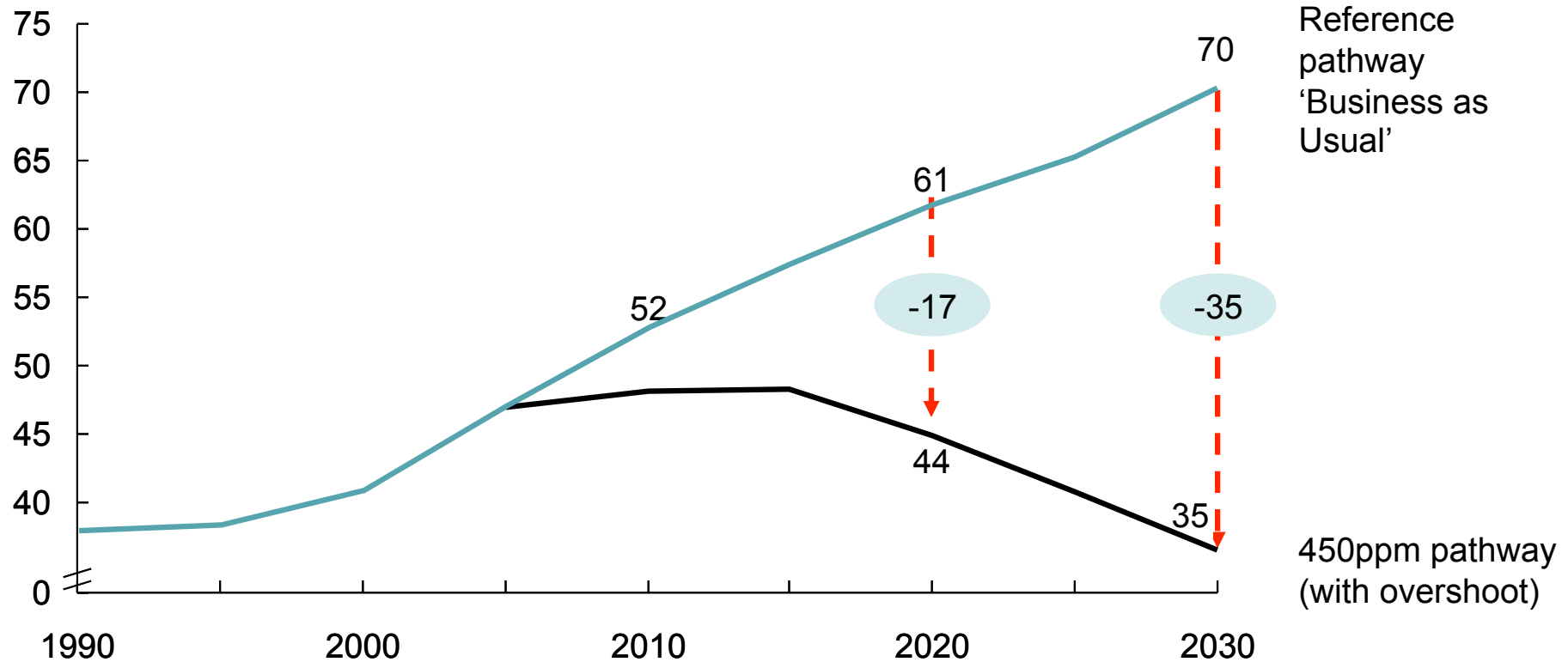


- **Initiative** of the ClimateWorks Foundation, a global, non-profit philanthropic foundation headquartered in San Francisco, California with a network of affiliated foundations in China, India, the U.S., and the European Union
- **Launched** in May 2008 to provide analytical and policy support for the United Nations Framework Convention on Climate Change (UNFCCC) negotiations on a post-Kyoto international climate agreement
- **Provide** a forum where key participants in the global discussions can informally interact, conduct analyses, jointly problem solve, and contribute ideas and proposals to the formal UNFCCC process
- **Organized** in working groups: mitigation, adaptation, technology, forestry, climate-compatible growth plans, and finance with a total of about 150 climate negotiators, senior government officials, representatives of multilateral institutions, business executives, and leading experts from over 30 countries. Analytical support from the international consulting firm, McKinsey & Company
- www.project-catalyst.info for latest papers, news and background

