

Mobile Net Zero 2026

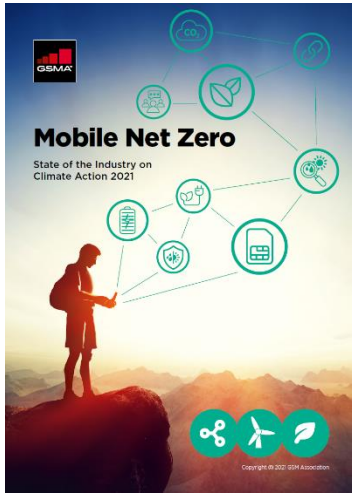
State of the Industry on Climate Action

Steven Moore, Head of Climate Action

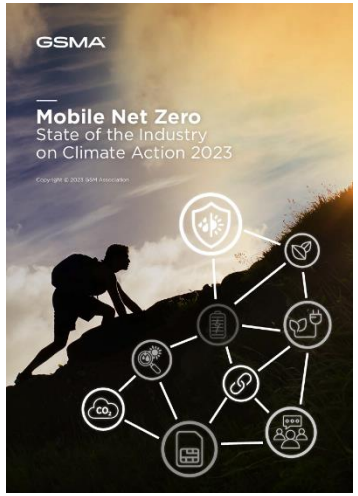
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Sixth edition of Mobile Net Zero

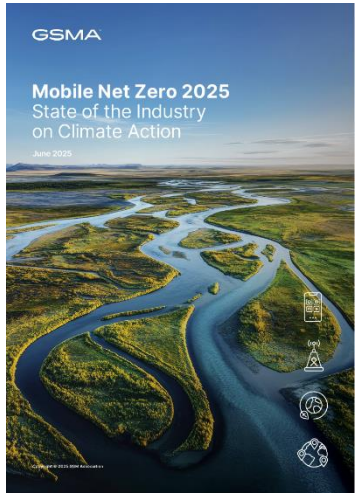
2026 represents a mid-way point between the industry commitment in 2019 and 2030 milestones. This year's regional deep dive will be Asia Pacific, to be published in September.

