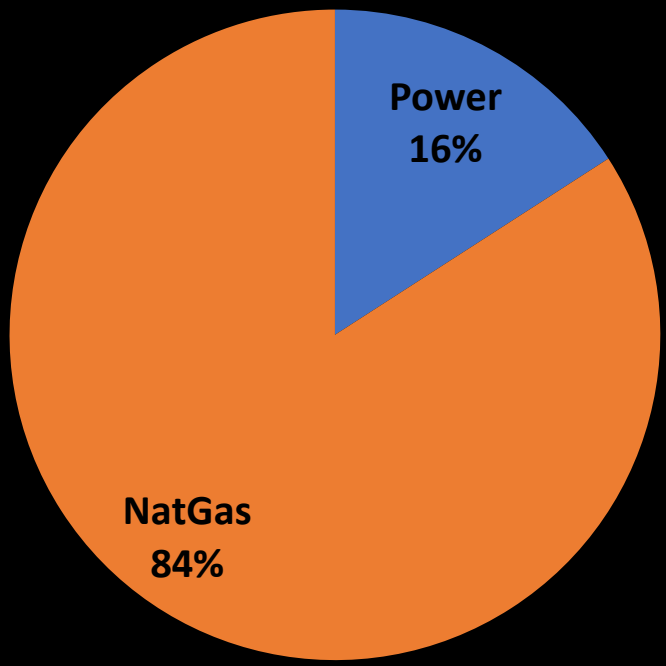
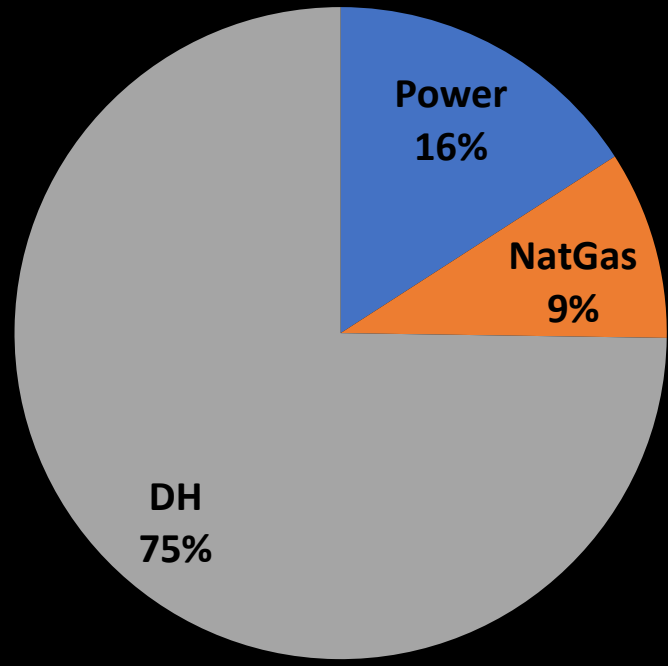
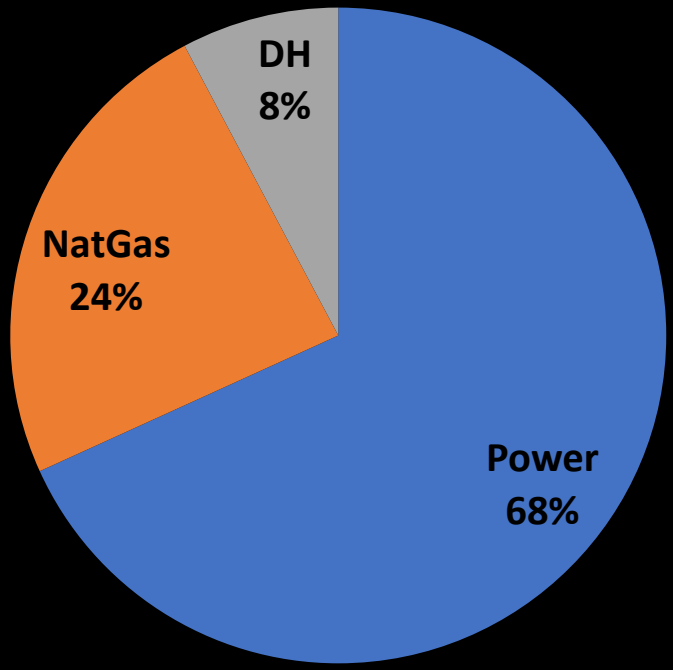
Energy consumption
Heat (NatGas vs. DH) vs. Electric power



