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EUKI Academy Webinar
14 February 2019

Tracking energy and climate investment flows

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

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Outline

- Why to track energy and climate investment at national level?
  - Regulation on the Energy Union Governance
    - National Energy and Climate Plans
  - Paris Agreement
    - Article 2.1c
- Climate and energy investment maps
  - Concept, methodology and messages
  - Examples
- Summary

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Why to track: Regulation on Energy Union Governance

- EU needs 38 billion euros annually in additional investment to meet 2030 energy and climate targets[1]
- The EU Regulation on the Governance of the Energy Union and Climate Action demands EU Member States to design national energy and climate plans (NECPs) to ensure the targets are achieved[2]
- To address the investment challenge, the NECP template requires analytical basis on
  - **Existing investment flows** and forward investment assumptions with regard to the planned policies and measures
  - Sector or market risk factors or barriers in the national or regional context
  - Additional public finance support or resources to fill identified gaps identified

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Why to track: Article 2 of Paris agreement[3]

Article 2 §1

This Agreement, in enhancing the implementation of the Convention [UNFCCC], including its objective, **aims to strengthen the global response to the threat of climate change**, in the context of sustainable development and efforts to eradicate poverty, **including by**

a. Holding the increase in the global average temperature to well below 2°C…
b. Increasing the ability to adapt …
c. **Making finance flows consistent with a pathway towards low greenhouse gas emissions** and climate-resilient development

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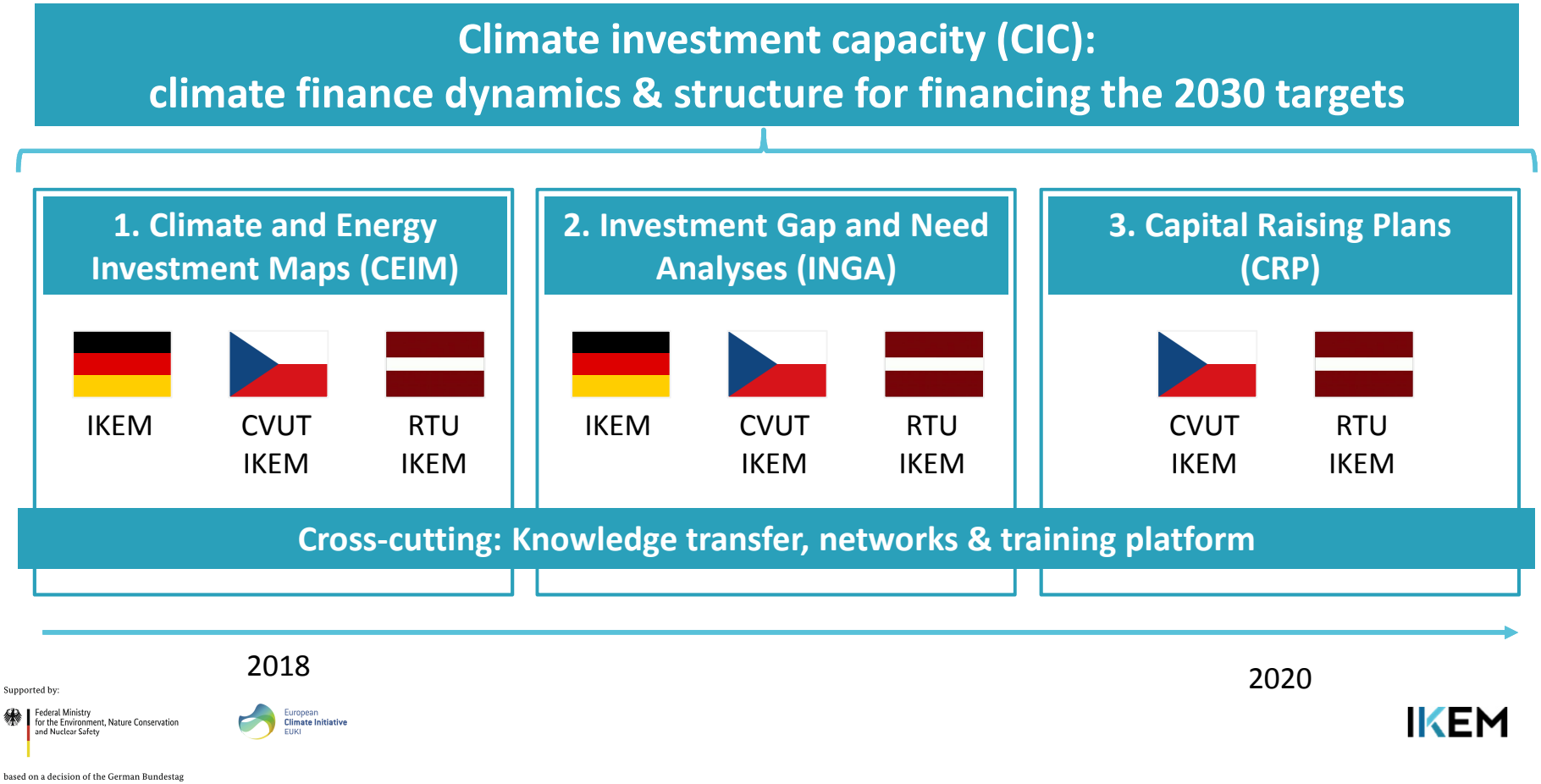
Project overview



