

I4CE

INSTITUTE FOR
CLIMATE
ECONOMICS

Une initiative de la Caisse des Dépôts et
de l'Agence Française de Développement

AFTER COP21

Perspectives for CO2 Valorization

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Benoît Leguet

Managing Director

benoit.leguet@i4ce.org

[@BenoitLeguet](#)

I4CE – Institute for Climate Economics

3 research areas addressing the issues faced by actors involved in the energy and climate transition



INDUSTRY, ENERGY AND CLIMATE

Understanding policies for the low-carbon transition in the industry and energy sectors.



TERRITORIES AND CLIMATE

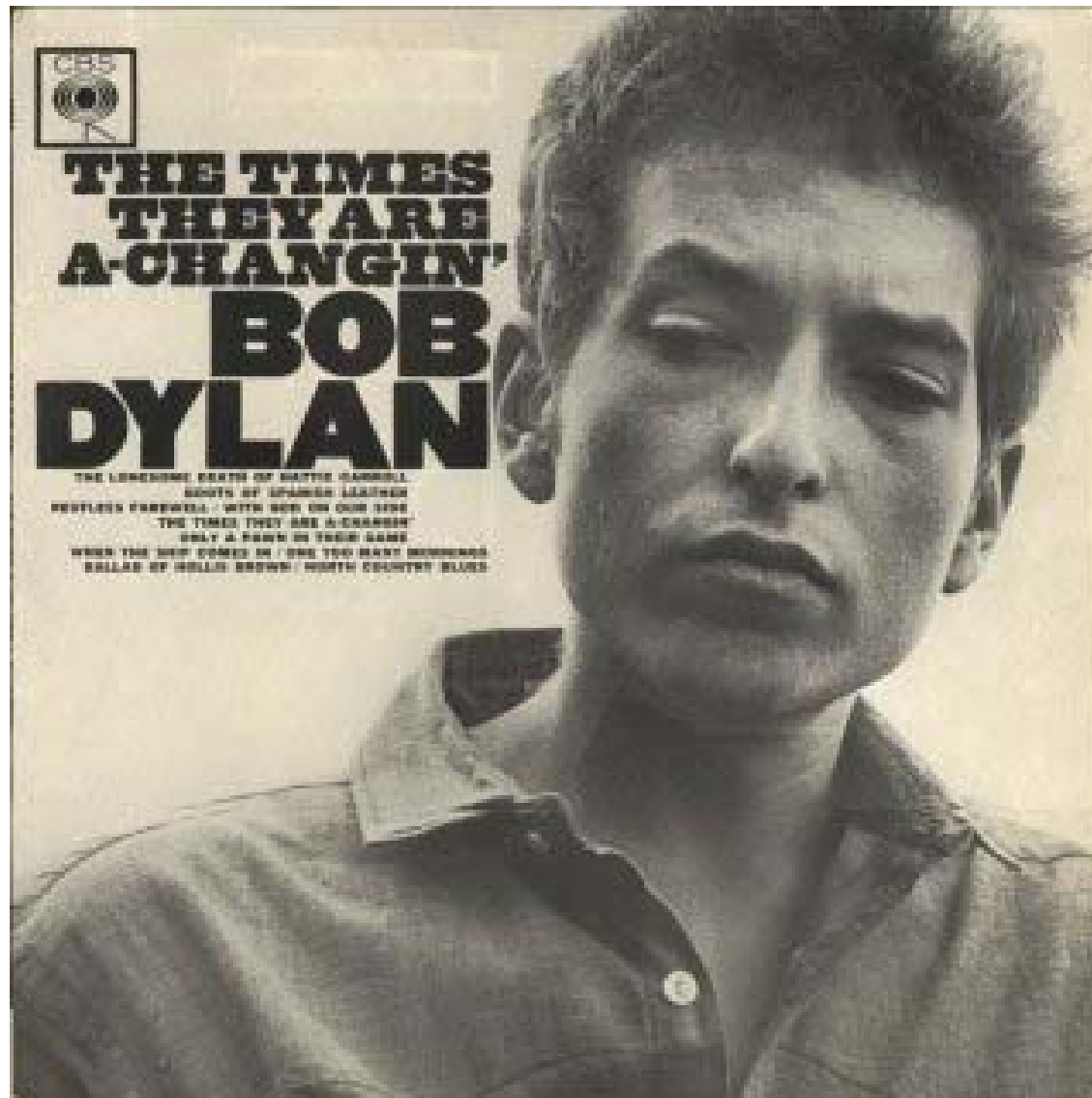
Identifying and analyzing courses of action in the fight against climate change in the agriculture and forestry sectors as well as urban areas.



