

# Current investment flows and investment gap in energy efficiency and renewable energy projects in Latvia

*Part of the EUKI-funded project: Climate Investment Capacity 2030*



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# Background

## ▪ CIC2030 project helps to:

- *an estimate of the investment needs to meet the set objectives, targets and contributions;*
- *an assessment of the sources for these investments;*
- *how MS will mobilize the necessary amounts.*

## **Building on a learning-by-doing approach, CIC2030 will produce:**

1. Investment maps to track public finance and private investment flows into climate and energy transition actions;
2. Analyses of investment need to reach the 2030 climate and energy targets,
3. capital raising plans for two sectors to close the gap between the need and the current investment flows.



## **Countries:**

Germany, Latvia, Czech Republic

## **Duration:**

09/2018 – 12/2020

## **Funded under:**

The European Climate Initiative (EUKI)

## Project partners:



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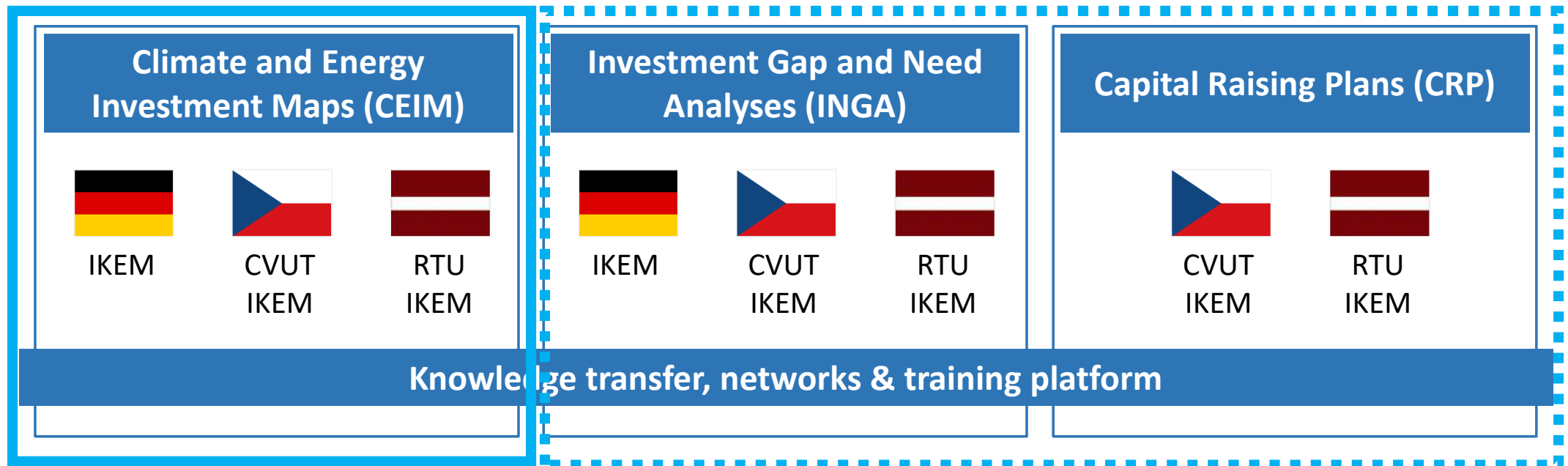
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# Project overview

