



Energy Efficiency in the City of Liepaja

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LIEPAJA

FACTS YOU MUST KNOW



Background



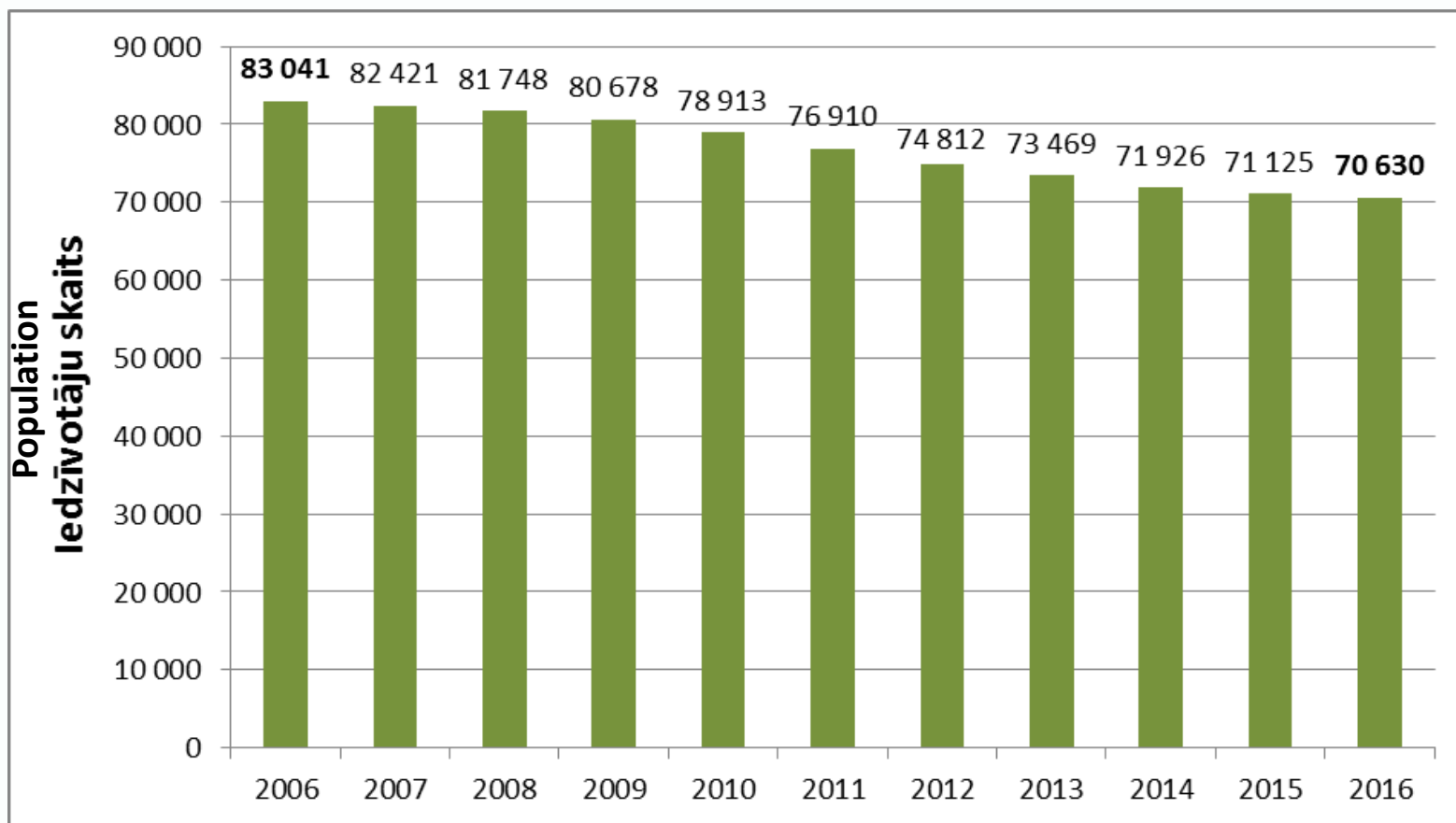
- Liepaja has signed the Covenant of Mayors in 2012
- Liepaja has established cooperation with Riga and is a part of Latvian network of learning cities
- Liepaja has focused SEAP in the following directions: improving district heating; buildings; public lighting; transport; green procurement; information to inhabitants
- One of most important sector the city has been renovation of public buildings, since these actions create jobs, save municipal money and increase security

What did municipality do?

