Innovative Strategies to promote energy transition and sustainable growth

09 June 2015

ENGIE: a global reference in energy supply & service

Combining solutions to promote the energy transition

- **The ENGIE business model** is based on responsible growth to **meet growing energy needs, respond to climate change** and promote **sustainable use of resources.**
- The Group provides **highly efficient and innovative solutions** to individuals, cities and businesses.
- **ENGIE actively promotes the energy transition** and positions itself as a **benchmark reference player** in fast growing markets.

Key Metrics (2014)

- €74.7 billion revenues
- €12.1 billion EBITDA
- Present in 70 countries
- 152,900 employees

Power generation

- #1 Independent Power Producer
- 115.3 GW of capacity

Energy Services

- #1 supplier with 1,300 sites
- 202 district heating & cooling networks

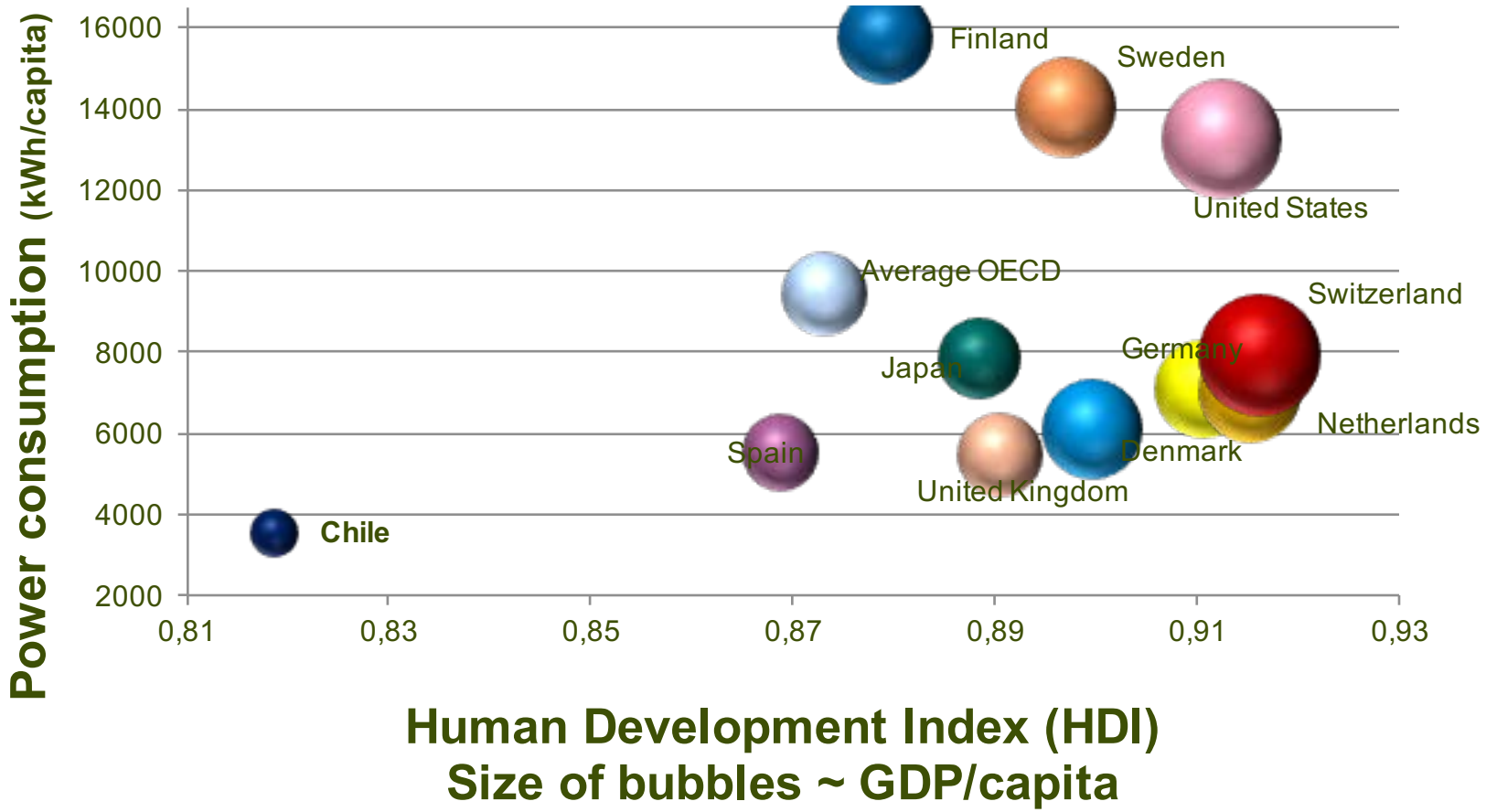
Natural Gas & LNG

- LNG supply portfolio of 245 TWh from 6 countries
- #1 in Europe for import, storage and distribution

CHILE: an OECD country with development needs

Significant investment needed to promote economic & social development

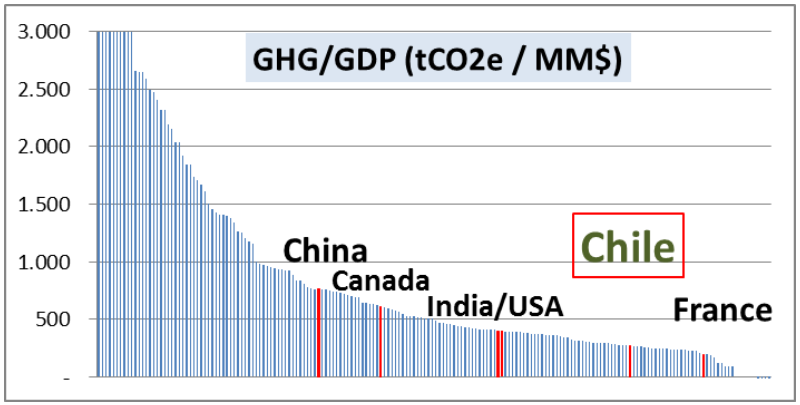
Capita specific Power Consumption, GDP & HDI

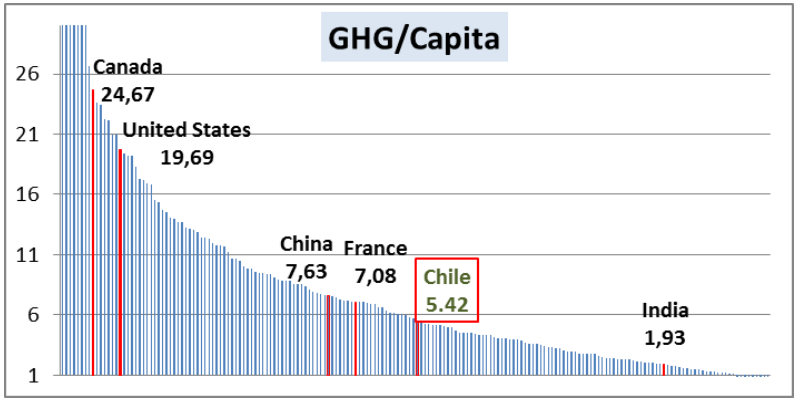


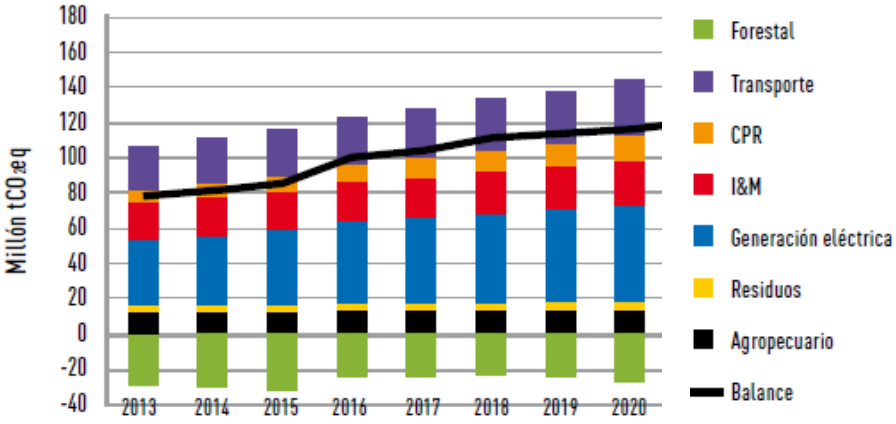
Source: UNDP and World Bank Data Bank (2013)