17 Gt of reductions below “Business as Usual” in 2020 are required for a 450ppm, 2°C pathway

Global GHG emissions, Gt CO₂e per year

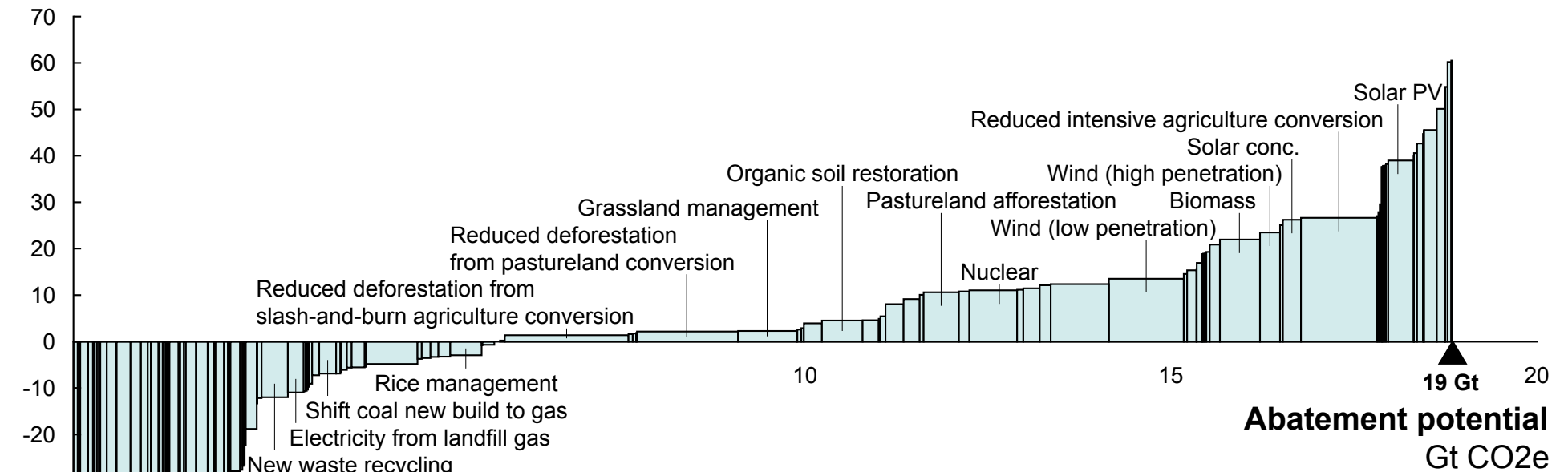


Change relative to 1990	Percent
2020	+17%
2030	-7%

* US – 17-28% below 2005 level by 2020; EU – 20-30% from 1990 level by 2020; China - Reduce energy consumption per national income by 20% between 2005–10; Russia - stabilise emissions at ~30% below 1990; Brazil - Reduce deforestation rates by 70% by 2017, equivalent to 4.8b tons less CO₂ emitted cumulatively; Japan - Reduce 80% by 2050 from current levels; Canada - 20% reduction from 2006 level by 2020; Mexico - Reduce emissions from 2002 levels by 50% by 2050, plus proposals from 12 smaller Annex 1 countries. Assumptions have been made on timeline and pathway to calculate abatement in 2020

Of the 17 Gt required, only 5 Gt is achievable in the developed world at less than €60/t

McKinsey global GHG abatement cost curve, 2020* (up to costs of €60/t, excluding transaction costs, 4% discount rate)



Breakdown by geographic location:

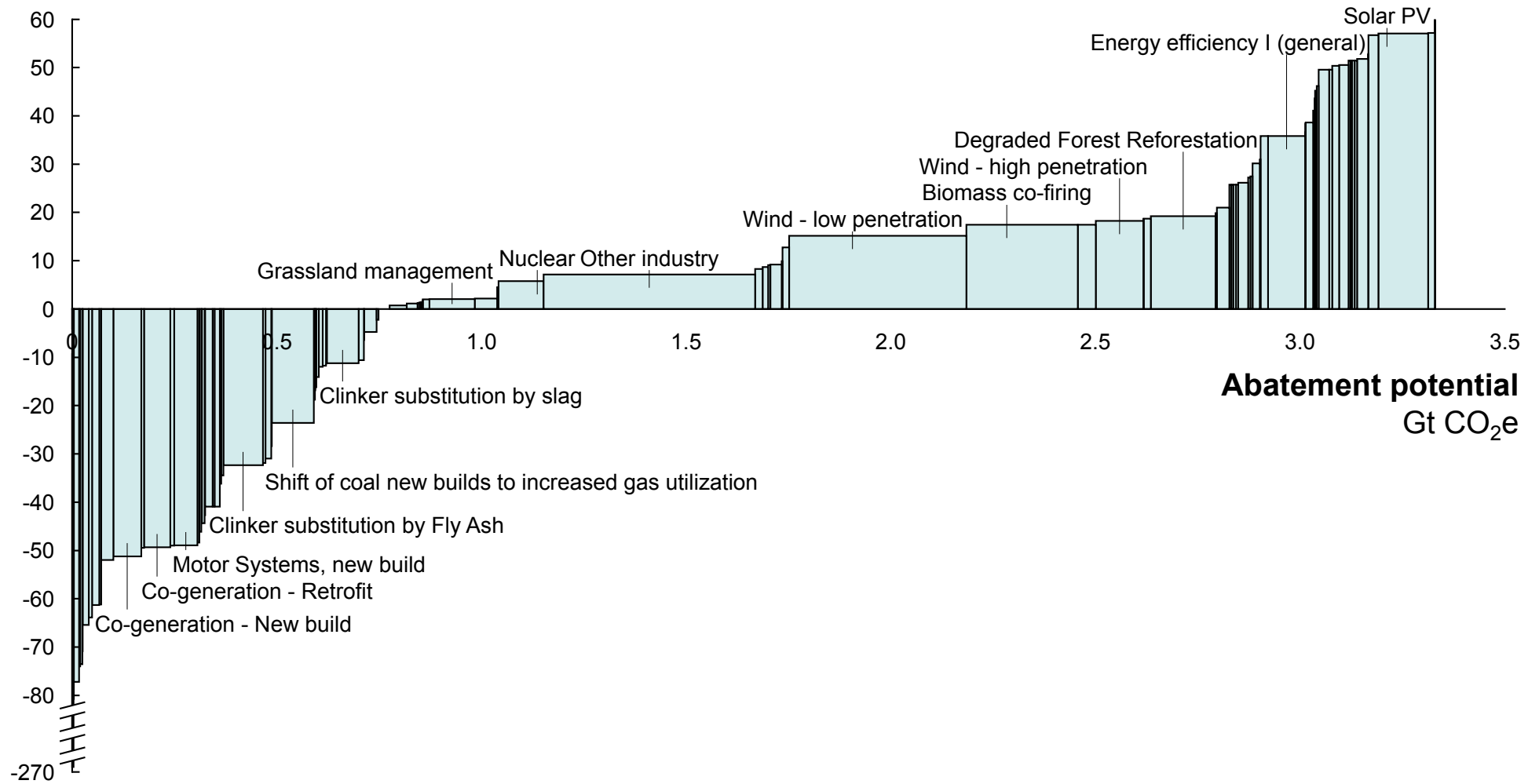
- 5 Gt in developed country geographies
- 14 Gt in developing country geographies