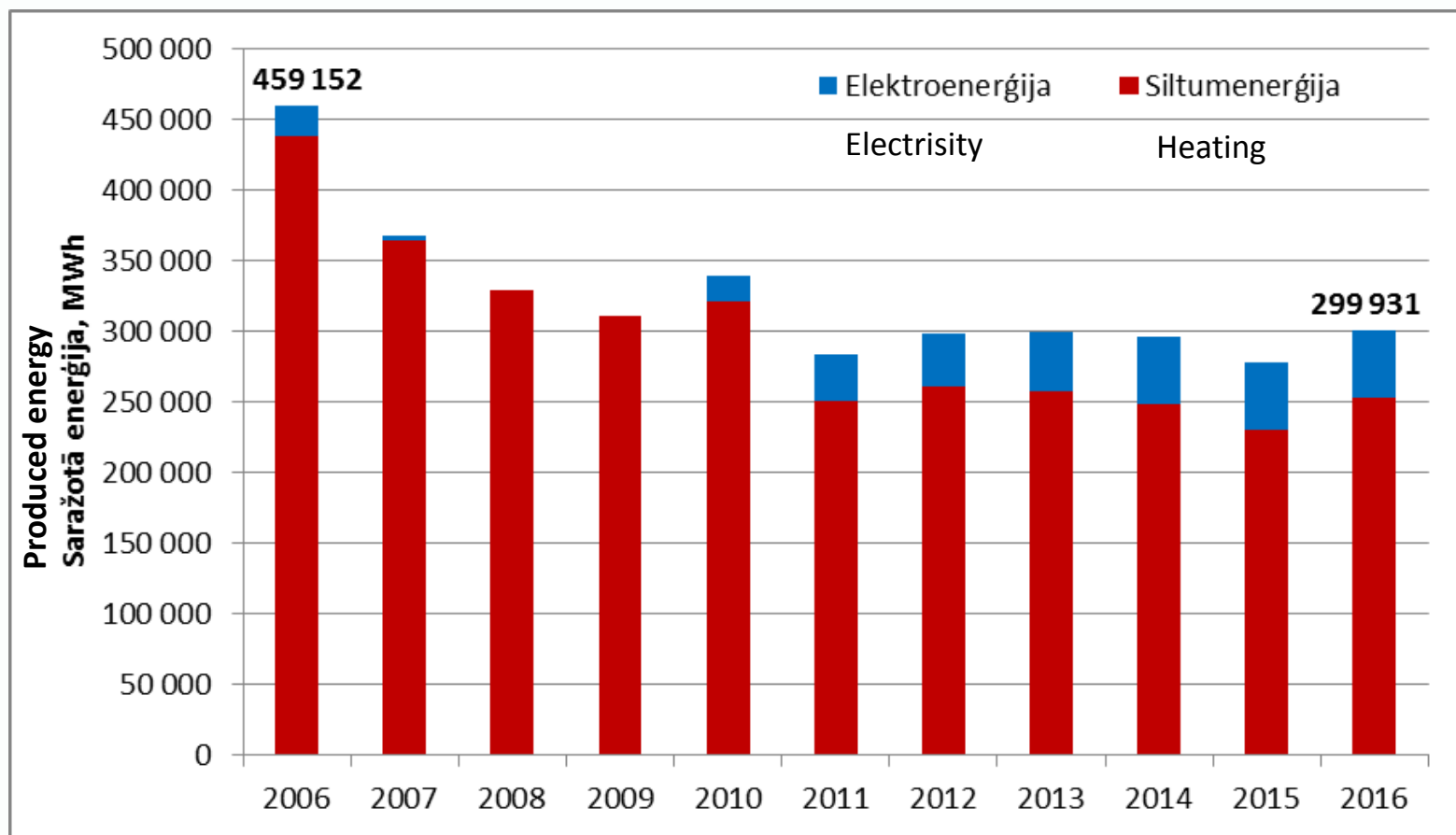
- We have to meet the conditions of decreasing CO₂ for next five years after finishing each renovation
- We think not only about the heat consumption, but also about the health of our people, therefore we have equiped every building with data loggers
- The staff of the buildings were trained in 3 seminars, to be able to analyze received data and give directions to companies serving heating units and ventilation devices
- We made a program, where we can monitor heat consumption data analyze, graphs, heat consumption stability and saved resources.