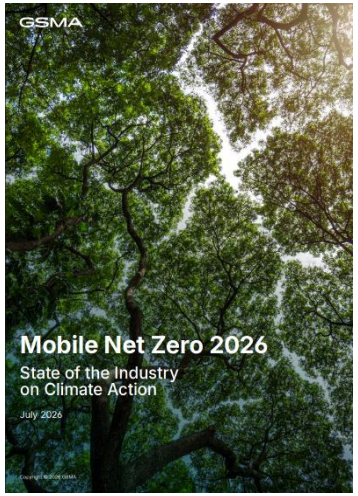




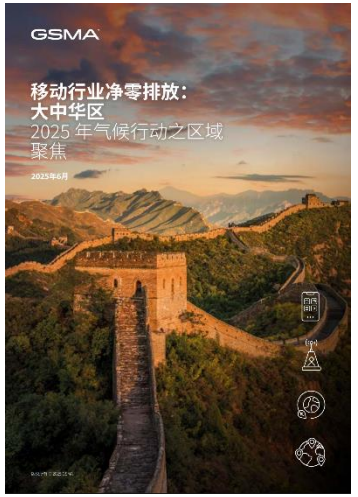


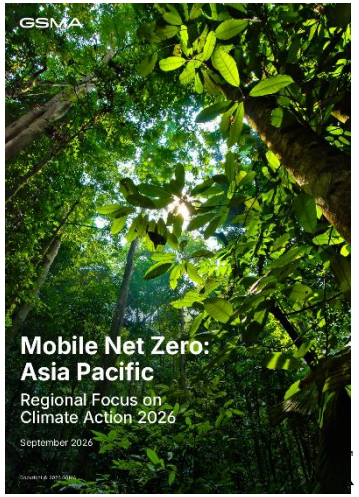










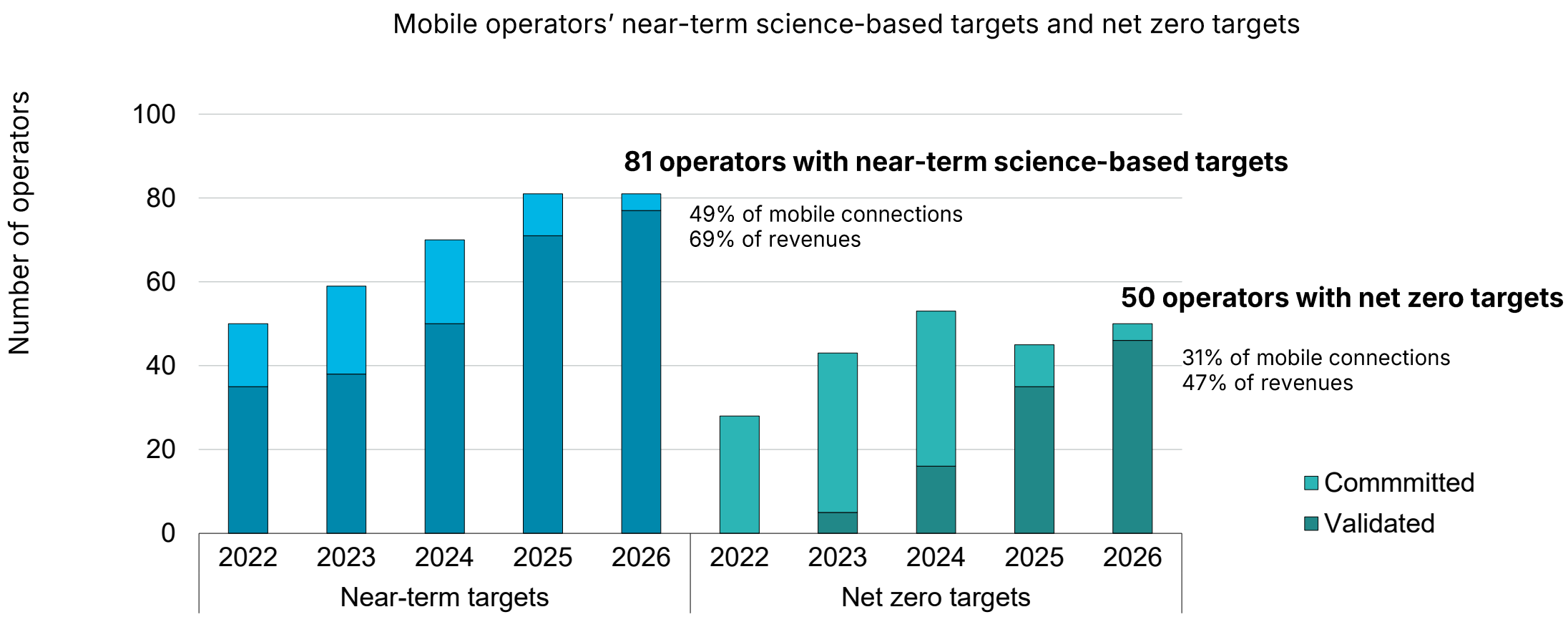


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Mobile operators continue to lead on climate targets and disclosures

Increased commitment to ambitious climate targets

81 mobile network operators, representing nearly half of mobile connections globally, have committed to near-term science-based targets



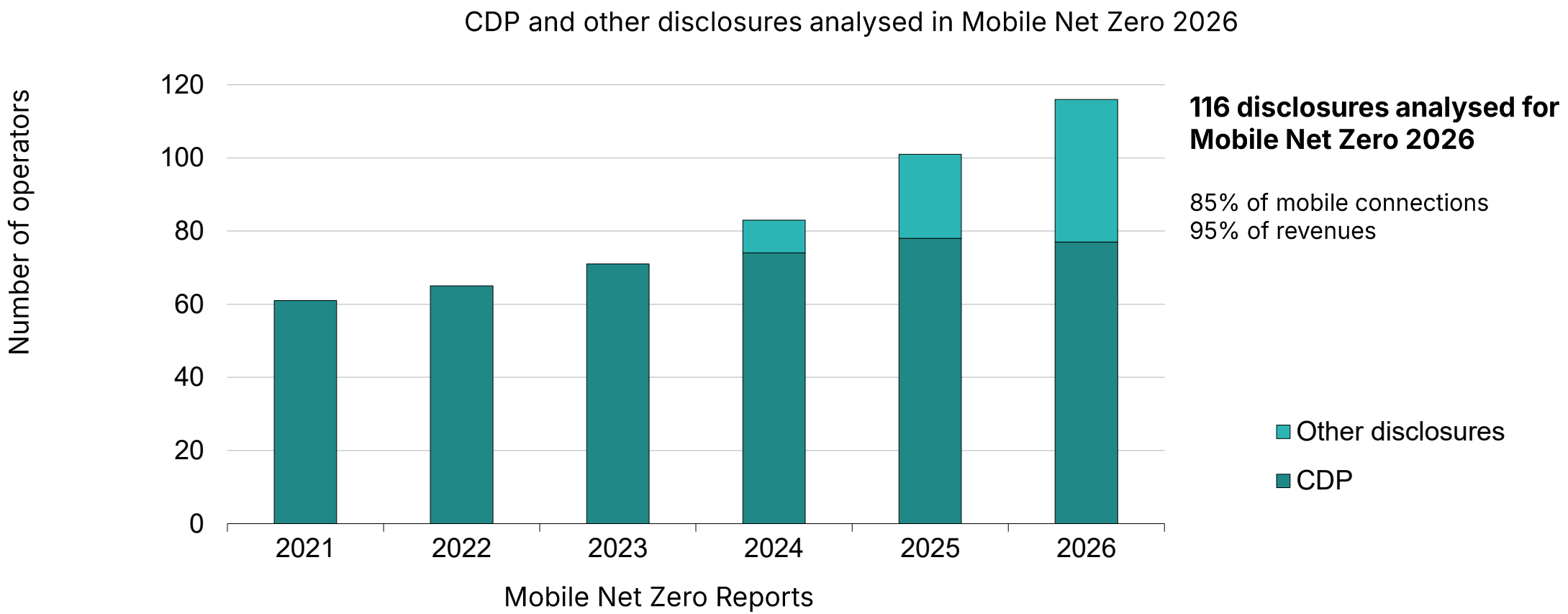
Note: 2022 net zero targets are "Race to Zero" targets. 2026 data as of June 2026.