Breakdown by abatement type:

- 6 Gt for forestry
- 6 Gt for energy efficiency
- 4 Gt for low carbon energy supply
- 3 Gt for agriculture

China cost curve

McKinsey global GHG abatement cost curve, 2020 (Up to costs of €60/t, excluding transaction costs, 10% discount rate)

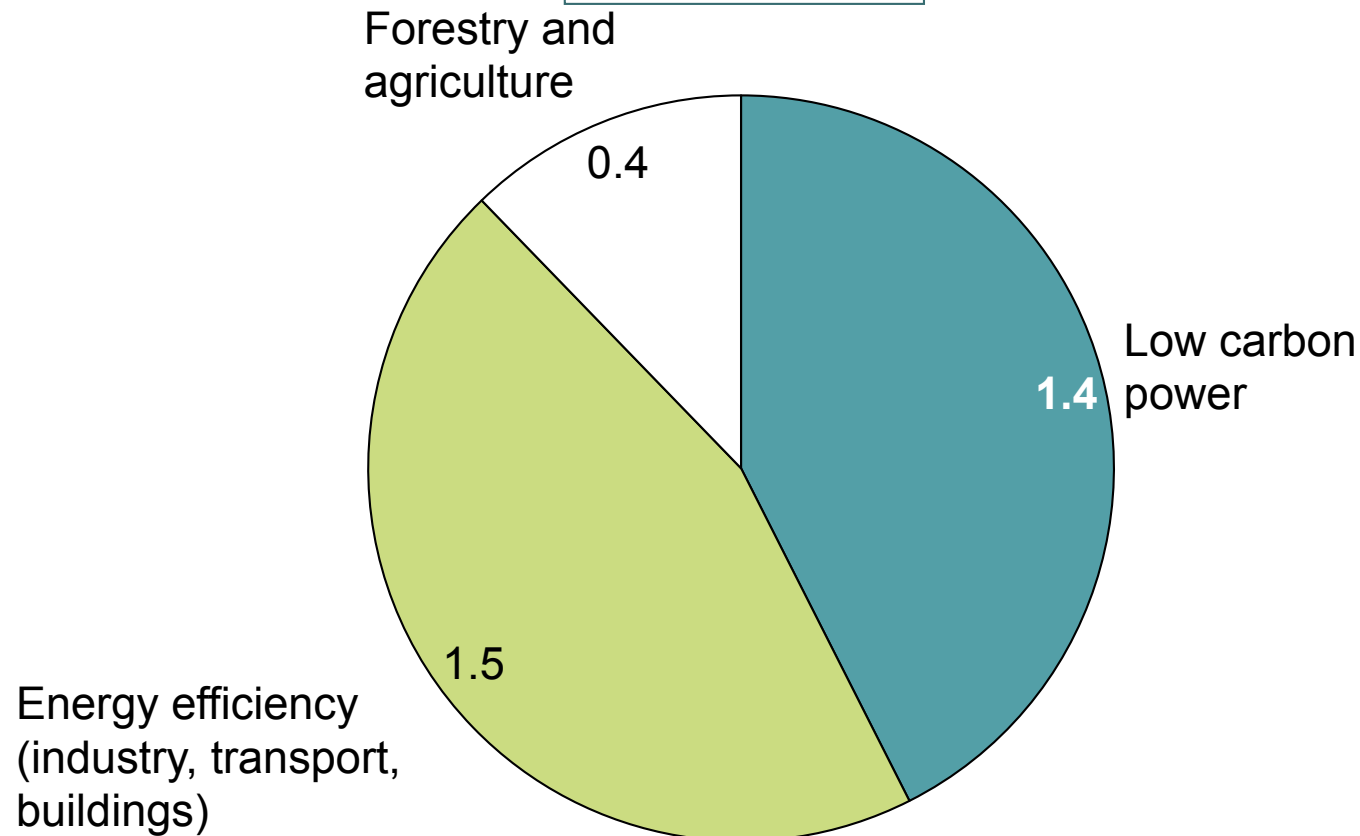


The majority of China's emissions reduction potential by 2020 is in low carbon power and energy efficiency

