

Round table

EE in public buildings – from inventory to implementation of measures
Bishkek, 16 July 2024

Inventory of central government buildings in Latvia – legal basis, scope and achievements

Agris Kamenders,
Expert in EMS, SECCA

Articles 5 – 7 EED: Exemplary role of public sector

EU countries must renovate 3% of buildings owned by public bodies every year to upgrade their energy performance. Under Article 5 of Directive 2012/27/EU on energy efficiency, each member state must ensure that starting from January 1, 2014:

- **Annual Renovation Goal:** 3% of the total floor area of buildings owned and occupied by the central government, which are heated and/or cooled, must be renovated annually to meet at least the minimum energy performance requirements
- Latvia proposes to continue with this target for the period until 2030, **renovating a total of 500 000 m² in total**

Basis for Calculation: The 3% target is calculated based on the total floor area of buildings that are:

- Owned and occupied by the central government
- Larger than 250 m²
- Not meeting the national minimum energy performance requirements as of January 1 of each year



Reduce total final energy consumption of all public building 1,9% each year



Renovate 3% buildings each year owned by public bodies



Purchase high energy efficiency performance equipment

Exemptions from the 3% Renovation Target in Latvia

In Latvia, the following categories of buildings are excluded from the 3% renovation target:

Officially Protected Buildings:

- Buildings that are officially protected as part of a classified environment or due to their special architectural and historical value
- Exemption applies to the extent that meeting specific minimum energy performance requirements would unacceptably alter their character or appearance

Defense-Related Buildings:

- Buildings owned by the armed forces or central government that serve national defense purposes
- Excludes individual living quarters or office buildings intended for the personnel of the armed forces and other national defense institutions

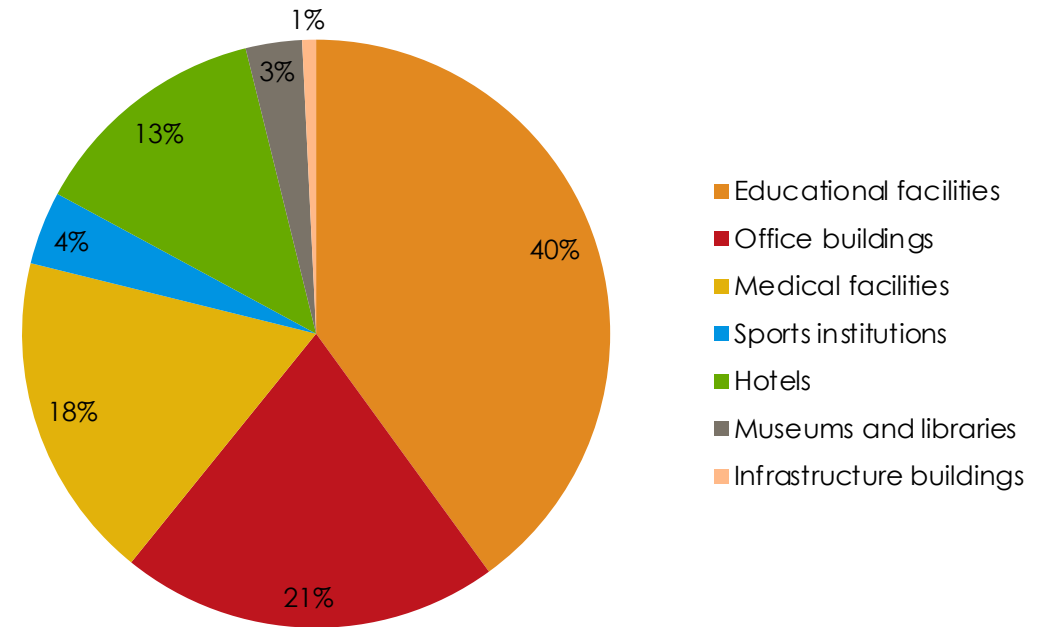
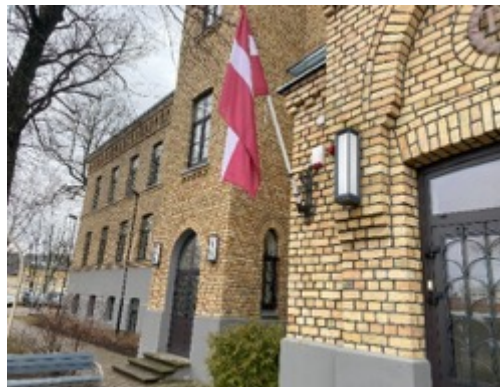
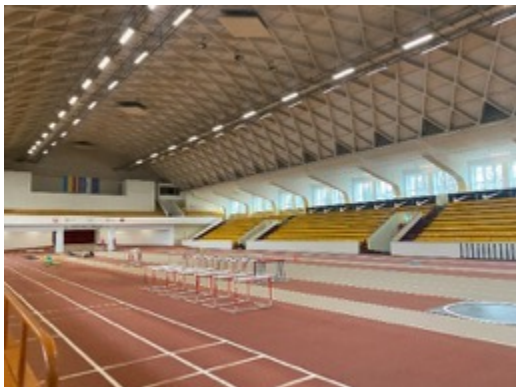
Religious Buildings:

- Buildings that serve as places of worship and are used for religious activities



Characterization of energy and public building sector in Latvia

- Estimated that there were approx. **7141 public buildings** in **Latvia** of which **2174** were owned by state government and 4967 by municipalities, with a total floor area of more than 9.6 million m²
- Primarily consists of **office buildings and educational facilities**



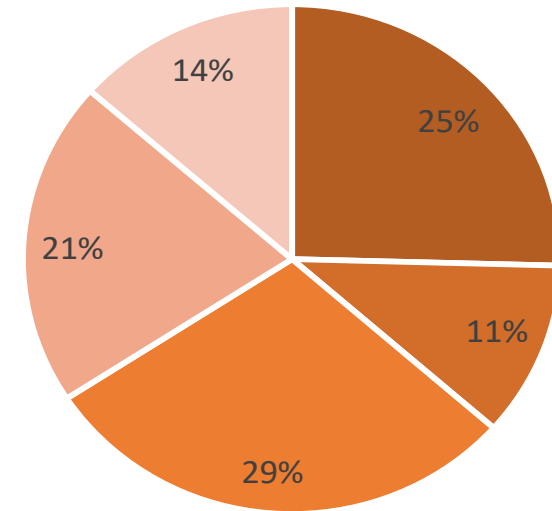
Public buildings owned by government

Building Age and Energy Efficiency in Latvia

According to the data, the majority of central government buildings were constructed before 2003, with most being built during the Soviet era

Construction Era:

- **Pre-2003 Buildings:** Approximately 86% of the buildings
- **Post-2003 Buildings:** Less than 1% of the total floor space
- For target 500 000 m² of all public buildings need to be renovated and assuming that the average cost of a renovation varies from 400 to 600 EUR/m², the required amount of investment needed would be:
 - 200 – 300 million EUR in public buildings owned by government;



■ Until 1941 ■ 1941 - 1961 ■ 1961 - 1980
■ 1980 - 1993 ■ After 2003

Buildings built by year of construction

State Construction Control Bureau



Supervision of construction



Certification and supervision of the practice of construction experts



Implementation of energy policies



Administration of the state support for energy resources



As an is **developer monitoring and ensuring the operation of information systems**



Administration of state fees in construction and energy field



Implementation of energy policies



Supervision and control of the electricity mandatory procurement mechanism



Administering energy efficiency area



Ensuring maintenance of the national emergency oil stocks



Supervision of fuel market



Licensing and supervision of hydrocarbon search, exploration and extraction



Granting support for natural gas as a transport fuel



Registration of energy communities



Energy resource information system (ERIS)

- Implementation and control of energy efficiency policy in the public and private sector
- Supervision and control of national oil product safety reserves
- Monitoring and control of the transport energy market

The screenshot displays the ERIS web application interface. At the top, the user is identified as 'Vera Suzdajenko (Būvniecības valsts kontroles birojs)'. The interface is divided into several sections:

- PAMATINFORMĀCIJA:** Includes fields for 'Reģistrācijas Nr.', 'Adrese', and 'NACE' (5610).
- KONTAKTPERSONA:** Includes fields for 'Vārds uzvārds', 'E-pasts', and 'Tālruna Nr.'.
- PIEJĀMIE PĀRSKATI:** Lists 'BIL: LEP elektroenerģijas bilance', 'PI5e: Paziņojums par ISO 50001', and 'PI5v: Paziņojums par ISO 14001 (AR PAPILDINĀJUMU)'. Each entry has an 'Atvērt' button.
- STATUSS:** A message box stating: 'Šajā karšā ir apkopota informācija par Energoefektivitātes likuma pienākumiem un to izpildi.'
- ELEKTROENERĢIJAS PATĒRIŅA DATI UN SAISTĪBU PAZĪMES:** A table showing electricity consumption data for 2019, 2020, and 2021.
- PI5e: PAZIŅOJUMS PAR ENERĢOPARVALDĪBAS SISTĒMU (ISO50001):** A table showing certification details for Bureau Veritas Latvia SIA.
- PI2: IKGADĒJAIS PĀRSKATS:** A table showing energy savings for 2019 and 2018.

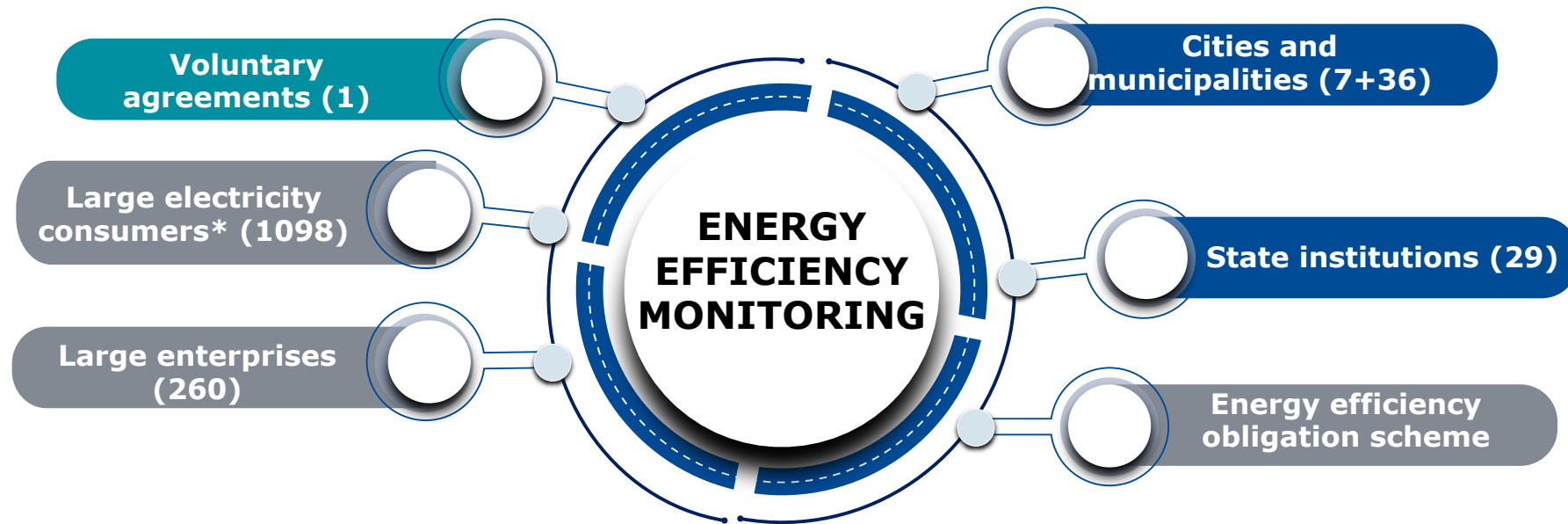
Ziņotājs / gads	2019, MWh	2020, MWh	2021, MWh
AS "Sadales tīkls" (SO)	5033.266	5006.022	5204.662
SIA (BIL)	0.000	0.000	346.102
Kopā	5033.266	5006.022	5550.764
Lielais elektroenerģijas patērētājs (LEP)			

Sertificēšanas institūcija	Sertifikāta Nr.	Derīguma termiņš	Statuss	Prognozējamais ietaupījums (MWh/gadā)
Bureau Veritas Latvia SIA	LVRIG116318E/LV	20.04.2021 – 21.04.2024	Pabeigts	163.000

