



Successful public building EE project example: Administrative building modernisation

Marijus Franckevičius, INVEGA, Lithuania

Karolis Maželis, Head of project management
team, Turto bankas, Lithuania

 #ficompass





Successful public building EE project example: Administrative building modernisation

Marijus Franckevičius
INVEGA, Lithuania

 #ficompass



Energy Efficiency Fund



Energy Efficiency Fund was established in 2015.

INVEGA provides loans for financing renovation of central government buildings.

The aim is to increase the energy efficiency of public buildings for heating to ensure energy efficiency, reduce emission of greenhouse gas effect (CO₂) and to ensure the compliance of central government buildings with valid hygiene standards.

Energy Efficiency Fund



Potential applicants

These are entities managing the public building(s) owned by the state by the right of ownership, except state enterprises and/or the manager of centrally managed state assets by the right of trust or loan for use.

Type and rate of interest

Loans are subject to a variable rate of up to 2% + 6 months EURIBOR (at least 0%), but a total interest rate of no more than 2%.

Loan term

The term is up to 20 years.

Eligible costs

Energy efficiency improvement actions/measures for the renovation of public buildings specified in Annex 2 of the Programme for improving the energy efficiency of public buildings.

Energy Efficiency Fund



Total number of projects (buildings):	50 buildings
INVEGA investment:	18,92 mln. Eur.
Total area of renovated premises:	178 068 sq. meters
Annual reduction in primary energy consumption:	12 764 837 kWh per year
Annual greenhouse effect CO2 reduction:	2045 tons per year

Energy Efficiency Fund



Our project executors:

- The manager of centrally managed state assets;
- The public institutions in the field of healthcare;
- The public institutions in the field of education;



Our projects before and after

Dignitary Protection Service HQ building



Our projects before and after

Vilkija agricultural school





Turto Bankas projects, Renovation of public buildings

Karolis Maželis

Head of project management team, Turto bankas
(publicly owned management company of real
estate of the State), Lithuania