Source: GSMA analysis based on SBTi Target Dashboard.

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More operators are disclosing emissions data

77 operators disclosed to CDP in 2025, up from 61 in 2020. Nearly a third received the highest score (A) from CDP in 2025, compared with less than 4% of all other companies.



Note: CDP disclosure years are one less than the year of Mobile Net Zero, e.g. Mobile Net Zero 2026 uses data disclosed to CDP in 2025, covering data from 2024.

Source: GSMA analysis based on CDP disclosures.

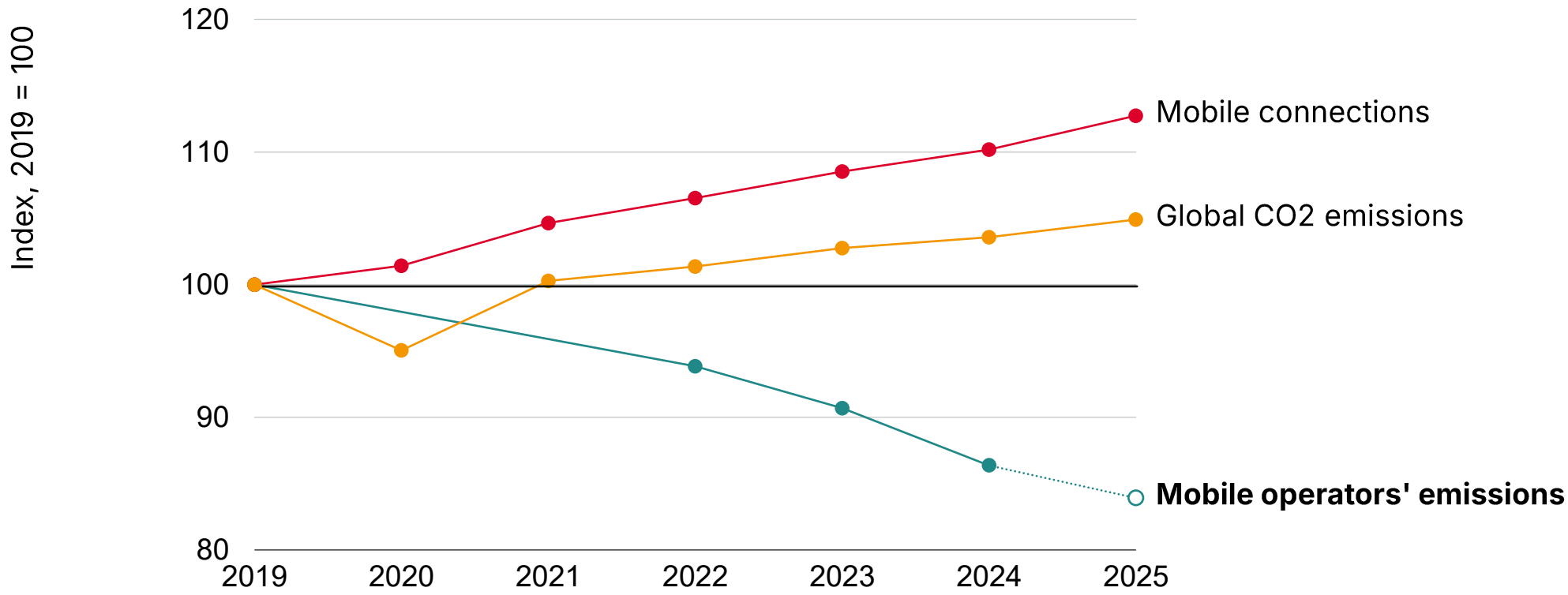
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Emissions are falling, but reductions need to accelerate across all regions to reach 2030 targets

Operational emissions continue to fall

Between 2019 and 2024, operational emissions fell 13% while mobile connections grew 10% and mobile data traffic more than quadrupled

Trends in operational emissions and other mobile industry and emission trends, 2019–2025



Note: 2025 operational emissions are estimated as of June 2026 based on preliminary data from operators covering 67% of mobile connections.