## Climate investment capacity (CIC): climate finance dynamics & structure for financing the 2030 targets



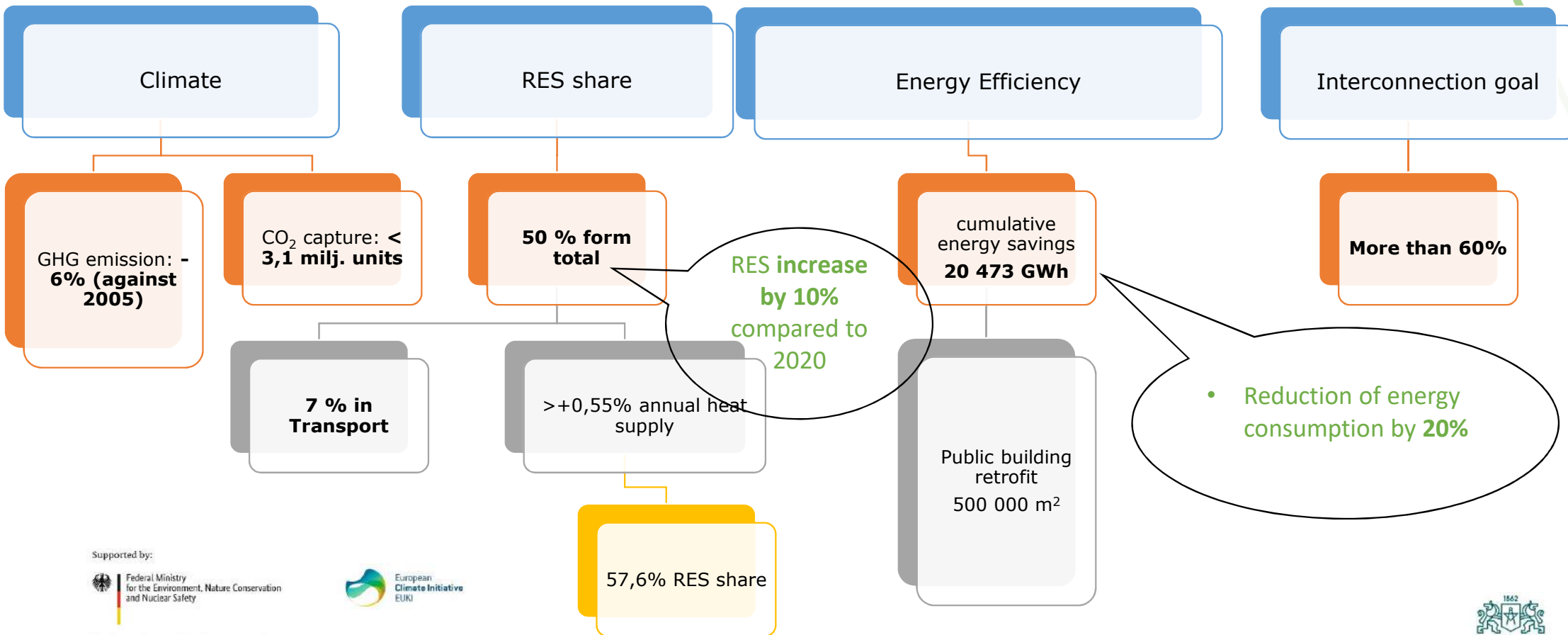
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# NECP 2030 targets

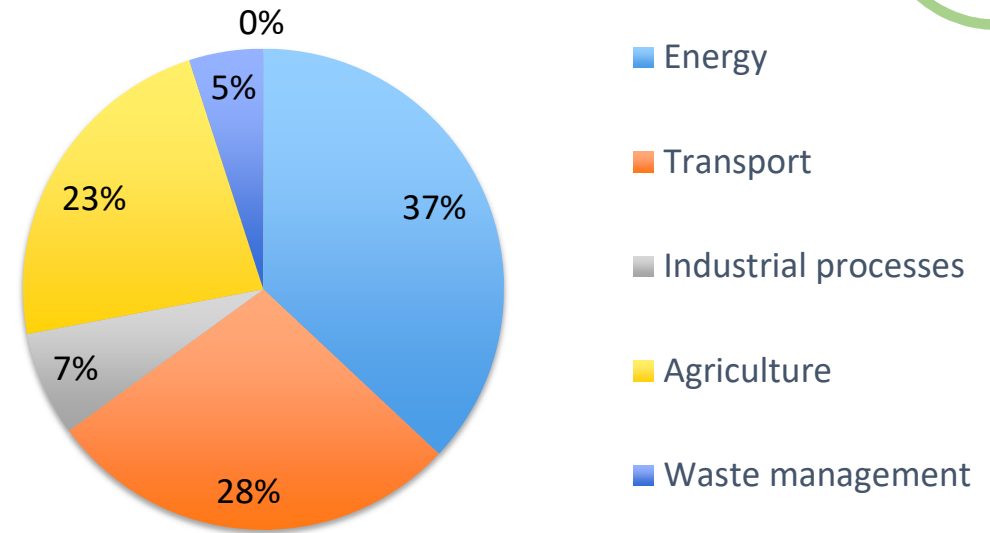
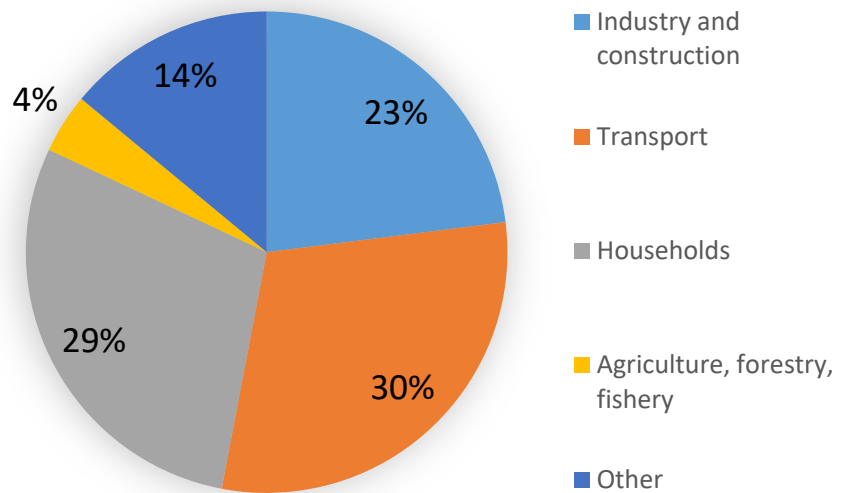