Emissions reduction potential in China, sector split

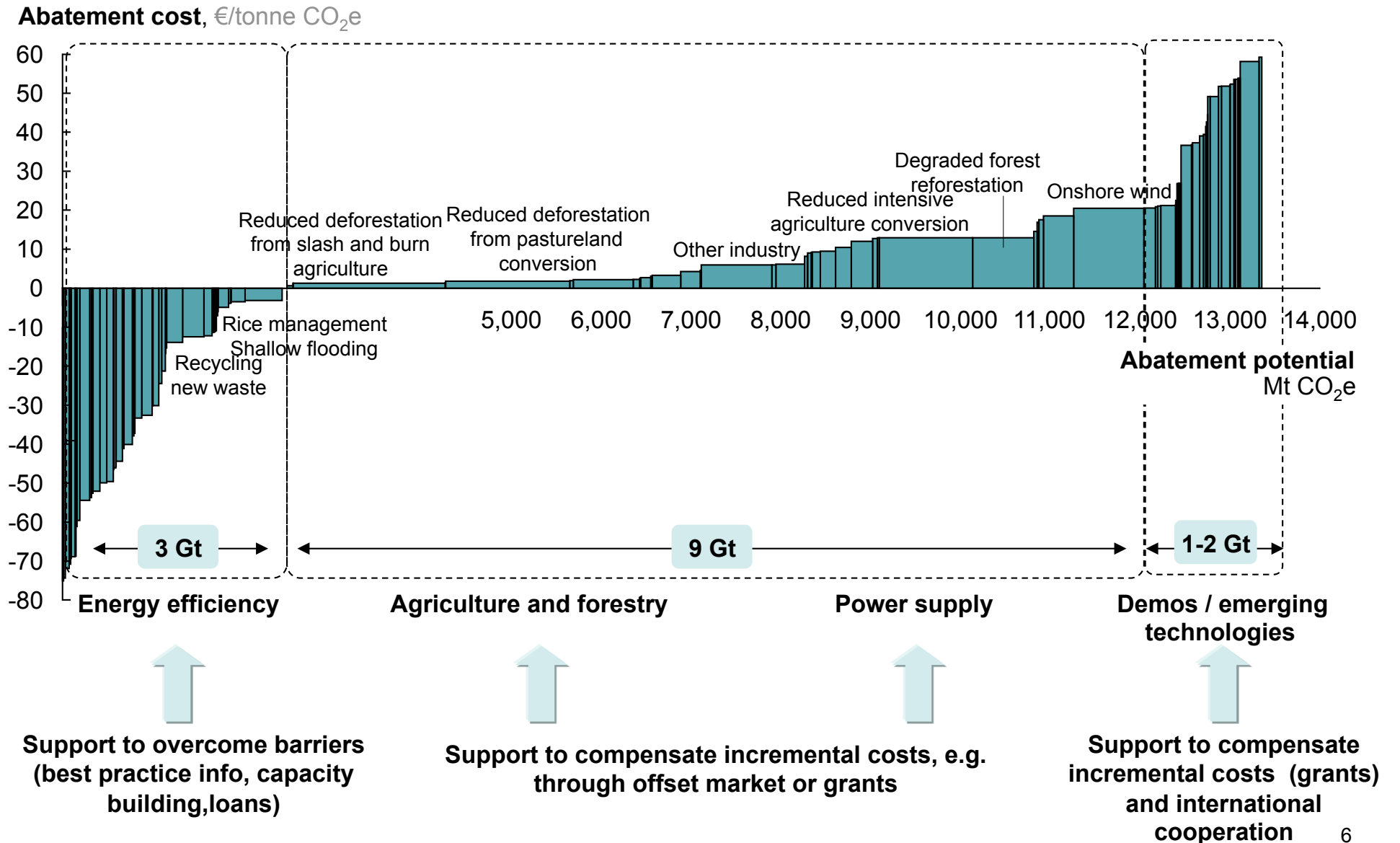
Gt CO₂e, 2020 (at <€60 per tonne)

100% = 3.3 Gt



Developing countries require different types of support for mitigation activities

Developing country cost curve, 2020 (up to €60/tonne, 10% discount rate)