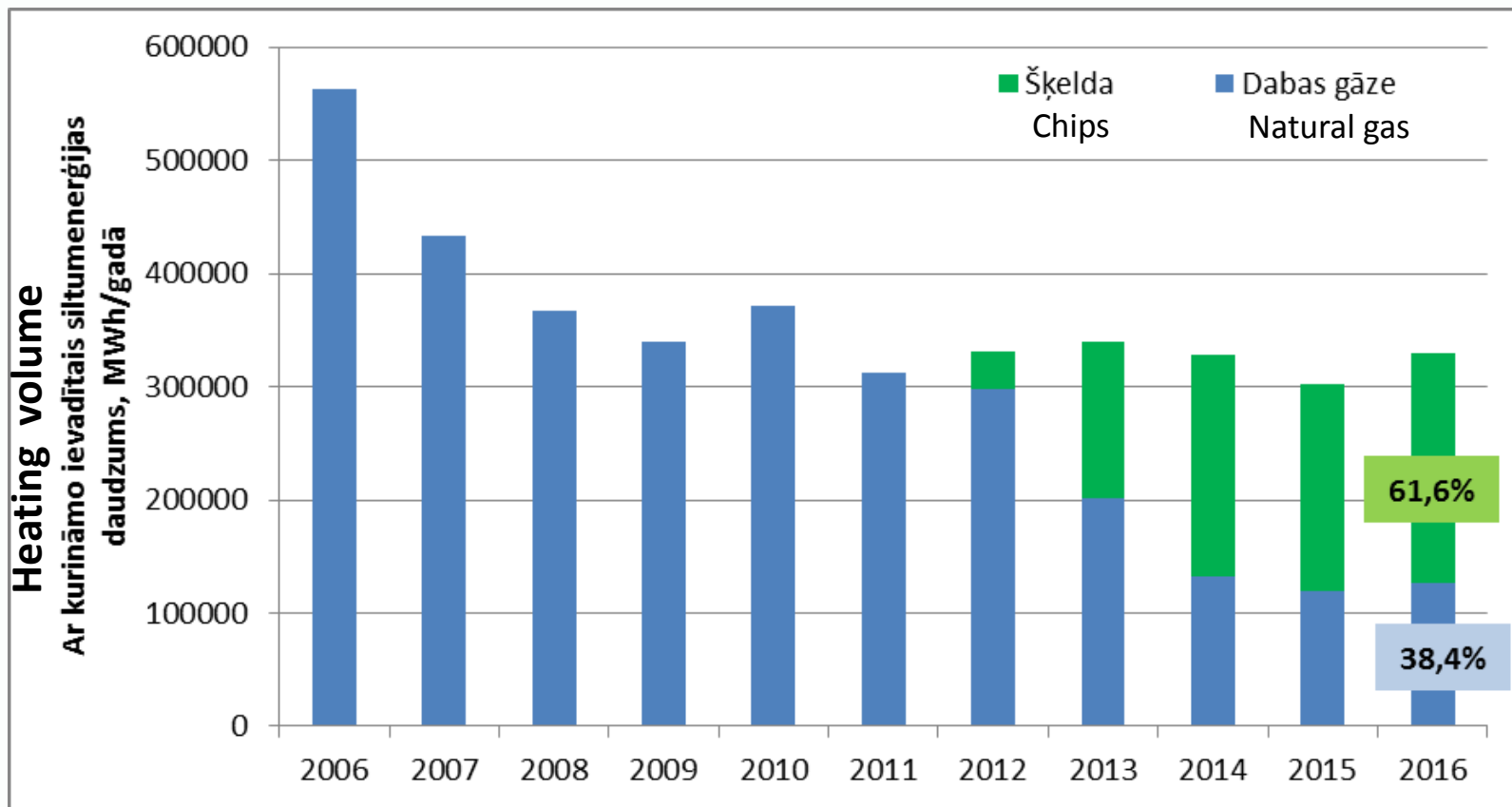
Changes of population dynamics



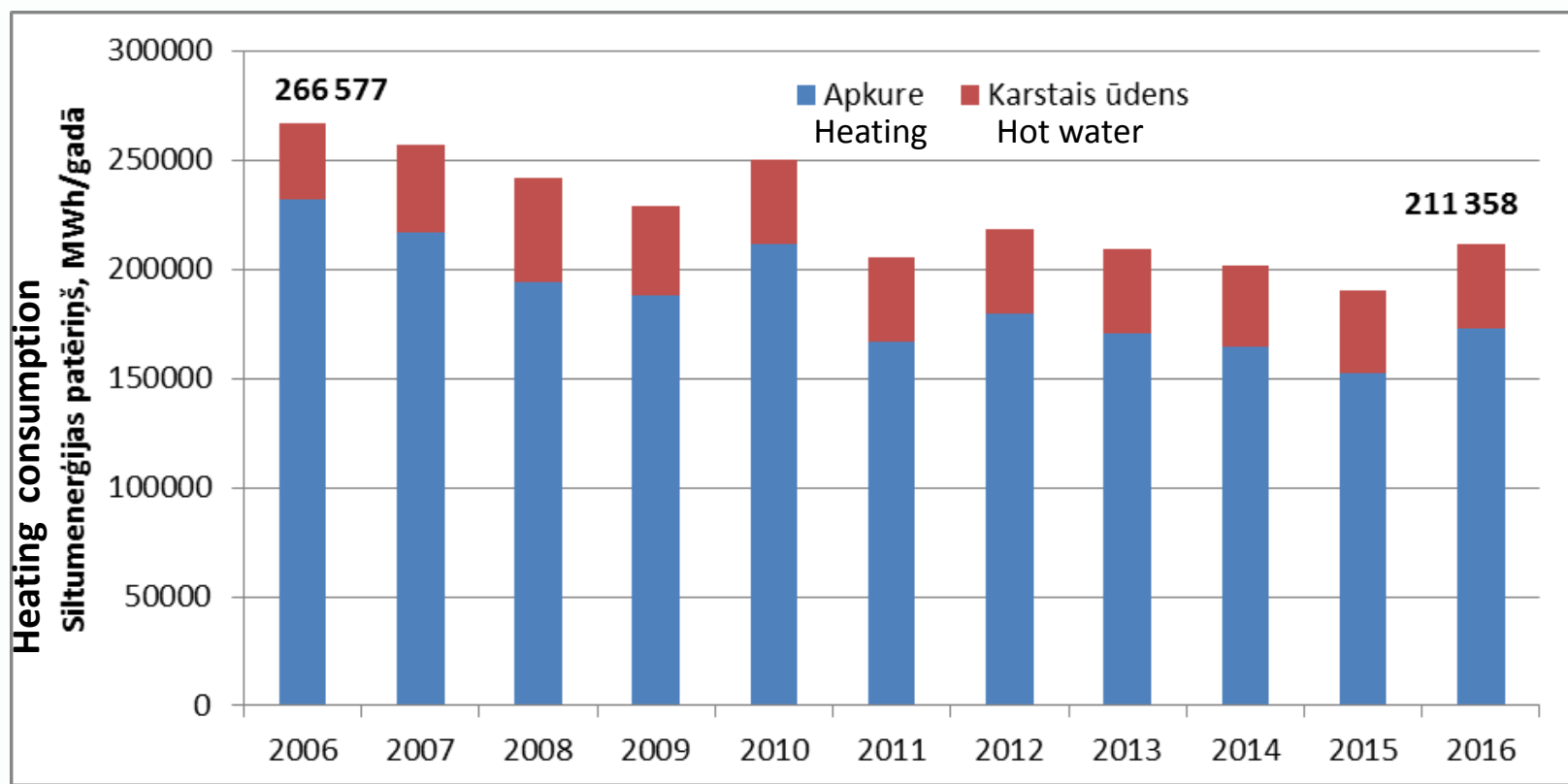
Total produced heating and electricity volumes in the district heating system



