

Landscape of Climate Finance in France

2016 Edition – Executive Summary

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In 2014, up to €32bn of investment contributed to climate mitigation in France.

From this total, €12.8bn was invested in energy efficiency projects, €6.5bn in the development of renewable energy production, and €10.6bn for sustainable transport and network infrastructure. Investment in new and existing nuclear plants and GHG reduction outside of energy consumption (such as agriculture, forestry and industrial processes) totalled an estimated €2.1bn.

THE STUDY IN BRIEF...

The Landscape of Climate Finance is a comprehensive study of domestic financial flows in favour of climate and the broader energy transition in France¹. The study maps the flows supporting investments leading to greenhouse gas mitigation across the French economy. Findings are contextualized in two ways:

- First, they are compared from year to year to highlight evolutions and underlying trends in the way climate investments are financed;
- Second, the volumes are assessed in relation to the projected investment needed to achieve national GHG reduction targets and other energy transition objectives.

The principal objective of the study is to support public debate on the role and relevancy of public and private financial flows in support of climate-related investments.

The Landscape of Climate Finance is based on the aggregation of a large number of publicly-available sources. All results reflect explicit methodological choices made by the authors and should thus be understood as estimates of the order of magnitude of flows, with varying degrees of uncertainty. Results are updated annually and revised according to the availability of new sources and references.

¹ The 2016 Edition looks at financial flow over the 2011-2015 period, updating the figures for financial flows found in previous editions. This edition provides provisional estimates of financial flows in 2015.

From 2011 to 2013, investment increased by €2.3bn to reach €32bn. This amount remained stable in 2014 and 2015, for which total investment is estimated to reach €32bn. This overall stability, however, hides variations in the different uses or end-uses. For instance, after a 50% increase from 2011 to 2013, investment in sustainable infrastructure declined through 2014 and 2015. Meanwhile, investment in energy efficiency and renewable energy increased by 14% and 10% respectively, contributing to the overall stability of investment.

59% of investment is made by households and private companies

As project developers, households invested €9.5bn, representing 29% of total investment in favour of climate mitigation in 2014. Most of this investment was made in the building sector. To finance their investments, households primarily used their own equity (€4.5bn) and commercial debt (€2.4bn). They benefitted from €2.1bn of public grants and subsidies.

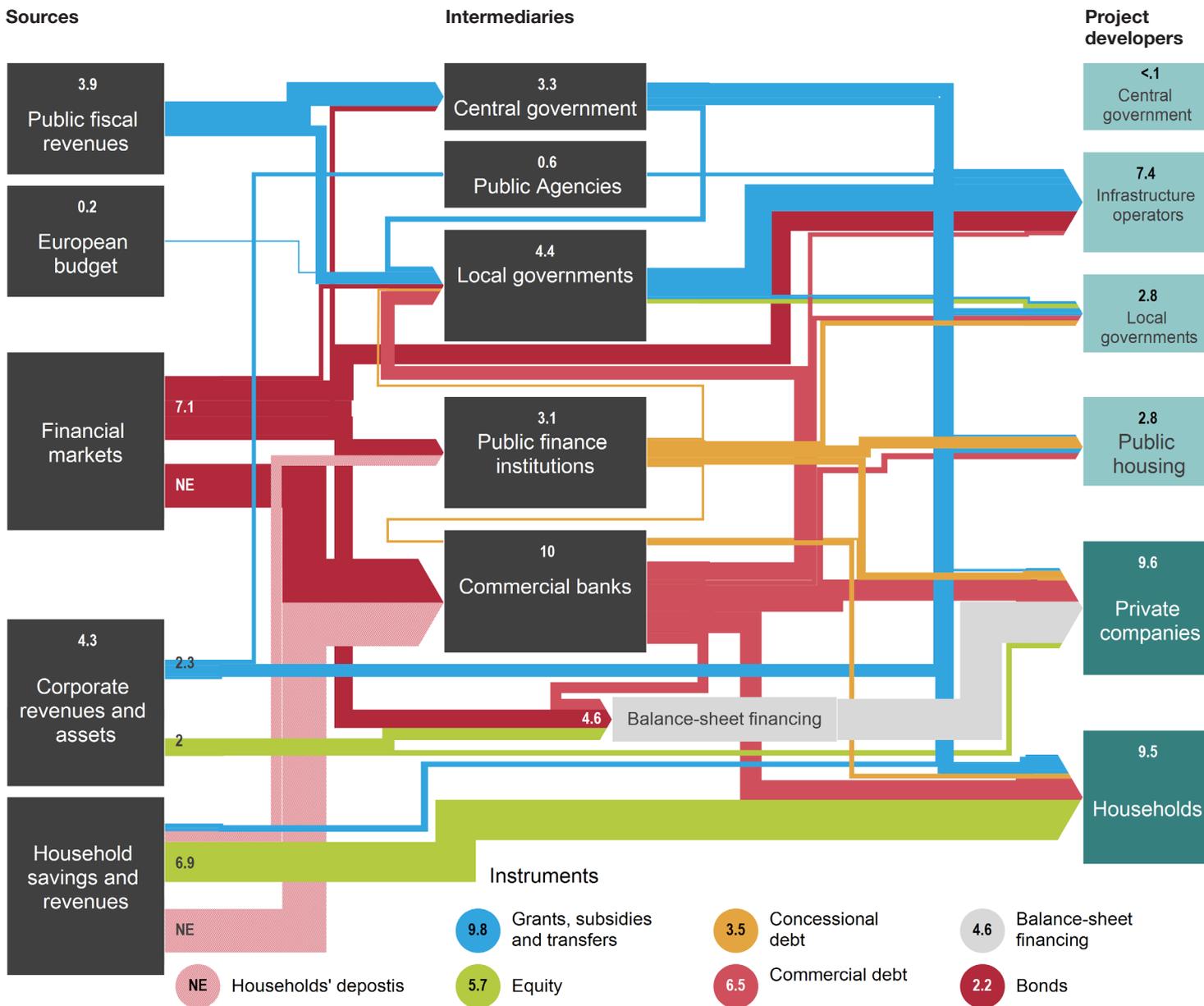
Private companies, including special purpose vehicles (SPVs), invested €9.6bn or 30% of total investment in favour of climate mitigation in 2014. Their investment was primarily directed to centralized energy production and networks, including €3.5bn invested in renewable power generation. Companies, whether from their balance-sheet or through project finance, used €5.6bn of commercial debt and €2.1 of equity and own funds.

