SUSTAINABLE DEVELOPMENT SOLUTIONS NETWORK
A GLOBAL INITIATIVE FOR THE UNITED NATIONS

Briefing
On Cooperation And Support For the Domestic Preparation Of Intended Nationally Determined Contributions (INDCs)

Lessons
from the Deep Decarbonization Pathways Project (DDPP)

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Outline

- What is the Deep Decarbonization Pathways Project (DDPP) and what are some of its key preliminary results?
- How does it help countries to prepare their INDCs?
- What are the challenges faced by countries to prepare their INDCs?
- What kind of additional cooperation and support is necessary to ensure the good preparation of INDCs?

DDPP Objective

- The Deep Decarbonization Pathways Project (DDPP) is a collaborative initiative to understand and show:

- How **individual countries** can transition to a low-carbon economy.

- And how the world can meet the internationally agreed target of limiting the increase in mean surface temperature to less than **2 degrees Celsius (°C)**.

DDPP Partners

- The Deep Decarbonization Pathways Project (DDPP) is convened under the auspices of the **UN Sustainable Development Solutions Network** (SDSN) and the **Institute for Sustainable Development and International Relations** (IDDRI).

- Currently, the DDPP gathers **15 Country Research Teams** of leading researchers and research institutions from 15 countries representing 70% of global GHG emissions and different stages of development.

- Several **Partner Organizations** also contribute to the analysis and outreach of the DDPP, including the International Energy Agency (IEA), and the World Business Council on Sustainable Development (WBCSD).

DDPP 15 Countries
70% of the Global GHG Emissions

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DDPP Approach (1/2)

- Each Country Research Team develops a **national Deep Decarbonization Pathway (DDP) analysis to 2050**, consistent with the 2°C limit and their national circumstances.

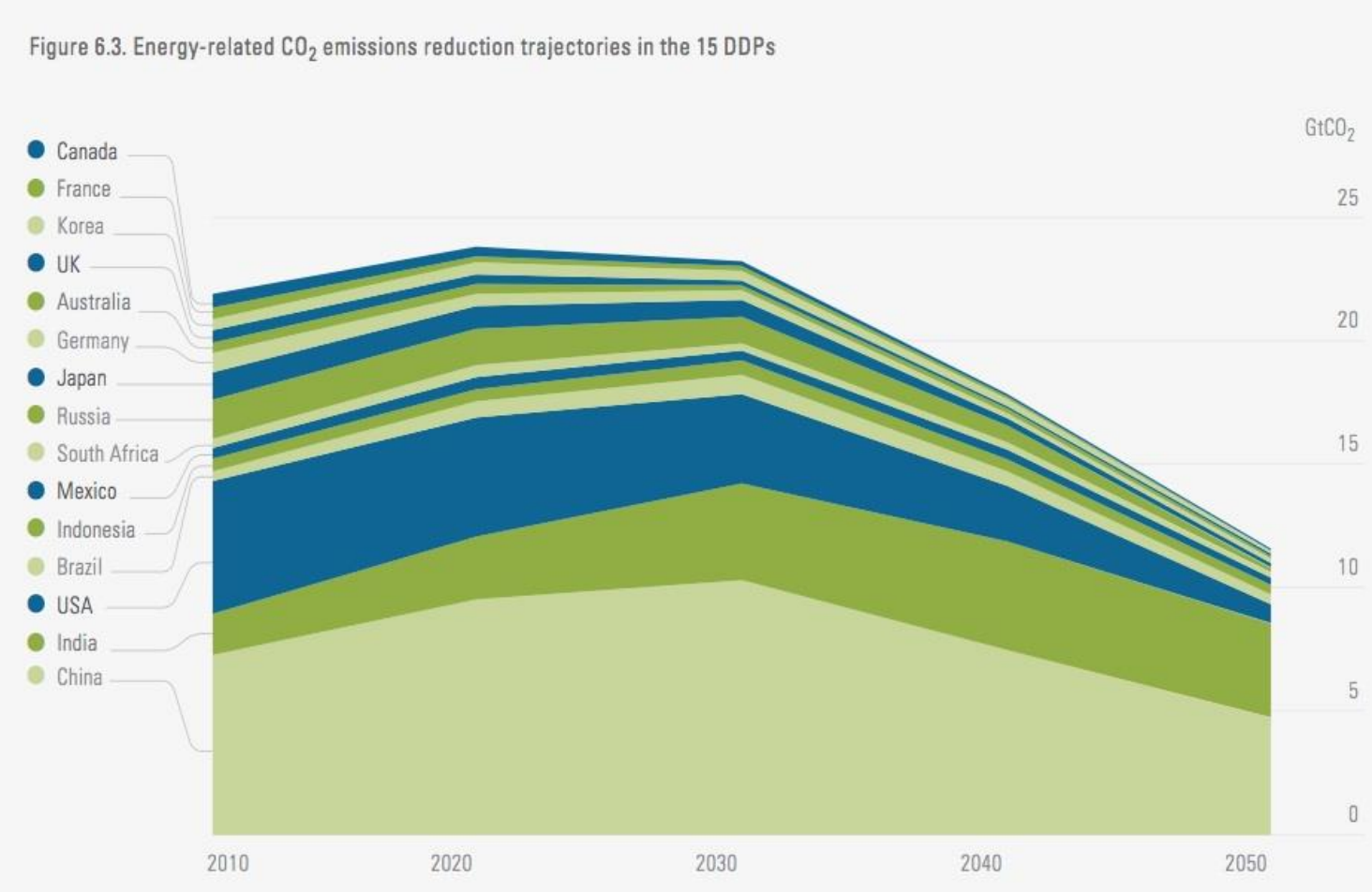
- The objective of these DDPs is to explore each country's possible transition to a low-carbon economy, taking into account national socio-economic conditions, development aspirations, infrastructure stocks, resource endowments, and other relevant factors.