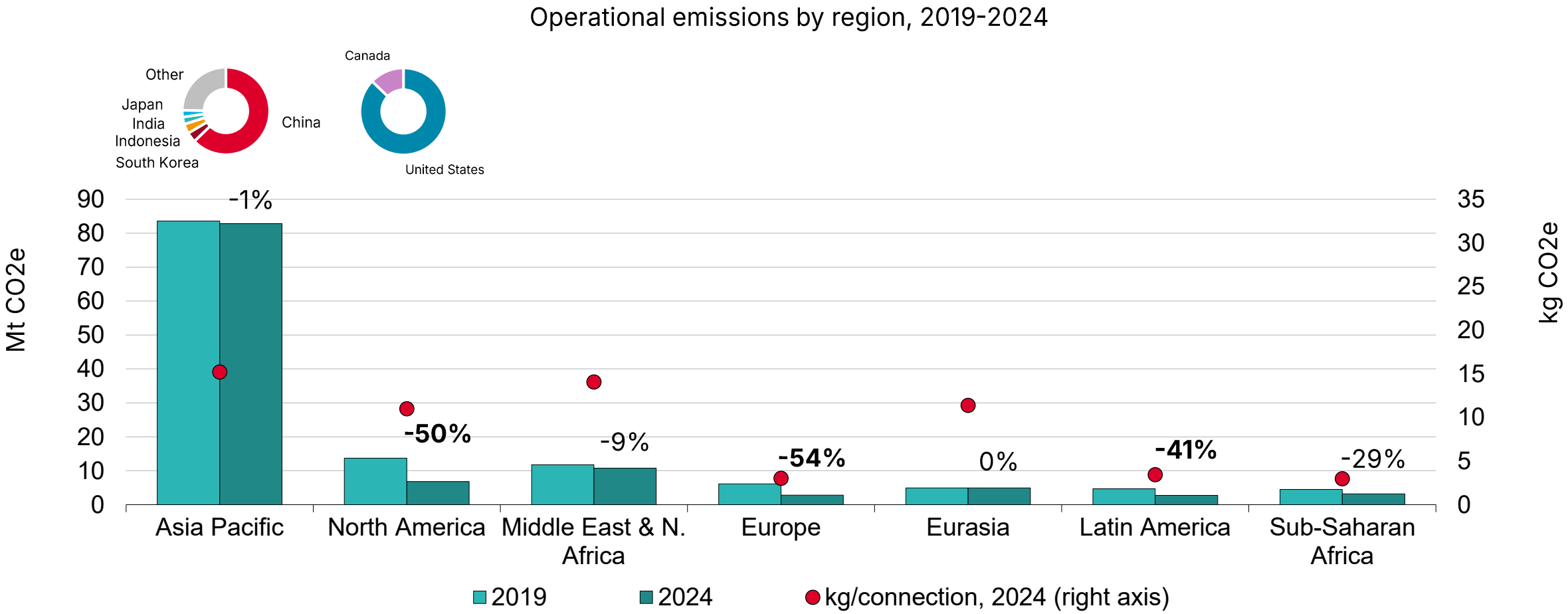
Source: GSMA analysis. Mobile connections and revenue data from GSMA Intelligence; CO2 emissions data from the IEA.

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Regions are making progress at different rates

Operators in North America, Europe, and Latin America achieved the largest reductions between 2019 and 2024



Note: Operational emissions include Scope 1 and Scope 2 market-based emissions.

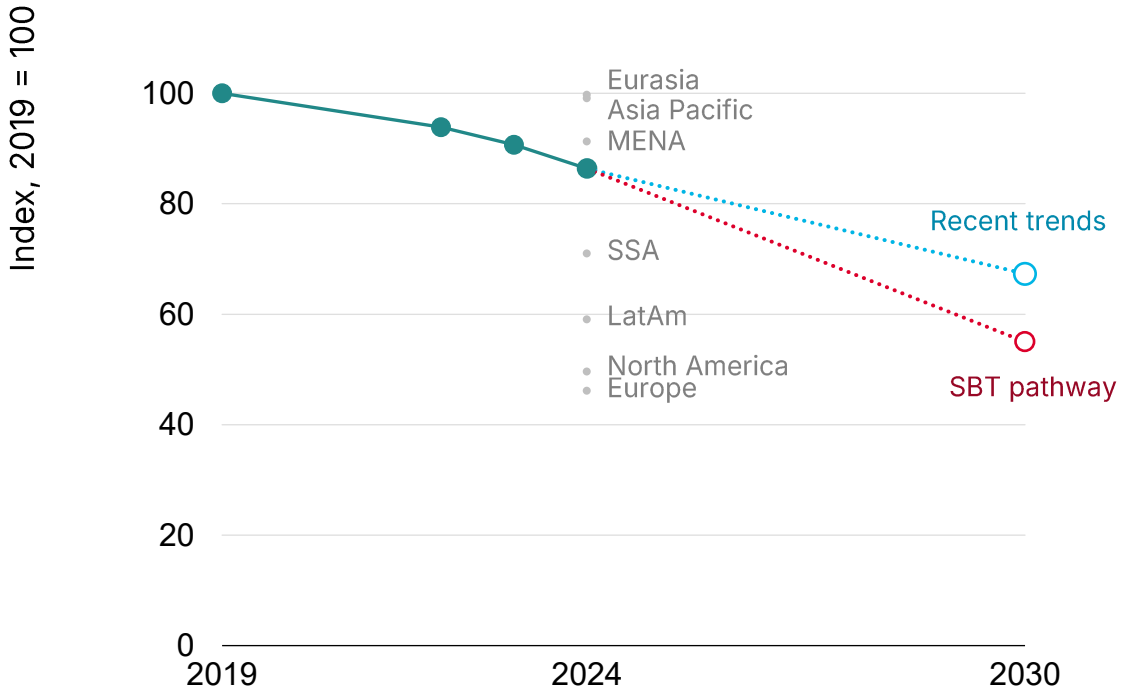
Source: GSMA analysis based on latest CDP disclosures and corporate sustainability reports.

