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For the 16th TWG meeting on NECPs, Brussels
3 July 2019

Assessment of current investment vs investment need. Lessons from Germany, Latvia and Czechia

Slides are a part of the EUKI-funded project: Climate Investment Capacity

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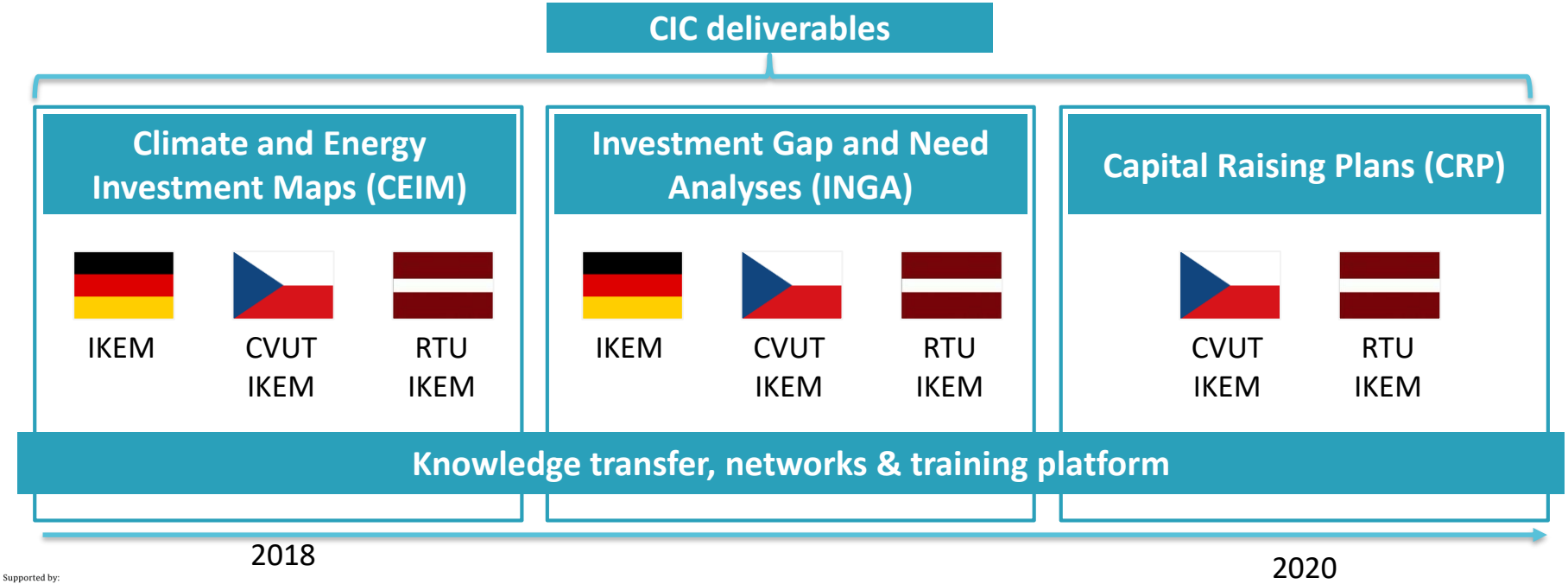
Project overview

Note: the project does not reflect the contents of NECPs and/or commitment of the countries

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



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Energy and climate investment mapping

Methodology for investment maps

- The approach of tracking climate finance flows was introduced by CPI in 2011 to track these at the global level using the Landscape of Climate Finance diagram.
- Later, CPI-Berlin adopted the global approach into a framework suitable for analysing the national level and applied it to the case study of Germany for the year 2010.
- German map 2016 (ready), Czech map 2017 (IV-2019), Latvian map 2016 (IV-2019)
- The construction of the map uses a bottom-up approach tracking investment at a technology/measure level, aggregating it on sector level and then on country level.
- The map allows understanding who invests how much into what kind of measures and which intermediaries and financial instruments facilitate these flows.