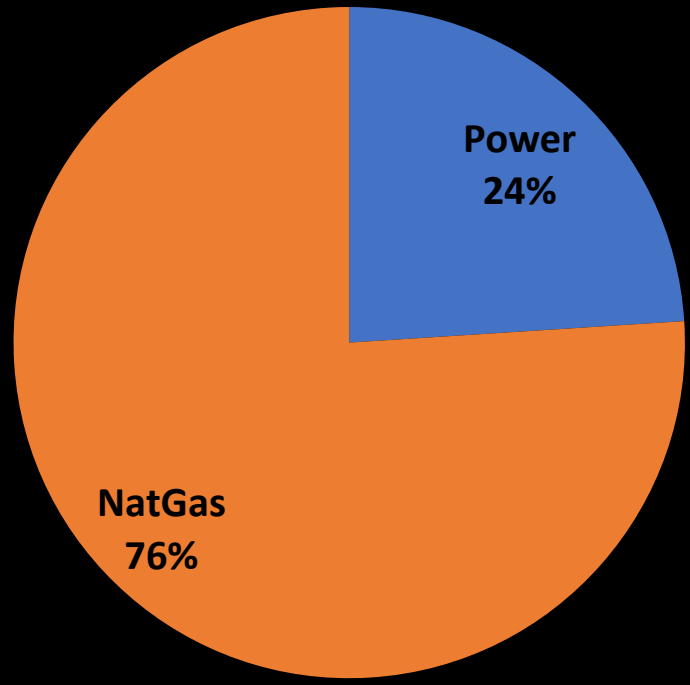


Energy = 54 GWh

CO2 emissions
(NatGas vs. Nuke District heating vs. Power)