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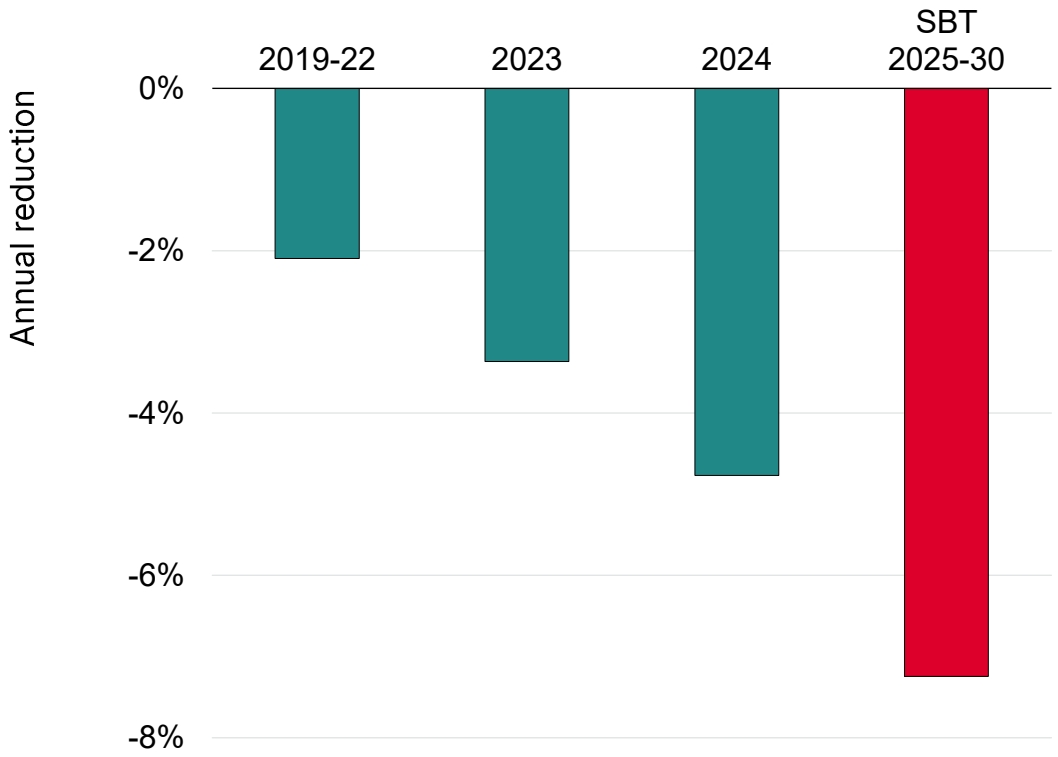
Progress needs to accelerate to meet 2030 targets

Some regions have achieved rapid reductions since 2019, but all regions need to make progress for the industry to achieve its global target by 2030

Operators' progress towards 2030 SBT pathway



Average annual reduction in operational emissions



Note: The SBT pathway shows the subsector pathway for MNOs – a 45% reduction in combined Scope 1 and 2 emissions between 2020 and 2030 – as developed in the Guidance for ICT Companies Setting Science Based Targets. MNO emissions are indexed to 2019, while the SBT pathway is indexed to 2020.

Source: GSMA analysis based on the latest CDP disclosures and corporate reports.

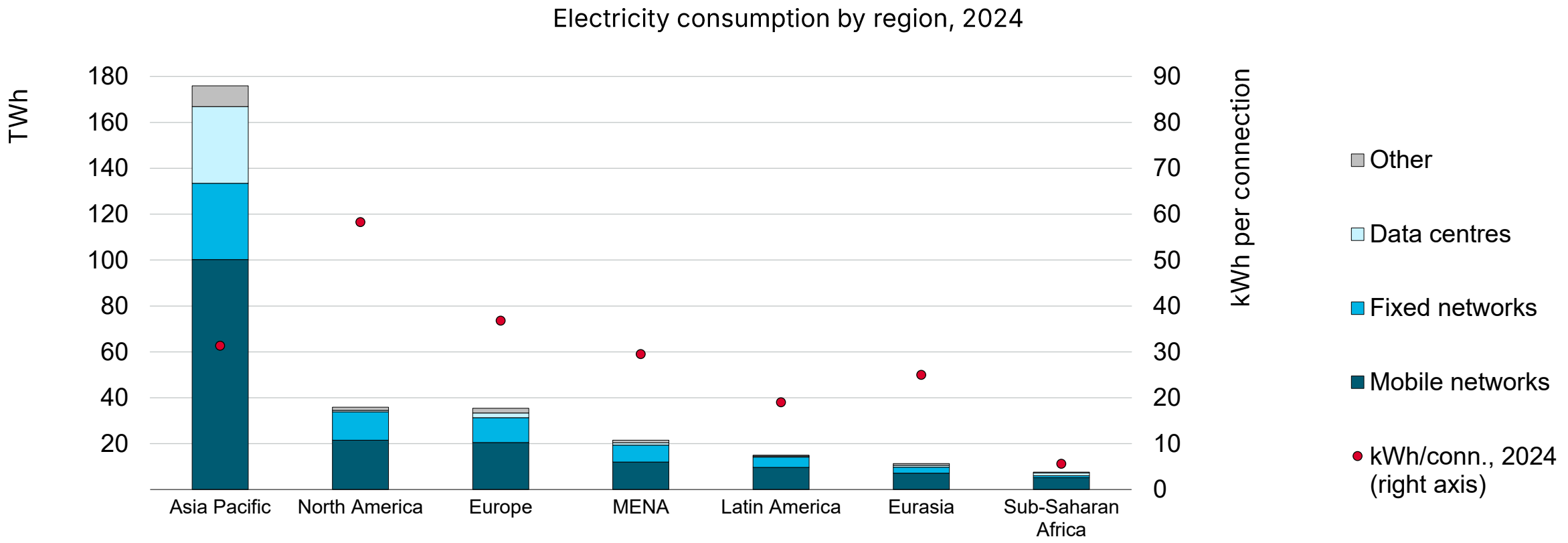
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Energy efficiency and renewables are cutting energy costs and carbon emissions