DDPP Approach (2/2)

- The first phase of the DDPP focused on **the technical feasibility** of DDPs.
- The 2014 report was issued to the UN Secretary General, in preparation for the World Leaders' Climate Summit.
- The next phases will analyze in further detail:
  - How the **twin objectives of development and deep decarbonization** can be met through integrated approaches;
  - Quantify the **costs and benefits** of deep decarbonization;
  - Identify national and international **financial requirements**;
  - And map out **policy framework** for implementation.

The 15 DDPs Already Achieve A Very Significant Reduction In Energy-Emissions

(47% absolute; 56% per capita; 88% per GDP)



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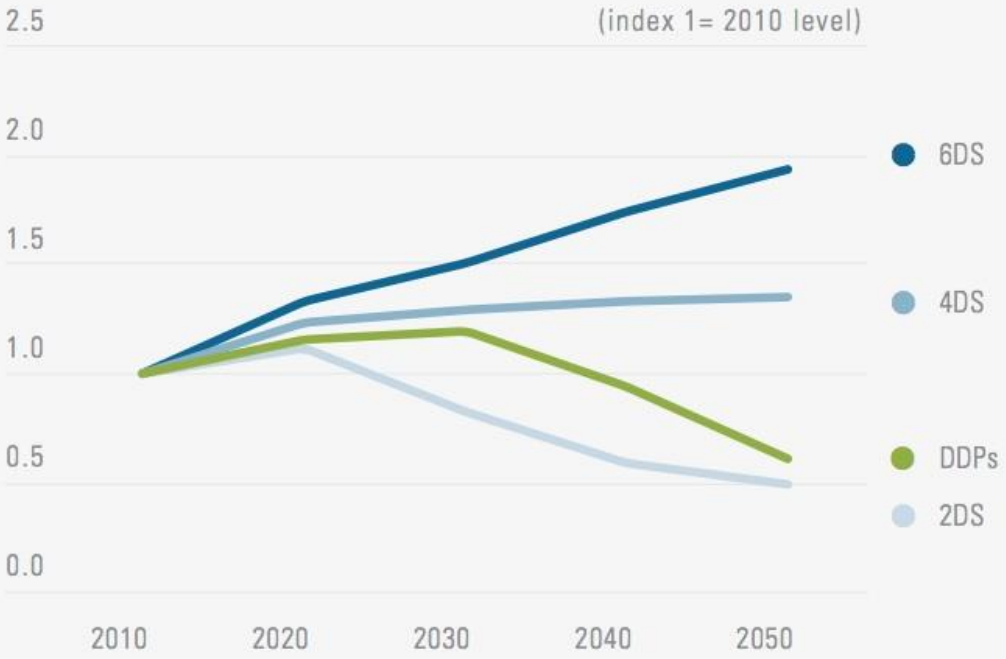
But They Are Not Yet Fully Consistent With A True 2°C Pathway

