Linking long-term targets with current financial flows

3rd meeting of the Climate Recon Technical Dialogue

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With the support of
Introduction

I4CE – Institute for Climate Economics

A think tank providing public and private decision-makers with expertise on economic and financial issues related to the energy and ecological transition

Agriculture, Forest and Climate
Industry, Energy and Climate
Cities, Infrastructure and Climate
Finance, Investment and Climate

I4CE is an initiative of Caisse des Dépôts and Agence Française de Développement, supported by Morocco’s Caisse de Dépôt et Gestion, the ADEME, Institut Louis Bachelier and the Banque de France
Landscape of climate finance

Our mandate: track domestic climate finance and compare it to investment needs

(…) present a report to the Parliament which quantifies and analyses public finance, assesses private finance, and measures their adequacy with the financial requirements to achieve the objective and transition pace of the law.

Article 174 of the Energy transition for green growth act (adopted 2015)

(…) it is necessary to present the milestones of a “business plan” for the ecological transition, assessing investment needs for each sector, and giving visibility on public and private financial commitments

Parliamentary mission on private investment in the ecological transition, 2019
Landscape of climate finance

Tracking investment and financial flows in domestic, low-carbon, tangible assets

Low-carbon criteria are derived from national strategies (SNBC & PPE) and international taxonomies such as Climate Bond Initiative, EU HLEG and French TEEC label

- **Energy efficiency**: New buildings and building retrofitting, Industry, electric and NG vehicles
- **Renewable energy**: Wind, solar (large scale & rooftop), Biomass heating, heat pumps
- **Sustainable infrastructure**: Railways development and maintenance, Urban public transport, cycling lanes
- **Nuclear**: Construction of the EPR (Flamanville), Replacement of large components of existing plants
- **GHG outside energy combustion**: Forestry, industrial processes (not covered: agricultural processes outside energy)
## Landscape of climate finance

### Distinguish climate investment and climate finance, today and in the future

<table>
<thead>
<tr>
<th>Climate investment</th>
<th>I4CE Landscape Application in France: 2011-2017</th>
<th>National Plans In France: SNBC 2016-2030</th>
</tr>
</thead>
</table>
| Tracking low-carbon CAPEX e.g. residential retrofitting, low-carbon vehicles, etc. | - Made by households, companies and public institutions  
- Projects emerging under current economic and regulatory condition | Mapping investment needs e.g. deploy X thousand electric vehicles by 2025, etc.  
- Assessed against equipment deployment goals stated in national strategies & I4CE’s cost assumptions |
| Climate finance | Funds used by project developers to cover their investment expenditure  
- Provided by public institutions (subsidies), banks and financial markets (loans, bonds) or project developer’s own funds | “Business plans” exploring new public and private finance  
- Possible increase of private finance reflecting improved economic and regulatory conditions for low-carbon projects |
Landscape of climate finance

However, knowledge of investments and financial flows is lacking in some sectors

<table>
<thead>
<tr>
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<th>Housing</th>
<th>Transport</th>
<th>Energy production</th>
<th>Tertiary</th>
<th>Agriculture</th>
<th>Industry</th>
<th>R&amp;D</th>
<th>Adaptation</th>
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<tr>
<td>Climate investment</td>
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Improving scope and coverage
Landscape of climate finance

41 billion euros invested in 2017, increasing by 17% since 2014

- Total climate investment
- Energy efficiency
- Sustainable infrastructure
- Renewable energy
- Nuclear
- Forestry and non-energy processes

Billioneuros
Households and private companies are the principal project developers, followed by public entities.

Landscape of climate finance in 2017

Total investment in 2017
41.2 billion euros

Sources and intermediaries
- Administrations publiques
- Public financial institutions
- Commercial banks and financial markets
- Household and private companies' own funds

Project developers
- Public project managers
  - Central and local governments, infrastructure managers, social housing authorities
- Special purpose vehicles
- Private companies
  - 10.5
- Households
  - 17.1

Sectors
- Transport
  - 11.7
- Industry
  - 1.3
- Agriculture
  - 0.4
- Centralized energy production and networks
  - 7.4
- Buildings
  - 20.5

Financing instruments
- Grants, subsidies and transfers
  - 7.3
- Concessional debt
  - 4.8
- Commercial debt
  - 9.4
- Bonds
  - 4.9
- Own funds and equity
  - 15.3

Investments
- Public investments
  - 14.1
- Private investments
  - 27.1

* including balance-sheet financing in companies
A gap of 10 to 30 billion euros per year compared to estimated needs to achieve national climate goals

Climate investment documented in the Landscape of climate finance in France

Estimated range of investment needs based on the SNBC and the PPE

Gap

Initial trajectory

Trajectory catching up between 2016 and 2023

Initial trajectory

Landscape of climate finance

Investment gaps vary across sectors

Climate investment documented in the Landscape of climate finance in France (2016 - 2018 average)

Estimated range of investment needs based on the SNBC and the PPE (average 2016-2020)

Gap
Further extensions, challenges ahead

• Expand scope and improve coverage
  – Climate investment and finance in industry, agriculture, tertiary buildings…

• Update investment needs according to the revised national low-carbon strategy (NECP)
  – Drive projections up to 2050 ;
  – Improve assumptions on units to be deployed, evolution of costs ;
  – Reach beyond the scope of material equipment (behavioural change, R&D priorities)

• Build “financial scenarios” that achieve the required investment levels
  – Match financial resources (e.g. subsidies) with economic and regulatory conditions
Conclusion

<table>
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<th>Climate investment in 2017</th>
<th>Gap with investment needs</th>
<th>Fossil-fuel climate-adverse investments</th>
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<td>41.2 billion euros</td>
<td>+10 - 30 Billion euros/year</td>
<td>73 billion euros</td>
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</table>

To learn more: www.i4ce.org

Executive summary of 2018 results (EN version)

Full report and sectoral analysis of 2017 Edition results (EN version)
Thank you for your attention!

Questions and comments welcome at

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