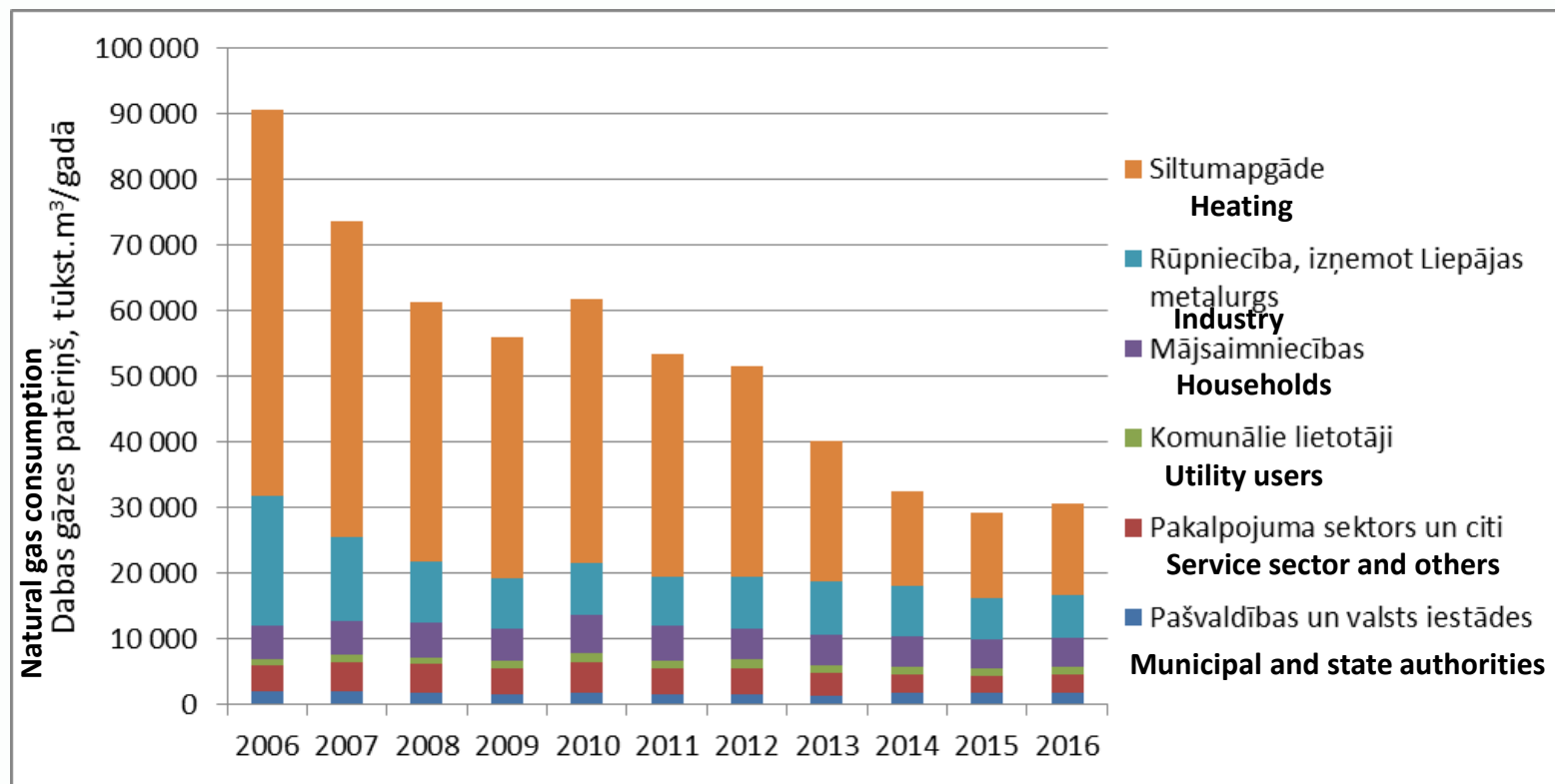
Changes of the fuel used in the district heating system last 10 years



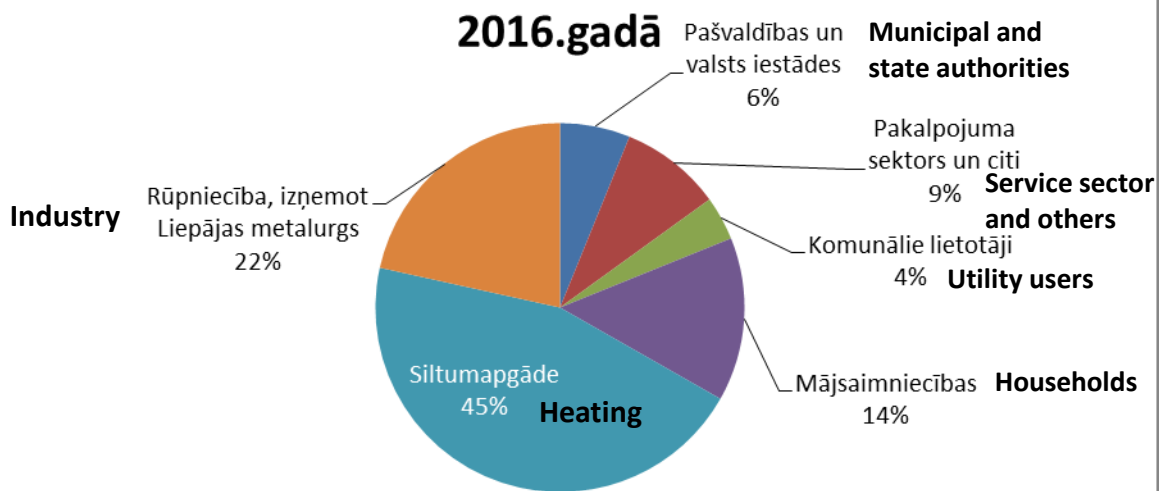
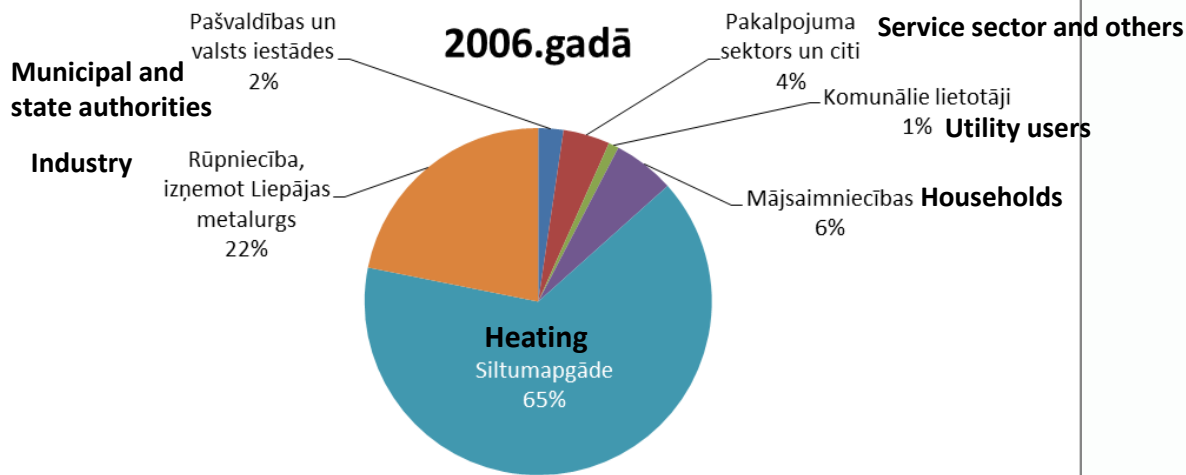
Heat consumption in buildings supplied with Liepaja City district heating system between 2006 and 2016