FINANCE, INVESTMENT AND CLIMATE

Analyzing the mainstreaming of climate change into financial decision-making by public and private entities.

Bob Dylan was right



A diplomatic success



A revolutionary trypsic



An international agreement in a multilateral framework

- A long-term Agreement
- A COP Decision, immediately applicable



National policies

- *Nationally Determined Contributions (NDCs)*



An « Action Agenda »

- Local governments
- Corporates
- NGOs
- etc.

Aligning climate, development and finance



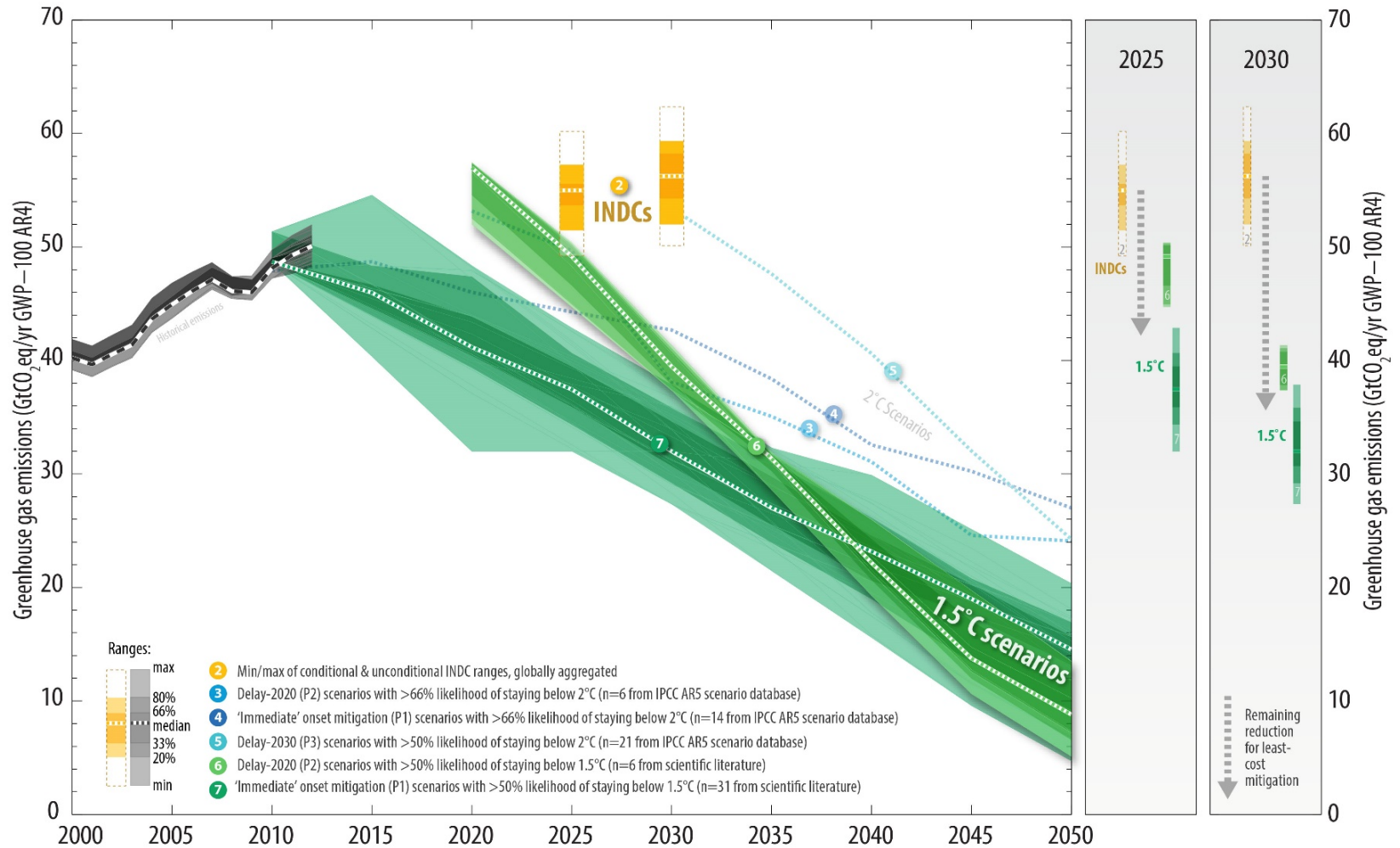
1. **Limit** global warming well below 2°C while aiming at bringing it to 1.5° with an aim to reach global peaking of GHG emissions as soon as possible” and **zero-net emissions** by the second half of this century.