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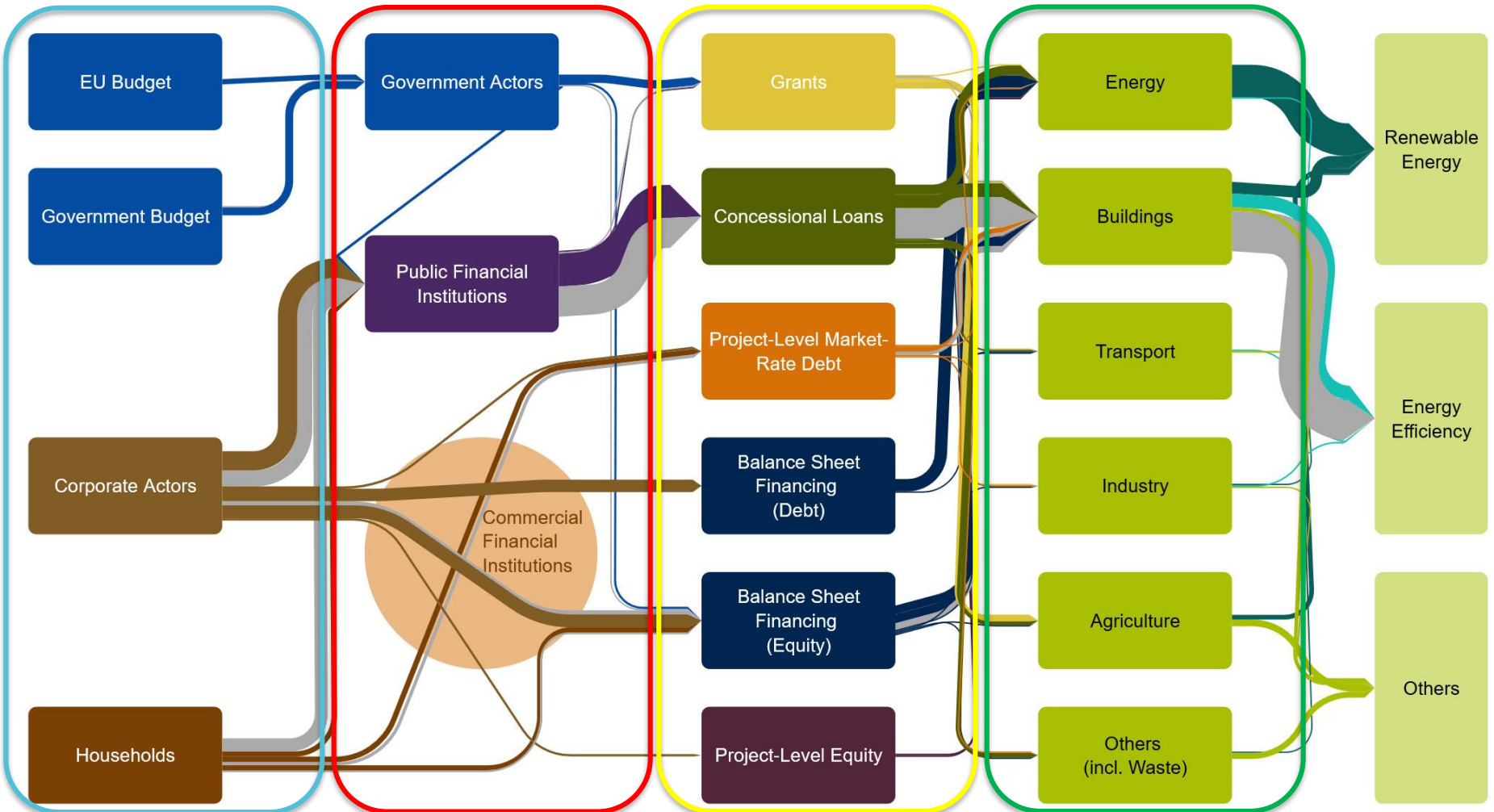
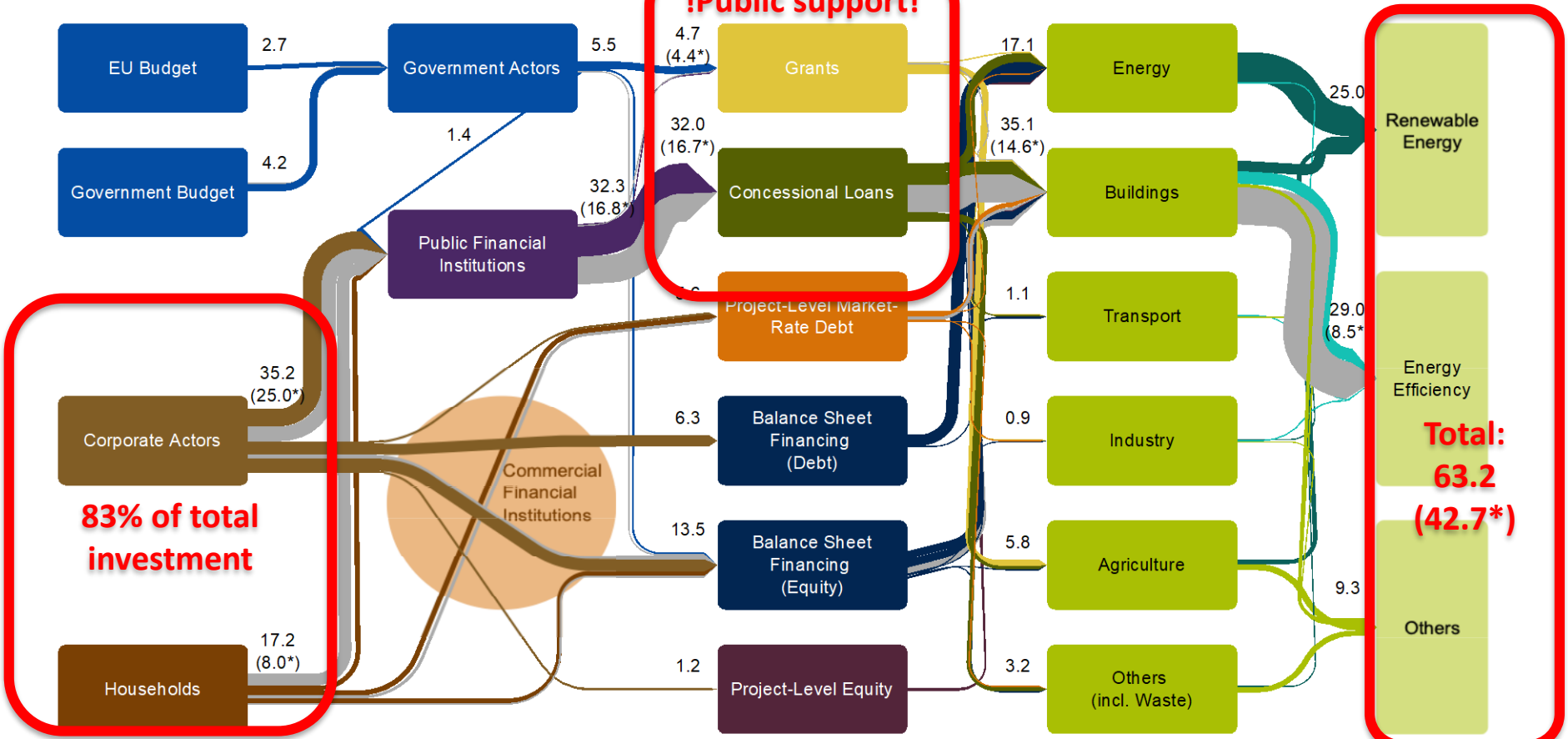