Mobile operators face rising energy bills

Networks account for the majority of operator electricity use, highlighting the critical role of energy efficiency and renewable energy to reduce Scope 2 emissions



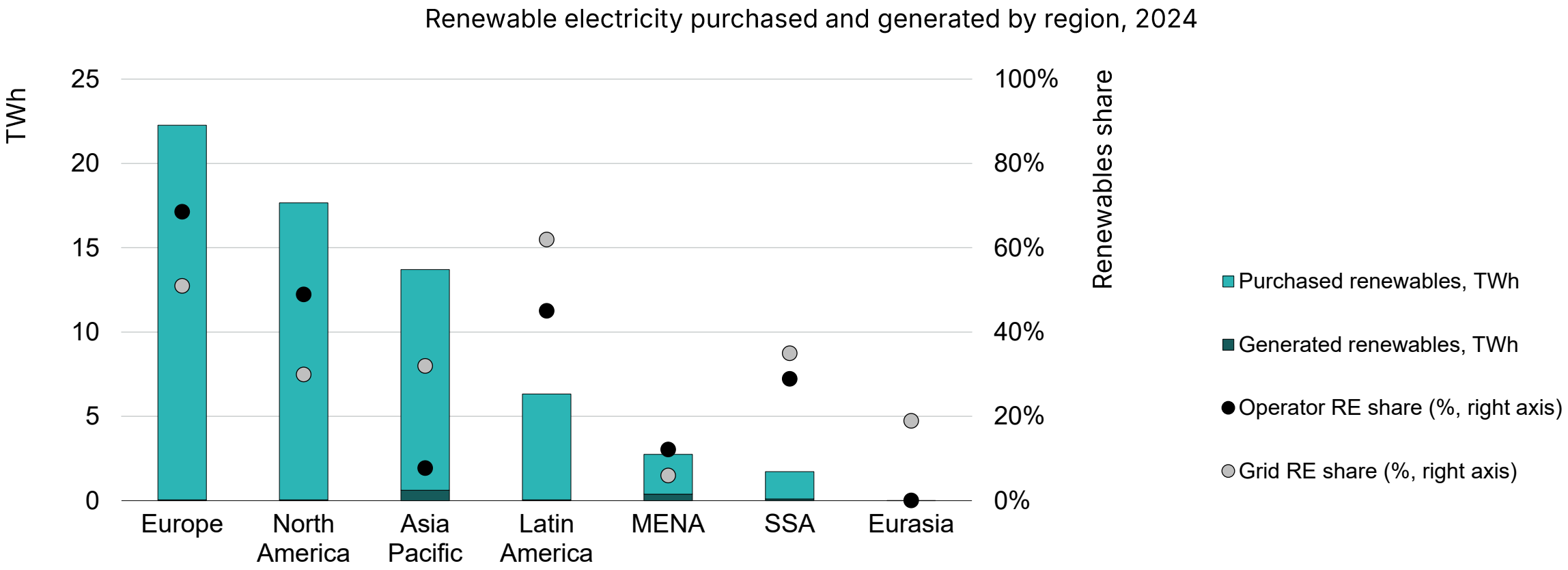
Note: MENA = Middle East and North Africa. Connections include mobile and fixed broadband.

Source: GSMA analysis based on latest CDP disclosures and corporate sustainability reports.

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Renewable energy is driving emission reductions

Operators purchased and generated 70 TWh of renewable electricity in 2024, led by European operators. Access to renewables in emerging markets remains challenging, hindering decarbonisation.



Note: Purchased renewables by MNOs primarily come from solar and wind, while generated renewables primarily come from on-site solar.

Source: GSMA analysis based on latest CDP disclosures. Grid share of renewables based on Ember Yearly Electricity Data (2026).