2. **Increasing** the ability to adapt to the adverse impacts of climate change by **promoting** resilience and low-carbon development, in a manner that does not threaten **food production**;

3. **Making** financial flows “**consistent**” with low-carbon climate-resilient development.

+2°C?

Towards a 'zero net emissions' world



Source: UNFCCC, 2015

How to reach 'zero net emissions' ?



Energy
efficiency



Renewables



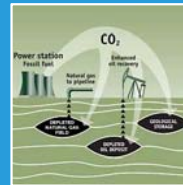
Fuel switching



Processes
(industry,
agriculture...)



CCU



CCS



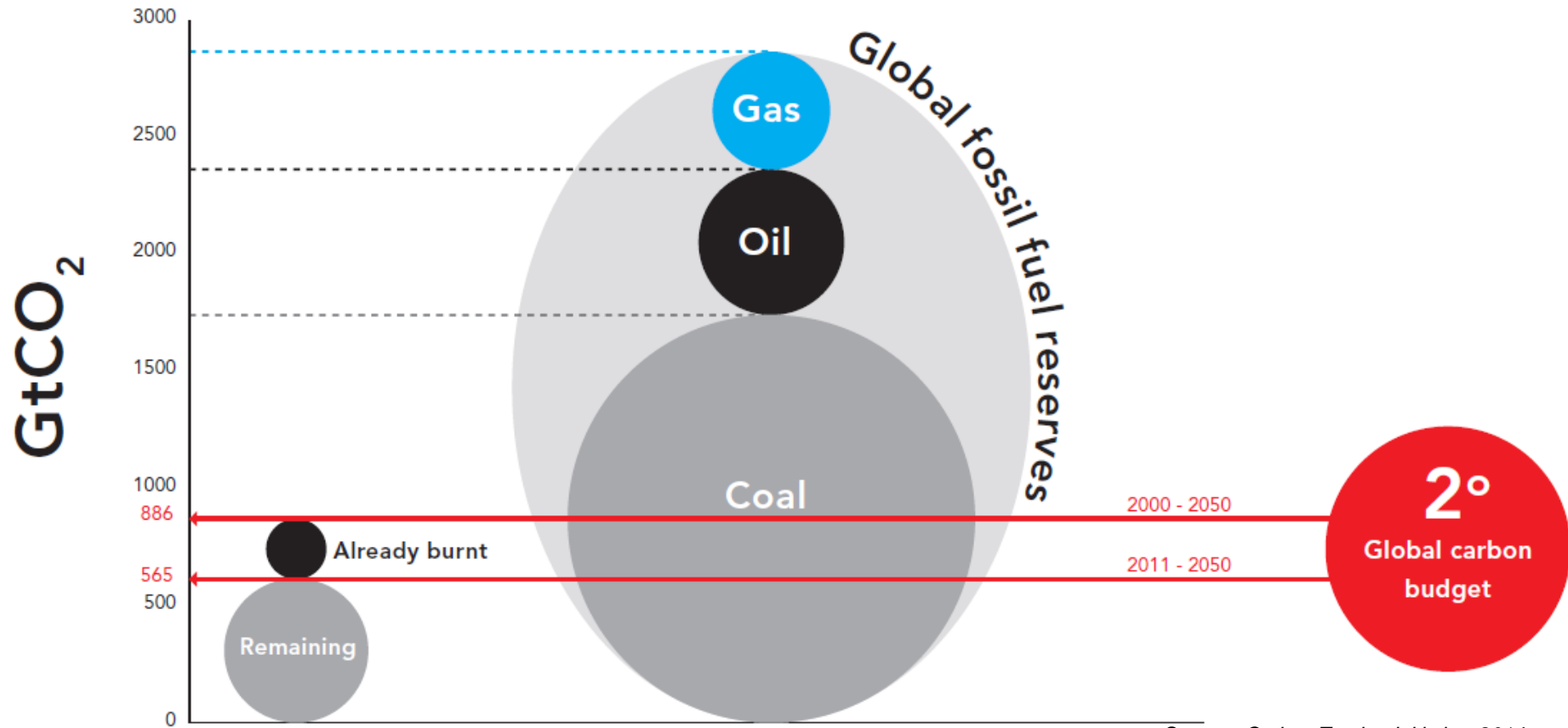
Agriculture and
forestry



?

