

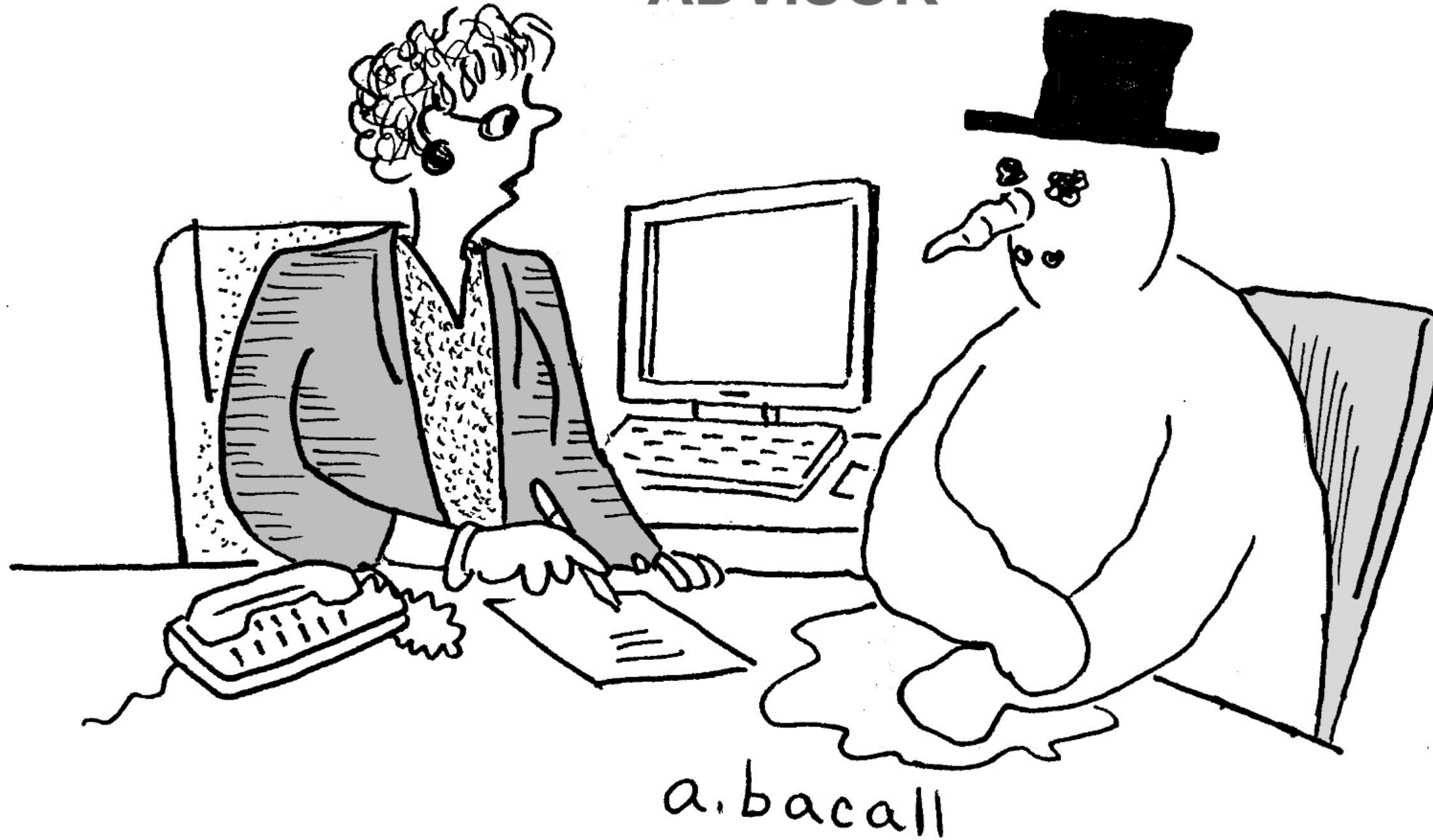


Sustainable Finance in Maritime Industries

Shippingforum, Oslo 25th November

Harald Francke Lund
CEO, CICERO Shades of Green

FINANCIAL ADVISOR



"I would caution against long-term investments."