Chile and Climate Change
Challenges of an emerging country

- **Country Indicators (2013)**
  - 17.6 M inhabitants;
  - GDP/capita ~ 18,027 (U$)
- **Economy**
  - 59% of export is copper
  - 75% of energy is imported
    (Oil: 53%; NG: 14%; Coal 13%)
- **Chile GHG Emissions**
  - 105 $MtCO_2$ (2013)
    Power Sector 40%
  - Registered CDM: 11 Mt;
    Power Sector 70%
  - Projected growth: 100% by 2030







Sources: MAPS Chile, World Bank (2013-2014)

Chile and Climate Change

Comprehensive planning and uncertain perspectives

MAPS: Mitigation Action Planning & Scenarios

- 8 Scenarios, including carbon tax of 5 and 20 USD/tCO2

World Bank PMR: Partnership for Market Readiness:

- March 2013: Market Readiness Proposal to develop ETS

Tax Reform: Carbon tax of 5 USD/tCO_2 for TPPs

- Focus on all TPP > 50 MW

INDC submission to prepare for COP 21 in Paris (Dec. 2015)

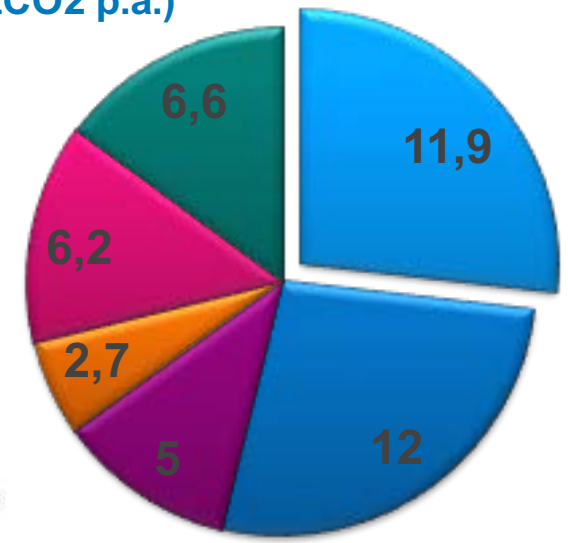
- Defined as economic **CO_2 intensity target** (tCO2e/GDP)
- Achieved with **national policies to be defined as of 2018**
- Two levels of ambitions with targets for 2025 and 2030 are proposed

Mitigation Studies and the Power Sector

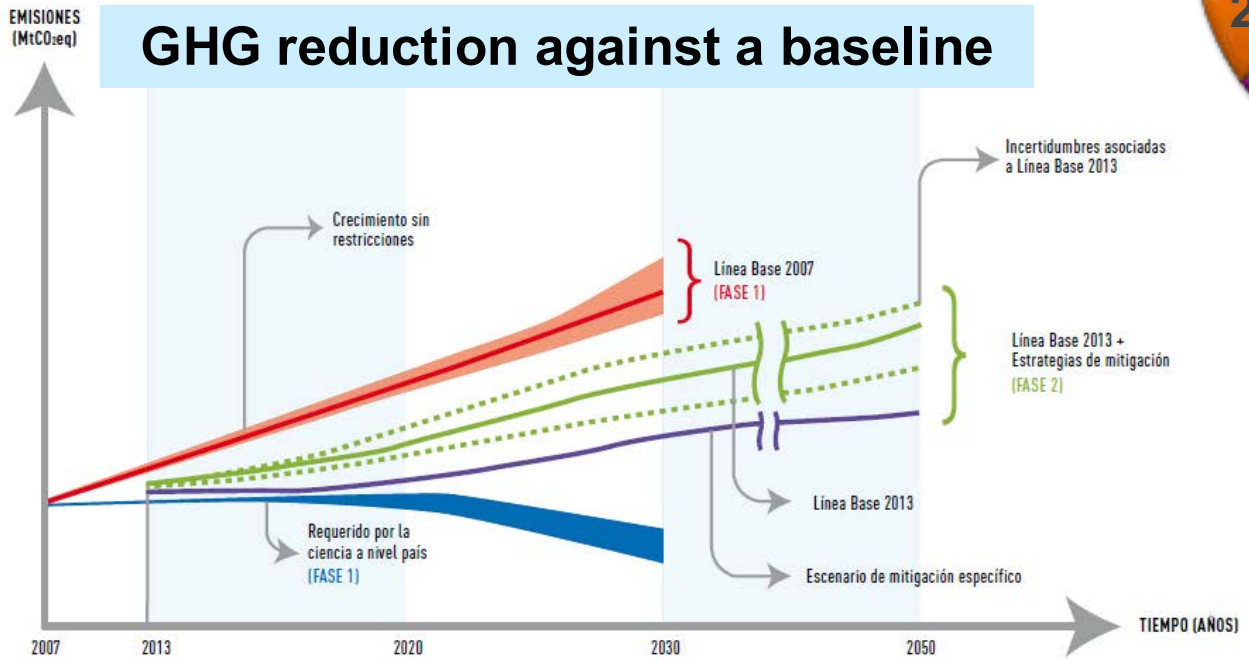
Challenges and Opportunities for investors

