



Climate change – creating returns that benefit the world we live in

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Lucian Peppelenbos, Climate Strategist, Robeco

Now is the time to act

Carbon budget is depleting within the next two decades

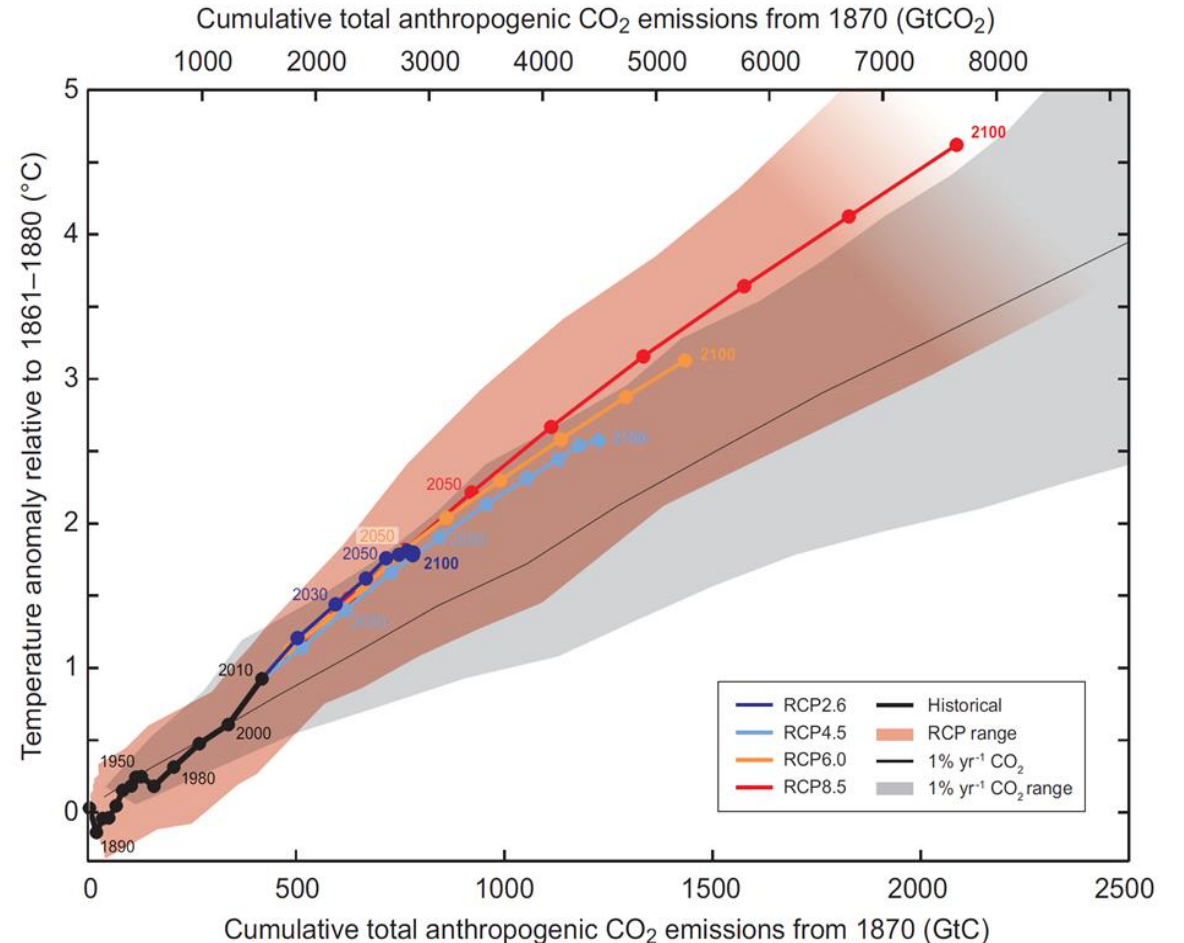
Remaining carbon budget

- > For 2 °C: 1000Gt CO_{2e} ~25 years
- > For 1.5 °C: 400Gt CO_{2e} ~10 years

Real limits to growth

- > Existing infrastructure embodies 650Gt
- > Infrastructure plans embody 200Gt

Linear relationship between cumulative GHG emissions and global warming



