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# Climate and energy investment map – Czechia

## Status report 2017: Buildings and Renewable energy supply & infrastructure

## Executive Summary

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The Regulation on the Energy Union Governance requires EU Member States to design national energy and climate plans, which must include an assessment of current investment flows to the decarbonisation of their economies.

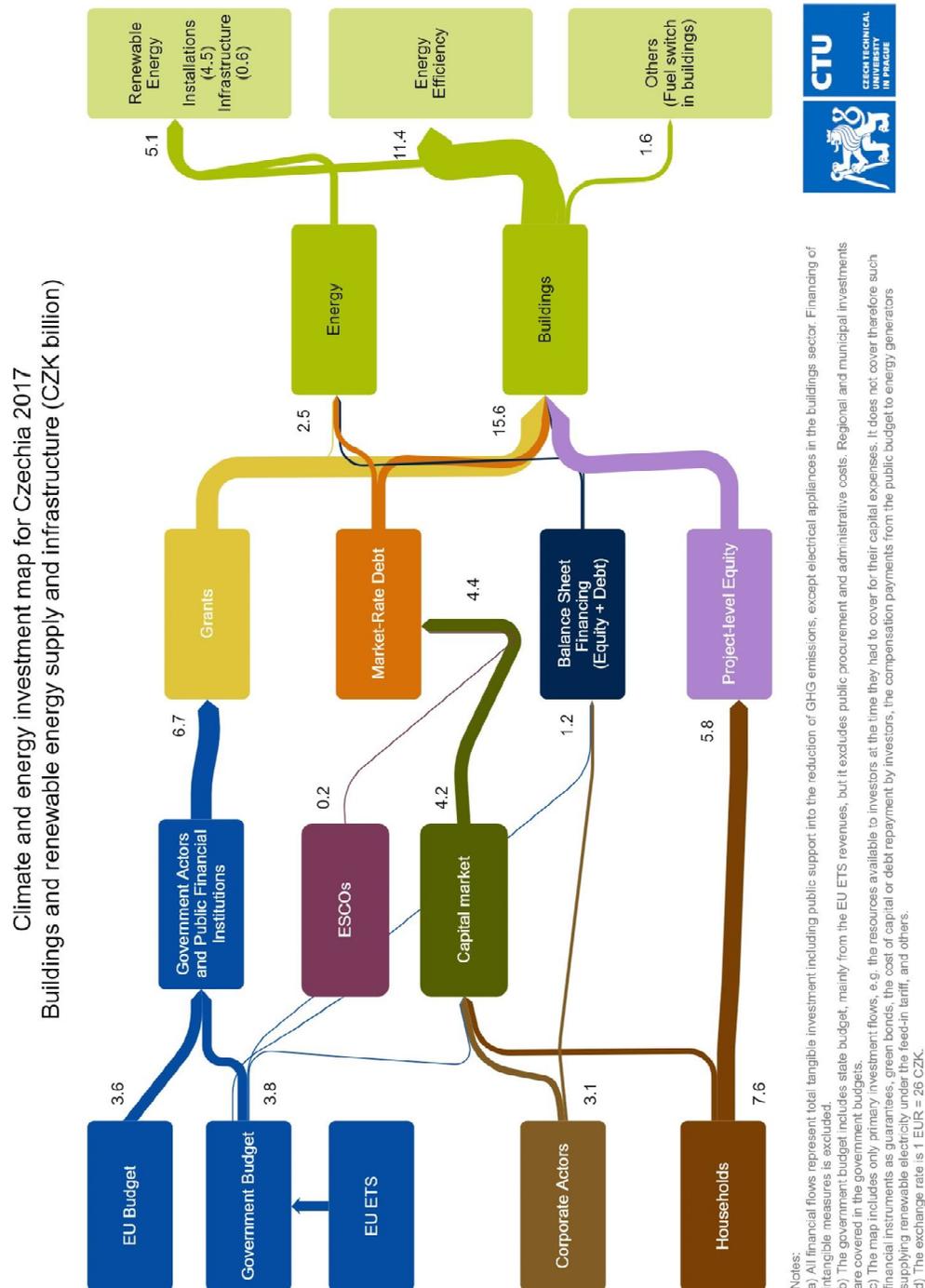
**The present report is intended to inform the discussion on current climate and investment flows in Czechia.** Using data from the year 2017, it aims to identify, track, and explain the amount of public and/or private money invested in technologies and other tangible measures in Czechia that lead to GHG emission reduction. The report covers the buildings sector as well as the renewable energy supply and infrastructure sector. It is also intended to assess methodological and data challenges.