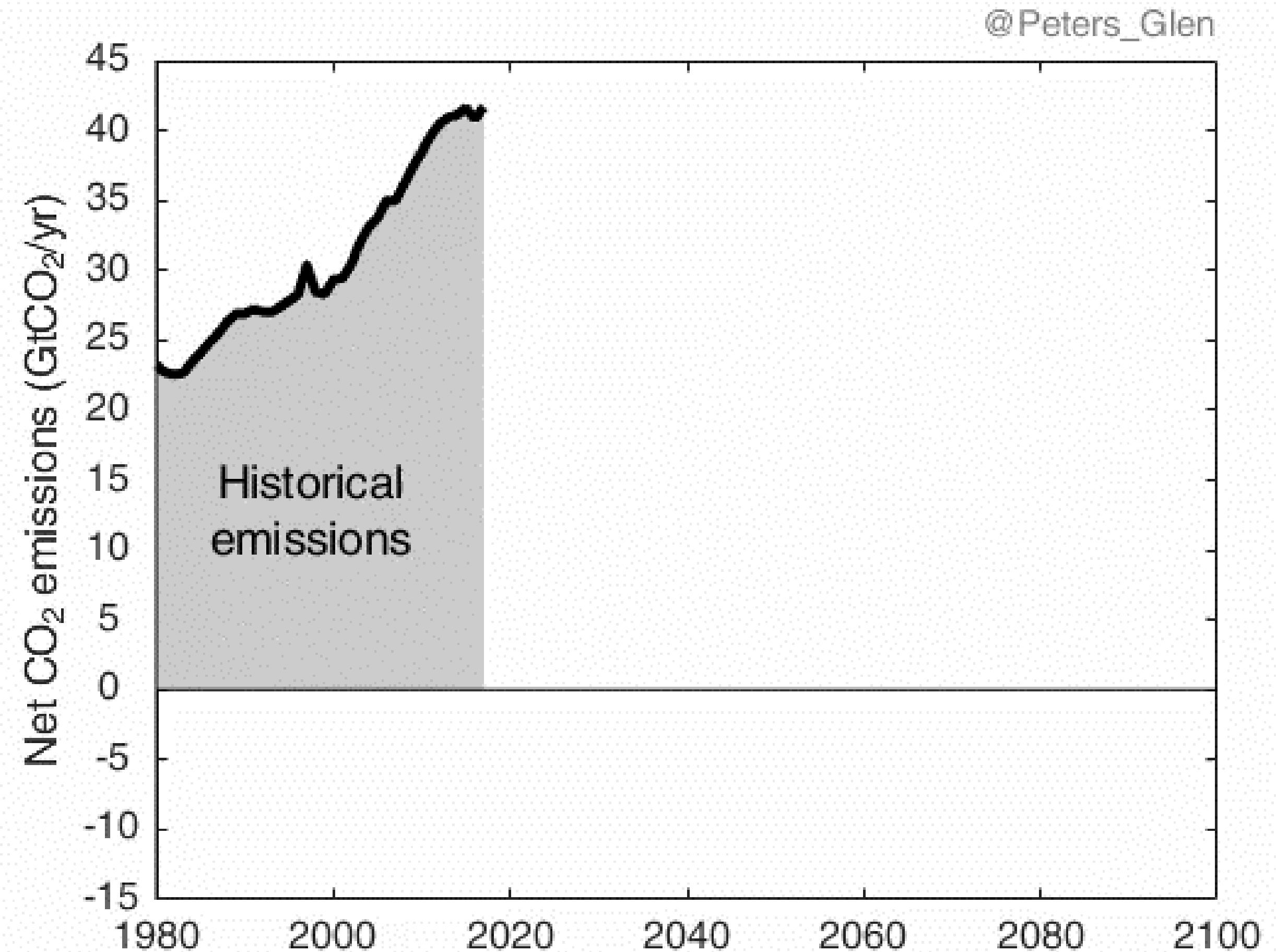
In Paris 2015, the world agreed to stay well below 2°C