+2°C?

Leaving carbon underground?

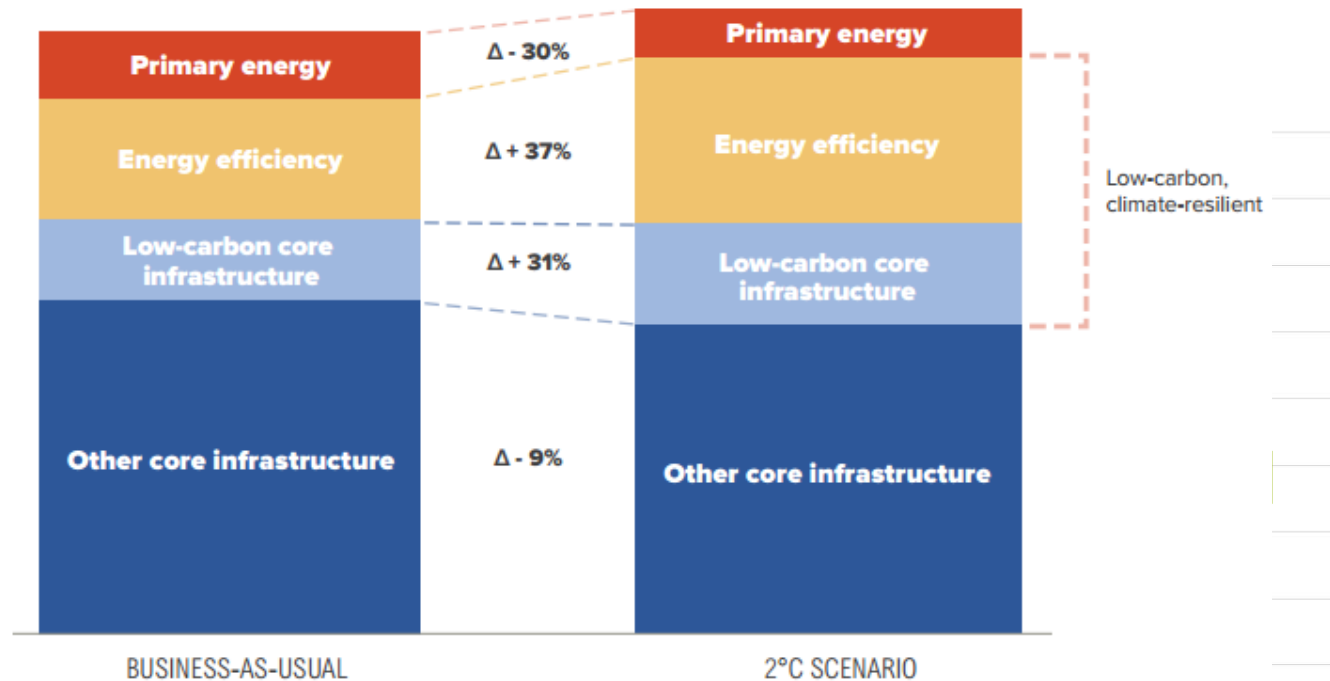


Source : Carbon Tracker Initiative, 2014

ALIGNING FINANCIAL FLOWS

REDIRECTING 5,000 G\$ per year of public & private investment

Change in infrastructure spending required for a 2°C scenario
 (percentage change in expenditure over 2015-2030 compared to Business-as-usual)