Gads	Statuss	Enerģijas ietaupījums (MWh/gadā)
2019	Pabeigts	0.000
2018	Pabeigts	47.390

List of buildings: <https://www.bvkb.gov.lv>

Energy Efficiency MONITORING system



Information system of energy resources

- All data of energy monitoring are collected by using Information system of energy resources
- It is a national information system, the purpose of which is to ensure:
 - Implementation and control of energy efficiency policy in the public and private sector
 - Supervision and control of national oil product safety reserves
 - Monitoring and control of the transport energy market

Information system of energy resources

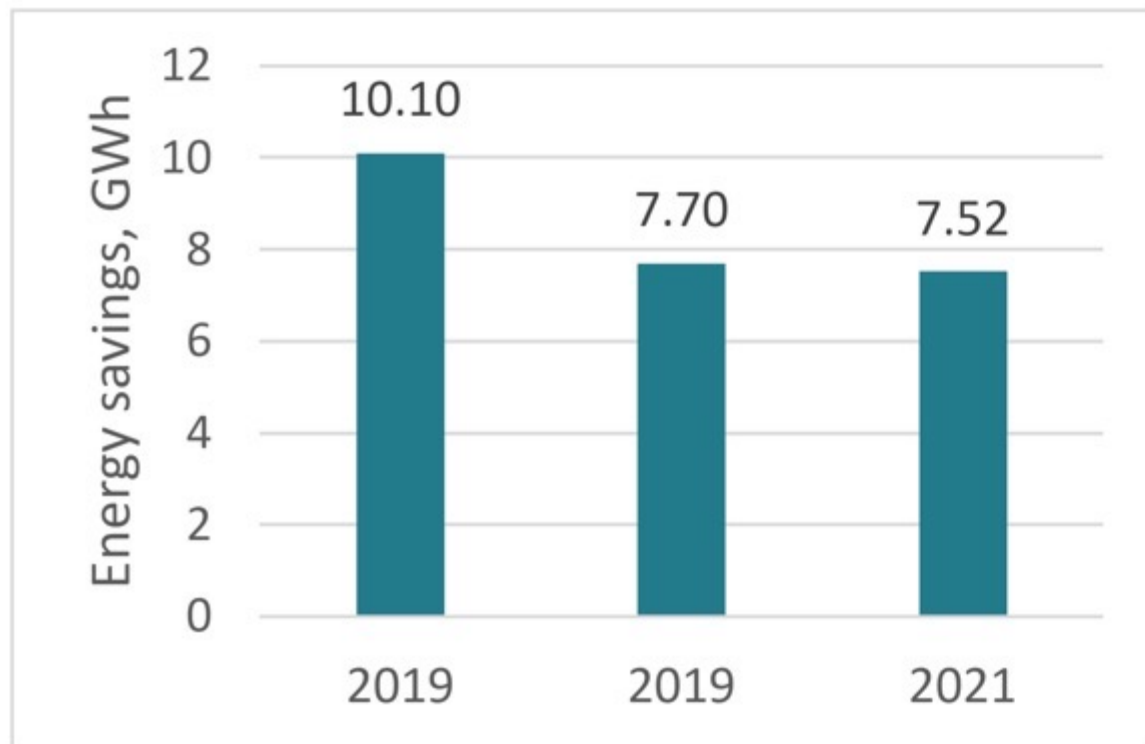
Users of Information system of energy resources:

- Large enterprises and large electricity consumers;
- Local governments of the cities and municipalities;

Experts of State Construction Control Bureau of Latvia – collect, analyze data

- The system provides summary tables about energy savings by sectors, costs of energy savings

Energy savings as a results on implementing EE in municipalities and state institutions



Building measures - **71,6 %**



Lighting measures - **11,3 %**



Equipment measures - **3,1 %**



Transport measures - **0,8 %**



Other measures - **13,2 %**



Funded by
the European Union

Renovation Progress and Targets for public buildings in Latvia

Current Statistics (2022):

- Total Number of Central Government Buildings: 594
- Total Floor Area of These Buildings: 1 288 585 m²
- Progress in 2022 with renovations covering 23 177 m²