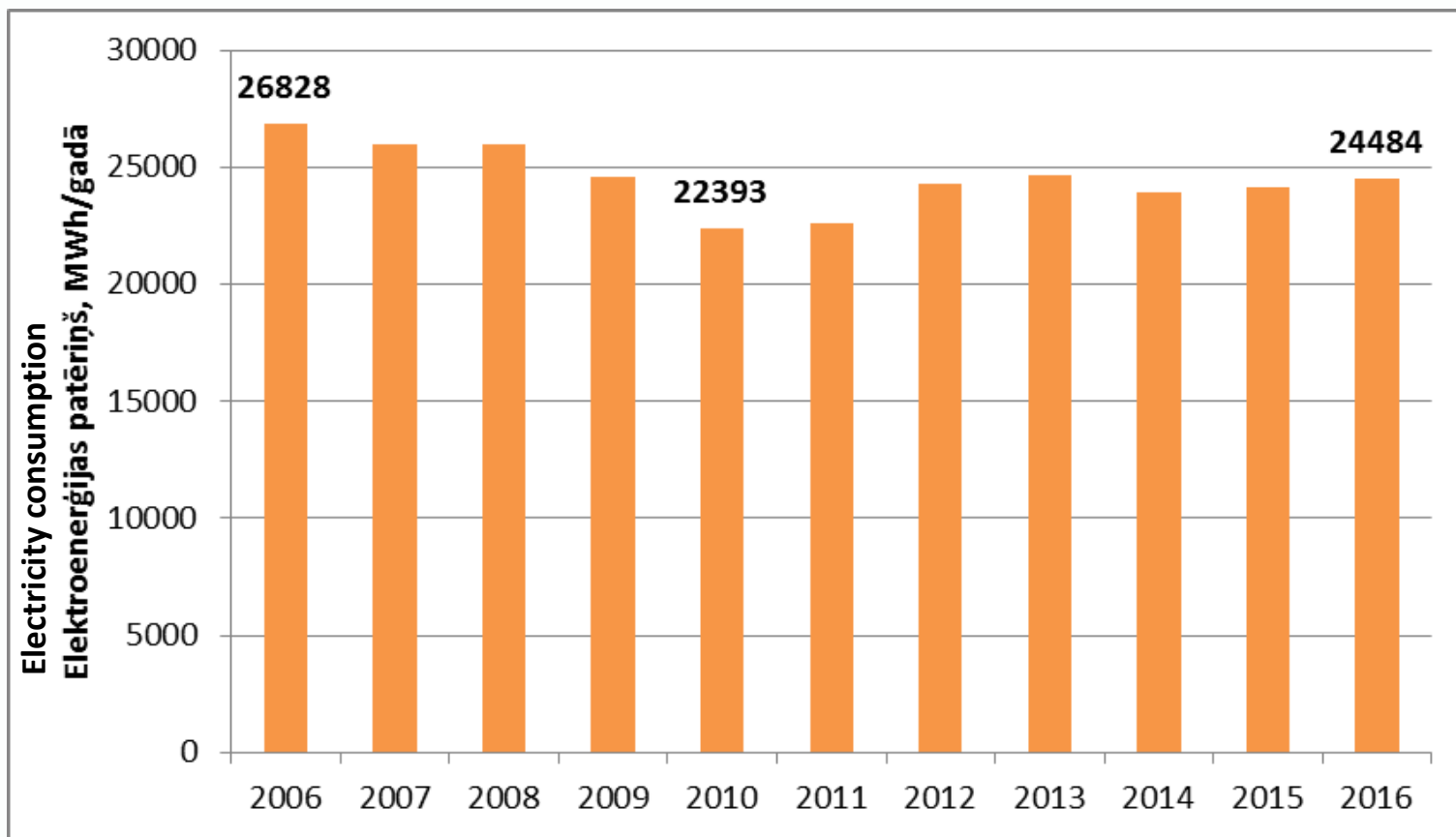
The main natural gas consumer groups and their consumption



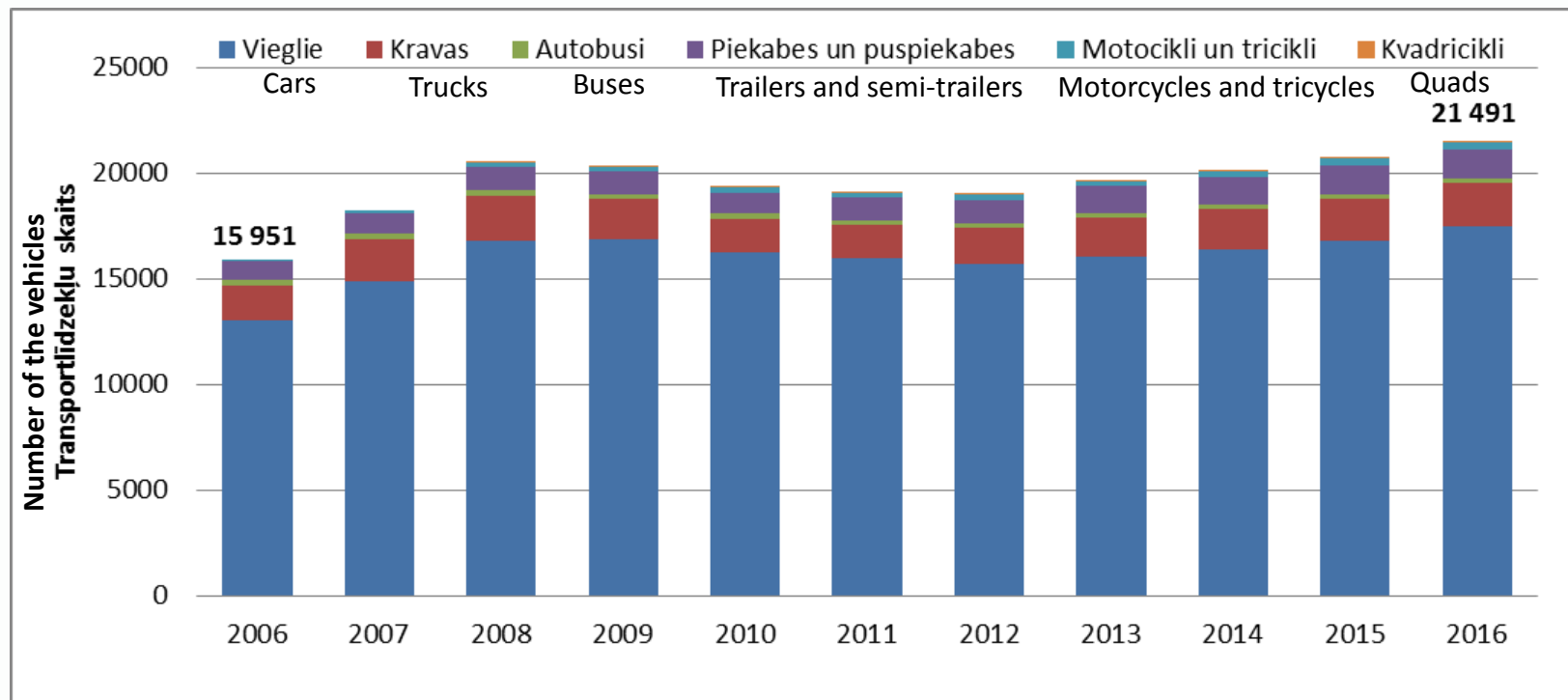
Changes among the main natural gas consumer groups in 2006 and 2016