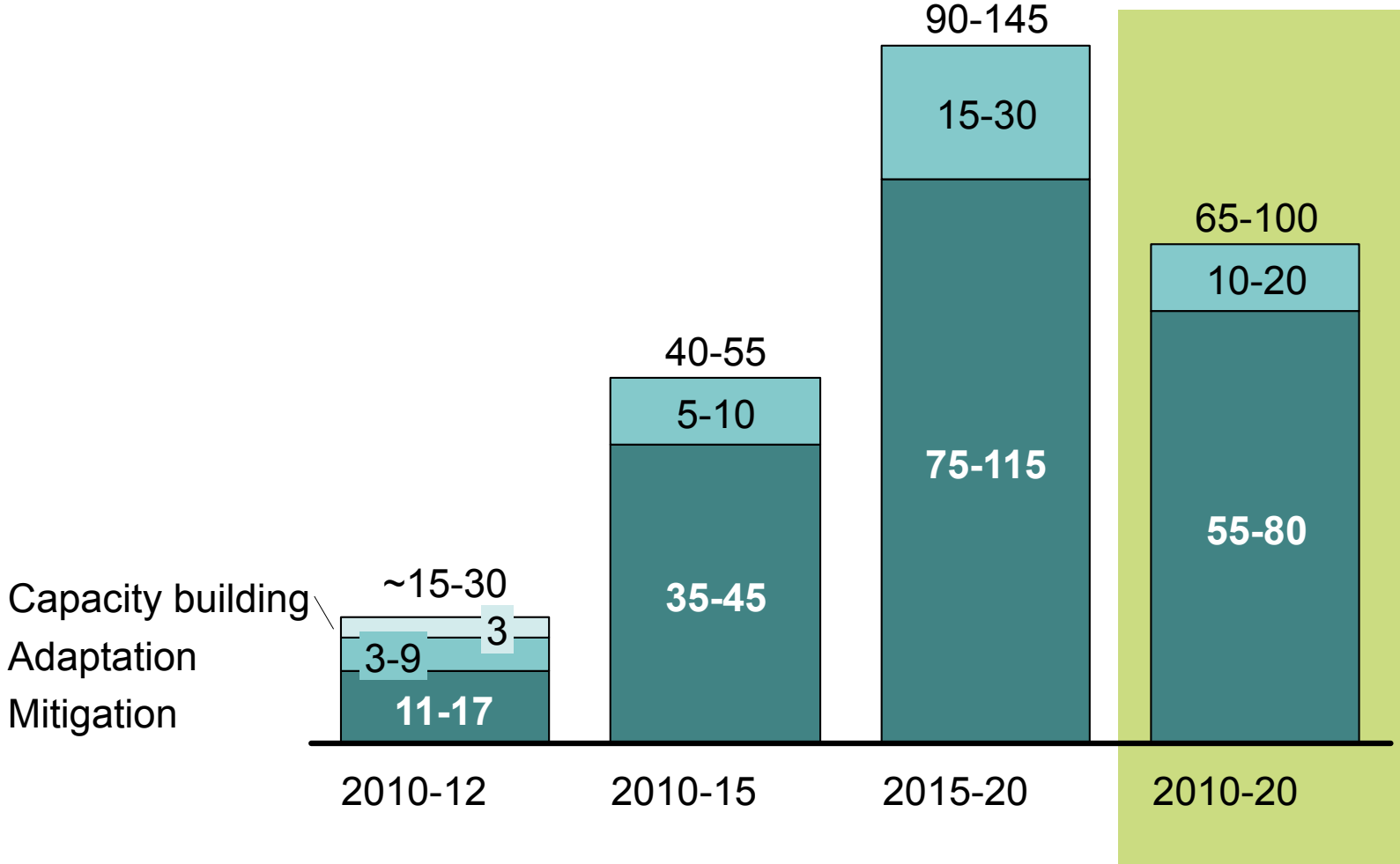


The financing needs ramp up over the 2010-20 period

FINANCING REQUIREMENT TO REACH 450 PPM PATHWAY

project catalyst

Developing country financing needs € billion (annual averages)