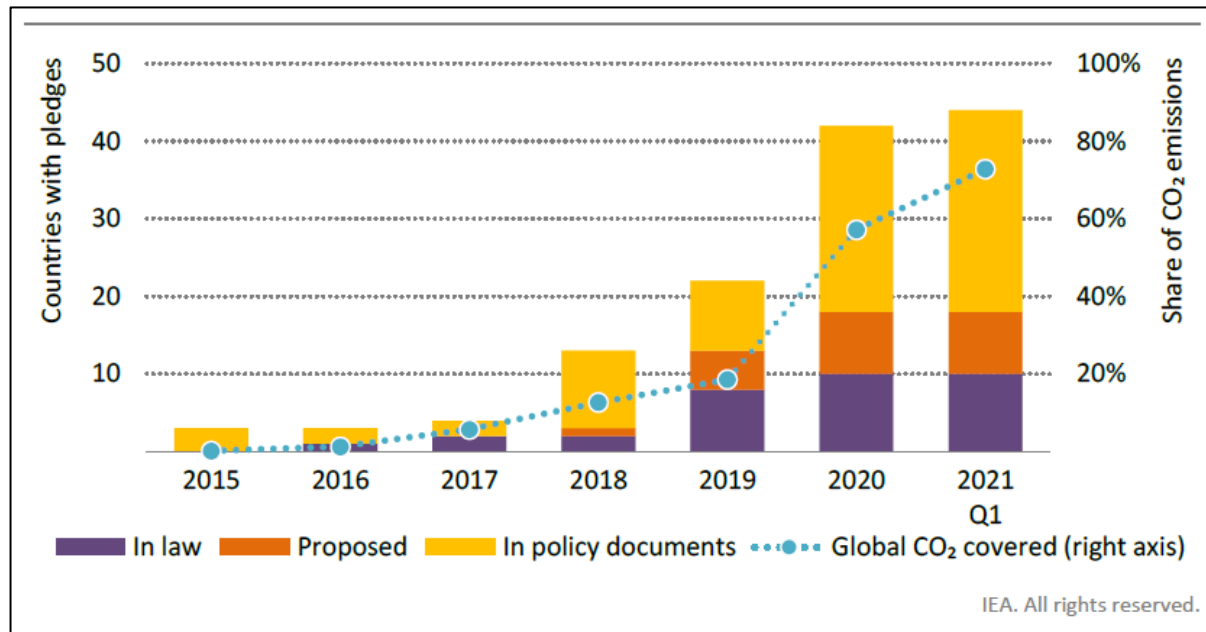
Sources: IPCC fifth assessment (2014) and 1.5-degree report (2018)

The inevitable policy response

No longer a question *if* the future is low-carbon, but *when and how*

- > ~70% of global GDP and global emissions are subject to a commitment to net zero by 2050
- > Current climate policies will only lead to 0.5% emission reduction by 2030, whereas 50% reduction is required
- > The ambition gap is hundredfold – a policy response is inevitable, in the next few years

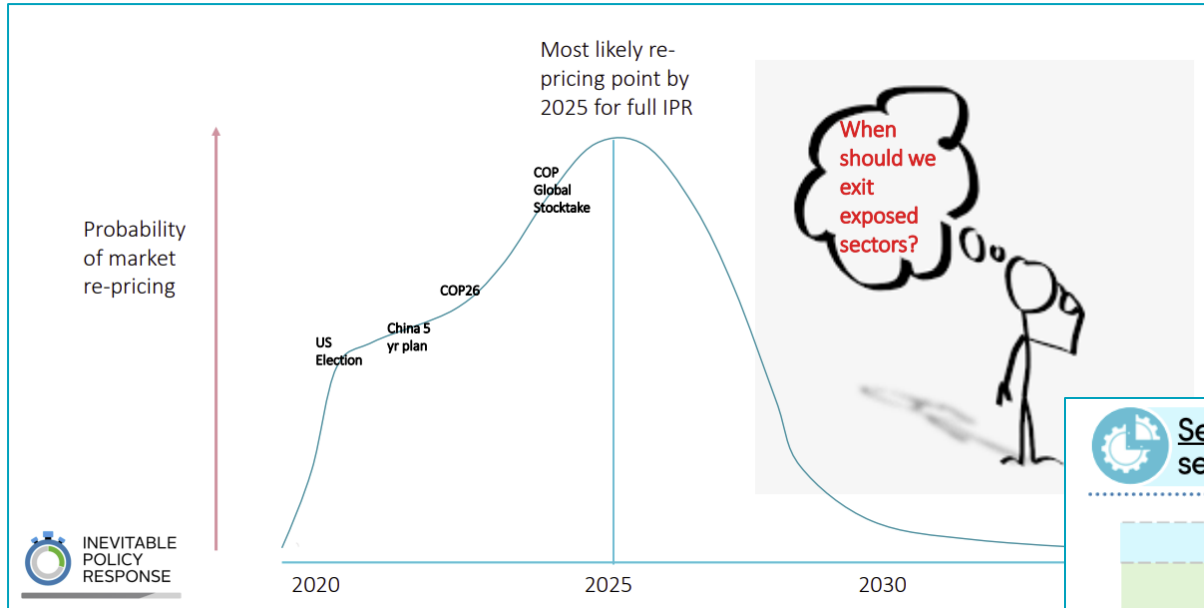
Share of global emissions with a net zero pledge