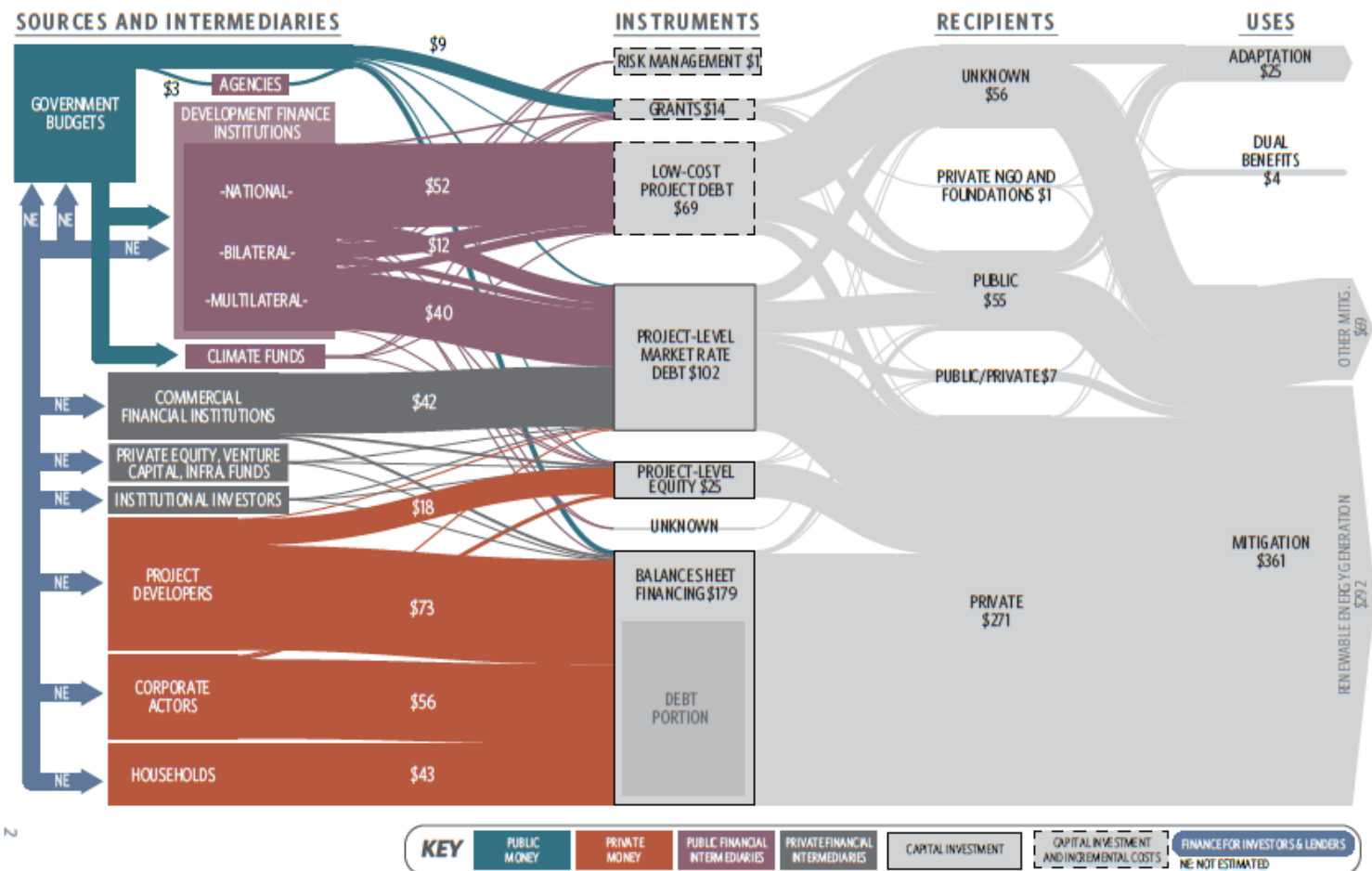
- Primary energy: extraction of oil, gas and coal
- Energy efficiency: buildings, energy and transportation
- Low-carbon core infrastructure: renewable energy, nuclear, CCS, low-carbon transport (e.g. light rail and Bus Rapid Transit systems), climate-proofed water and sanitation including some adaptation infrastructure (e.g. sea walls and flood protection)
- Other core infrastructure: standard water/sanitation, high-carbon transport (e.g. roads), energy production, and telecommunications

Above all a question of redirecting...