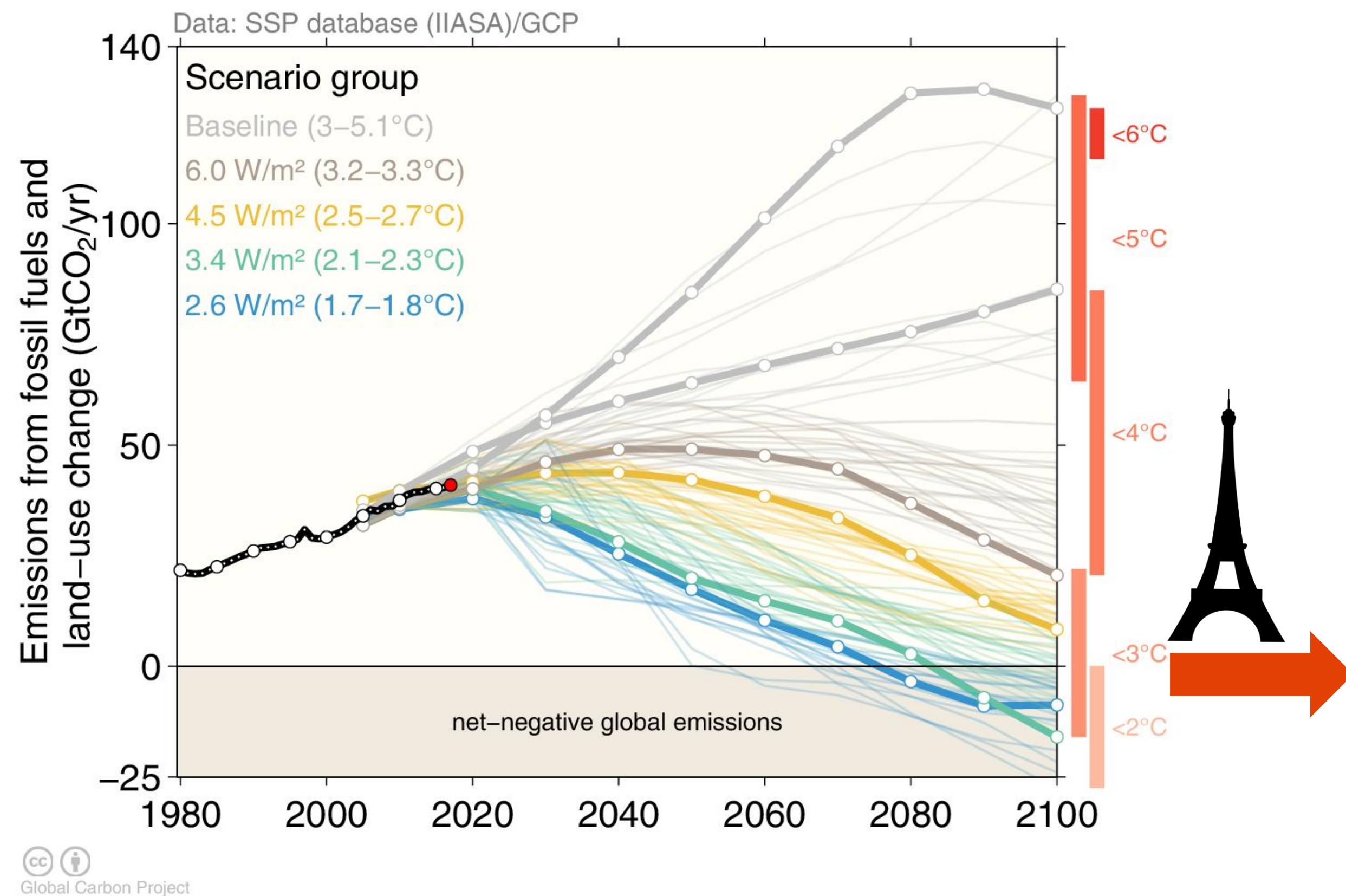
To stay well below 2°C, science tells us that...

.....emissions must go to zero within a decade, or we need large-scale negative emissions to compensate.

“.....negative-emission technologies are not an insurance policy, but rather an unjust and high-stakes gamble.