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# Energy and GHG emission overview



**Final energy consumption by sectors (2018)**

**GHG emissions by sector (2018), excluding LULUCF**

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# Climate and Energy Investment Maps

## main questions:

- 1 How much money was invested in energy efficiency and renewable energy projects in 2018?
- 2 Who were the biggest investors?
- 3 Which financial instruments were most prevalent?
- 4 Which sectors were supported and what type of technological equipment was financed?
- 5 What methodology and data sources should be used for such an annual assessment to be carried out?

### Regulation on the Energy Union Governance

#### NECP binding template, Section 5.3i

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##### 5.3. Overview of investment needs

- i. existing investment flows and forward investment assumptions with regard to the planned policies and measures
  - ii. sector or market risk factors or barriers in the national or regional context
  - iii. analysis of additional public finance support or resources to fill identified gaps identified under point ii
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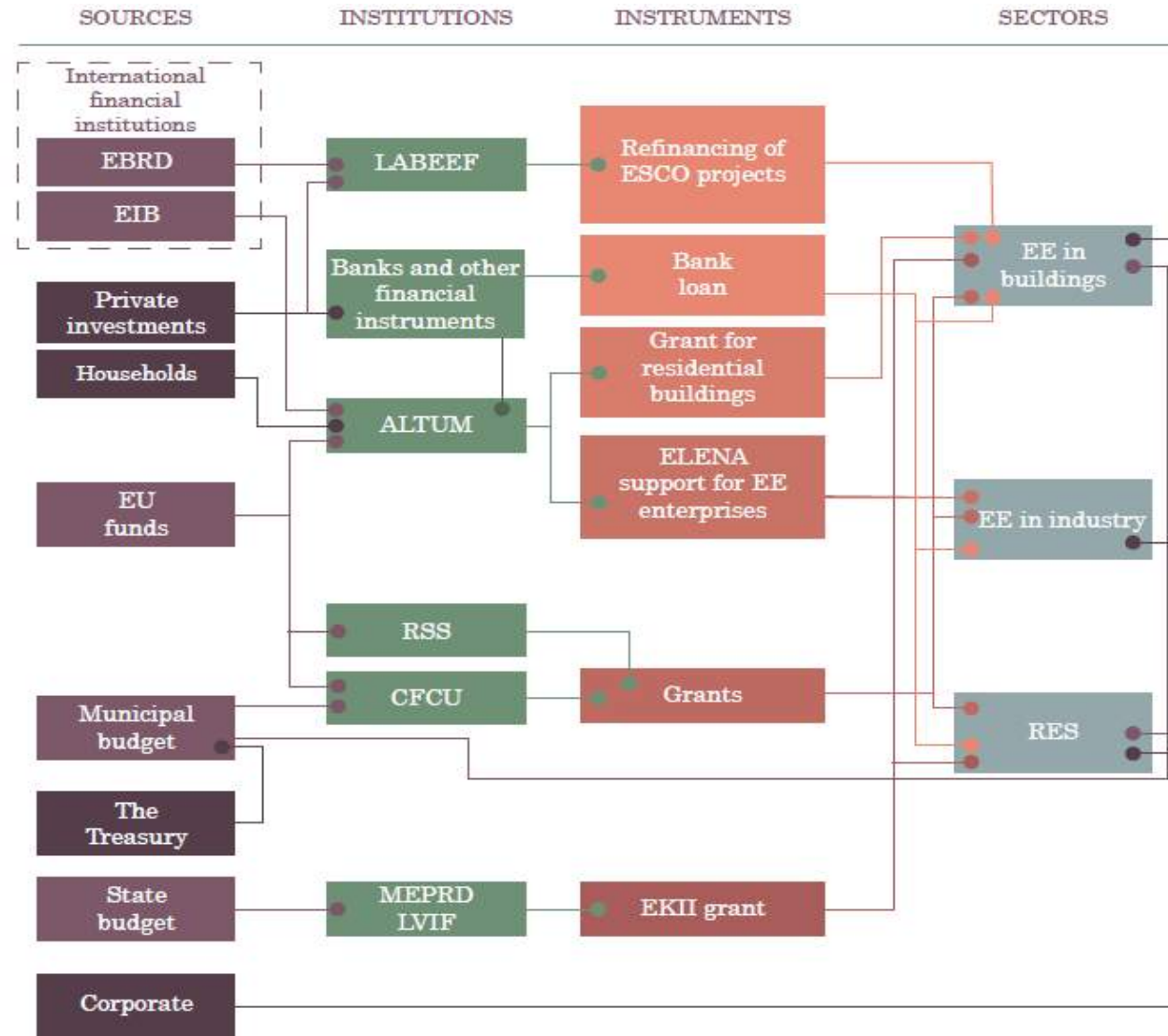
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## Main financial institutions and sources of information