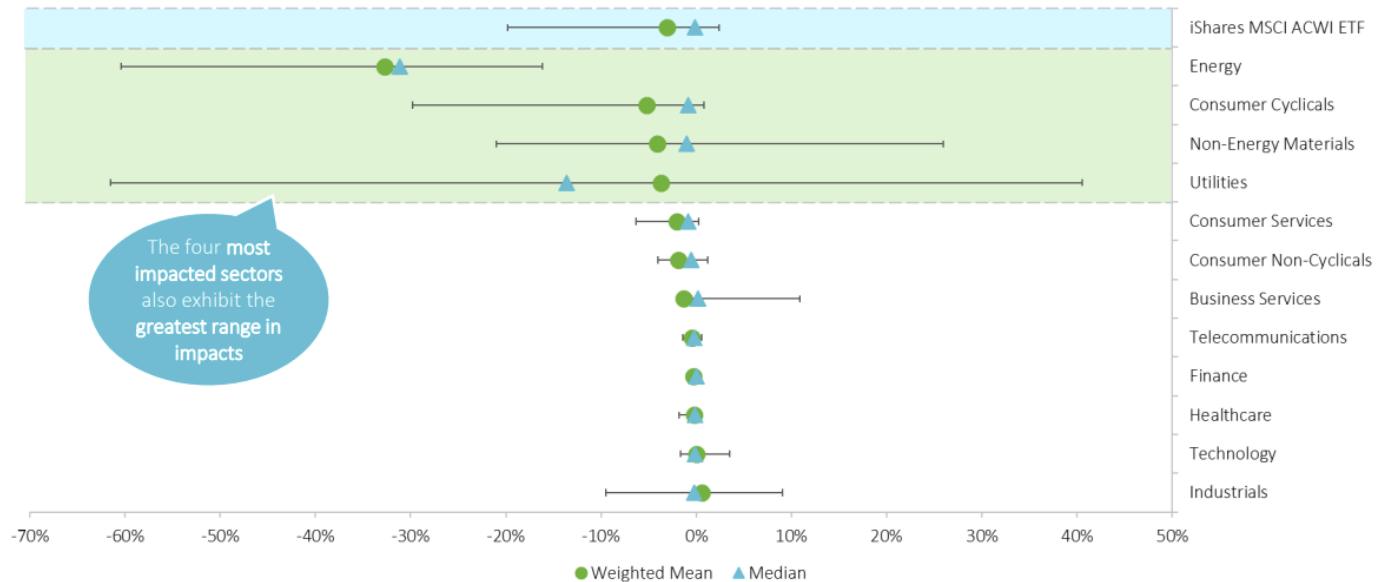
Sources: IEA net zero roadmap (2021), UNFCCC stocktaking report (2021)

Disruptive change, increasing spreads

Investors need to enhance their capacity for forward-looking portfolio management



Sectoral: Within-sector variation can be significant, particularly for the four most impacted sectors in the index: Energy, Consumer Cyclicals, Non-Energy Materials and Utilities



Source: Inevitable Policy Response website (2021)