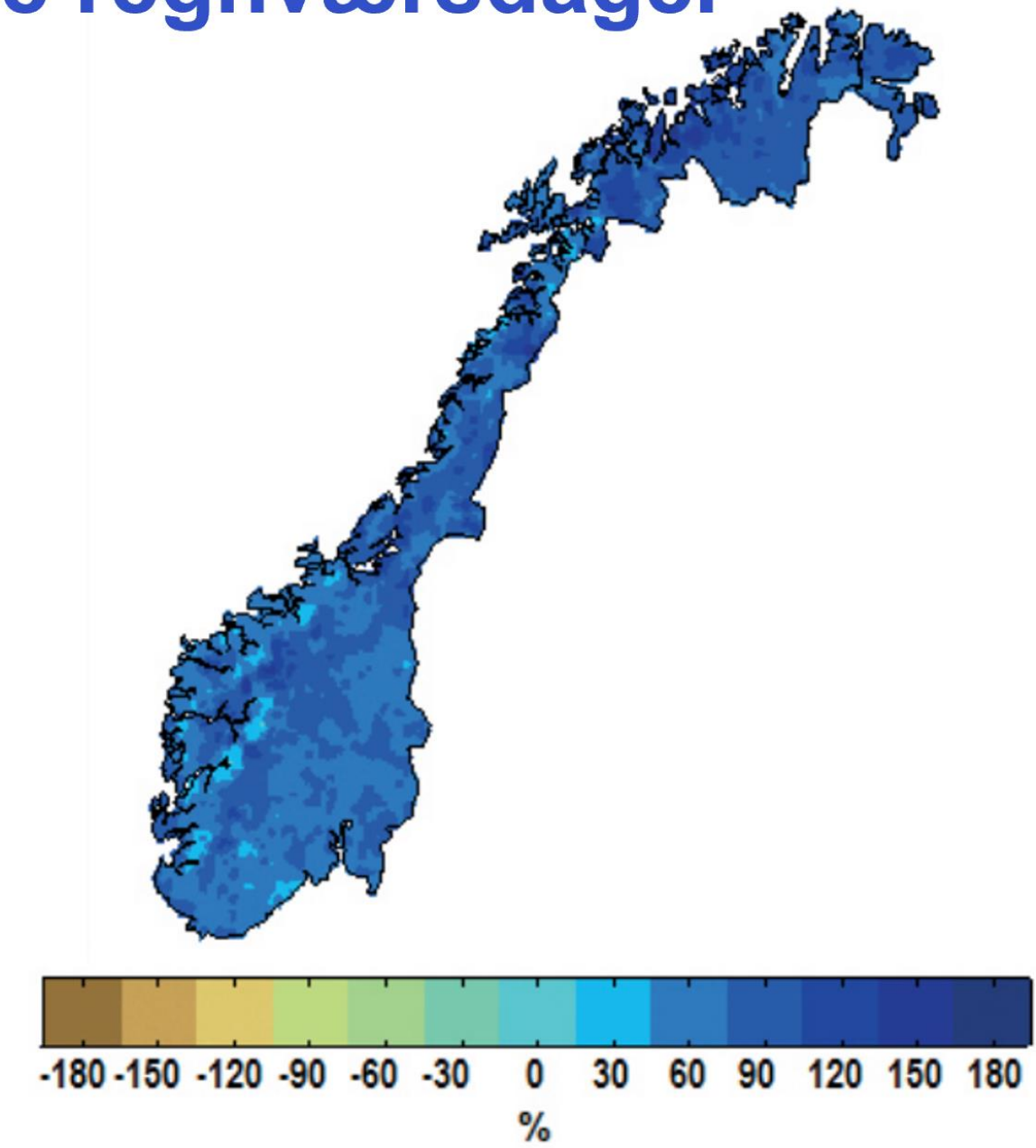


3°C more likely than 2°C



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Flere regnværsdager



6-8 degrees warmer in the Nordics during winter

Kilde: Global Carbon Project.
Bilde: Olav Olsen / Aftenposten

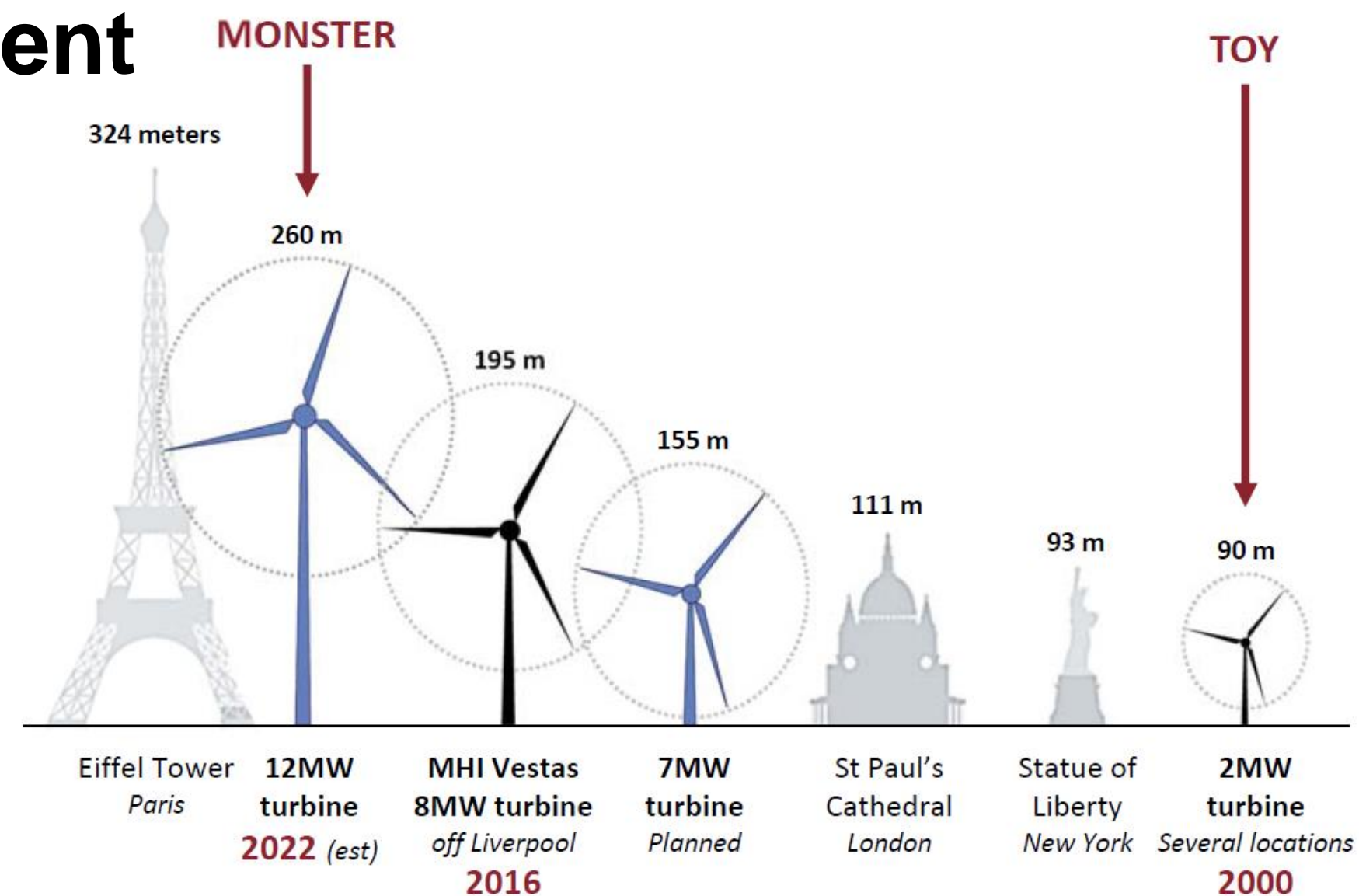
Investors expect increased losses from extreme weather