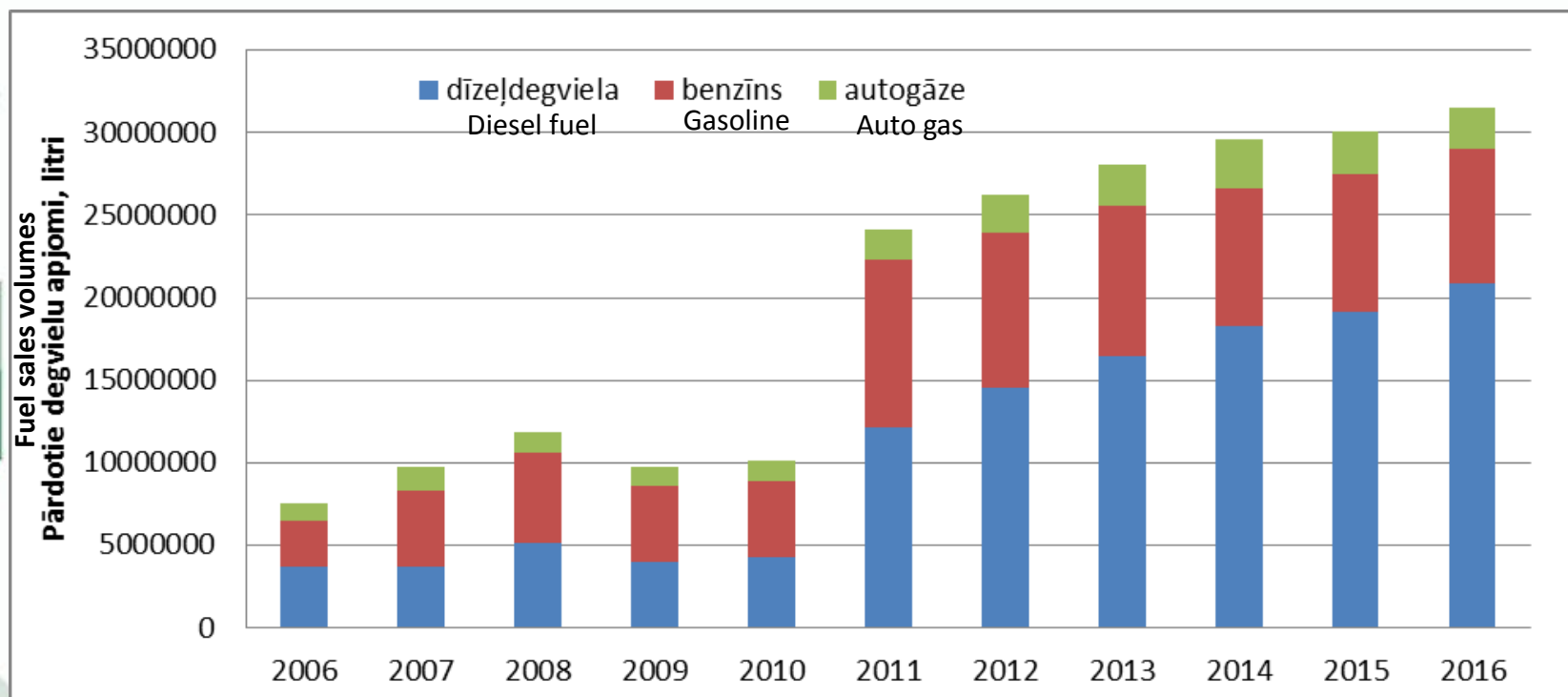
Electricity consumption in the municipality buildings and equipment