Public project developers, such as central and local governments, public housing operators and infrastructure managers invested €13.2bn in 2014. They financed their investment principally through grants and transfers from other public institutions, totalling up to €6.8bn. Public housing offices also benefitted from low-interest debt emitted by public financial institutions such as Caisse des Dépôts, which totalled €1.3bn in 2014.

Investments in favour of climate
increased by €2.3bn from 2011 to 2013
and remained stable at €32bn in 2014
and 2015.

The Landscape of Climate Finance in 2014: a financial value chain...

(In billion current euros)



The main sources of finance for climate action:

- **Public fiscal revenues** and European budgets, mainly directed to the national and local governments;
- **Financial markets**, providing debt either to public and private intermediaries or directly to project developers, in the form of bonds.
- **Savings and revenues of households and companies**, in the form of equity invested directly in their projects, or transfers to other project developers driven by public policies.

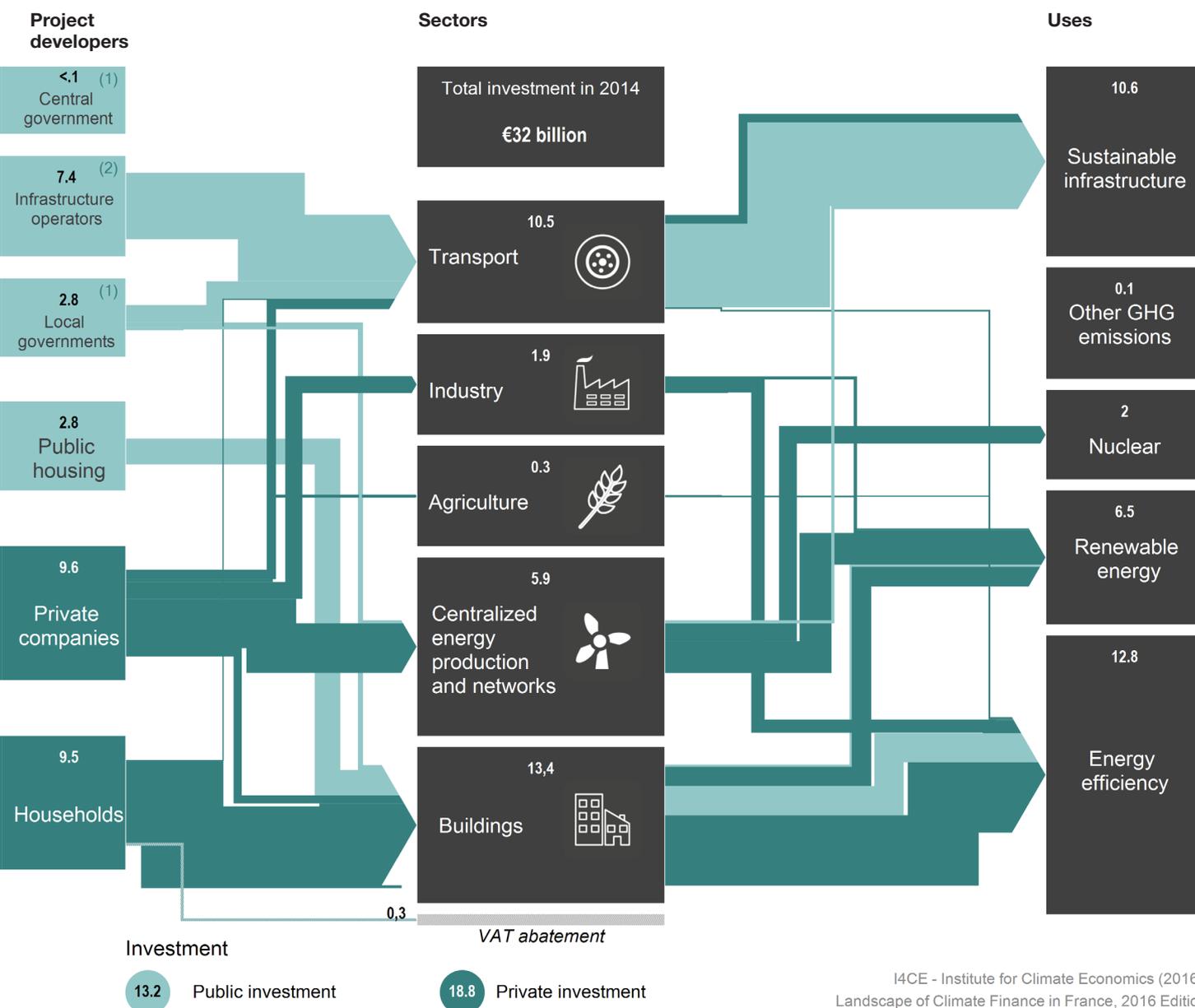
To finance their investment, project developers employ four main types of instruments:

- **Grants, subsidies and transfers**, that include no financial obligation for the beneficiary;
- **Concessional debt**, in the form of loans with better interest rates, maturities or guarantees than market-rate debt;
- **Commercial debt**, loans issued by private banks at market conditions;
- **Equity**, in the form of the project developer's own funds and resources,