- Global losses from extreme weather rose by 86 percent from 2007 to 2017 (EU Commission)
- Uninsured losses were e.g. in 2017 more than double the insured losses (Swiss Re Institute 2018)
- In some countries in-particularly vulnerable to climate change insurance penetration is under 1 percent; Bangladesh, India, Vietnam, Philippines, Indonesia, Egypt and Nigeria. (Lloyd's of London 2018)



Investors are increasingly paying attention to sustainability (ESG)

- Investors **divest** from **unsustainable controversial investments**
- Green solutions are scalable and represent **investment opportunities**



Source: Reuters, GMO

Kenya: Proposed coal project in World Heritage Site angers locals

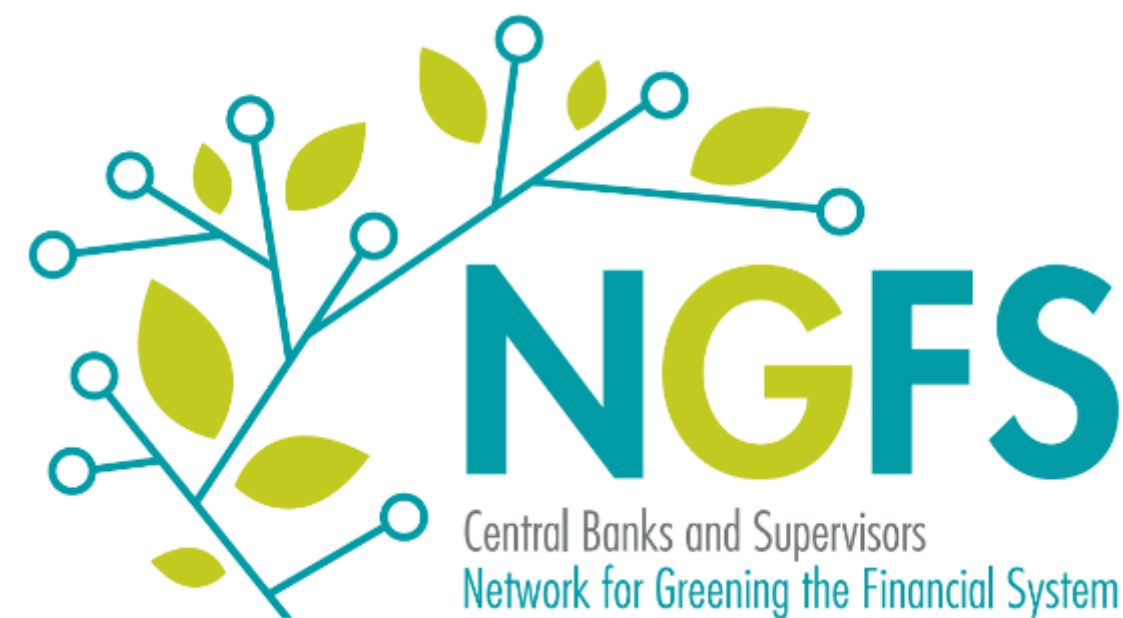
Protesters say the project will damage the environment, kill animals and destroy their island.

by Nicolas Haque

29 Sept 2019



The answer is more transparency



- The financial sector needs to know how companies are responding to climate risks
- Less than 20% of firms in the FTSE All World (AW) index have a strong physical climate risk management programme, according to Sustainalytics, with real estate developers 'particularly underprepared'



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Who defines what is green?