Preparing for a low-carbon future

The race to zero is on

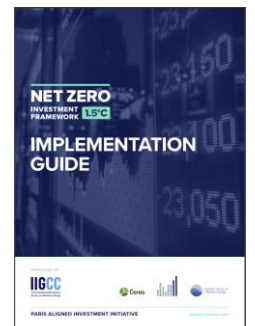
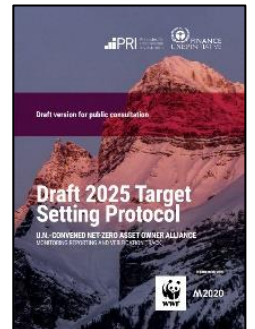
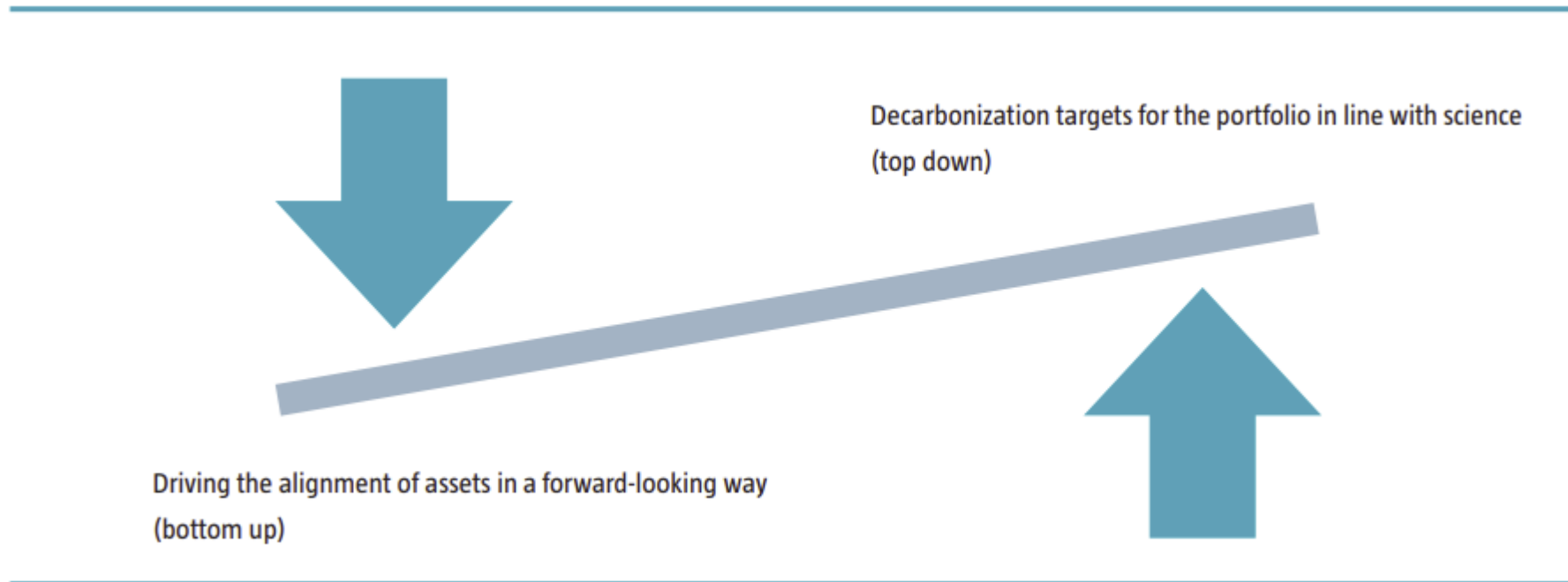
- > Corporates: ~100 new commitments per month to SBTi, Climate Pledge, etc.
- > Asset managers: 87 signatories, \$37 trillion AUM
- > Asset owners: 75 signatories, ~\$8 trillion AUM

Robeco 2021 global climate survey

- > 86% investors to put climate central in next 2 years (up from 33%)
- > 52% investors to commit to net zero (up from 17%)
- > ~20% of portfolios to be decarbonised (up from ~7%)

Frameworks for Paris-aligned investing

The essence: a two-fold strategy for balancing portfolio outcomes with real-world change



Source: Robeco, Showing the way to Paris-aligned investing (2021)

Portfolio decarbonisation targets (top down)