- **Power Sector:**
  - 40% of GHG emissions
  - 44.4 MtCO2e p.a. reduction
  - 74% of national target

GHG Mitigation Actions in Power Sector (Mio tCO2 p.a.)



GHG reduction against a baseline



ENGIE activities in Chile

Energy Transition requires integrated solutions

Renewable Energy

- Wind
- Solar
- Hydropower

Infrastructure

- Transmission Lines
- LNG Terminal
- Gas Pipelines

Energy Efficiency

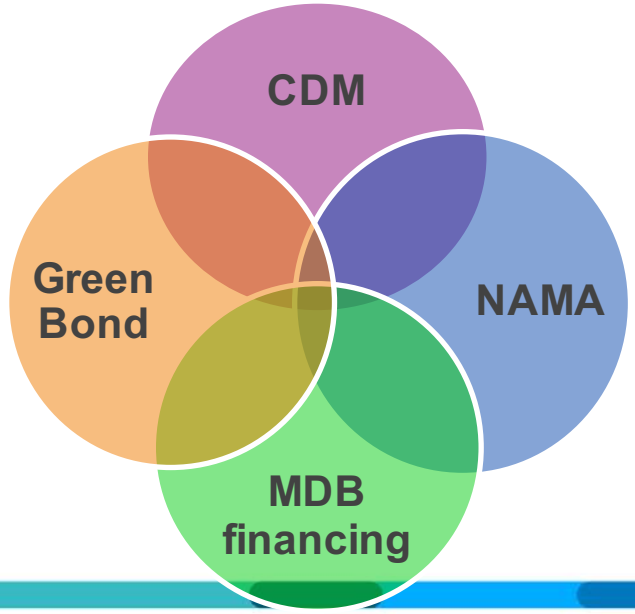
- Laborelec Research Center
- Cofely Termika
- Partnerships with Industry

R&D and Innovation

- Micro-Algae and Biodiesel
- Concentrated Solar Power
- Maritime energy

Promoting the Energy Transition in Chile:
Combining different strategies

- CDM allows to quantify and register GHG mitigation.
- NAMA policies such as the law 20/25 provide guidance and support.
- Development Bank financing allows to attracting international long term funding.
- The ENGIE Green Bond allows refinancing projects and accelerates growth.