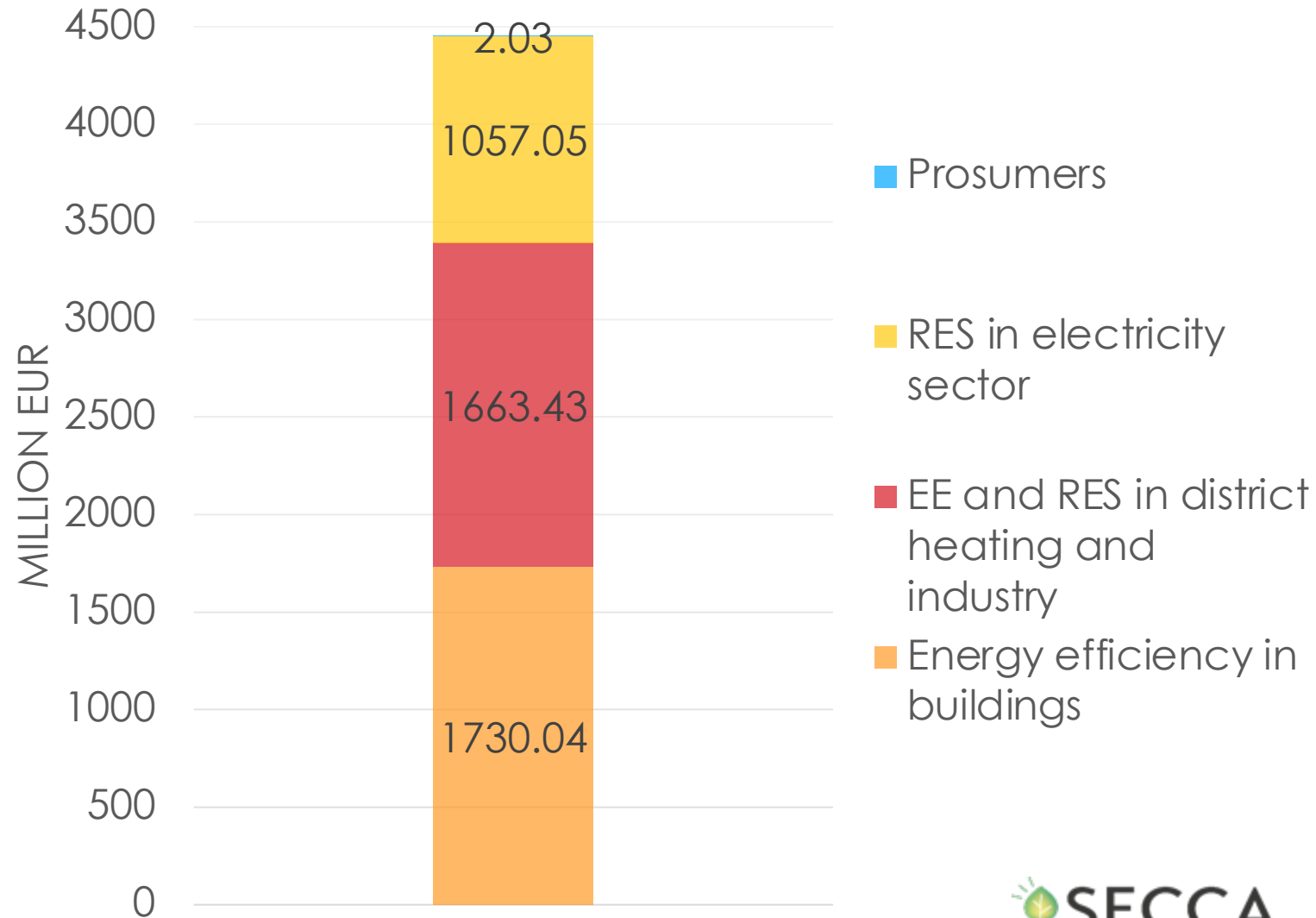
The target for 2024 is set at 38,658 m², reflecting a commitment to energy efficiency improvements

If a member state renovates more than 3% of the total floor area of central government buildings in a given year, the additional renovated area can be credited towards the annual renovation target for any of the previous three years or the following three years