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Introduction into investment maps

- The approach of tracking climate finance flows was introduced by Climate Policy Initiative (CPI) in 2011 to track these at the global level using the Landscape of Climate Finance diagram.[4]

- 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.[5]

- The map allows understanding who invests how much into what kind of measures and which intermediaries and financial instruments facilitate these flows.

- The construction of the diagram uses a bottom-up approach tracking investment at a technology/measure level, aggregating it on sector level and then on country level.

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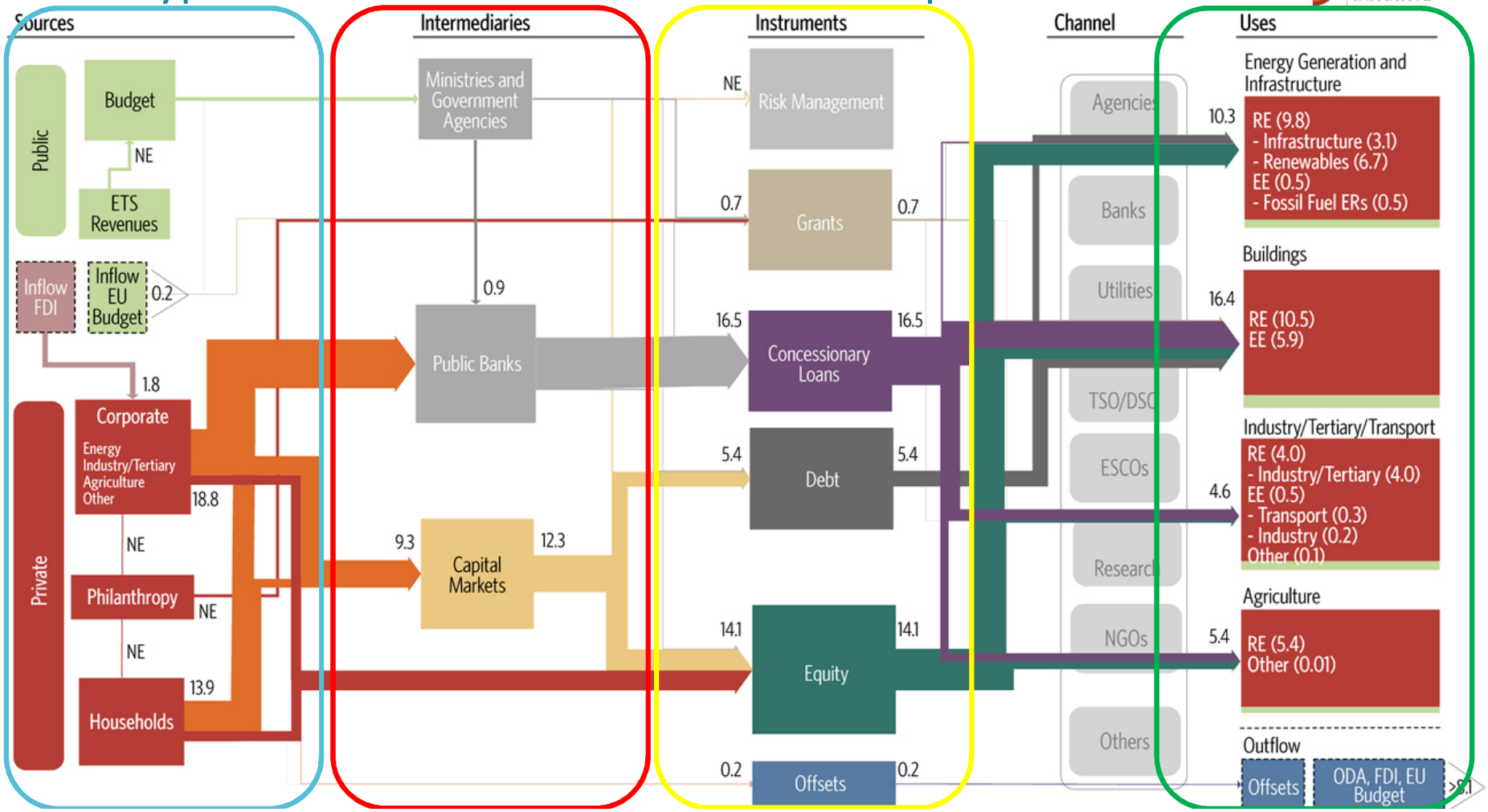
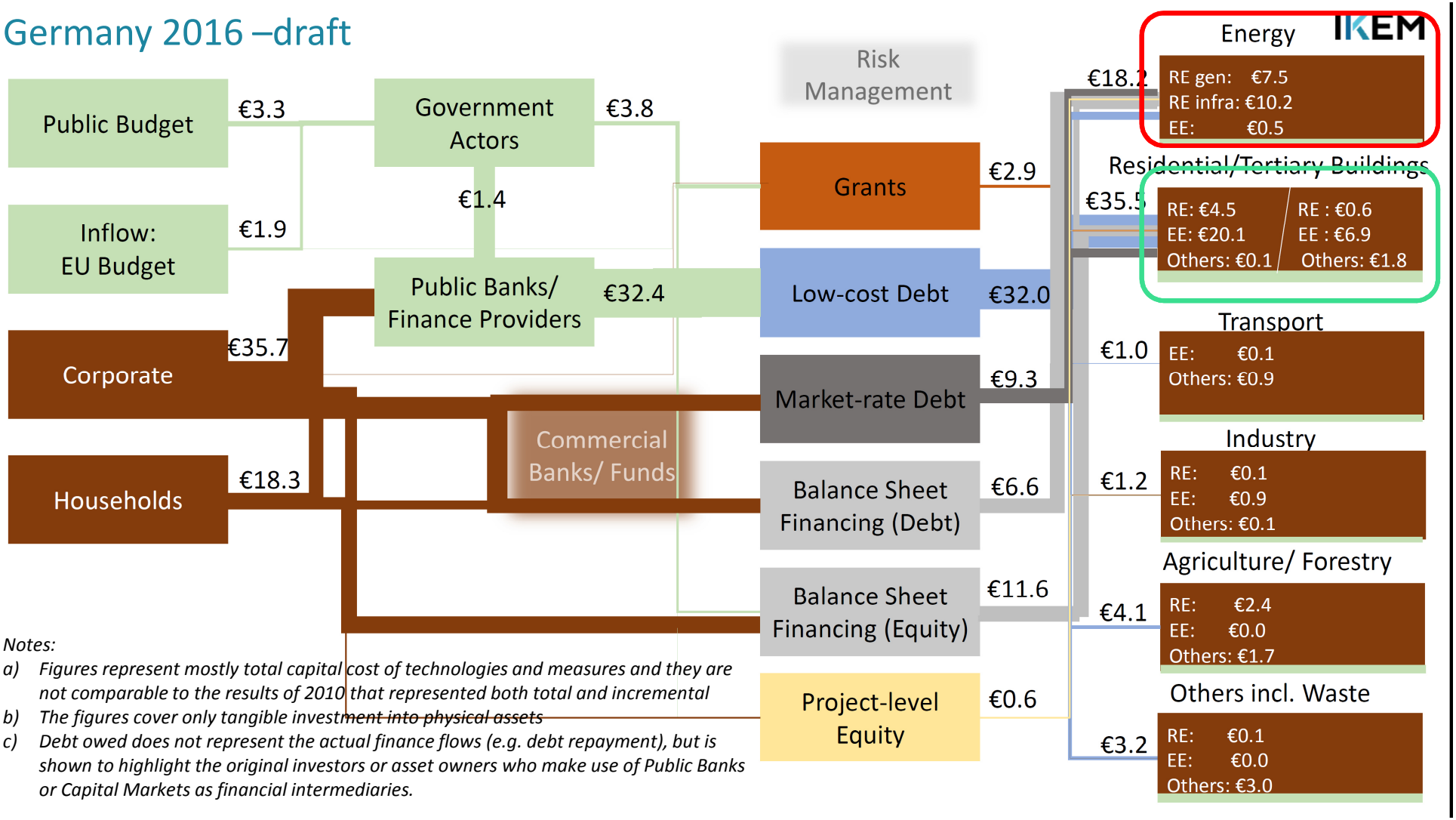
Prototype: German climate finance landscape 2010