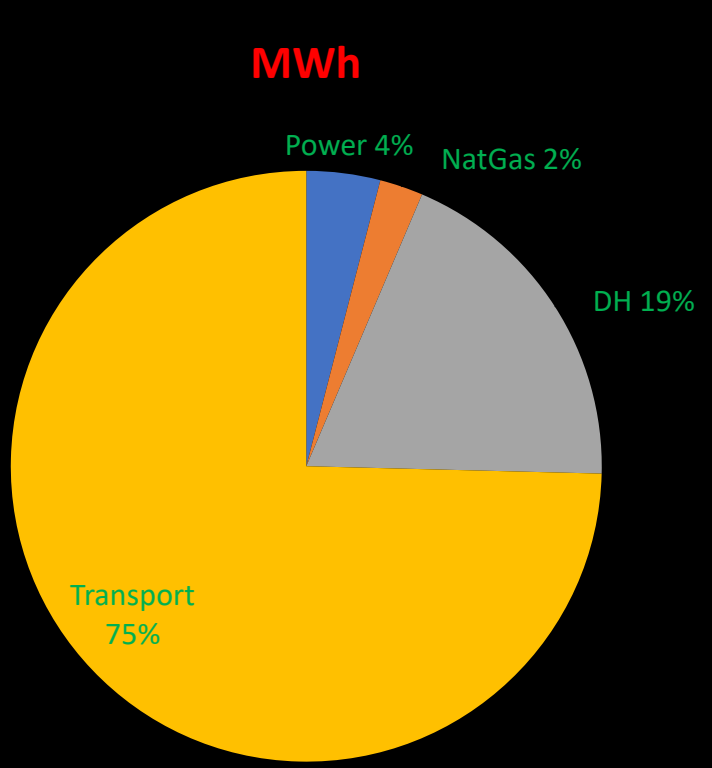


CO_2 = 4578 t

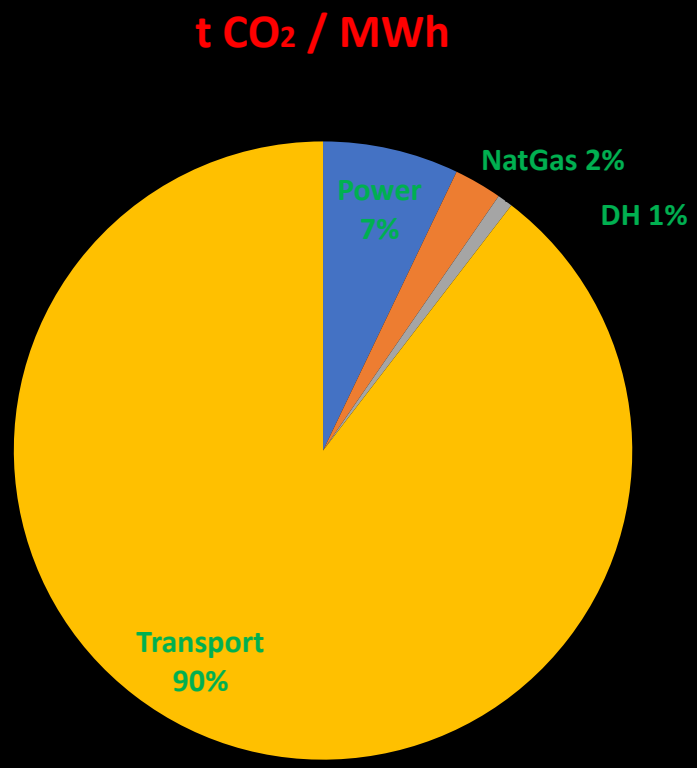


CO_2 = 13023 t

Energy vs. CO2 including transportation

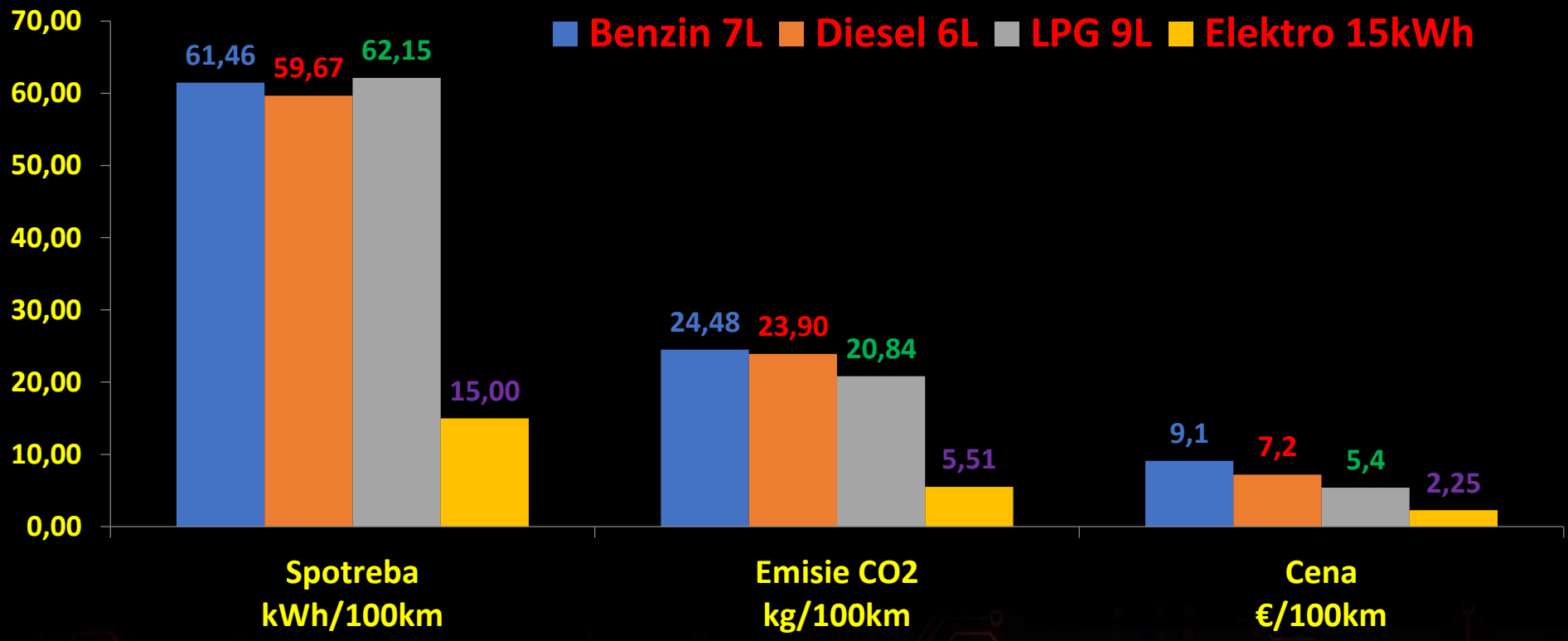


Energy = 211 GWh

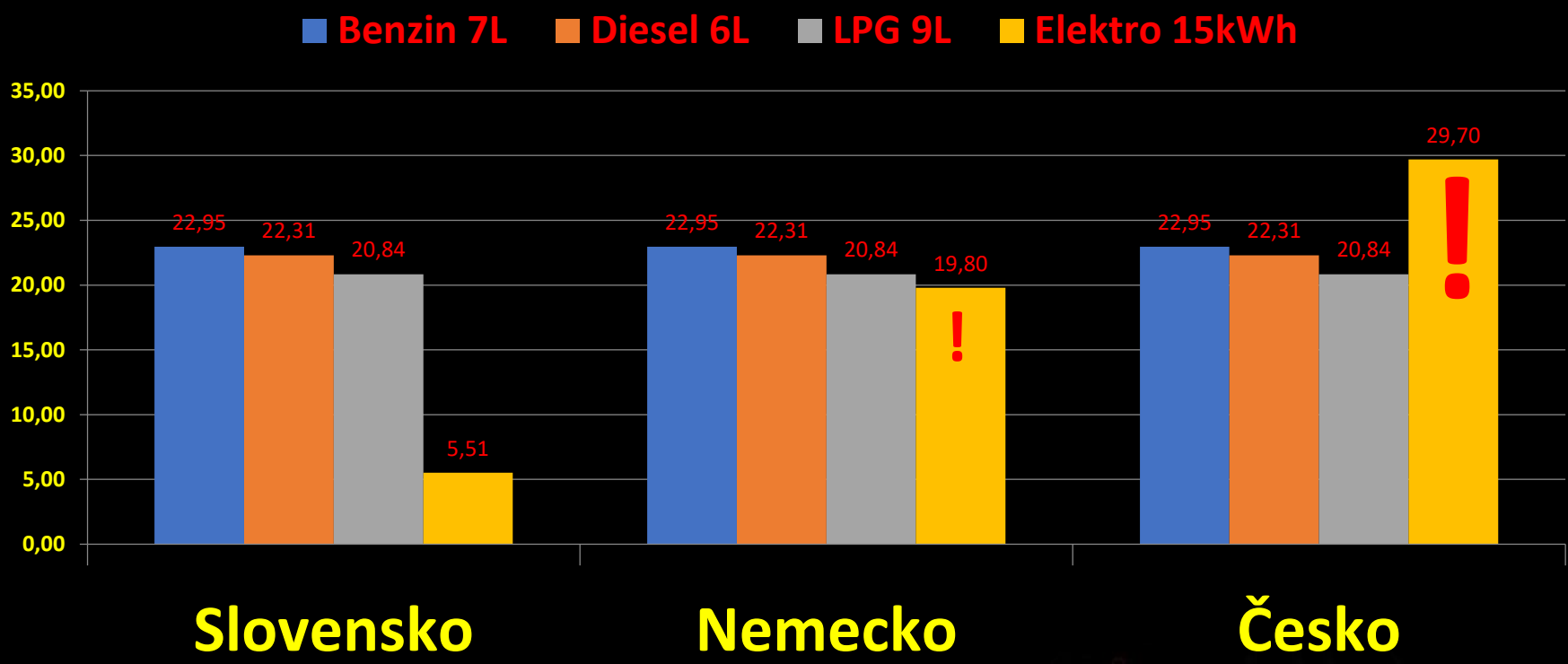


CO_2 = 43928 t

Fossile vs. Electric vehicles



CO2 emissions depending on country



Other ways of energy wasting

Think globally...

Discussion

- How does energy efficiency rank in your country / on your personal / municipal agenda?
- Why do you act on energy efficiency (policies or investments)?
- How would you convince others to engage in such action?
- What positive narratives and stories could be told to overcome resistance?

ENERGY EFFICIENCY WATCH

THANK YOU !

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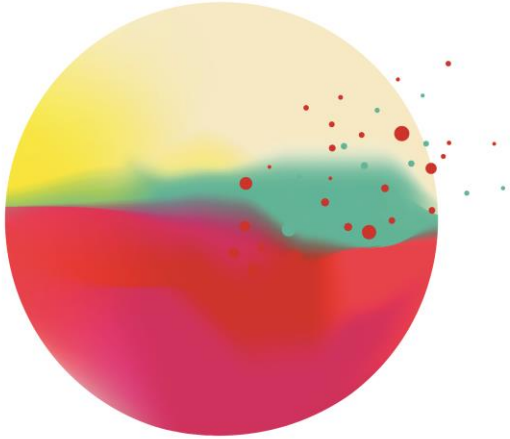

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