Scientific thresholds derived from the UN Climate Science Panel IPCC

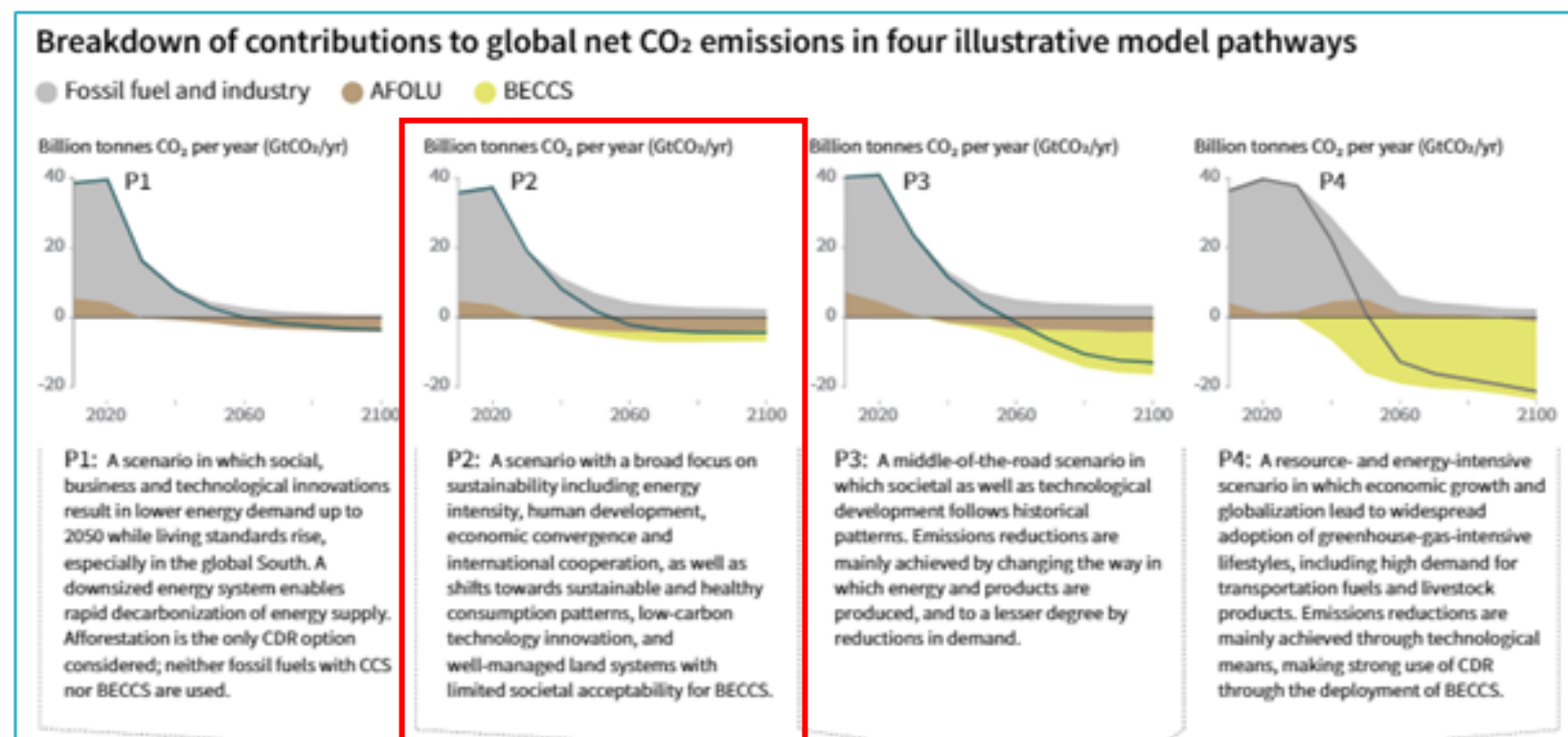
P2 emission pathway of the IPCC 1.5-degree report (2018)

Ambitious decarbonisation with limited temperature overshoot, while considering social objectives (SDGs)

Emission trajectory

- > Baseline 2010
- > -49% by 2030
- > -89% by 2050
- > Net zero carbon emissions by 2050
- > Net zero GHG emissions by 2070

That implies **~7% year-on-year** decarbonisation and an interim target of around **-25 to 30% by 2025**



Driving the alignment of companies and countries (bottom up)

