



SUSTAINABLE FINANCE AND SPACE: THE CASE OF GREENING INFRASTRUCTURE

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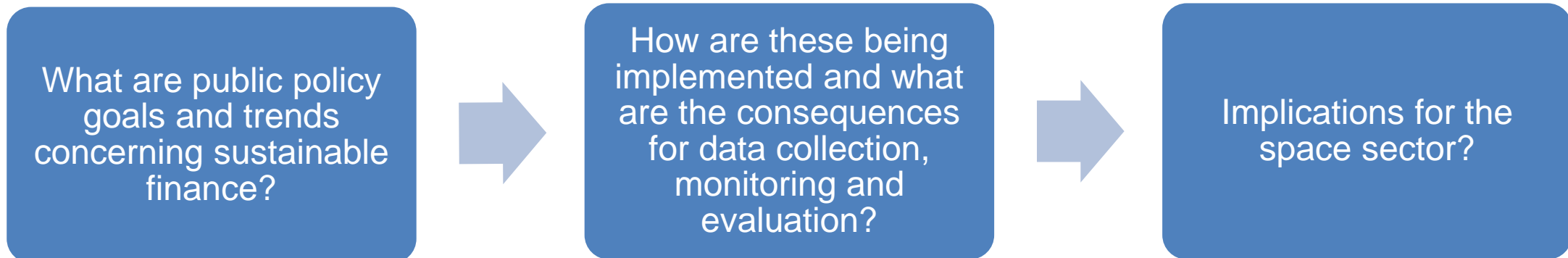


Presentation overview

“Sustainable finance can be understood as the **financing as well as related institutional and market arrangements** that **contribute to the achievement of strong, sustainable, balanced and inclusive growth**, through supporting directly and indirectly the framework of the Sustainable Development Goals”

G20 Sustainable Finance Study Group (2018), *Sustainable Finance Synthesis Report*

Key points of the presentation:





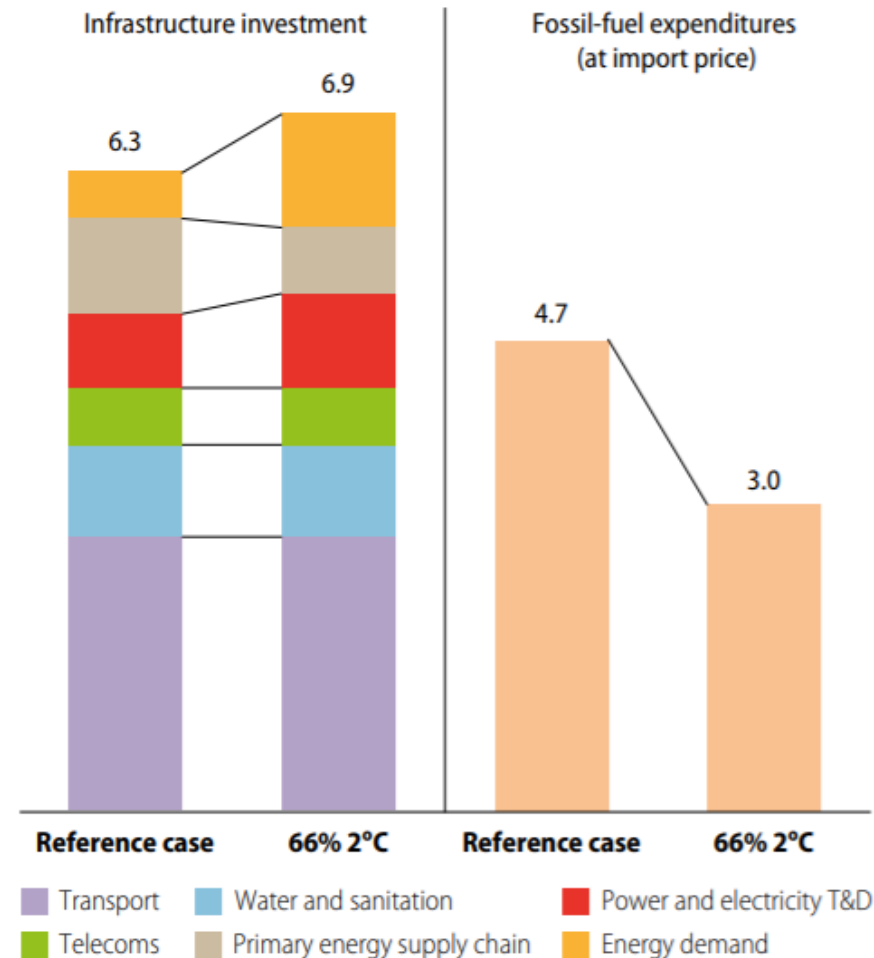
Overall context for sustainable finance: The infrastructure investment gap

Investment needs for infrastructure are estimated to be around **USD 6.3 trillion annually** between 2016 and 2030 (OECD, 2017).