(2050 level almost OK; 2030 and 2040 levels too high)

Figure 6.6. Combined seven country DDPs compared to the CO_2-energy emissions reduction trajectories of IEA scenarios (2DS, 4DS, and 6DS)



Note: The comparison only includes the DDPs for Brazil, China, India, Mexico, Russia, South Africa, and the USA to match the countries analyzed as part of the IEA scenarios.

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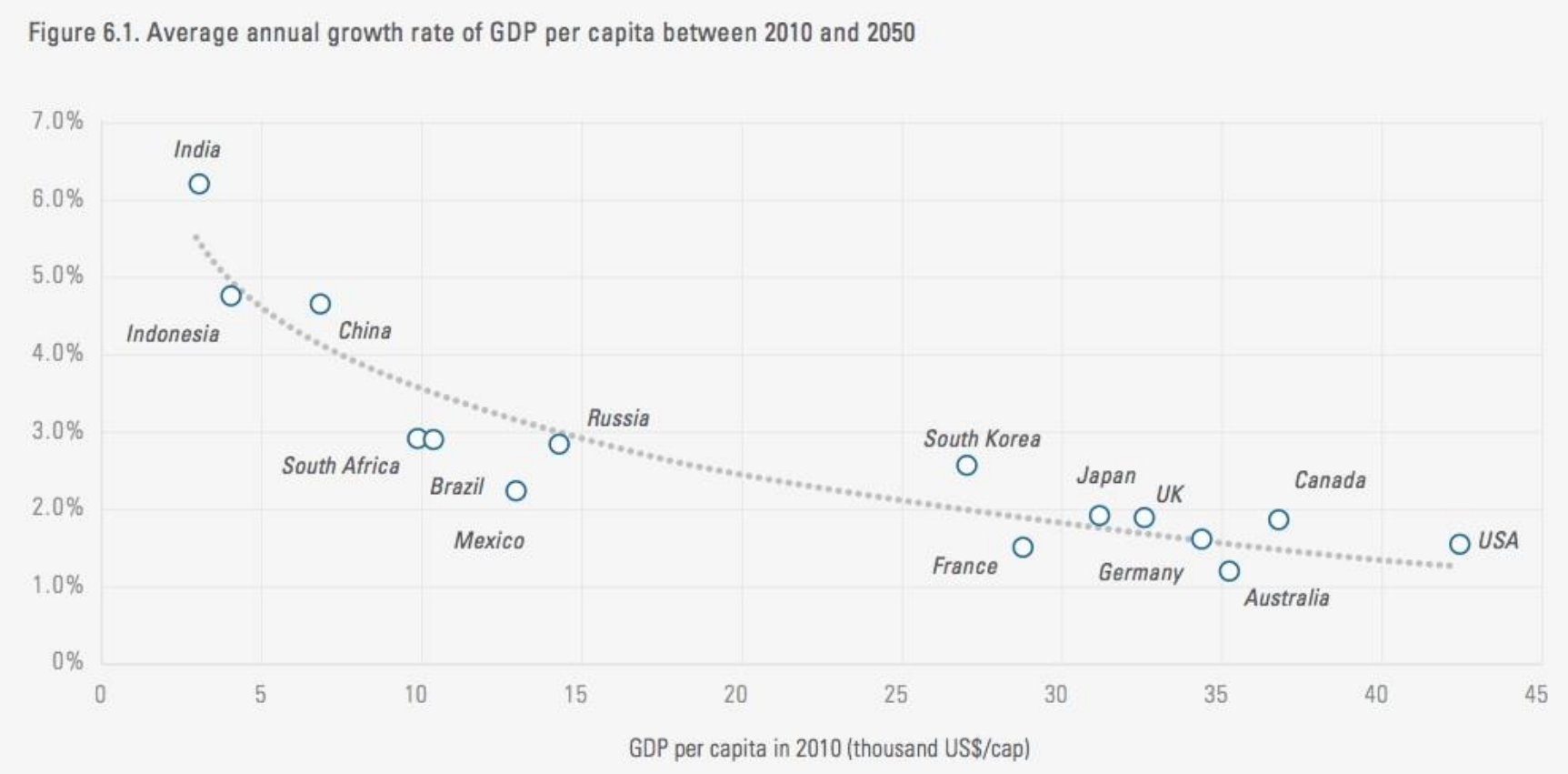
They Are Based On The Assumption Of Continued – Sometimes Rapid – Economic Growth