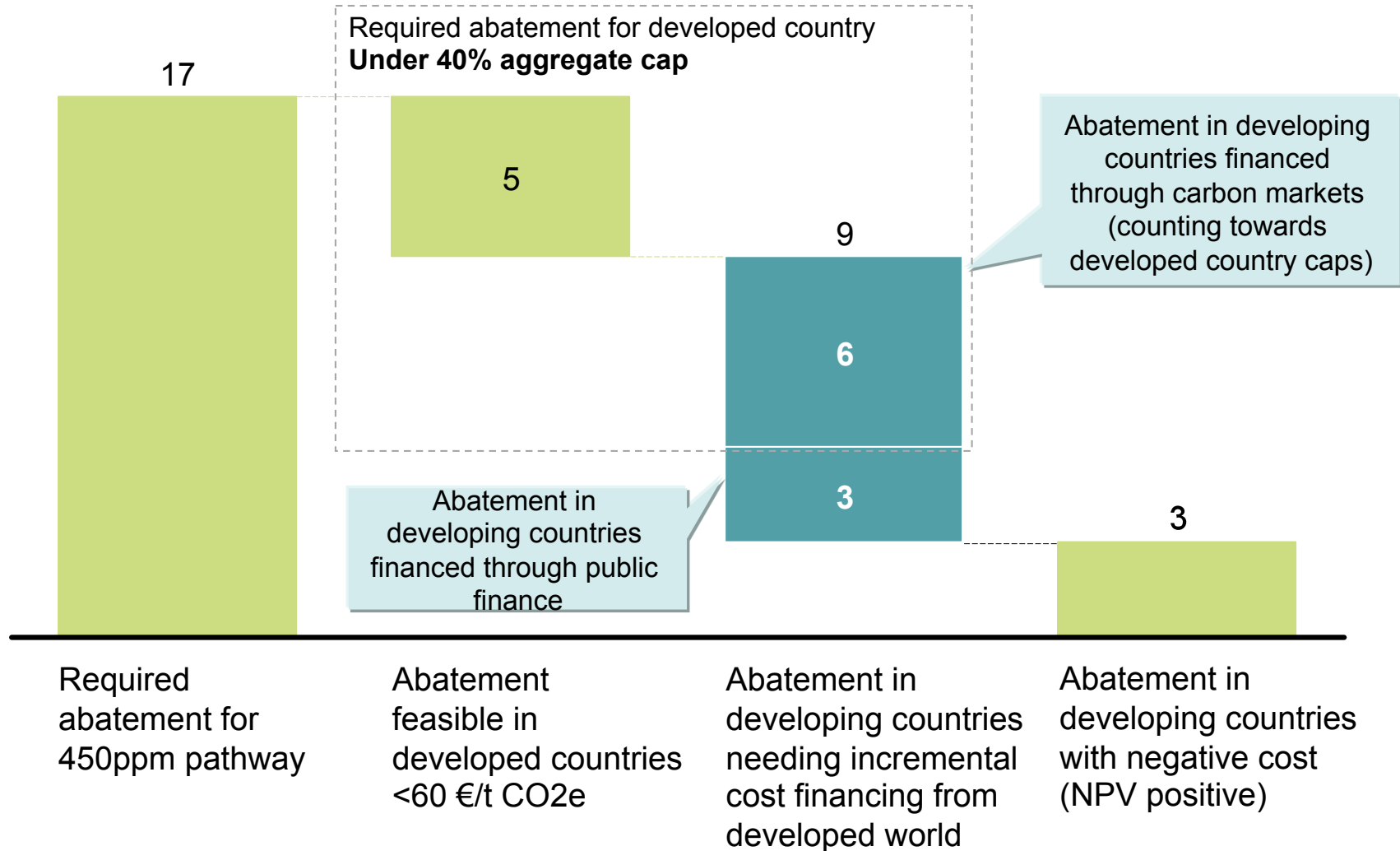


Source: McKinsey Global GHG Abatement Cost Curve v2.0; Project Catalyst analysis

40% aggregate developed world cap could deliver 6 Gt of offsets

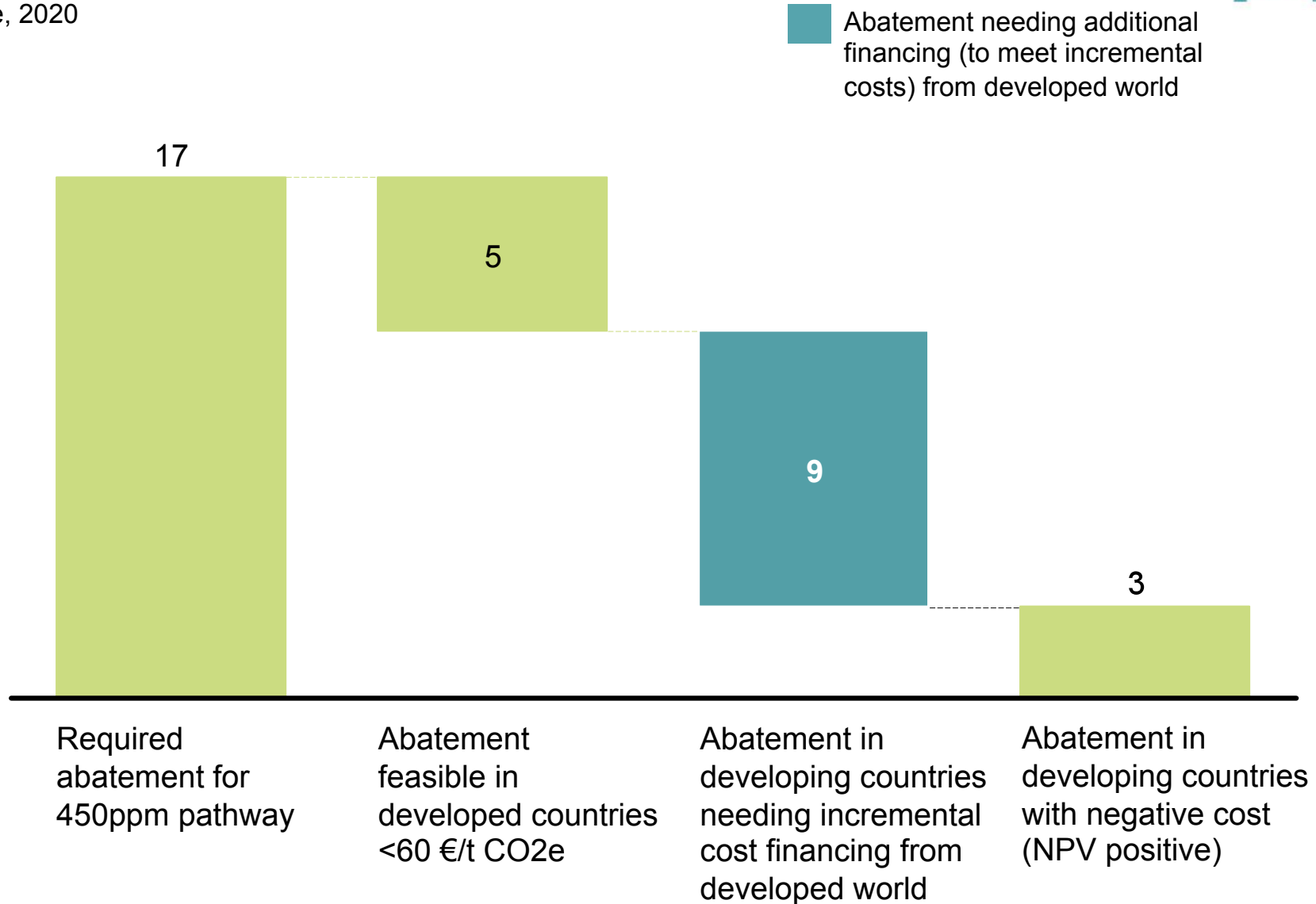
The Split of the required abatement in 2020
Gt CO₂e, 2020

■ Abatement needing additional financing (to meet incremental costs) from developed world