 #ficompass



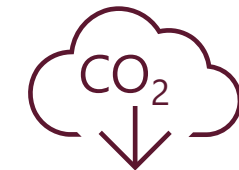
ABOUT TURTO BANKAS



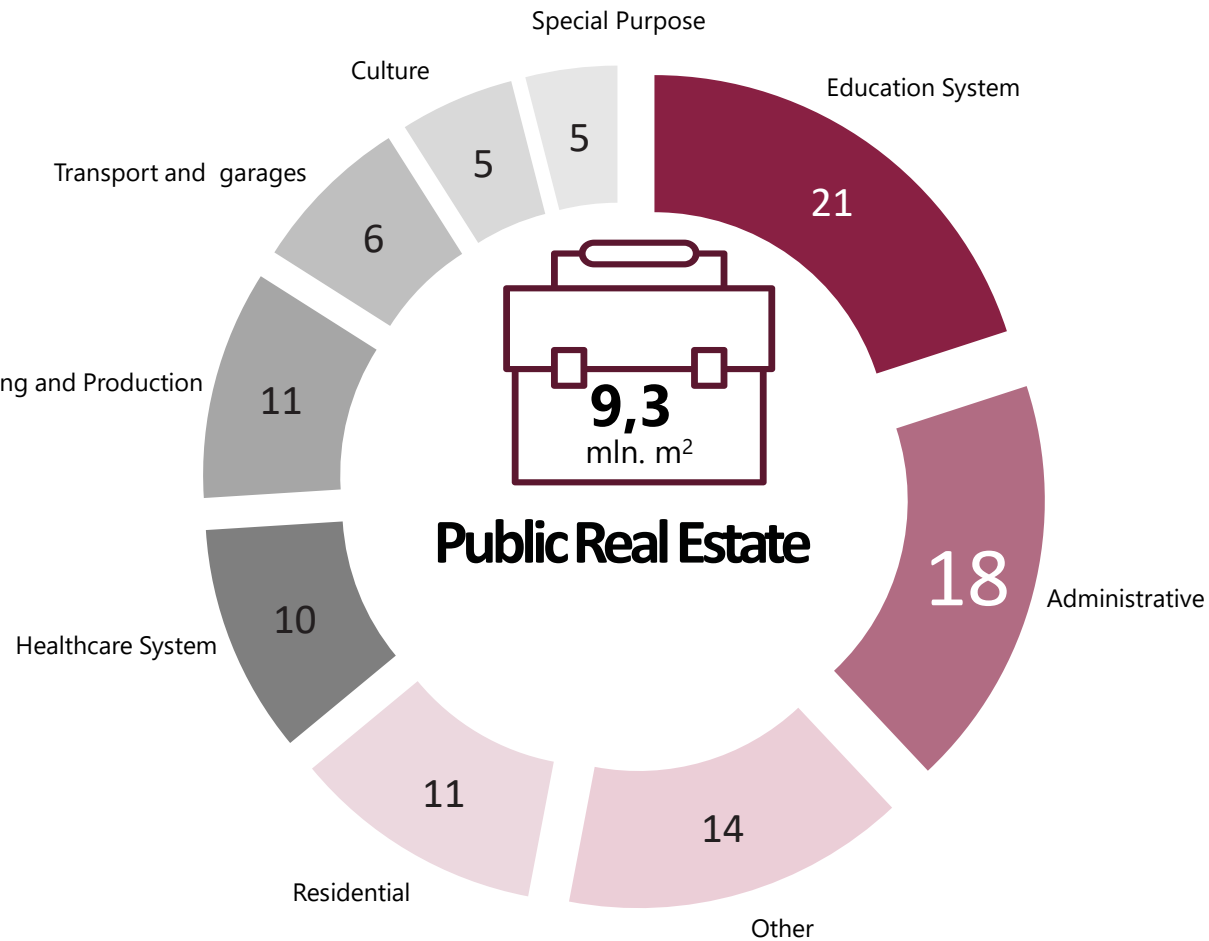
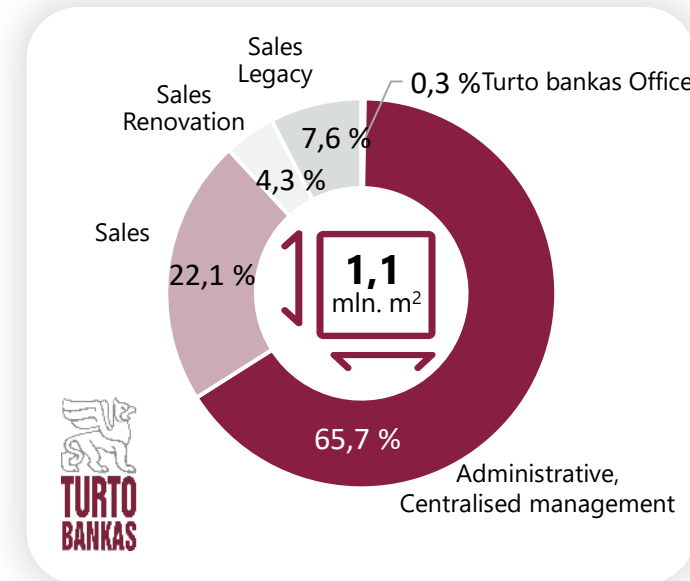
70 %
till 2030



**Annual emission
reduction goal at least 8 %**



5 % 2022
17 % 2023



OUR GOALS AND ACHIEVEMENTS



GOALS

- Improve the condition and energy efficiency of administrative buildings and their engineering systems
- Increase the energy efficiency of the buildings
- Ensure that the building infrastructure complies with the hygiene standards
- Reduce greenhouse gas (CO2) emissions
- Quality Workplaces

PROJECTS

- 7 completed renovation projects
- 9 ongoing projects

Financed from 2014–2020 Operational Programme for the European Union Funds Investments in Lithuania and by Turto bankas



COMPLETED PROJECTS year 2016–2022



Total renovated Area 12 808 m²

Total Value of all Projects 13,23 million EUR

Reduction in primary Energy Consumption 770 thousand kWh/year

Reduction of the Greenhouse Gas Emissions: 191 tonnes/year



T. Ševčenkos st. 13, Vilnius

Area: **6 310 m²**

Investment: **12,75 million Eur**

Energy Performance: **A+**

Energy Consumption
Reduction:

295 thousand kWh/year

CO₂ Reduction: **69
tonnes/year**



Naujoji st. 2, Alytus

Area: **2 917 m²**

Investment: **0,28 million Eur**

Energy Performance: **C**

Energy Consumption
Reduction:

16 thousand kWh/year

CO₂: **15 tonnes/year**



L. Sapiegos st. 12, Kaunas

Area: **1 802 m²**

Investment: **0,68 million Eur**

Energy Performance: **B**

Energy Consumption
Reduction:

337 thousand kWh/year

CO₂ Reduction: **79
tonnes/year**



Vasario 16-osios st. 6, Tauragė

Area: **1 779 m²**

Investment: **0,27 million Eur**

Energy Performance: **C**

Energy Consumption
Reduction:

121 thousand kWh/year

CO₂ Reduction: **28
tonnes/year**



COMPLETED PROJECTS year 2020–2023

Total renovated Area 5 131 m²

Total Value of all Projects 8,41 million EUR

Reduction in primary Energy Consumption 774 thousand kWh/year

Reduction of the Greenhouse Gas Emissions: 64 tonnes/year



Ozo st. 4A, Vilnius

Area: **1 704 m²**

Investment: **2,95 million Eur**

Energy Performance: **B**

Energy Consumption Reduction:
267 thousand kWh/year

CO₂ Reduction: **21 tonnes/year**



Atgimimo st. 24, Ignalina

Area: **1 105 m²**

Investment: **2,36 million Eur**

Energy Performance: **B**

Energy Consumption Reduction:
289 thousand kWh/year

CO₂ Reduction: **23 tonnes/year**



Vytauto st. 28, Marijampolė

Area: **2 322 m²**

Investment: **3,1 million Eur**

Energy Performance: **C**

Energy Consumption Reduction:
218 thousand kWh/year

CO₂ Reduction: **20 tonnes/year**



ONGOING PROJECTS year 2020 – completion QIV 2023

Total renovated Area 12 753 m²

Total Value of all Projects 18,57 million EUR

Reduction in primary Energy Consumption 1,7 million kWh/year

Reduction of the Greenhouse Gas Emissions: 169 tonnes/year



J. Jablonskio st. 30, Anykščiai

Area: 1 116 m²

Investment: 1,26 mln. Eur

Energy Performance: B

Energy Consumption

Reduction:

197 thousand kWh/year

CO₂ Reduction: **16 t/year**



Juozapavičiaus st. 57, Kaunas

Area: 3 914 m²

Investment: 3,52 mln. Eur

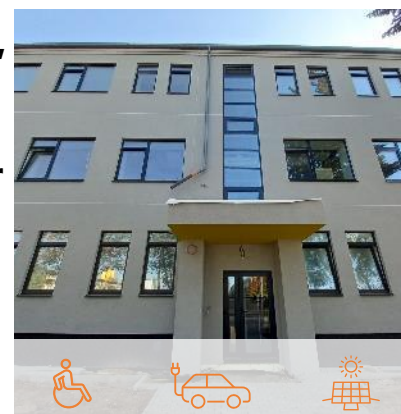
Energy Performance: B

Energy Consumption

Reduction:

348 thousand kWh/year

CO₂ Reduction: **71 t/year**



Jovaryų st. 3, Kaunas

Area: 1 704 m²

Investment: 4,26 mln. Eur

Energy Performance: B

Energy Consumption

Reduction:

332 thousand kWh/year

CO₂ Reduction: **23 t/year**



A. Vivulskio st. 11, Vilnius

Area: 3 104 m²

Investment: 5,56 mln. Eur

Energy Performance: B

Energy Consumption

Reduction:

303 thousand kWh/year

CO₂ Reduction: **19 t/year**



Naikupės st. 27A, Klaipėda

Area: 1 776 m²

Investment: 2,66 mln. Eur

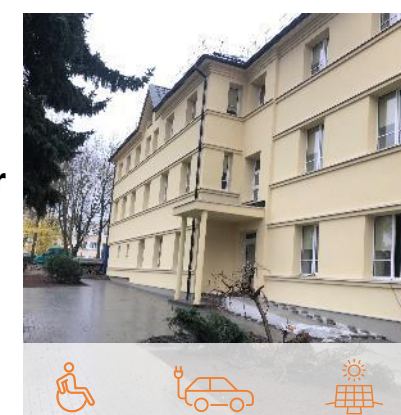
Energy Performance: B

Energy Consumption

Reduction:

406 thousand kWh/Year

CO₂ Reduction: **31 t/Year**



Vilniaus st. 265, Šiauliai

Area: 910 m²

Investment: 1,31 mln. Eur

Energy Performance: B

Energy Consumption

Reduction:

114 thousand kWh/year

CO₂ Reduction: **9 t/year**



ONGOING PROJECTS year 2020 – completion QII 2024



Total renovated Area 4 128 m²

Total Value of all Projects 8,41 million EUR

Reduction in primary Energy Consumption 585 thousand kWh/year

Reduction of the Greenhouse Gas Emissions: 61 tonnes/year



S. Nėries st. 4, Klaipėda

Area: **1 208 m²**

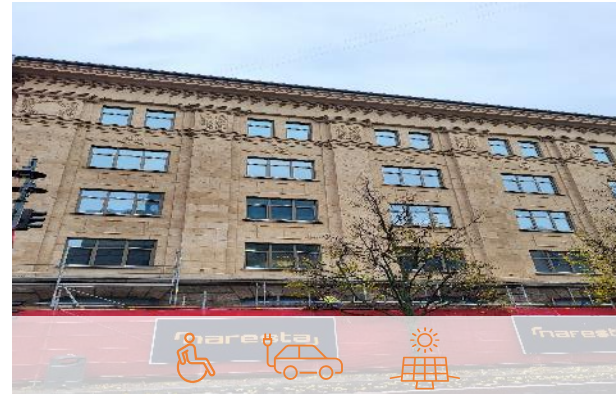
Investment: **1,99 million Eur**

Energy Performance: **C**

Energy Consumption Reduction:

331 thousand kWh/year

CO₂ Reduction: **44 tonnes/year**



A. Jakšto st. 1, Vilnius

Area: **2 920 m²**

Investment: **6,42 million Eur**

Energy Performance: **B**

Energy Consumption Reduction:

254 thousand kWh/year

CO₂ Reduction: **17 tonnes/year**

RECONSTRUCTION OF ADMINISTRATIVE BUILDING IN T. ŠEVČENKOS ST. 13., VILNIUS



Construction Year: **1972**

Energy Performance change: **from E to A+**

Reduction in primary Energy Consumption: **295 thousand kWh/year**

Reduction of the Greenhouse Gas Emissions: **69 tonnes/year**

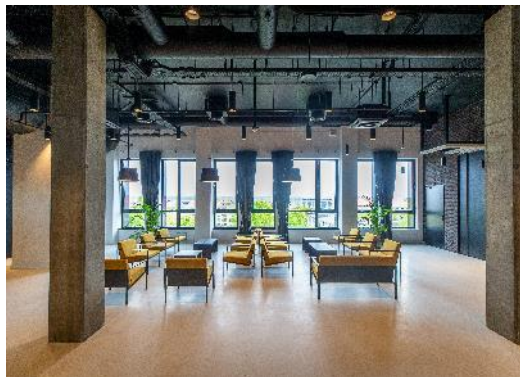
Start of the Reconstruction: **2020 QIII**

End of the Project: **2022 QII**

Area: **from 5 186 m² to 6 310 m²**

Investment: **12,72 million Eur**

Contractor: **Naustas**



Results:

- Lower energy costs
- Efficient use of the building and energy resources
- Working conditions in line with hygiene and health safety requirements
- Solar power plant on the roof
- Best BIM Lithuania 2022 Project in Public Buildings category
- Former building of Institute of Geology and Geography adapted for the specific needs of Dignitary Protection Service

RENOVATION OF ADMINISTRATIVE BUILDING IN A. JAKŠTO ST. 1, VILNIUS

Construction Year: **1954**

Energy Performance Change: from **F** to **B**

Expected Reduction in primary Energy Consumption: **254 thousand kWh/year**

Reduction of the Greenhouse Gas Emissions: **17 tonnes/year**

Start of the Reconstruction: **2023 Q1**

End of the Project: **2024 QII**

Area: from **2 620 m²** to **2690 m²**

New additional workplaces: **36**

Investment: **6,42 million Eur**

Contractor: **Naresta**



Challenges:

- During the execution of the Contract in the stage of demolition of the finishes and structures revealed additional construction works and problems not foreseen in the Technical project and the Contract: instability of the existing floor structures and limited load-bearing capacity of slabs.
- In order to ensure the building's essential requirements for mechanical strength and resistance, security of use and proper completion of the project, it is necessary to modify the solutions and carry out additional works.
- This increases the cost of the project and delays the project timeline.



Challenges and Lessons



Risks. International Level

- Instability of constructional materials and commodities markets due to the war in Ukraine
- Instability of the Financial market
- Macro/micro economic developments
- Changes in national and EU legislation

Good Practice. Lessons learned

- Precise planning
- Allocation of financial resources
- Precise building condition assessment
- Understanding and control of Clients Needs



Project management Risks

- Too short a time to prepare applications for funding
 - The specific of the buildings (scope of renovation and construction works)
 - Project delays
 - Procurement procedures
-



Thank you!

www.fi-compass.eu

Follow us:    



fi-compass is provided by the European Commission in partnership with the European Investment Bank
Copyright © European Investment Bank 2023
events@fi-compass.eu | www.fi-compass.eu