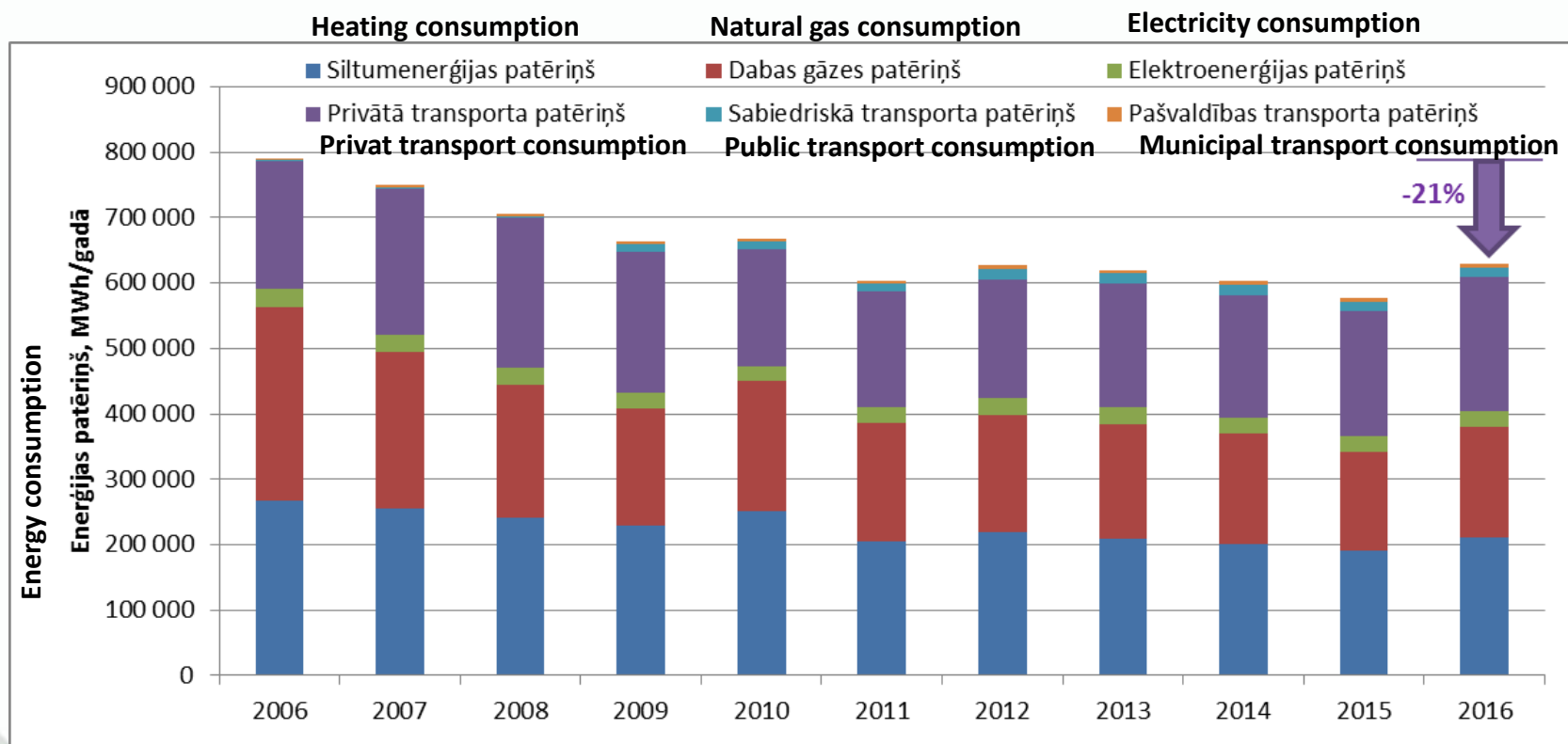
Number of the vehicles in Liepaja between 2006 – 2016



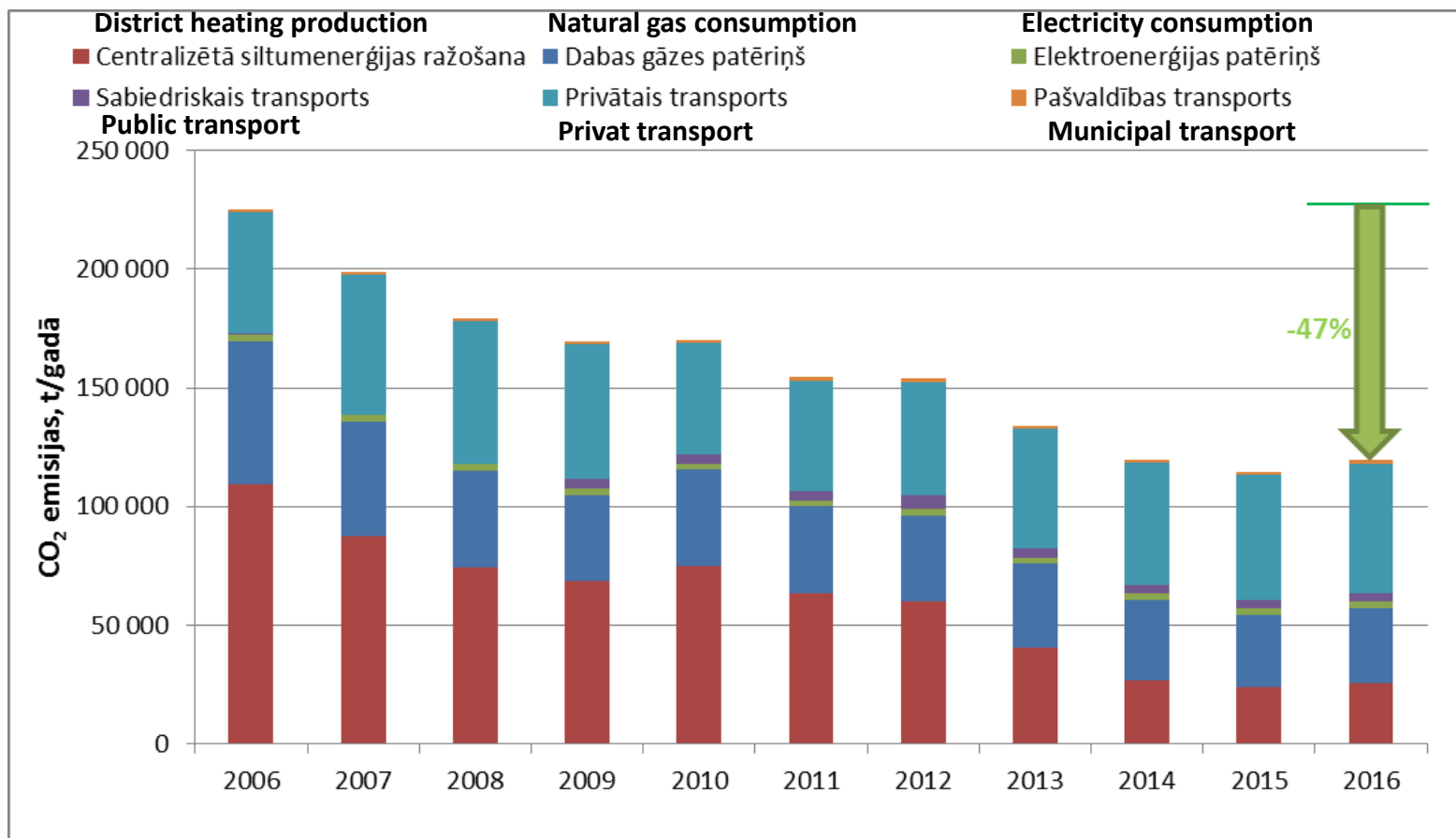
Total fuel sales volumes in Liepāja between 2006 - 2016