generally mobilized without any intermediary. Private companies use debt and equity either at project level (including via special purpose vehicles) or at the company level through balance-sheet financing.

Public and private project developers are typically the owners of the assets generated by the investment. Their investments are made in sectors, covering uses such as energy efficiency, development of renewable energies or the building of sustainable infrastructure. Project developers use a combination of financial instruments

... supporting project developers in their climate investments



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that are specific to the project being undertaken or its own financial perspectives.

The Landscape of Climate Finance only aggregates spending and funds engaged at the time of the investment (capital expenditure). Some financial instruments contributing to a project's financial profitability during its lifetime, such as carbon pricing policies or feed-in tariffs for renewable energy, are not represented on the flowchart.

NE = not estimated

<.1 = amounts of less than €100 million.

To maintain clarity, these amounts are not represented graphically but are still included in the total of each box.

(1) As project developers, i.e. investing in their own buildings or durable goods. Local governments include public transport authorities ("autorités organisatrices des transports", or AOT).

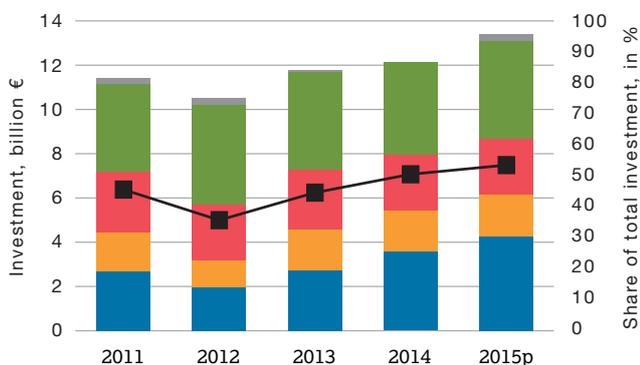
(2) Public operators include SNCF Réseau (known as RFF until 2014), Voies Navigables de France (VNF) and RATP for investment in public transport infrastructure in the Ile de France region.