(Rapid catch-up economic growth in middle-income countries)



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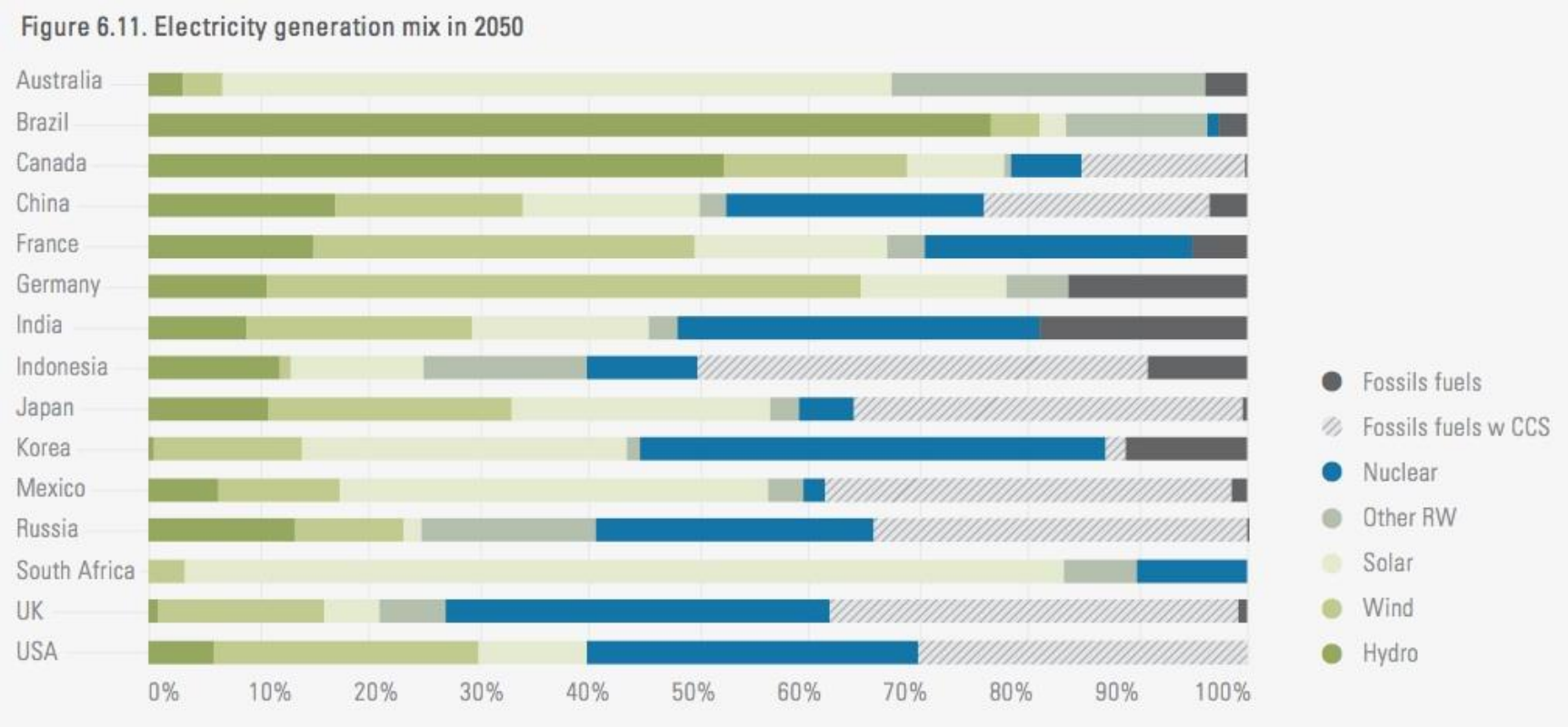
They Show The Importance Of Reaching Near-Zero Emissions In The Power Sector By 2050