Figure 2. The Global Landscape of Climate Finance 2015

GLOBAL LANDSCAPE OF CLIMATE FINANCE 2015 **USD 391** BN TOTAL

Landscape of Climate Finance 2015 illustrates climate finance flows along their life cycle for the latest year available, mostly 2014, in USD billions

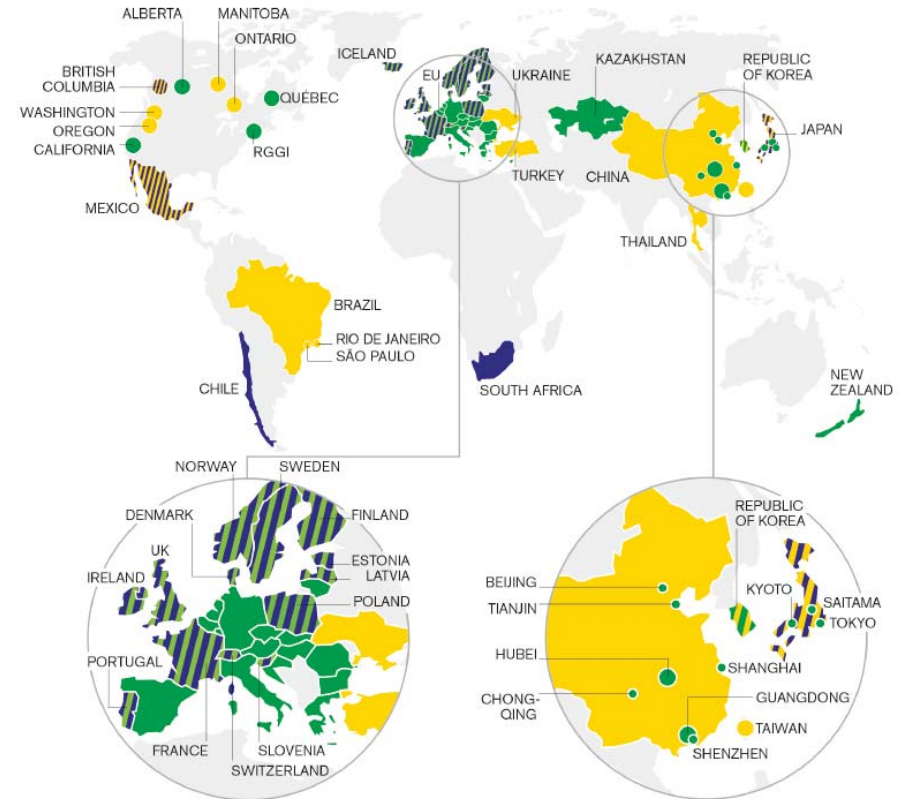
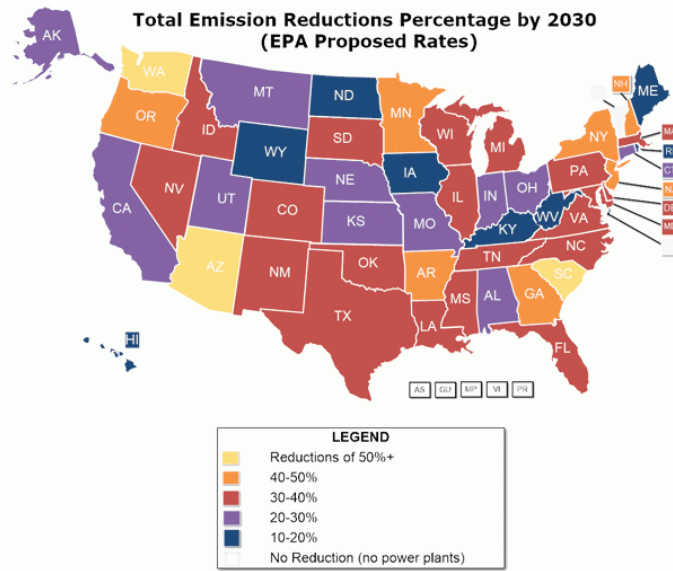


WHAT CAN FINANCE DO ?

Opportunities, and three risks: Transition, climate impact, litigation



Demand-side policies / initiatives



Supply-side policies / initiatives



Inquiry: Design of a Sustainable Financial System



Take away messages

- Window of opportunity for CO2 valorization
- The bulk of the financing flows towards « zero net » will be domestic and private
- Keep an eye on:
 - National policies / Non-State actors initiatives
 - Demand-side (eg. Carbon pricing) / Supply-side (Finance) policies
- Finance won't do it all, but nothing will be achieved without finance
- A quiet revolution: Bob Dylan was right

“A vos questions !”

Benoît Leguet – Managing Director

benoit.leguet@i4ce.org

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