9Gt of abatement requires international financing support

The Split of the required abatement in 2020
Gt CO₂e, 2020

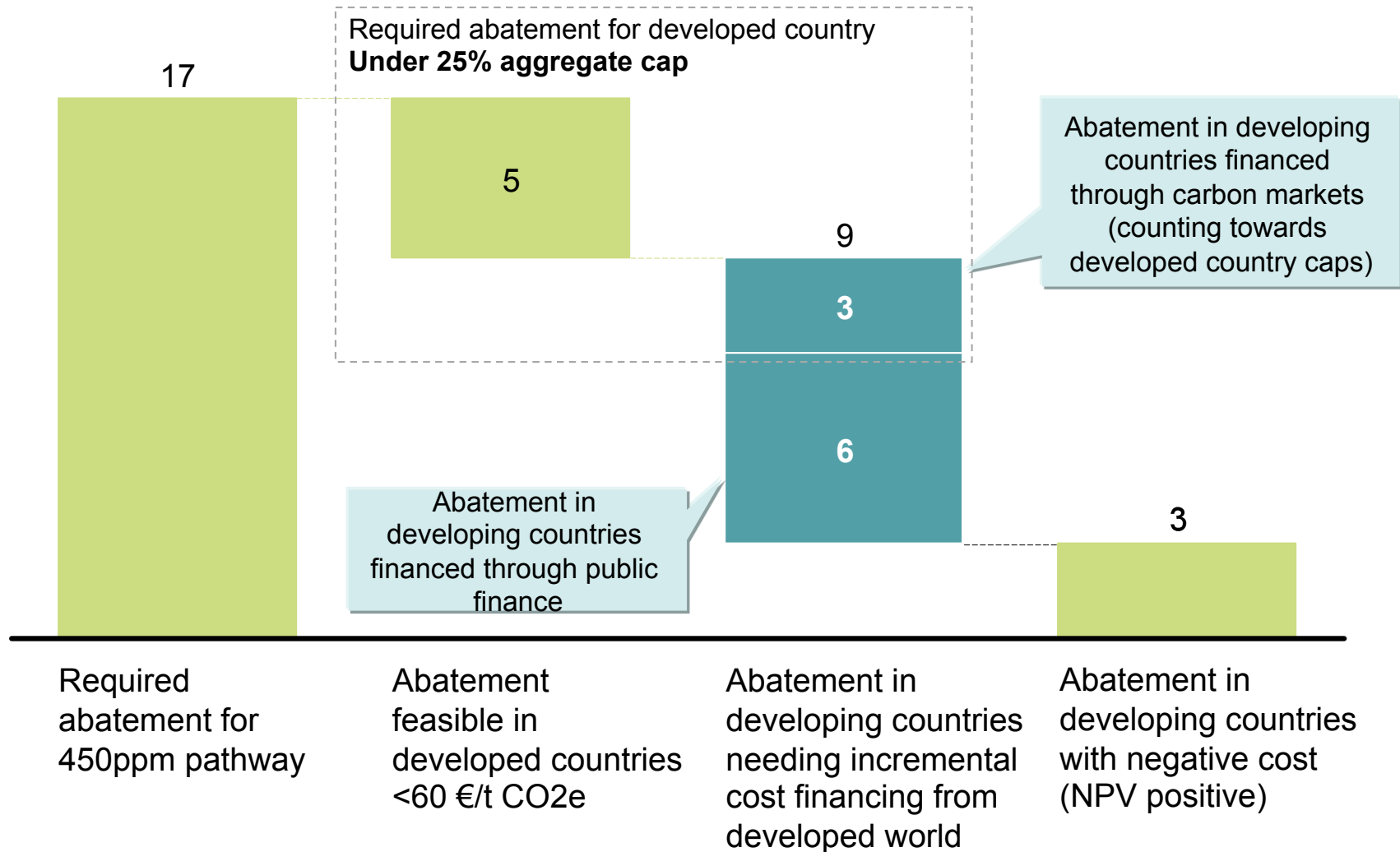


* Amount will depend on size of emissions cap adopted. Under a 25% aggregated developed country cap this will equal 3 Gt; under a 40% cap, 6Gt
Source:McKinsey Global GHG Abatement Cost Curve v2.0, team analysis

25% aggregate developed world cap could deliver 3 Gt of offsets

The Split of the required abatement in 2020 Gt CO2e, 2020

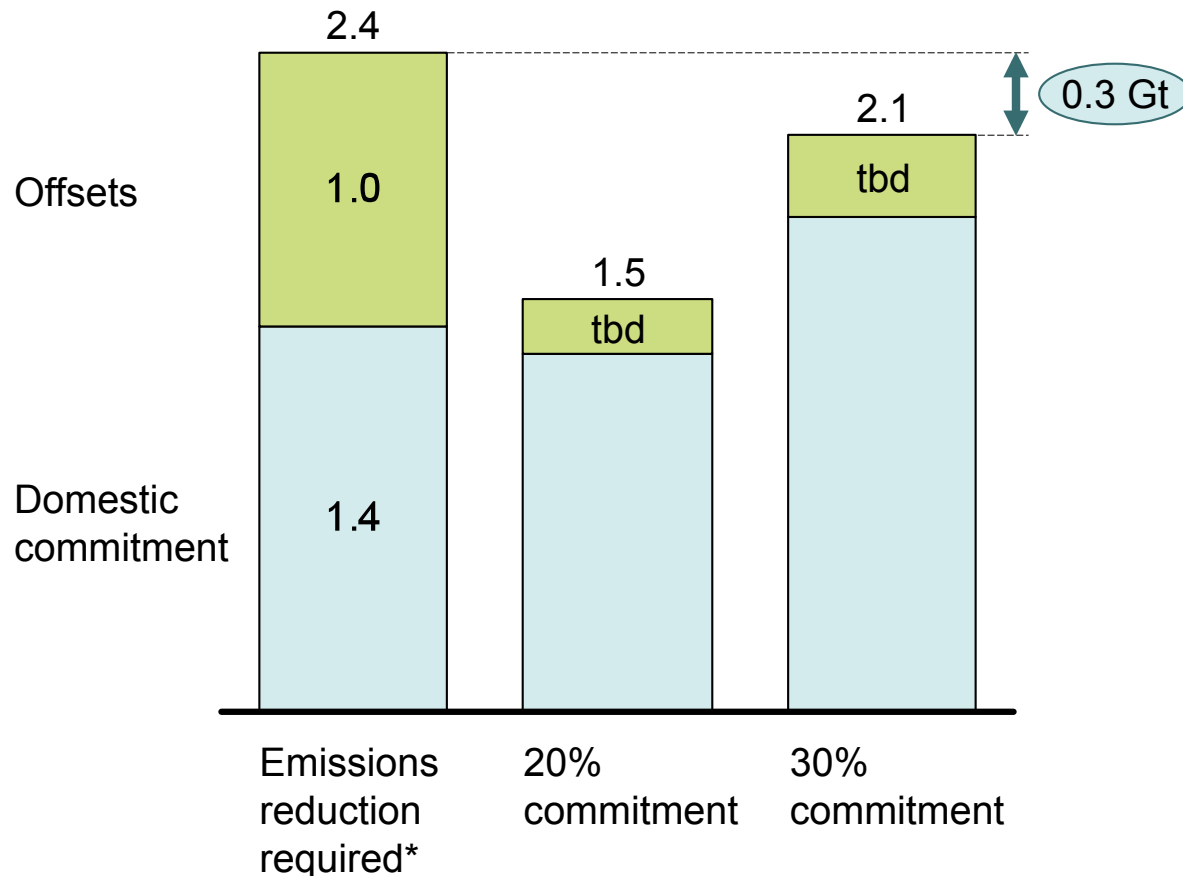
■ Abatement needing additional financing (to meet incremental costs) from developed world



The EU has shown leadership on emissions reduction proposals but is falling short on financing proposals