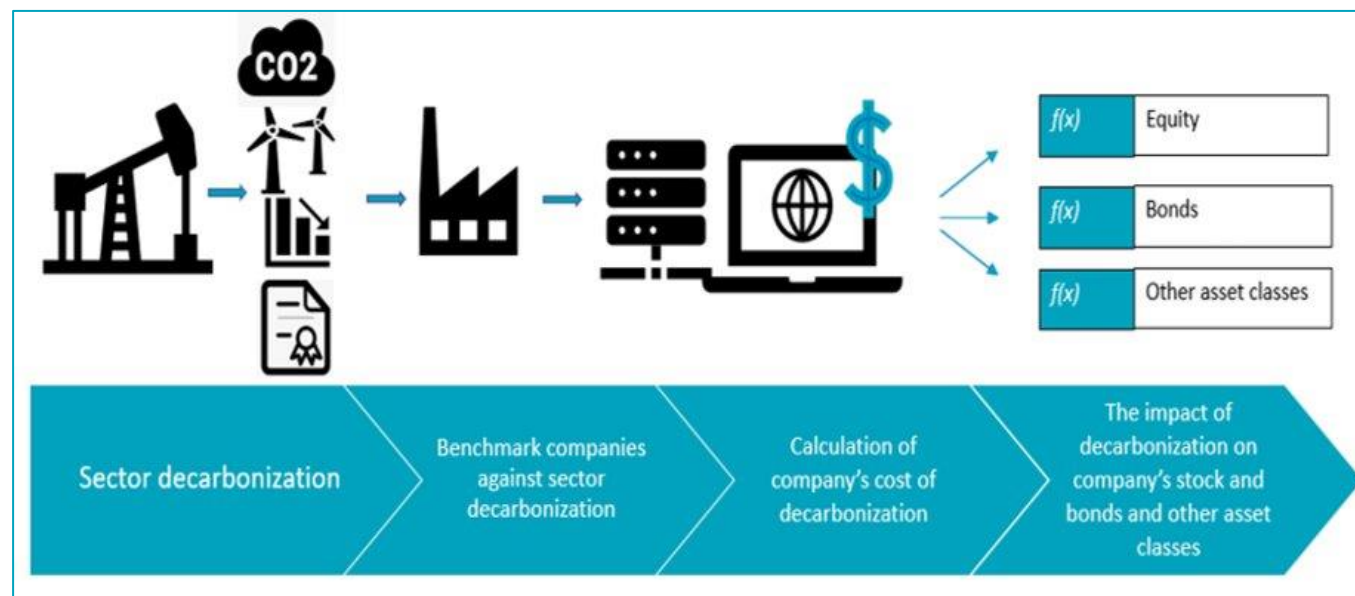
Based on a forward-looking assessment of “transition-readiness”

Assessment

- > For companies: carbon performance, target-setting, business strategy, capex, governance
- > For countries: carbon performance, key sector performance, climate policies

Usage

- > Integration in investment cases, valuation models – “investing in the carbon winners of tomorrow”
- > Company engagement & voting, for example:
 - 1 Companies that are aligned
 - 2 Companies that are aligning
 - 3 Companies that are committed to align
 - 4 Companies that are not aligning



Impact on portfolios

Initial stage of decarbonisation has limited impact

- > Carbon footprints are highly skewed: for broad market indices you can reach 50% reduction by excluding 3-5% of the index
- > The main challenge is with passive and semi-passive strategies (tracking error <1% before ~2025, tracking error <2% before ~2030)
- > The big unknown is decarbonisation of the benchmark itself

Footprint reduction	MSCI World	MSCI EM	MSCI AC
-30%	1%	1%	1%
-50%	3%	3%	2%

Some considerations

On your route to Paris

1. There are multiple routes to Paris. Be clear and transparent about your **choices and assumptions**.
2. Build the road as you walk it. Revision of targets with a **5-year cycle**, as per the Paris Agreement itself.
3. **Get started**. Legislation on Paris alignment can be expected in the next few years.
4. This is about restricting carbon budgets, therefore choice for **Carbon Footprint** (EVIC) as leading metric.
5. Data is a challenge, but the **80-20 rule** brings us a long way. Most climate impact is in a dozen of sectors and a few hundred companies.