**The principal output of this report is a climate and energy investment map (CEIM) for Czechia for the year 2017.** This map, presented below, provides a snapshot of climate and energy investment flows, from the sources of capital through the relevant intermediaries and financial instruments to the recipient sectors.

The map was created using a **bottom-up approach**, tracking **actual 2017 disbursements** at a technology level and aggregating them at sector level. We considered only climate-specific **tangible investment** (e.g. in energy-efficient equipment, buildings, and renewable energy technologies targeting or resulting in greenhouse gas (GHG) emissions reductions). ‘Soft measures’ (e.g. research and development, information campaigns, and policy development) play a key role in driving the energy transition and climate-change mitigation; however, these measures were excluded from our analysis.

**The analysis of the renewable energy supply and infrastructure sector reflects the total capital investment**, i.e. the full cost of a technology or practice. **For the buildings sector, the analysis reflects the investment close to the incremental costs.** The incremental investment represents the additional expenditure necessary to invest in a low-carbon technology rather than a business-as-usual practice.

**Figure: The 2017 Climate and energy investment map for Czechia with a focus on the buildings sector and renewable energy supply and infrastructure sector, billion CZK**



Based on the information available, **we concluded that, in 2017, at least CZK 18.1 billion (EUR 688 million) was invested in GHG measures in both sectors.** Of this volume, **CZK 15.6 billion (EUR 592 million) was invested in the decarbonisation of the buildings sector**, including for thermal efficiency of new and existing buildings, building-integrated renewable energy, fuel switching to low-carbon energy carriers, as well as energy-efficient appliances. **Roughly CZK 2.5 billion (EUR 96 million) was invested in renewable electricity generation, transmission and distribution, and renewable heat production and distribution accounted for in the energy balance sheet of the energy transformation sector.**

If the analysis is conducted by measure, **the largest share of the investment volume flowed into energy efficiency** (CZK 11.4 billion – EUR 432 million, representing 63 % of the total tracked investment). This exceeds the amount of the investment in renewable energy installations (CZK 4.5 billion – EUR 172 million), renewable energy infrastructure (CZK 0.6 billion – EUR 24 million), and fuel switching in buildings (CZK 1.6 billion – EUR 59 million).

Of the amount invested in building envelopes, CZK 10.2 billion (EUR 387 million) was invested in retrofits of existing buildings and CZK 1.5 billion (EUR 58 million) was invested in measures in new buildings. **The investment volume in the retrofit of existing buildings was however insufficient to decarbonise the building stock by 2050 in line with the EU sector target.**

**The current policy also does not seem to trigger sufficient investment in renewable energy.** The main policies to trigger renewable investment were feed-in-tariffs (FITs) and green bonuses, representing operational support to the renewable energy development. In 2017, investment in the renewable energy supply and infrastructure sector was estimated at only CZK 2.5 billion (EUR 96 million) – significantly lower than the investment levels until 2013. On top of this amount, CZK 2.6 billion (EUR 100 million) was invested in built-in PV installations, biomass boilers, and heat pumps in the buildings sector.

**The main source of investment tracked was private investors**, consisting of households and corporate actors, which contributed 60 % of the total investment (CZK 10.7 billion – EUR 406 million). The rest of investment flowed from public sources, mainly from EU Funds and the country's public budget, including budgets at national, regional, and local levels. The main intermediaries assisting in the use of instruments were ministries and their agencies, as well as the capital market.

**Grants offered by public actors played a very important role in driving energy and climate investment in Czechia.** This is particularly the case for the buildings sector, where direct subsidies

(grants) represented 56 % of total sector investment (excluding appliances), and 90 % of flows originating from public sources. **There is therefore a need, and the potential, for the introduction of a wider variety of financial instruments to trigger investment in the buildings sector.**

At present, data availability and format make a comprehensive and unbiased overview of climate finance in Czechia challenging. **Future climate and energy investment mapping would benefit from the introduction of systematic tracking procedures for domestic public climate finance and climate programmes implemented by public banks and agencies.** Possible approaches to such procedures include the introduction of climate tagging in public budgets and/or the establishment of annual evaluation procedures. For this, it will be useful to review the lessons learned from relevant legislation implemented elsewhere, such as in France, and from the application of climate markers by the EU Commission. **It is also useful to introduce a regular survey of private entities (households and corporate actors) regarding climate investment financing.** To design the survey, it could be useful to learn from the experience of France, where the investors are already required by the law to report their climate related expenditure.

Further discussions should also address **how and to what extent climate-related measures having GHG mitigation as a co-benefit should be accounted for.** Similarly, **approaches to calculating incremental costs of climate investment** should be developed further to prevent an over- or underestimation of related investment. There is also a need to improve the methodology for allocating climate investment to a specific year, given that the investment process may take long time.