EMR - 48 MW in IV Region

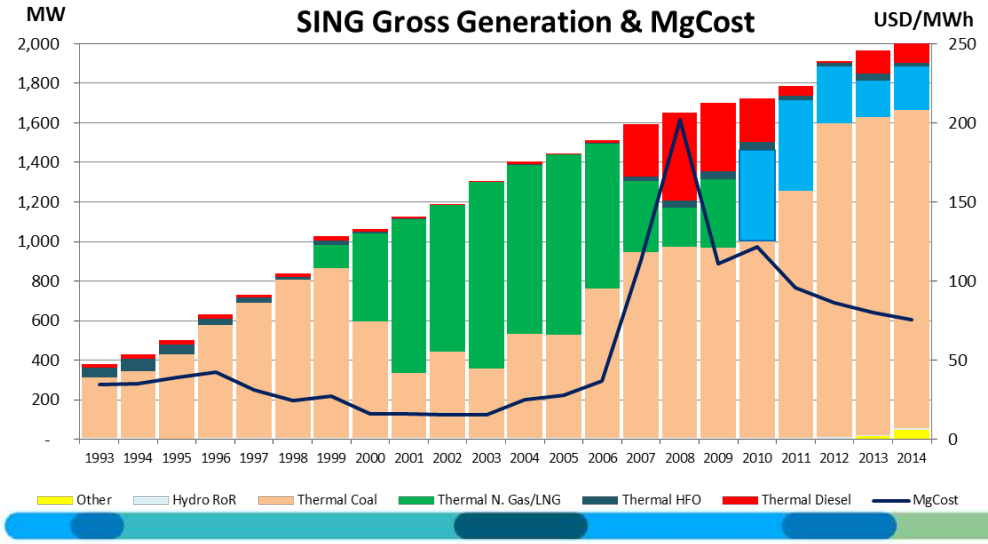
Laja - 34 MW in VIII Region

GNL Mejillones:
Promoting GHG mitigation and complementary renewables

2010: Onshore regasification & FSU

2013: Onshore storage - 187,000 m³

- Total Investment: 750 MUSD
- Capacity enough to supply 1100 MW of efficient gas power plants (CCGT)
- Usage only about 400MW
- Emission reduction of about 2 $MtCO_2$ p.a. instead of 5 Mio at full capacity



SIC-SING Interconnection

Connecting and balancing renewable energies

Transmisora Eléctrica del Norte ("TEN") developed & licenses a transmission line from Mejillones to Copiapó (SIC-SING).

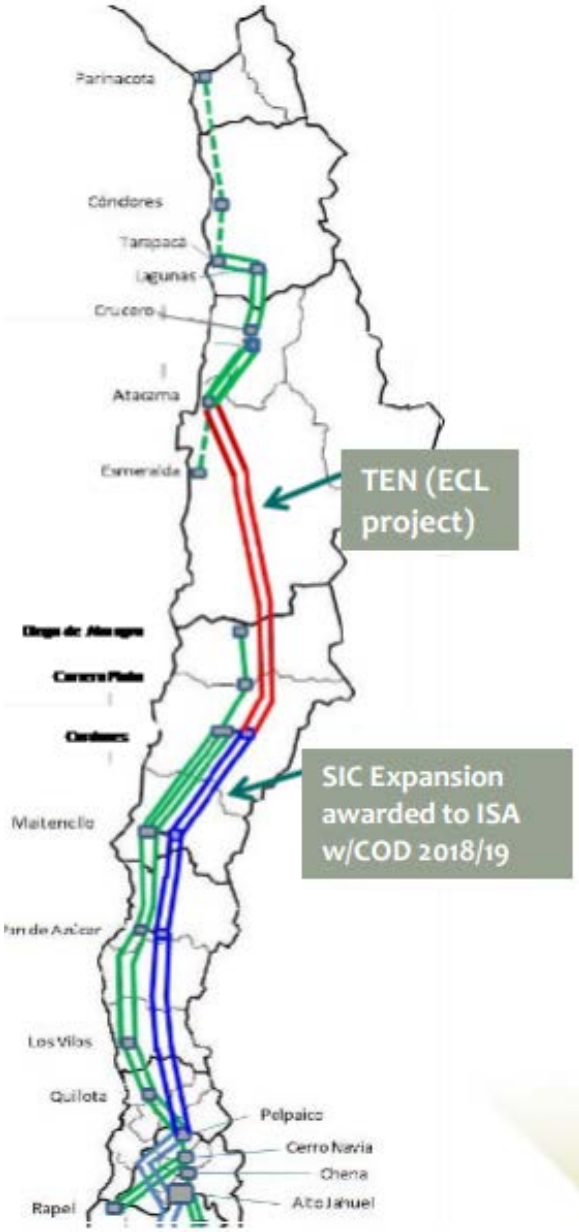
In Jan. 2015, the Energy Ministry declared the project as official interconnection line,

Economic Benefits:

- Economic efficiency & increased energy security
- SIC Hydro can balance northern solar power
- Access to new NCRE opportunities along a 600km stretch

Environmental Benefits:

- Direct Emission Reductions (hydrothermal grid balancing)
- Indirect GHG emission reductions as result of new NCREs