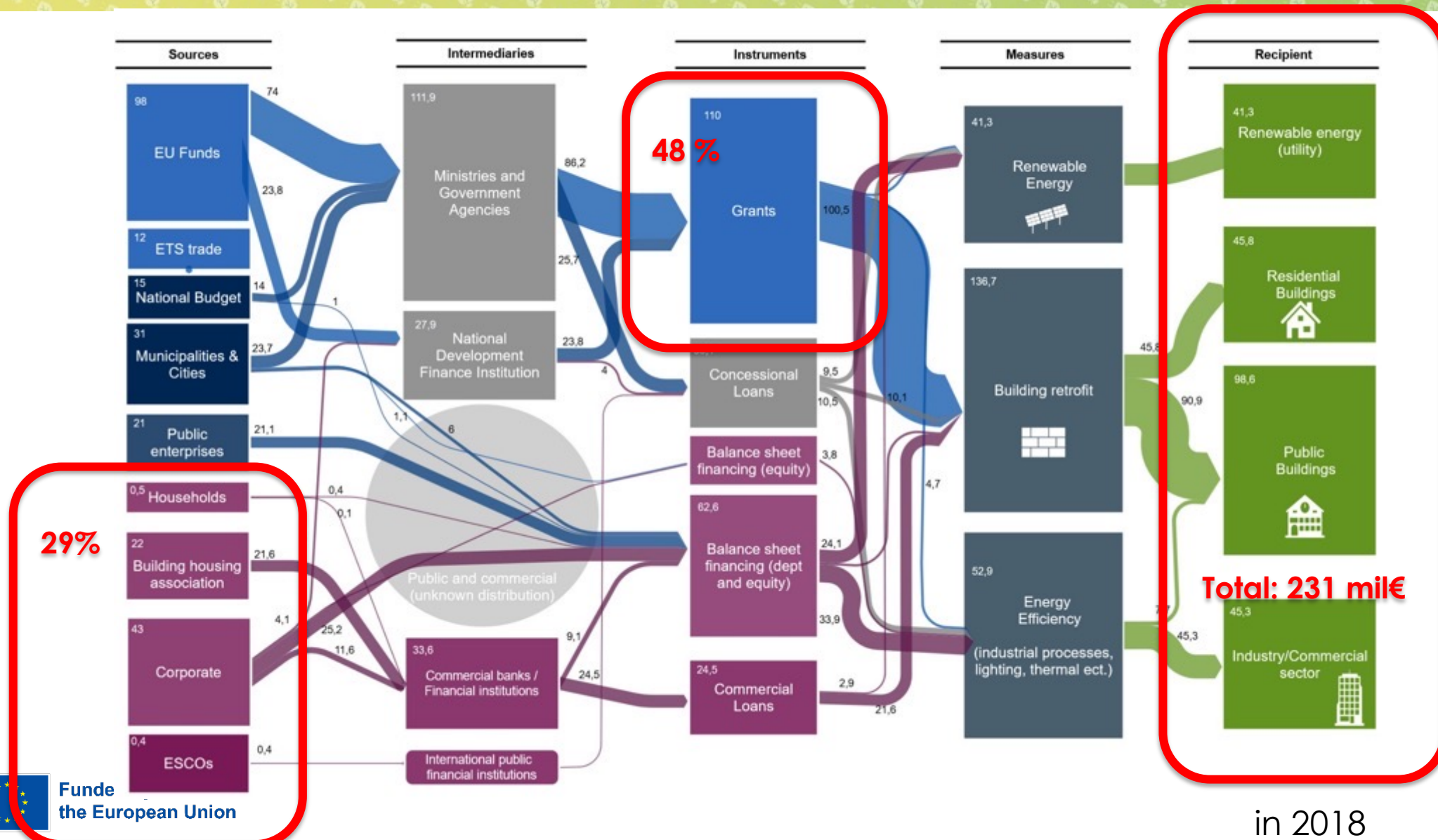


Investment needs for Energy efficiency and Renewable energy => 4.45 billion EUR

In total EUR 8.2 billion
from 2021 to 2030
(corresponding to around
2.7% of GDP per year)



Investments in Energy Efficiency and Renewable Energy Projects in Latvia



Funde the European Union

Initiatives for Increasing Energy Efficiency in Latvia

Climate Change Financial Instrument (CCFI):

- Renovation of municipal buildings and universities
- Implementing solutions to boost energy efficiency in public buildings (co-financing up to 85%)

Emission Quota Auction Instrument (EQAI)