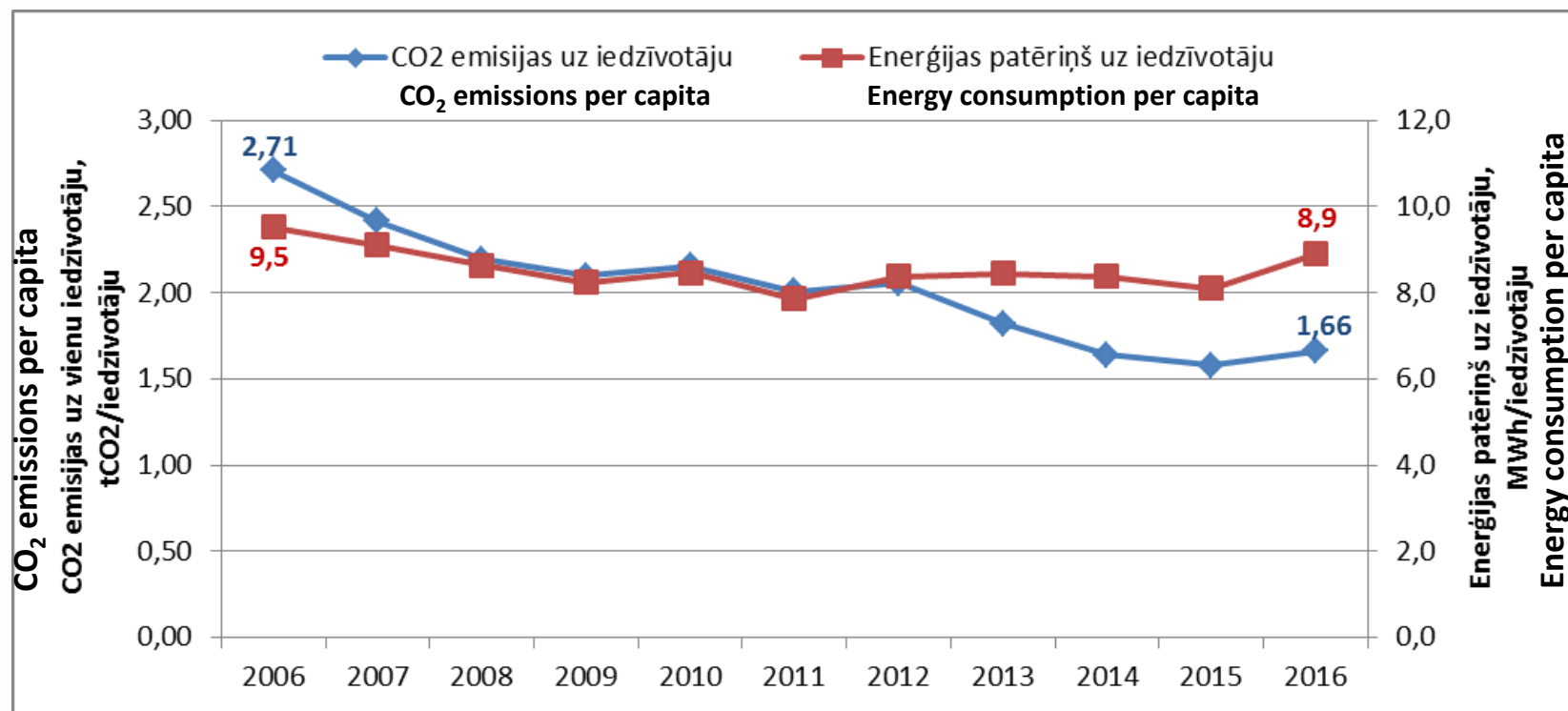
Changes in energy consumption between 2006 – 2016 in Liepāja



CO₂ emissions between 2006 -2016 in Liepaja



CO₂ emissions and energy consumption per capita between 2006 -2016 in Liepaja



Children and youth technical creativity center Krumu str. 29, Liepaja before renovation



Children and youth technical creativity center

Krumu str. 29, Liepaja after renovation



Municipal Police, Jelgavas str. 48, before renovation



...and after renovation



Municipal achievements in improving energy efficiency

- Liepaja is the first municipality in Latvia, where energy management system is certified according to the ISO 50001 standard
- Liepaja has renovated about 110 apartment buildings with EU financial support. This is numerically the highest level in Latvia
- Competition «Energy efficient building in Latvia 2015» in the nomination «Apartment buildings", obtained the first three places and voters' sympathies prize
- In cooperation with the Riga Energy Agency and with the financial support of the Glasgow University of Strathclyde, Liepaja and its achievements in implementation of Covenant of Mayors were presented in European Union Sustainable Energy Week in Brussels seminars, to more than 5,000 local governments in the world
- In cooperation with Ministry of Economics two workshops on energy efficiency and Energy Days were organized for other Latvian municipalities

Conclusions

- The most savings are made from precise regulation of technical devices.
- Property owners the resources for maintaining of the buildings or territories can get from savings - it was decided that up to 15% of savings can be used for motivational bonuses
- The biggest benefit is health of our people, because, when we use data loggers daily, an optimal microclimate is provided in the rooms. Specially it is related to the ventilation of the rooms.
- Energy consumption in Liepaja last 6 years has been an average of 609 GWh / year, which is 21% less than in 2006
- Comparing the energy consumption rate per capita in 2016 by the year 2006, it is at a similar level - 8.9 MWh / inhabitant per year.
- The total reduction of CO2 emissions in 2016 compared to the base year (2006) is 47% (plan to 2020.g. - 35%).
- Chips share of district heating in 2016 amounted to 61.6%.
- Connections of heating power is increased in 2016 compared to 2013
- Despite the fact that the population continues to decline, the number of vehicles in 2016 continued to increase, as a result increased diesel and car gas sales volume



Thank you for your attention!

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