Sources – Intermediaries – Instruments - Recipients
EU Budget
Government Budget
Corporate Actors
Households
Government Actors
Public Financial Institutions
Commercial Financial Institutions
Grants
Concessional Loans
Project-Level Market-Rate Debt
Balance Sheet Financing (Debt)
Balance Sheet Financing (Equity)
Project-Level Equity
Energy
Buildings
Transport
Industry
Agriculture
Others (incl. Waste)
Renewable Energy
Energy Efficiency
Others

DE Investment Map 2016, billion EUR



NON-GREY flows are **TOTAL TANGIBLE INVESTMENT (CAPital EXpenditure)** incl public support into GHG reduction and increase of carbon sinks (thus, no guarantees, the cost of capital or debt repayment by investors, the compensation payments from the gov budget to suppliers of RE electricity under the feed-in tariff, etc.).

GREY flows are **INCREMENTAL INVESTMENT** into energy efficiency of buildings. The incremental figures are **STARRED IN BRACKETS**.

Gov budget covers federal budget disbursements + co-financing of EU funds (no public procurement, no admin costs, no regional and municipal budget, except when reported in the EU/federal budget, KfW, and BAFA programmes.

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Lessons learned: advantages vs limitations

- **Advantages:**
  - A visual snapshot of stakeholders, finance flows, and recipient
  - Potential over- and underspending for further investigation
  - Comparing countries' maps may help facilitate learning
  - Comparing maps for different years may help understand the progress
- **Limitations:**
  - A significant amount of input data
  - The results do not permit to assess directly
    - The impact or effectiveness of policies and actions
    - Leverage of private money by public finance
    - Gaps to reach climate targets

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Lessons learned: Scope and boundaries

- Temporal scope:
  - Year which the latest data is available -> ***2 year-lag***
- Measures:
  - Climate-specific investment vs. climate-related - > ***related is a challenge***
- Investment scope:
  - Tangible vs. intangible investment -> ***no tangible wt intangible***
- Cost definition:
  - Incremental vs. total capital investment – > ***incremental is a challenge***

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Lessons learned from DE, LV, and CZ

- Need for definitions and methodologies
  - what is climate finance, how and to what extent climate-related measures should be accounted for (e.g. infrastructure), how to calculate incremental costs (e.g. buildings)

- Need for systematic tracking procedures that covers federal, regional, and local government budgets and climate programmes by public banks and agencies
  - e.g. climate tagging in public budgets, the establishment of annual evaluation procedures

- Need for evaluating and streamlining existing private-sector surveys and reporting efforts with the government's climate-investment tracking approaches
  - the private sector is the largest investor, but little understanding how much it invests

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Investment need and gap assessment

Preliminary lessons learned from DE

Source: Juergens and Rusnok 2019

ID	Study	Investment need per annum		Reference
	Authors	Min. Bn €	Max. Bn €	GHG reduction
2050 – 80 % targets				
1	DENA	+33.3	+54.6	-62%
2	BCG	+28.6		-61%
3	Fraunhofer-ISE	+24.9	+38.4	Not stated
2050 – 90/95% targets				
1	DENA	+34.3	+58.3	-62%
2	BCG	+50.6		-61%
3	Fraunhofer-ISE	+49.6		Not stated
2030 – 55% targets				
4	Prognos	+20.0.	+22.5	-35%

- Results differ between assessments
  - E.g. for a -80% GHG target in 2050, the investment need ranges between EUR 24.9 and 54.6 billion
- Variations due to
  - E.g. baseline, technology price, energy price, discount rate

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Preliminary lessons learned

- **Bottom-up studies are the most powerful (in terms of understanding details)**
  - Need to pay attention to assumptions

- **Methodology for LV and CZ (brainstorming in progress, results at the end 2019)**
  - The presentation of investment need using a similar framework as the investment map

- **Challenges of comparing the current investment to investment needs**
  - Different cost concepts and definitions
  - Assessment need studies assume: a) optimal tech mix, and b) lowest tech cost
  - The real world does not reflects the perfect/optimal/lowest-cost situation-> real investment will have to be higher

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Capital raising plans

Preliminary lessons learned (start in III-2019)

- Little detail on how to finance required investment in submitted NECPs across all Member States
- Need to compare CRPs across MS and provide lessons learned from the most effective instruments
- Message from the mapping exercise : the private sector is the main investor -> need to create framework conditions for the private sector to invest
- Methodology to come in IV-2019, results in IV-2020

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