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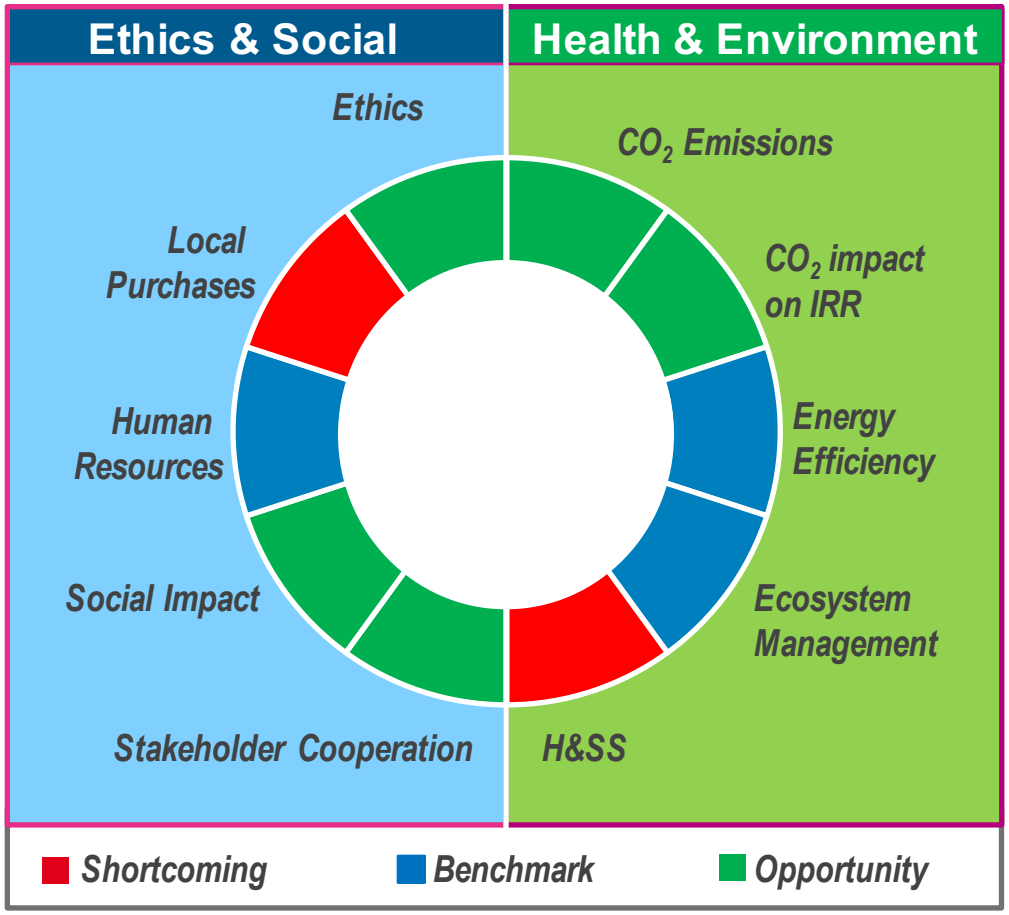
ENGIE policies for sustainable investment

Internal criteria for Environmental & Societal Responsibility



I) **Project investments require Diligent & documented rating according to internal SE criteria.**