A final reflection

Key levers for decarbonisation – not merely technology

Pre-2030

1. Maximise efficiencies
2. Carbon-neutral energy

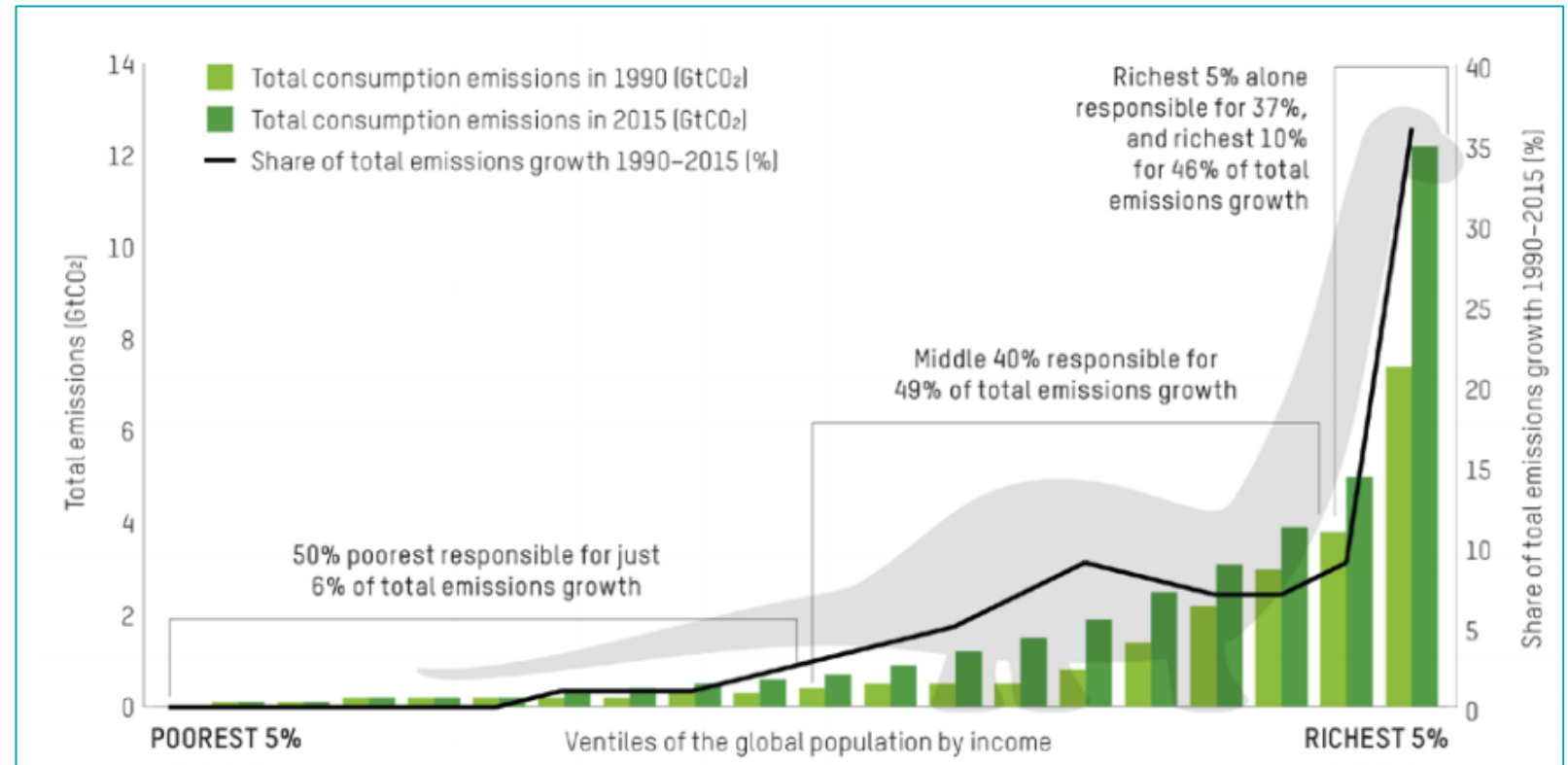
Post-2030

3. Carbon-neutral heavy transport and industry
4. Carbon removal

The elephant in the room – or the dinosaur?

5. Change of lifestyle: diets and demand destruction

Skewed distribution of GHG emissions by income group



Robeco UK - Contacts

Katie Weber

*Head of Institutional Sales
Robeco UK*

k.weber@robeco.com

T +44 (0) 207 496 3218

M +44 (0) 7818 100 593

Andrew Knell, CFA

*Director, Client Solutions
Robeco UK*

a.knell@robeco.com

T +44 (0) 207 496 3243

M +44 (0) 7818 100 739

Charlie Sullivan

*Relationship Manager
Robeco UK*

c.sullivan@robeco.com

T +44 (0) 207 496 3245

M +44 (0) 7387 269 471

Billy Howden, CAIA

*Business Development Executive
Robeco UK*

w.howden@robeco.com

T +44 (0) 207 496 3208

M +44 (0) 7884 014 997

Address: Augustine House, 6a Austin Friars, London EC2N 2HA

Website: www.robeco.com/uk

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