Financing of energy efficiency and renewable energy projects



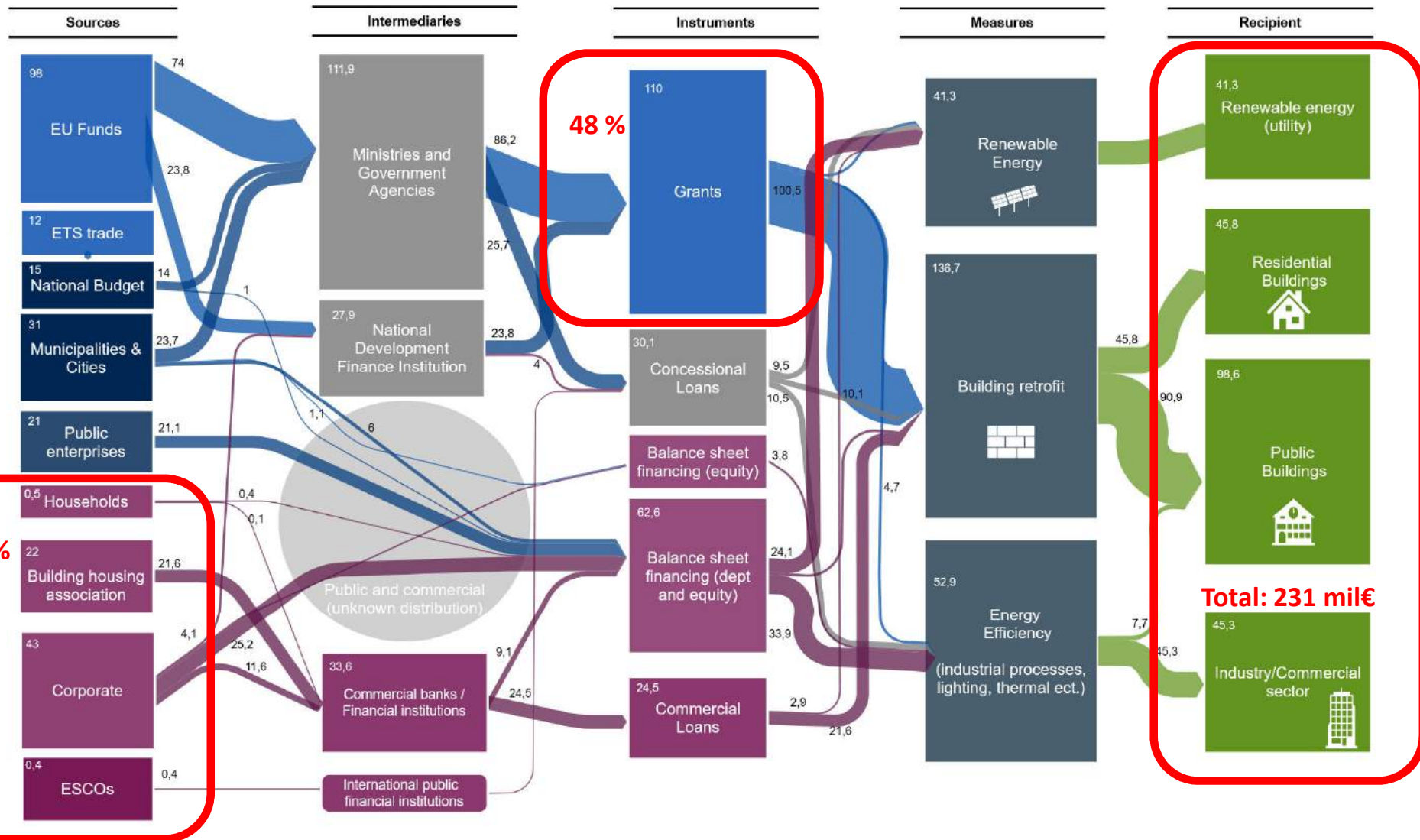
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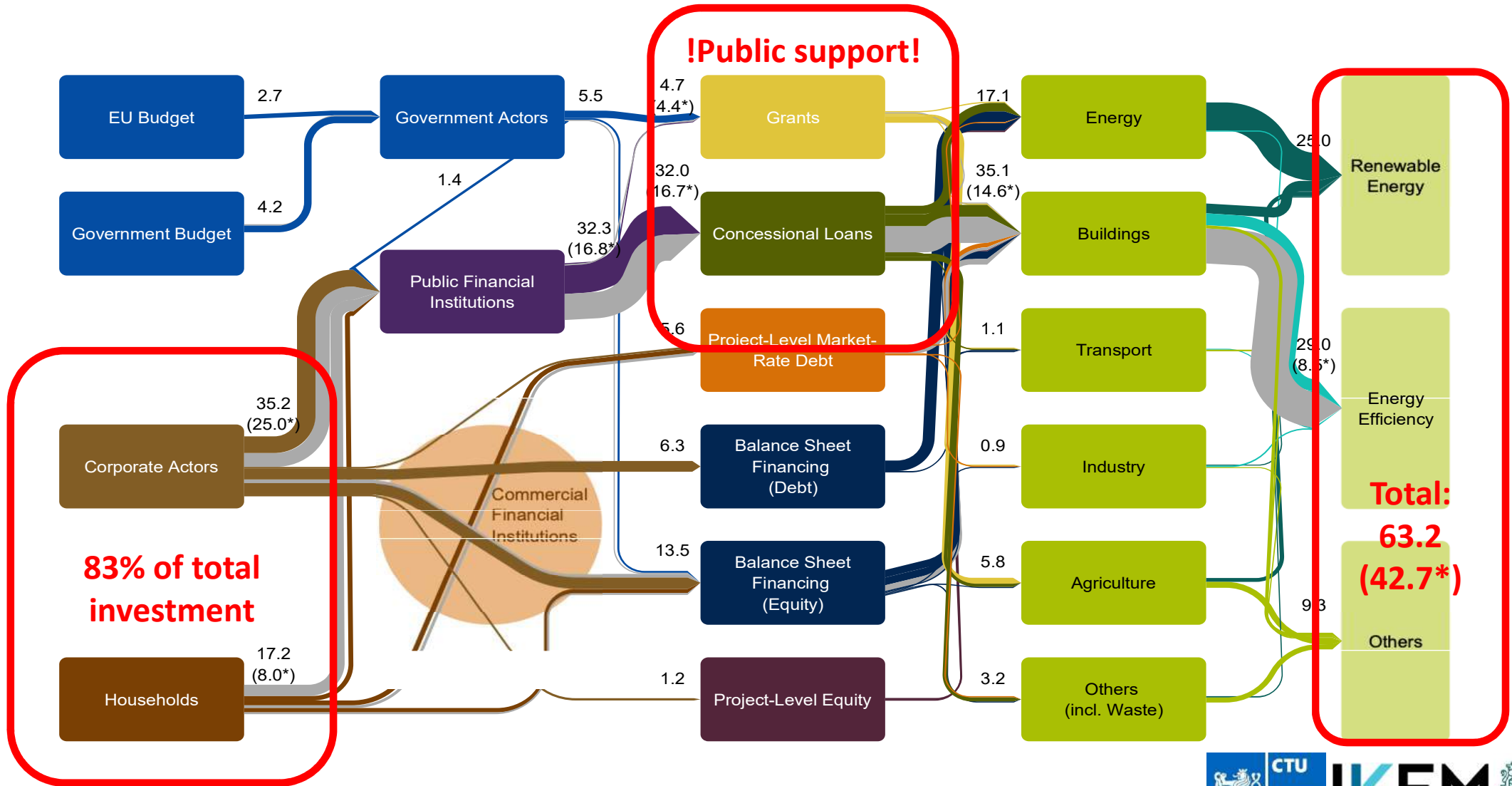
RSS - Rural Support Service of Republic of Latvia  
 MEPRD - Ministry of Environmental Protection and Regional Development of the Republic of Latvia  
 LVIF - The Latvian Environmental Investment Fund