If accounting for the additional needs to reach a **2°C temperature goal**, the estimate increases by 10% to **USD 6.9 trillion**

Yet annual investments are **well below this level** at USD 3.3-4.4 trillion

It is critical to **scale up financial flows** in support of climate adaptation and sustainability



Cited in OECD (2017), *Investing in Climate, Investing in Growth*, <https://doi.org/10.1787/9789264273528-en>.

Sources for estimates: IEA (2017) for energy supply and demand; IEA (2016a) for road and rail infrastructure; OECD (2012) for airports and ports; McKinsey (Woetzel et al., 2016) for telecoms. The water and sanitation estimate is an average of estimates from: Booz Allen Hamilton (2007), McKinsey (Woetzel et al., 2016) and OECD (2006).



Selected policy initiatives at the international level

G20 Sustainable Finance Study Group (2016-)

- Identify major gaps and barriers in mobilising sustainable finance
- Outline key actions and milestones for G20 members

OECD Centre for Green Finance and Investment (2016-)

- Contribute to the development of effective **policies, institutions and instruments** for green finance and investment

G7 and UNEP Financial Centres for Sustainability (FC4S) Network (2017-)

- Accelerate the expansion of sustainable finance by enabling financial centres to exchange experience, drive convergence, and take action on shared priorities

European Green Deal (2019) and Sustainable Europe Investment Plan

- Create an enabling framework for private investors and the public sector to facilitate sustainable investments

Implementation?

- Definitions
- Taxonomies
- **Data and monitoring of corporate efforts**
 - Environmental
 - Social
 - Governance (ESG)





Data-related opportunities and challenges



Demand for **environmental, social and governance** (ESG) data is increasing (**tripling of market** since 2015)

Digital technologies (AI, data processing) open up new opportunities

Standardisation and consolidation of reporting frameworks

Increasing availability of data



Considerable remaining challenges, in terms of:

- **Accessibility** of reliable data in usable formats
- **Coverage** and **comparability** of data
- **User capabilities and skills** to process and analyse data



Implications for the space sector?

ESG criteria - major index providers

Pillar	Thomson Reuters	MSCI	Bloomberg
Environmental	Resource Use	Climate Change	Carbon Emissions
	Emissions	Natural resources	Climate change effects
	Innovation	Pollution & waste	Pollution
		Environmental opportunities	Waste disposal
			Renewable energy
Social	Workforce	Human capital	Supply chain
	Human Rights	Product liability	Discrimination
	Community	Stakeholder opposition	Political contributions
	Product Responsibility	Social opportunities	Diversity
			Human rights
Governance	Management	Corporate governance	Cumulative voting
	Shareholders	Corporate behaviour	Executive compensation
	CSR strategy		Shareholders' rights
			Takeover defence
			Staggered boards
Key metrics and submetrics	186	34	>120

Space-based observations

- (Sometimes) unique source of data for specific indicators
- However, multiple challenges to be resolved
 - Affordability of temporal/spatial high res products
 - User skills
 - Reliability of data (ground calibrations)

Cited in Boffo, R., and R. Patalano (2020), “ESG Investing: Practices, Progress and Challenges”, OECD, www.oecd.org/finance/ESG-Investing-Practices-Progress-and-Challenges.pdf

Sources: : Refinitiv, MSCI, Bloomberg, FTSE; OECD assessment



In summary

Massive infrastructure investments needed towards 2030 to reach SDG objectives

Private efforts and contributions will be key part of response, with a number of initiatives launched at the national and international level since 2015

Space-based observations have a role to play in monitoring environmental performance, but there are multiple caveats:

- Affordability and availability of adequate data (at the appropriate temporal/spatial resolution)
- Ground calibrations are needed for data quality and reliability
- User skills