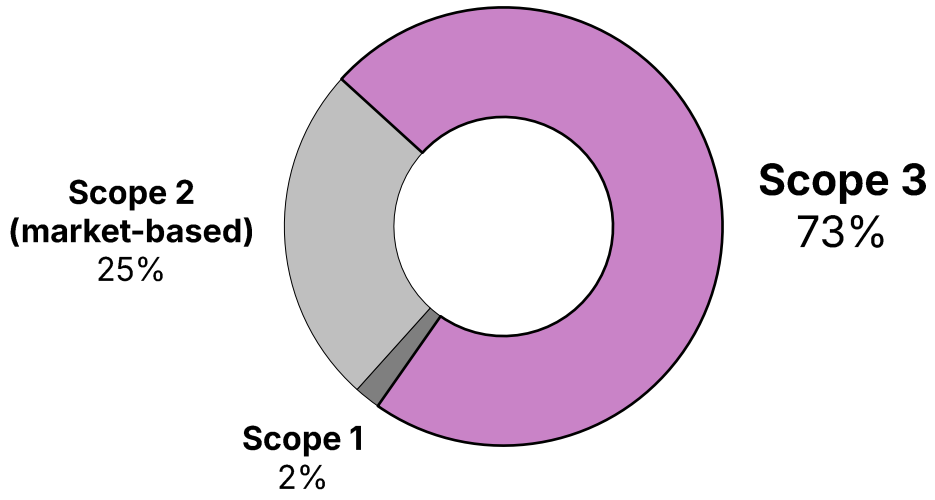
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Three-quarters of the industry’s carbon footprint is in the value chain, and progress of suppliers is uneven

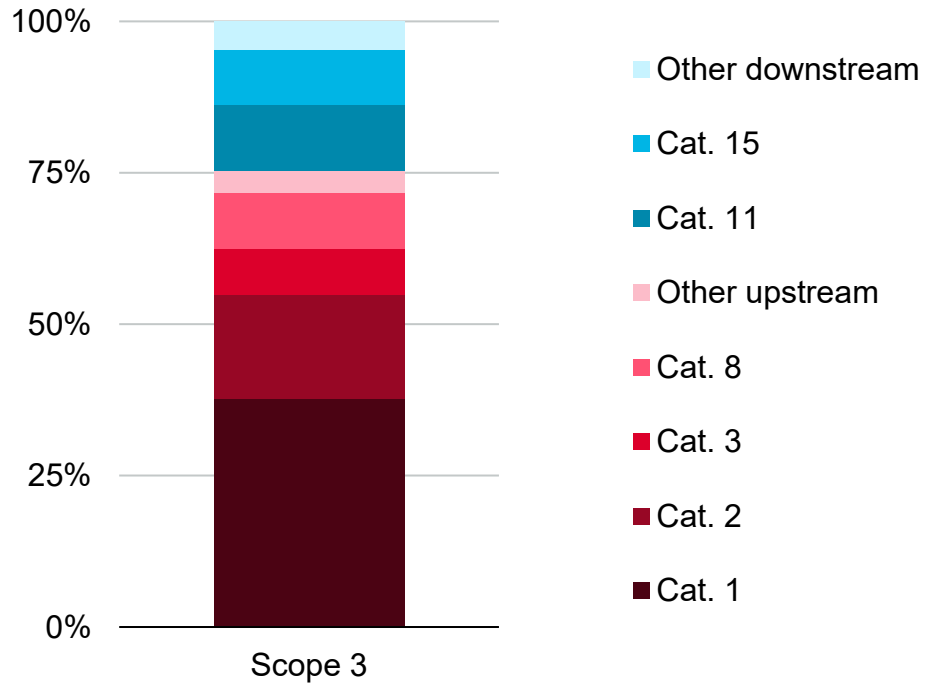
Supply chains account for majority of emissions

Operational emissions (Scope 1 + 2) were 115 $MtCO_2e$ in 2024, or ~0.2% of global GHG emissions. Scope 3 accounts for nearly three-quarters of overall industry footprint.

Mobile industry emissions by scope, 2024



Scope 3 emissions by category



Note: Scope 2 emissions are market-based. Using location-based Scope 2 would result in the following shares: Scope 1 (2%), Scope 2 location-based (29%) and Scope 3 (69%).