Voluntary principles for issuing a green bond that the vast majority of issuers align with ***across all markets***



Ongoing process in the EU to integrate sustainability considerations into its financial policy framework, including an ***EU green taxonomy***



Stock exchanges with green bond lists set ***criteria for listing***



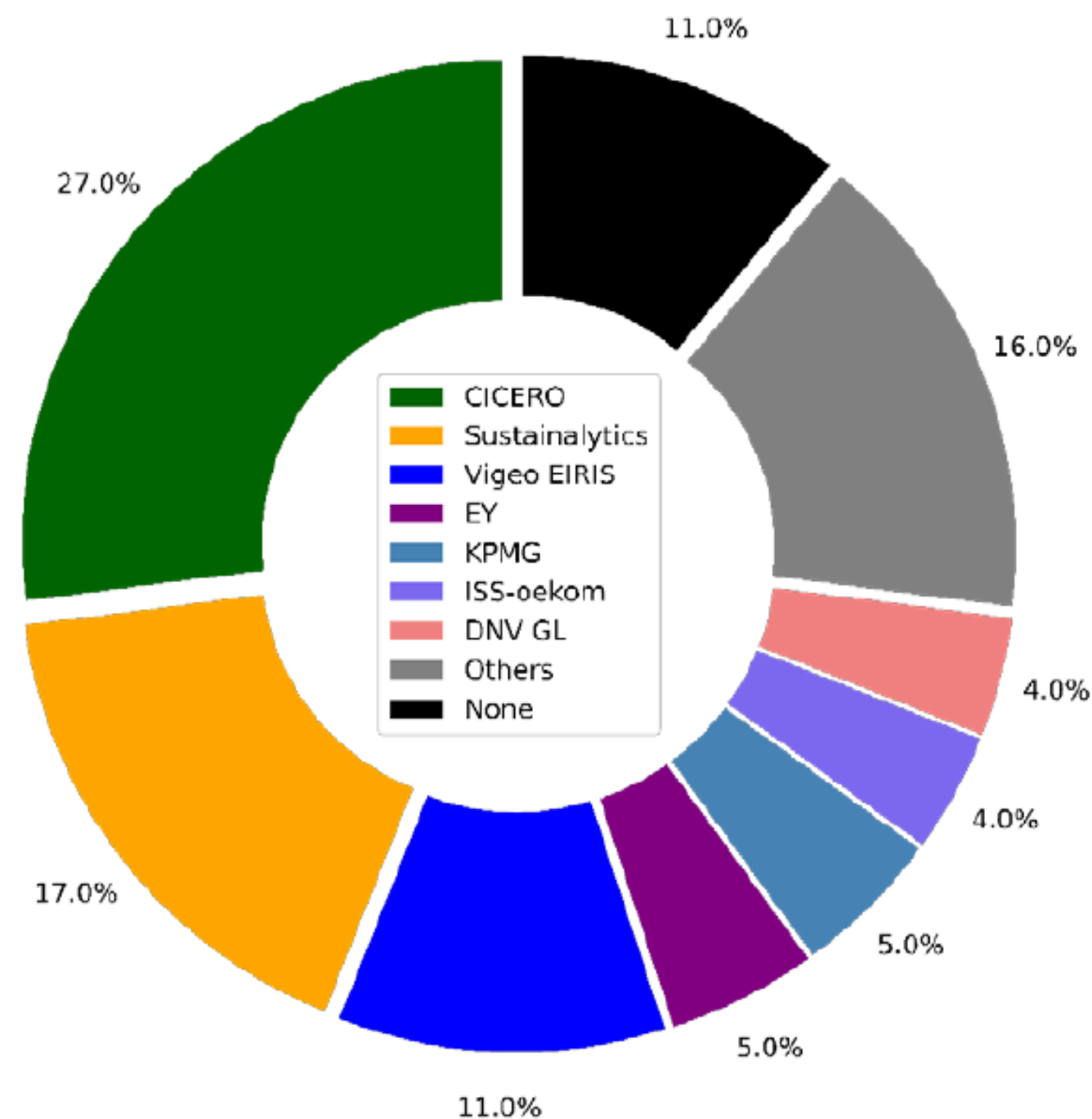
Green bond indices ***have criteria for inclusion***

Remarks given during the UN Secretary General's Climate Action Summit 2019



- “The EU’s Green Taxonomy and the Green Bond Standard are good starts, but they are binary (dark green or brown). Mainstreaming sustainable investing will require a richer taxonomy – 50 shades of green.” Mark Carney, Governor of the Bank of England

CICERO Shades of Green External Review market share



- ✓ 1st green bond second opinion: the World Bank
- ✓ 1st municipal green bond: Gothenburg
- ✓ 1st corporate green bond: Vasakronan
- ✓ 1st green sukuk: Tadau Energy
- ✓ Largest green bond issuer: Fannie Mae
- ✓ Largest commercial bank green bond: ICBC



Figure 4: Market Shares of External Reviewers by cumulative value of bonds issued from 2008-2019. Data adapted from CBI (August 2019) data base with average monthly ECB currency conversion rates.