Germany 2016 –draft



Notes:

a) Figures represent mostly total capital cost of technologies and measures and they are not comparable to the results of 2010 that represented both total and incremental

b) The figures cover only tangible investment into physical assets

c) Debt owed does not represent the actual finance flows (e.g. debt repayment), but is shown to highlight the original investors or asset owners who make use of Public Banks or Capital Markets as financial intermediaries.

Available and forthcoming maps

Existing studies:

2011 – 2017:	Global	CPI
2012:	Germany	CPI
2014:	Indonesia	CPI
2014 – 2017:	France	I4CE
2016:	Belgium	Trinomics
2017:	Côte d'Ivoire	CPI

CIC2030:

2019:	Germany	IKEM
2019:	Czechia	CVUT
2019:	Latvia	RTU

Other ongoing/forthcoming studies:

2019:	Poland	I4CE
… :	Morocco	I4CE
… :	Indonesia	CPI
… :	…	CPI

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Advantages and limitations of the concept

- **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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Scope and boundaries

- Temporal scope:
  - Year which the latest data is available
- Sectoral scope – mitigation / adaptation:
  - Energy generation and grid, industry, buildings, transport, agriculture
- Measures:
  - Climate-specific investment vs. climate-related
- Investment scope:
  - Tangible vs. intangible investment
- Cost definition:
  - Incremental vs. total capital investment

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Summary

- Using climate and energy investment maps may help to address Chapter 5 of NECPs and Article 2.1 of the Paris Agreement
- Their analysis help understand the pattern and progress of financing energy transition with potential over- and underspending as well as facilitate learning between countries
- Specific challenges lie in data collection and methodology to estimate specific and additional share
- Ideally, maps have to be co-designed with policy-makers to tailor them for policy- and decision-making

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EUKI: www.euki.de/en/euki-projects/climate-investment-capacity-cic2030/
IKEM: www.ikem.de/en/portfolio/cic2030/
CVUT: https://ekonom.feld.cvut.cz/cs/katedra/lide/valenmi7/cic2030/
RTU: https://videszinatne.rtu.lv/en/science/project-and-research/cic2030/