The Landscape of Climate Finance maps investment in tangible (physical) assets securing direct or indirect reduction of GHG emissions in France. This includes construction and equipment acquisition costs and some durable goods as used in National Accounts (i.e. vehicles). This excludes research and development, preparatory studies, operating costs, administrative costs and public procurement. Debt includes loans and bonds issued by or to project developers, and does not include the reimbursement of previously borrowed funds.

Focus on the financing of investments in three key areas

This edition provides provisional (p) estimates of financial flows in 2015.

BUILDING RETROFITTING: AN INCREASE IN INVESTMENT AND IN THE SHARE OF PUBLICLY-DRIVEN FINANCE

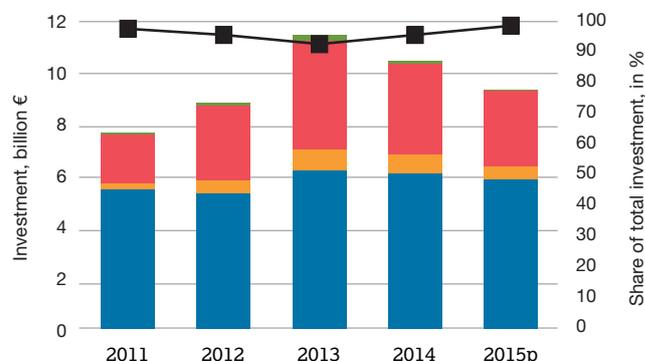


Investment in building retrofits increased €2.6bn since 2012 and reached €11.6bn in 2015. 68% of the investment went to energy efficiency actions. Grants, subsidies and transfers played an increasing role in the financing of investments, specifically in the retrofitting of private houses. Publicly-driven finance, including concessional debt to private project developers and investments from national and local governments and public housing operators, represents 52% of investment in 2015, compared to 35% in 2012.

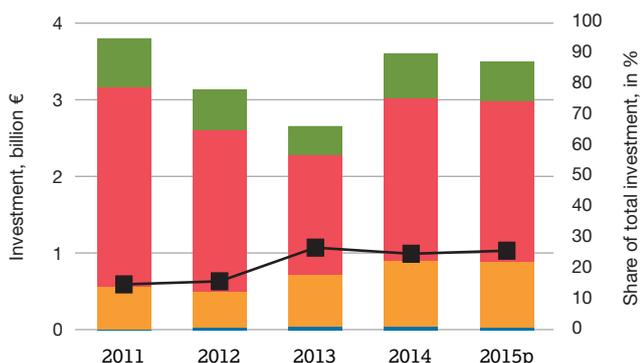
SUSTAINABLE TRANSPORT INFRASTRUCTURE: A DECLINE IN INVESTMENT AFTER A PEAK IN PROJECTS IN 2013

In the transport sector, infrastructure investment is characterized by a strong share of publicly-driven finance, in the form of projects supported by grants and transfers from national and local governments - as well as borrowing from the public companies managing the infrastructures.

- Investment in railways, which represented €6.9bn in 2013, declined to €5.3 in 2015.
- Investment in urban mass transit infrastructure totalled €3.2bn in 2015.



RENEWABLE POWER GENERATION: A REBOUND IN INVESTMENT AND AN INCREASING ROLE PLAYED BY PUBLIC FINANCE INSTITUTIONS



From 2011 to 2013, the decline in renewable feed-in tariffs, in particular for solar PV projects, led to a decrease in investment. However, investment rebounded in 2014 by 36% compared to 2013, and was maintained at €3.4bn in 2015. The sector is dominated by private companies in the form of special purpose vehicles (SPVs) leveraging commercial debt from private banks. However, an increasing share of the investment is secured through publicly-driven channels of concessional debt, in the form of direct loans to projects or green credit lines extended to commercial banks.

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■ Grants, subsidies and transfers	■ Balance-sheet financing
■ Concessional debt	■ Share of financing driven by the public sector (%)
■ Commercial debt	
■ Equity	

Publicly-driven finance is comprised of investments by public project developers (national and local governments, public housing offices and public operators including infrastructure managers) as well as grants, subsidies and transfers and concessional debt issued to private project developers (households and companies).