CICERO Green Rating on Climate Risk

CICERO Shades of Green

Examples



Dark green is allocated to projects and solutions that correspond to the long-term vision of a low carbon and climate resilient future. Fossil-fueled technologies that lock in long-term emissions do not qualify for financing. Ideally, exposure to transitional and physical climate risk is considered or mitigated.



Wind energy projects with a strong governance structure that integrates environmental concerns



Medium green is allocated to projects and solutions that represent steps towards the long-term vision, but are not quite there yet. Fossil-fueled technologies that lock in long-term emissions do not qualify for financing. Physical and transition climate risks might be considered.



Bridging technologies such as plug-in hybrid buses



Light green is allocated to projects and solutions that are climate friendly but do not represent or contribute to the long-term vision. These represent necessary and potentially significant short-term GHG emission reductions, but need to be managed to avoid extension of equipment lifetime that can lock-in fossil fuel elements. Projects may be exposed to the physical and transitional climate risk without appropriate strategies in place to protect them.



Efficiency investments for fossil fuel technologies where clean alternatives are not available



Brown is allocated to projects and solutions that are in opposition to the long-term vision of a low carbon and climate resilient future.



New infrastructure for coal

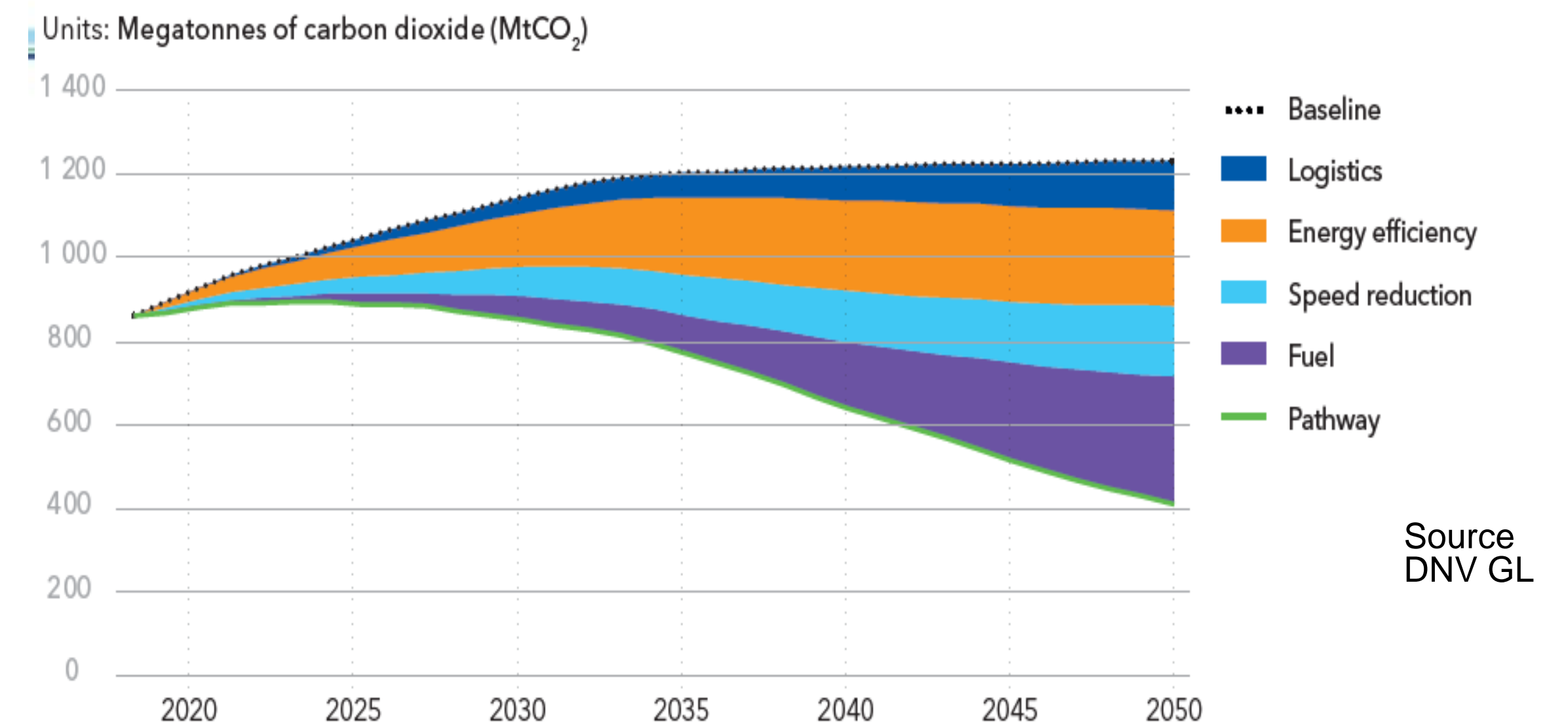