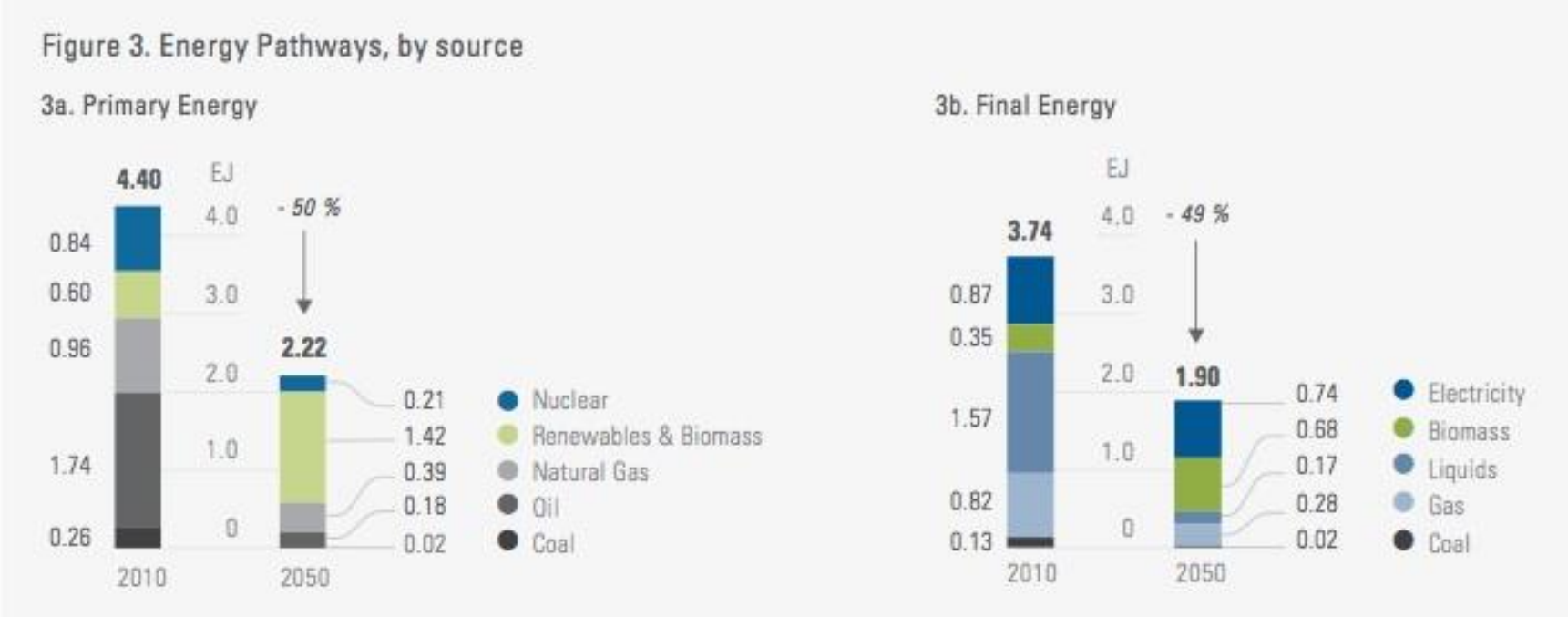
(Different options based on availability of energy resources, costs, and political choices)



Example: France (1/3)