# Investments in Energy Efficiency and Renewable Energy Projects in Latvia in 2018

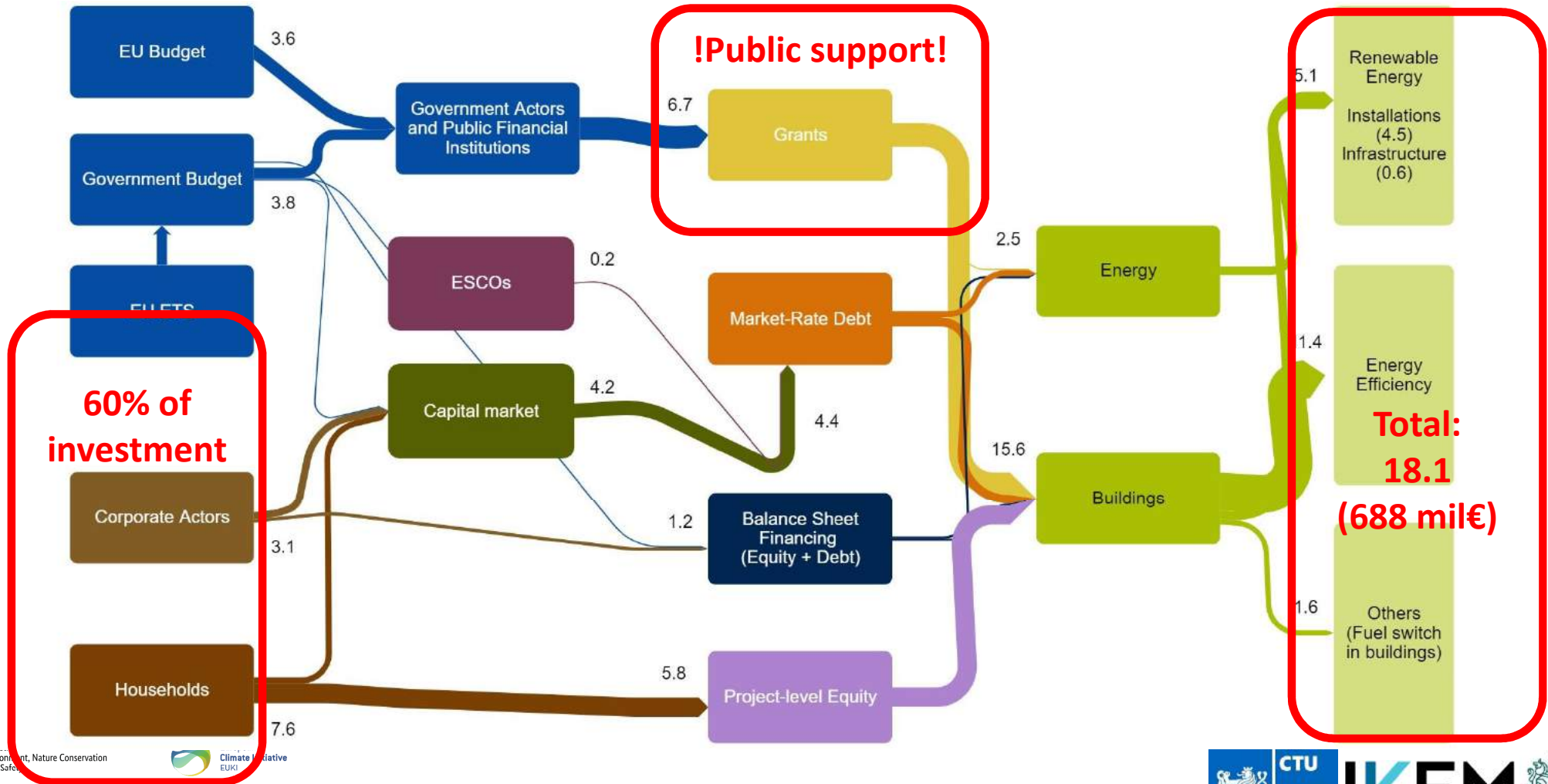




Climate & energy investment map of Germany, billion EUR. Status 2016.



Climate and energy investment map of Czechia, billion CZK. Status 2017.  
Focus on buildings and renewable energy supply & infrastructure



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# Investment needs

Study	Sectors	Model used	Results
A. Blumberga “Latvijas Nacionālais enerģētikas un klimata plāns 2030 Analītiskais pētījums” (2019)	<ul style="list-style-type: none"> <li>- Cumulative energy savings targets (buildings, industry energy)</li> <li>- The total RES share</li> <li>- RES share in transport</li> </ul>	TIMES System dynamics (SD) modeling	~ 5.5 billion EUR (1 billion EU funds) <ul style="list-style-type: none"> <li>- Clear responsibilities (pollutant pays)</li> <li>- Support for heat pumps,</li> </ul>
NECP2030 (Chapter 7 and Annex 4 and Annex 5 ) (2019)	All sectors addressed by NECP	MARKAL-Latvia (Times)	~ 8.2 billion EUR
Tirgus nepilnību izvērtējuma daudzdzīvokļu māju energoefektivitātes paaugstināšanas finanšu pieejamības jomā progresa ziņojums (2015)	Apartment buildings to renovate 70% of apartment buildings	Data statistical analyses and investment benchmarks	~ 5.4 billion EUR  (new draft estimates reach 19 billion EUR to reach 2050 targets)
EM: “Energoservisa pakalpojumu uzņēmumu finanšu pieejamības Ex ante izvērtējums” (2017)	Residenatal buildings (~ 7,2 billion EUR) Public buildings (~1,25 billion EUR) Industry (~40,5 mill., EUR)	Data statistical analyses and investment benchmarks	~ 8,49 billion EUR