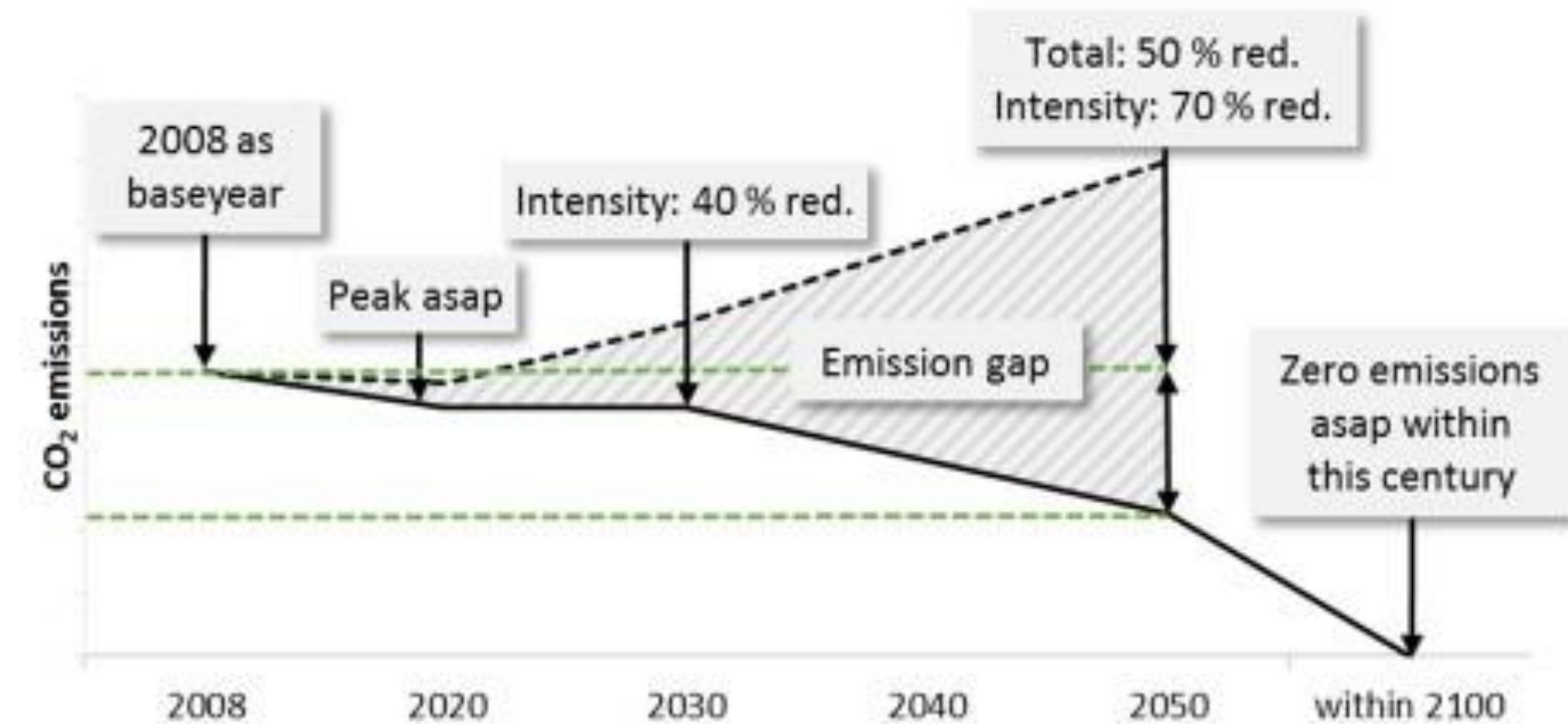
What is a green ship?



- Hydrogen
- Ammonia
- Biofuel?
- Batteries
- LNG?
- Scrubbers?
- Ship design
- Type of cargo

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Initial IMO Strategy on reduction of GHG emissions: Vision and ambitions



Source
DNV GL



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The urgency of the climate change crisis requires all Shades of Green

- Also **clear transition cases** should be included in the green bond label as it allows us to have a dialogue with important industries
- Real green transition in dirty sectors should realize **significant** emission reductions, but also **guard against locking-in** fossil-based infrastructure in the long run and deliver on building climate resilience.



Next step-Transition Companies (Company Ratings)

1. Transition to a low carbon and climate resilient future aligned with climate science (source: IPPC-reports, Paris Agreement)
2. Transparency on environmental governance structure including concrete steps on how to achieve longer-term targets (source: TCFD)
3. Defining major company activities according to its broad environmental benefits (source: GBP green activities, CBI-standards, EU-taxonomy, CICERO Shades of Green)
4. Commit to consistent annual reporting of R & D, Investments, Revenue from these activities, in addition to direct and indirect emissions
5. External Review (pre and annually)



Dark Brown



Light Brown



Light Green



Medium Green



Dark Green

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