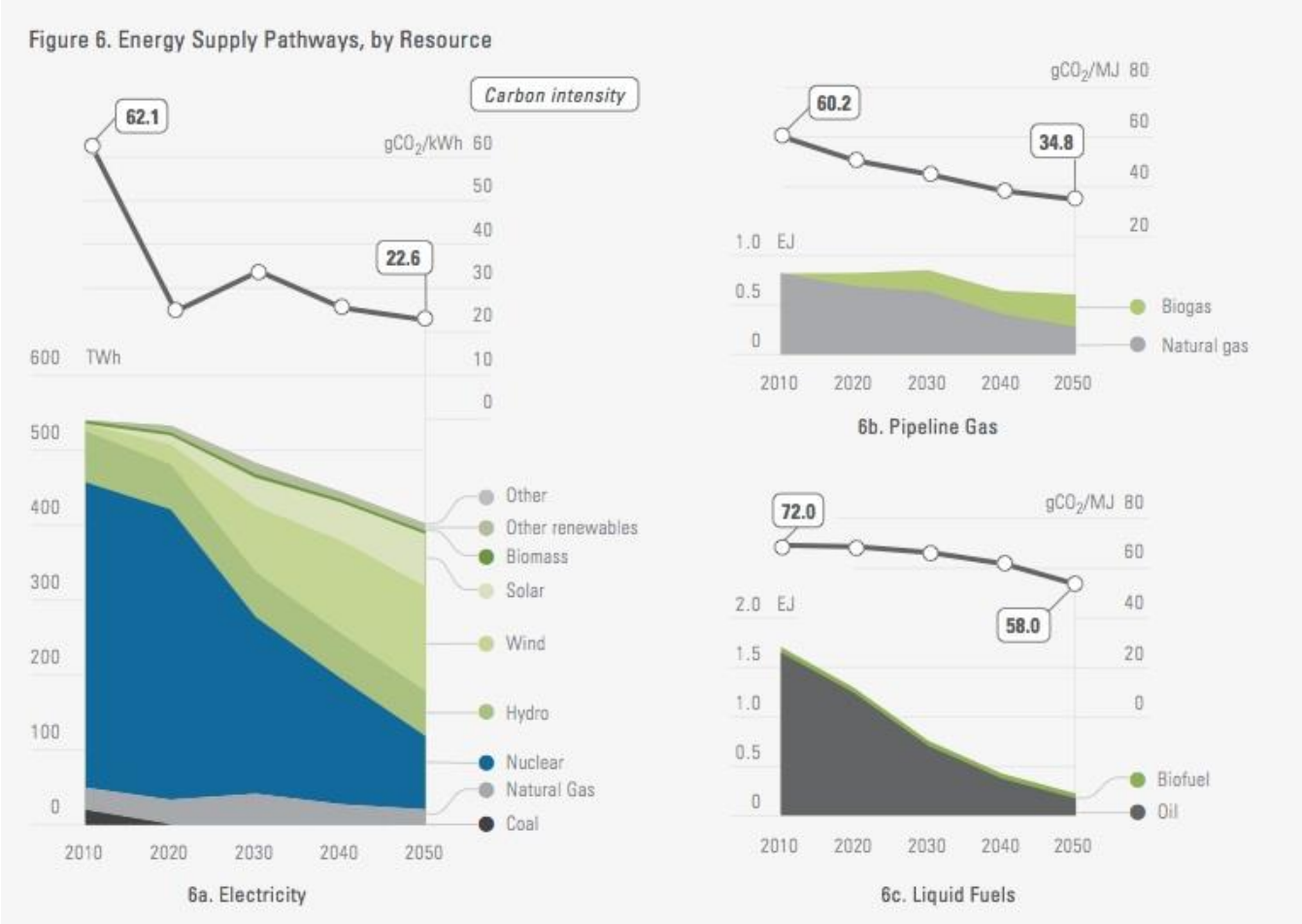
Reductions in primary energy supply and final energy demand

Figure 3. Energy Pathways, by source



Example: France (2/3)