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**Overall methodology:** Juergens & Rusnok Advisors “How to Assess Investment Needs and Gaps in Relation to National Climate and Energy Policy Targets? A Manual - and a Case Study for Germany” available also: [https://www.ikem.de/wp-content/uploads/2019/12/2019\\_INGA-Full-report\\_final.pdf](https://www.ikem.de/wp-content/uploads/2019/12/2019_INGA-Full-report_final.pdf)

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# Investment needs in NECP2030

Measures	Investments needed, million EUR
Horizontal measures	418,22
Energy efficiency in buildings	1730,04
EE and RES in District heating and industry	1663,43
RES in electricity sector	1057,05
Prosumers	2,03
RES in transport	988,77
Energy modernization of infrastructure	830,06
Improving the efficiency of waste and waste water management	595
Reduction of GHG emissions in agriculture	718,15
Land use change and forestry	187,84
Reducing the use of fluorinated greenhouse gases (F-gases)	0,043
Greening of taxes	0,025
Information	1,57
<b>Total</b>	<b>8 192,228</b>



# Investment gap analyses (EE in buildings and RES)

Investment needs

Measures	Investments needed, million EUR
Energy efficiency in buildings	1730,04 (in 10 years)
EE and RES in District heating and industry	1663,43 (in 10 years)
RES in electricity sector	1057,05 (in 10 years)
Prosumers	2,03 (in 10 years)
<b>Total</b>	<b>4452,55 / 10 y = 445,255 million/yaer</b>

Currently invested

Measures <b>(based on 2018. year data)</b>	Investments needed, million EUR
Energy efficiency in buildings (resindetal [45,8] + pubic [98,6])	144,4
EE and RES total	41,3
EE and RES in industry and commercial	45,3
<b>Total</b>	<b>231</b>

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EE and RES  
Investment gap in Total:  
=  
(445,255 – 231) = **214,255 million EUR/ year**  
or  
**2 142,55 million EUR in 10 years**



# Conclusions

- Investment gap analyses indicate that approximately **twice as much investments** or 445,255 million EUR/year is **needed** in energy efficiency and renewable sectors. Investment in RES are on hold.
  - Big investment gap in renewable energy
  - Investment in building are mainly in public building due **EU funds** and loans from the **Treasury**. No other sources of interment.
- Not clear monitoring requirements for big energy consumers and big companies. And split support initiatives and marketing activities to invest in climate projects: ALTUM, EKII, LAD, CFLA;
- **Other financial instruments:** green bonds issued by ALTUM make it possible to take loans for energy efficiency and RES projects. And Latvian Energy Efficiency Facility LABEEF have made it possible to develop the first financial instruments that can refinance ESCO projects.
- No investments in innovations and new technologies