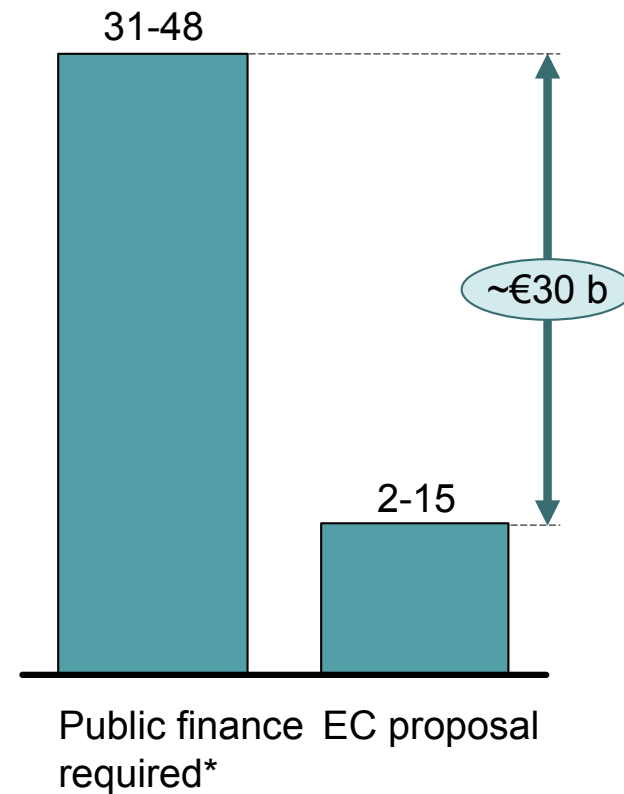
The EU's target of 30% comes almost into line with the Project Catalyst benchmark

Emissions reduction (Gt CO₂e)



But the public financing suggestion falls far short of that required

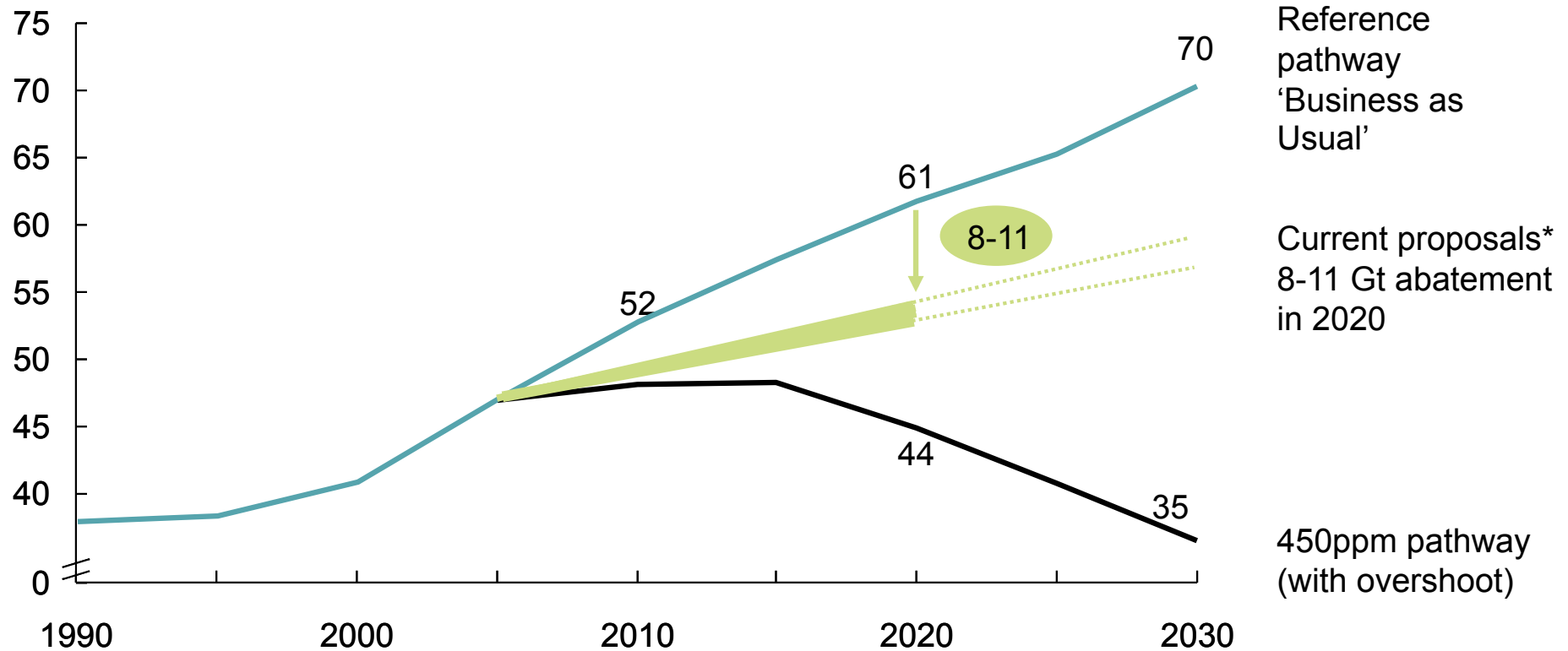
Public finance to developing countries, € bn per year by 2020



* According to Project Catalyst benchmark based on 25% aggregate developed world emissions reduction + remaining public finance requirement split by emissions (50%) and GDP (50%) amongst Annex II countries

As a result current proposals fall far short of the reductions required to reach 2 degrees

Global GHG emissions, Gt CO₂e per year



* US – 17-28% below 2005 level by 2020; EU – 20-30% from 1990 level by 2020; China - Reduce energy consumption per national income by 20% between 2005–10; Russia - stabilise emissions at ~30% below 1990; Brazil - Reduce deforestation rates by 70% by 2017, equivalent to 4.8b tons less CO₂ emitted cumulatively; Japan - Reduce 80% by 2050 from current levels; Canada - 20% reduction from 2006 level by 2020; Mexico - Reduce emissions from 2002 levels by 50% by 2050, plus proposals from 12 smaller Annex 1 countries. Assumptions have been made on timeline and pathway to calculate abatement in 2020