Primary energy supply by source in 2050



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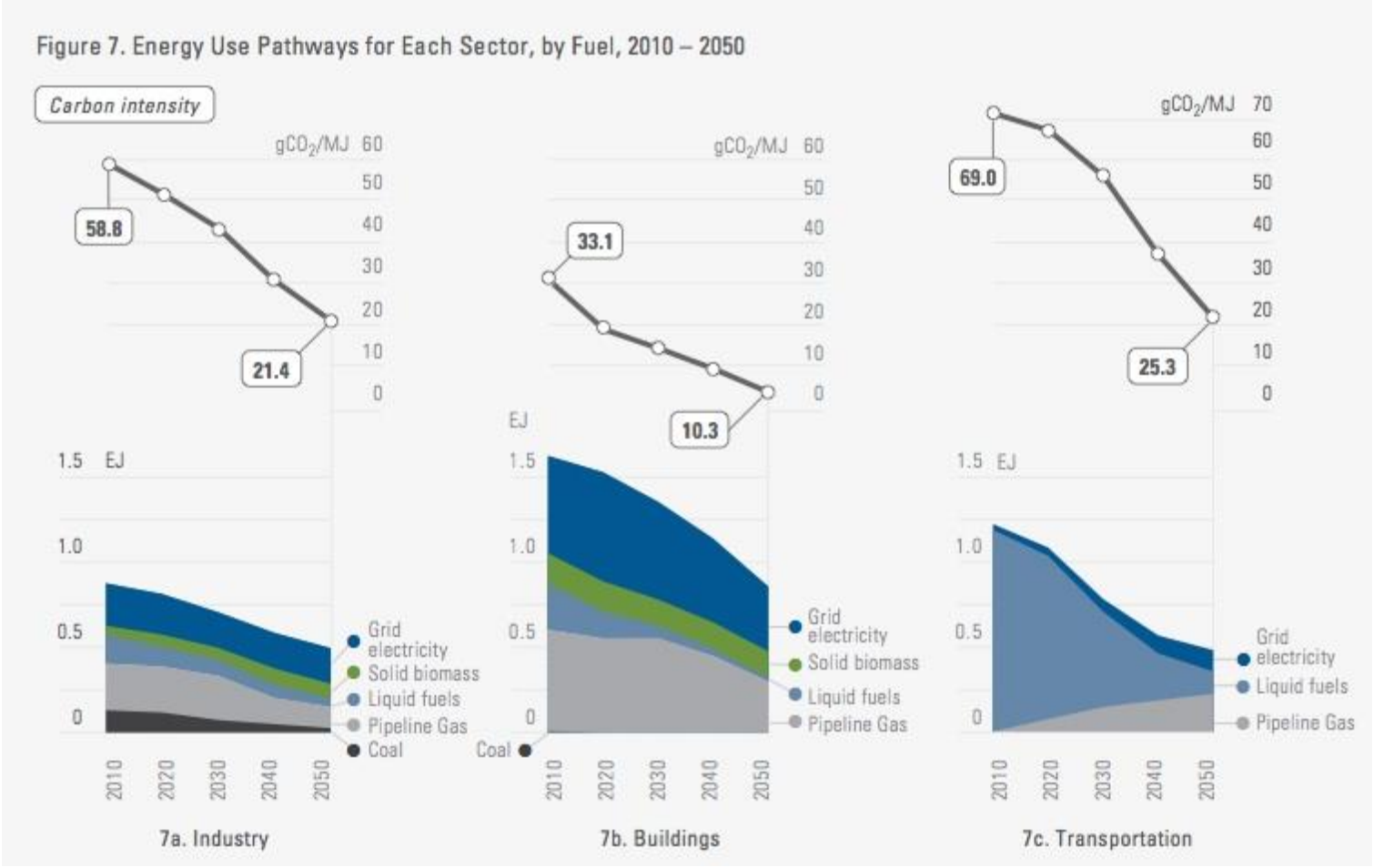
Example: France (3/3)

Final energy demand by sector and by source in 2050



How Does It Help Countries To Prepare Their INDCs? (1/2)

- The DDPP has a **long-term** (2050) perspective.
- But it is **directly relevant** for the preparation of INDCs (2025/2030).
- The only way to bridge the emissions gap is to look at 2025/2030 as **milestones** towards reaching a long-term goal (2050).
- And therefore to **backcast** from the long-term global goal of limiting the increase of mean surface temperature below 2°C to define individual countries 2025/2030 emissions reduction/limitation targets.
- Otherwise: risk of **lock-in**. E.g: shift from coal to shale gas in the US

How Does It Help Countries To Prepare Their INDCs? (2/2)

- Important also to move away from a pure **targets and timetable** approach.
- DDPs to 2050 reveal the **content** of the transformation (with sectoral and technological details) to a low-carbon economy.
- And they show what emissions reduction/limitation targets and policies and measures need to **deliver** by 2025/2030:
  - Avoids international negotiations framed as **burden-sharing**.
  - Provides a better basis for domestic policy implementation, and **co-benefits**.