II) **Findings identify opportunities for improvement.**

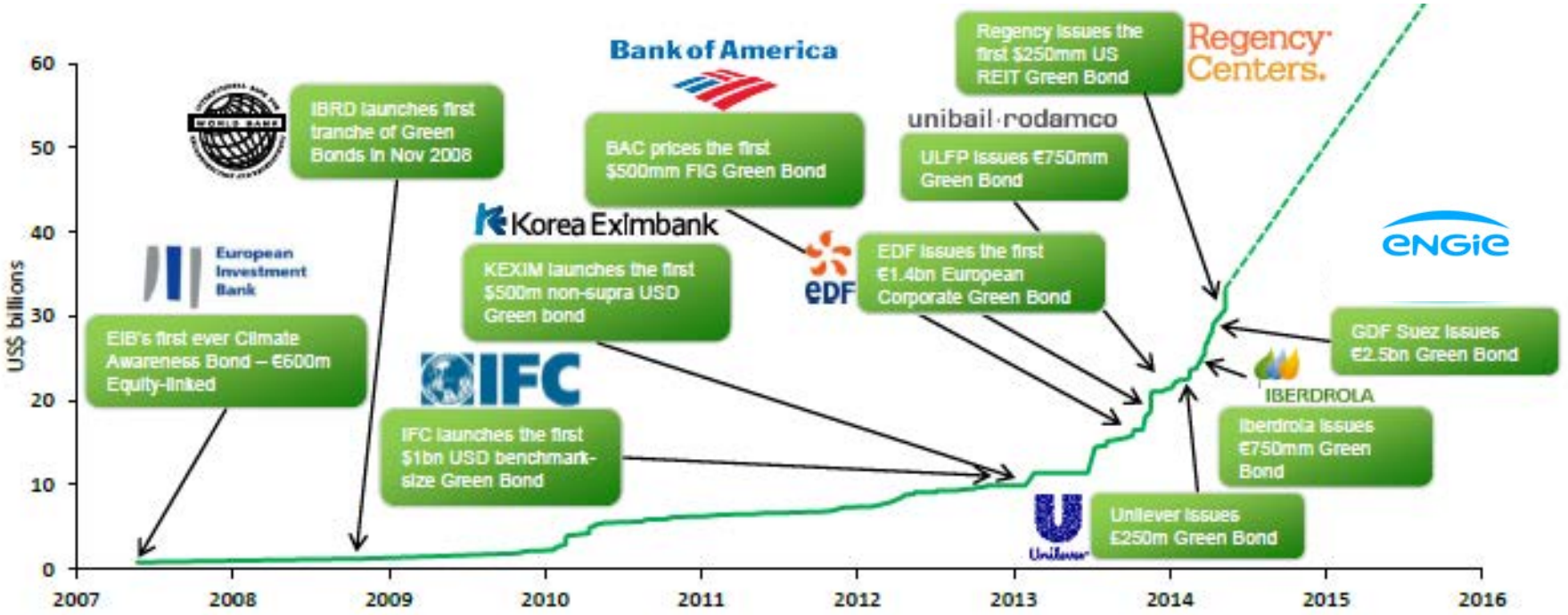
III) **Internal criteria & findings need to satisfy independent assessments according to diverse external standards:**

- Equator Principles
- CDM
- Green Bond criteria
- EU WCD compliance criteria
- Hydropower Sustainability Assessment Protocol

ENGIE Green Bond

An innovative strategy to accelerate the energy transition

- In May 2014 ENGIE issued a Green Bond of €2.5 billion, the largest to date.
- The bond was 3-times oversubscribed
- Socially Responsible Investors (SRI) acquired 64% of the issue.



ENGIE Green Bond
Characteristics and Commitments

Commitment on Use of Proceeds

ENGIE's Green Bond will finance projects that contribute to fight climate change

Selected projects are not linked to energy production from fossil

Renewable Energy Projects	Energy Efficiency Projects
Greenfield renewable energy asset developments or acquisitions	**Direct investments in energy efficiency measures or services and acquisitions**

Transparency & External validation

- Criteria set to select projects developed and validated by vigeo enterprise
- External Auditors assess and report the Green bond proceeds' allocation
- ENGIE provides annual update on the portfolio of projects financed with the Green Bond.

ENGIE Green Bond criterion

Targeting social and environmental best-in-class projects

Environmental and social criteria were developed with and validated by vigeo enterprise

Environment protection	Fight climate change, environmental management and biodiversity protection
Community involvement	Contribute to local development and to communities well-being
Ethics and business behavior	Promote ethical practices throughout the supply chain and sustainable relationships with suppliers
Human resources	Ensure responsible relations and working conditions
Project Governance	Ensure internal ESG assessment and positive recommendation

CONCLUSION
Socially responsible investment

- Investments need to satisfy contemporary needs and future necessities.
- GHG mitigation and energy transition require a comprehensive approach with innovative new financial and technological solutions.
- Smart domestic policy design must attract investment and international capital.
- A global carbon market that is capable to finance and accelerate GHG mitigation and energy transition is required to contain costs.
- Constant dialogue and discussion between all stakeholders is needed to build competences and consensus