bio-energy projects



renovation of buildings

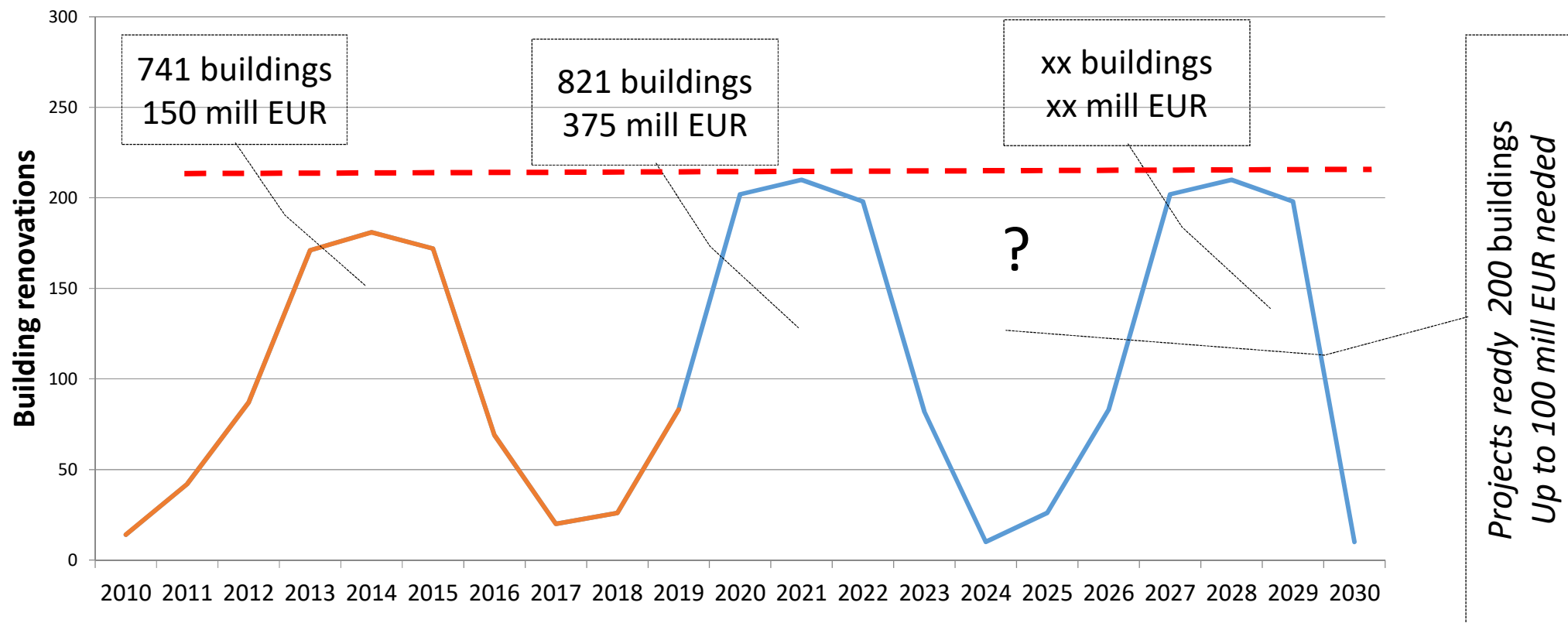


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# Investments in residential buildings



**EU funds** plays a big role in total investments and **driving private investment**.

However existing EU support has created cyclicity with diverse levels of investment over various years;

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# Conclusions

- EU grants could be used for public and residential building sectors to attract other investors and create more stable investment flow;
- New support framework for RES energy needed. Energy efficiency measures, wind power, biomass, heat pumps, and solar power and heating are estimated to be the most cost-effective ways to increase the renewable energy share
- Consolidated marketing activities for commercial sector. Helping companies to prepare new projects (technical assistance)



Food processing



Commercial buildings



Residential buildings



Wood processing



Small scale RES

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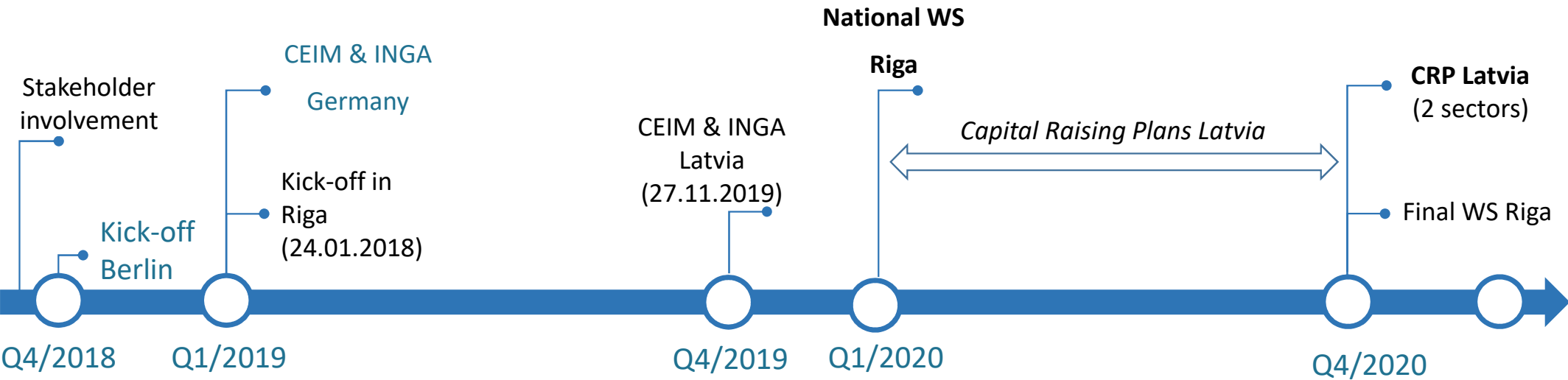


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# Key milestones and events in Latvia



## Knowledge transfer, networks & training

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 Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

 European Climate Initiative EUKI

**CEIM** - Climate and Energy Investment Maps  
**INGA** - Investment Gap and Need Analyses  
**CRP** - Capital Raising Plans

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# Next steps

- In the framework of CIC2030:
  - Climate and Energy Investment Map in LV and ENG: [https://videszinatne.rtu.lv/wp-content/uploads/2019/12/Klimata\\_investiciju\\_karte\\_Latvia\\_2019\\_LV\\_pub\\_compressed.pdf](https://videszinatne.rtu.lv/wp-content/uploads/2019/12/Klimata_investiciju_karte_Latvia_2019_LV_pub_compressed.pdf)
  - **Investment Gap and Need Analyses – finalize the report in Latvia**
  - **Capital Raising Plans:**
    - Where to focus public financing?
    - How deep (versus how broad) to go in the assessment of policy effectiveness (in terms of private capital mobilization)?
    - In terms of what is the needs in particular in the context of the 2020 and 2023 work on the NECP or other financial instruments - financial modelling, energy modelling, sustainable finance taxonomy ....

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# Contacts

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