What Are The Challenges Faced By Countries To Prepare Their INDCs? (1/2)

- **Technical challenges:**
- Developing a DDP to 2050, with 2025/2030 milestones, is not easy.
- But it does not require the use of a complex model.
- The DDPP has developed a simple (open-access, user friendly) tool to design low-emissions development strategies.

What Are The Challenges Faced By Countries To Prepare Their INDCs? (1/2)

- **Technological/political challenges:**

- Countries/experts tend to be conservative/cautious when setting 2025/2030 targets because:
  - They do not assume that other countries are ambitious.
  - They assume that only the technologies that are technically mature and cost-competitive today are available by 2025/2030.

- Yet, we will only solve the deep decarbonization challenge if:
  - There is a strong global RDD&D push for new low-carbon technology.
  - And if there is an international cooperation mechanism to ensure that all countries/companies that need them can access them at affordable costs.

What Kind Of Additional Cooperation And Support Is Necessary To Ensure The Good Preparation Of INDCs? (1/2)

- A **3-part global deal** on mitigation at COP21:

- **INDCs** to 2025/2030

- **DDPs** to 2050
  - Informative. Non-binding.
  - Principle agreed at COP21.
  - But DDPs only submitted in 2017/2018.

- **Global RDD&D push**
  - RDD&D pledges by companies/countries (as part of track 2).
  - Based on technology roadmaps objectives (performance and costs).
  - International cooperation mechanism (and fund).

What Kind Of Additional Cooperation And Support Is Necessary To Ensure The Good Preparation Of INDCs? (2/2)

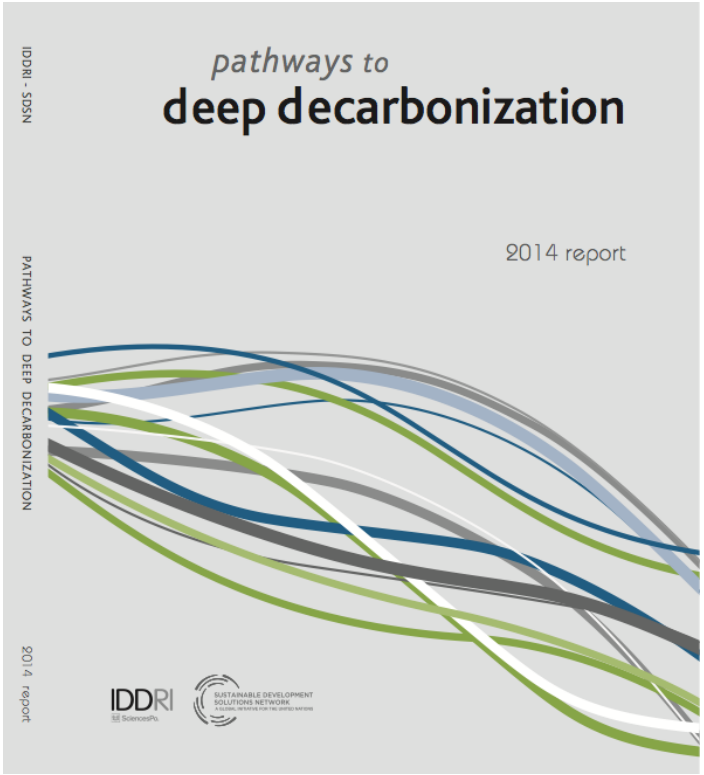
- During the second quarter of 2015, the DDPP will publish **another report**, this time to the French Presidency of COP21:
  - **Same 15 countries**.
  - Economic analysis (micro and macro) of DDPs.
  - Policy frameworks and financial requirements of DDPs.

- But the DDPP will also **expand its scope** to include more countries (more middle and low-income countries).

- **Come and join us!**

Thanks!

Report available online at:
www.deepdecarbonization.org



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