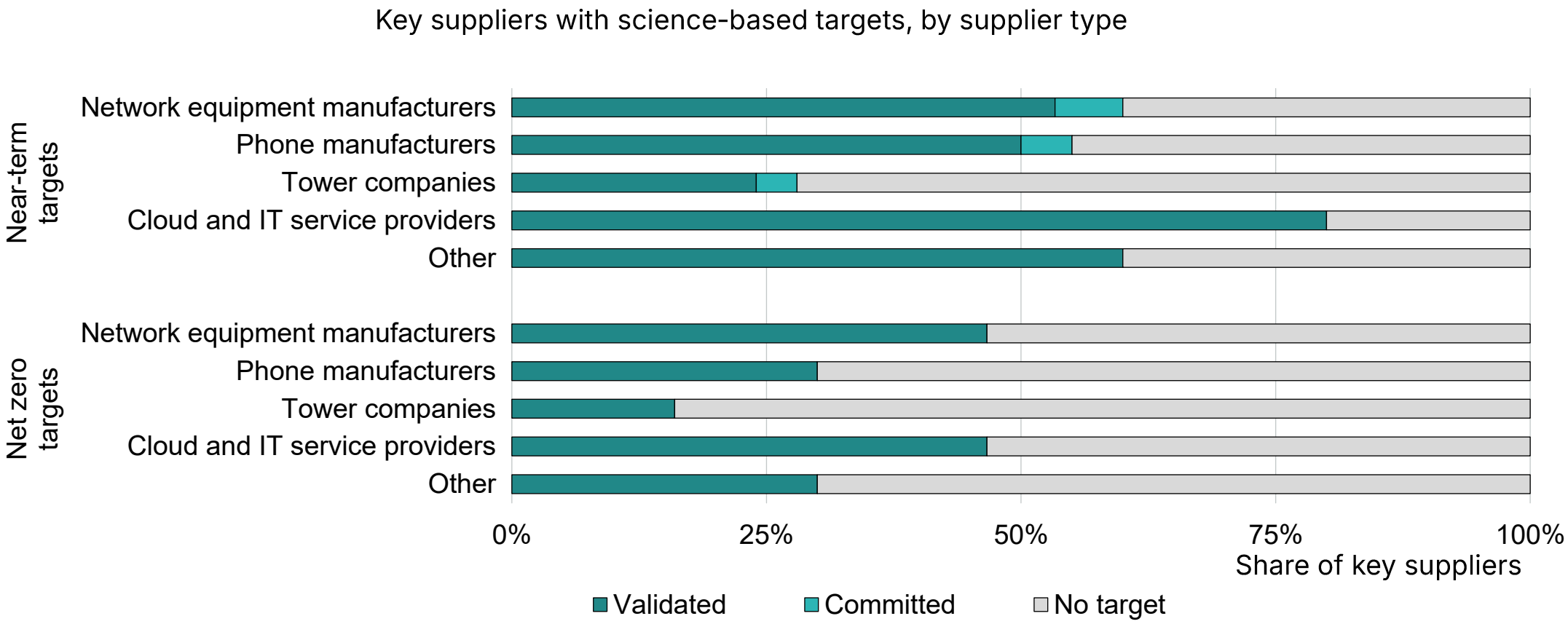
Source: GSMA analysis based on latest CDP disclosures and corporate sustainability reports.

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Suppliers are setting climate targets, but progress varies

More than half of key network equipment suppliers, mobile phone manufacturers and cloud and IT service providers have validated near-term targets



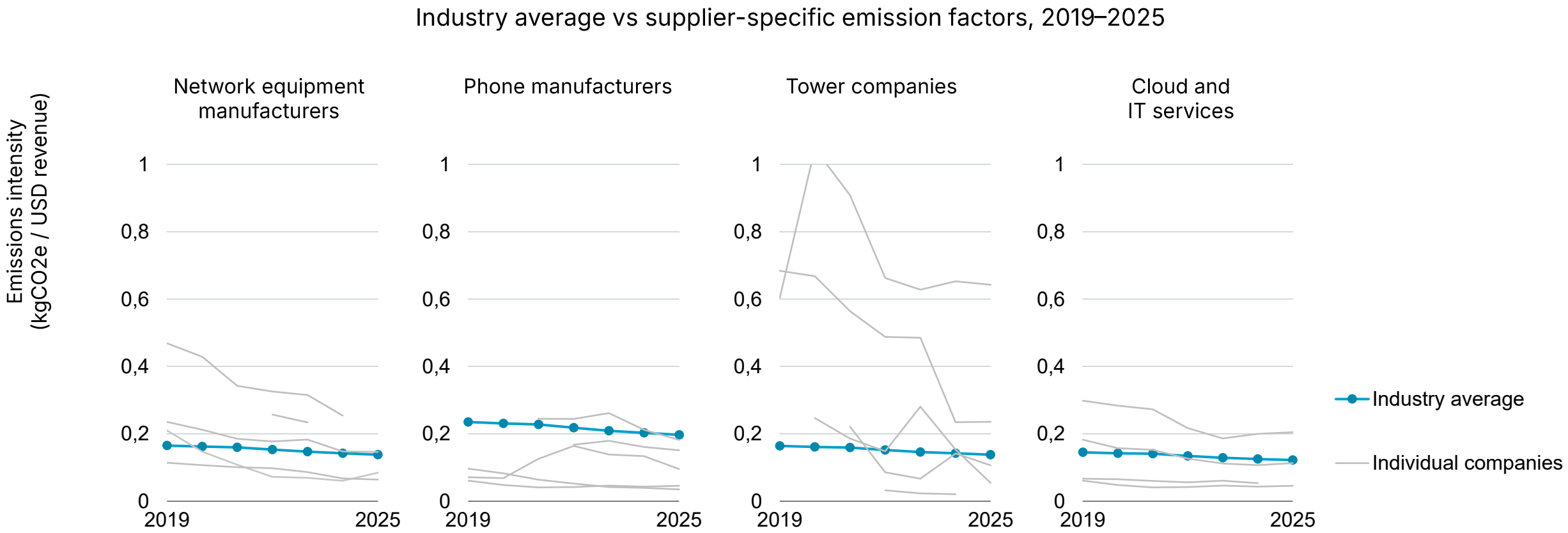
Note: Analysis covers 100 key suppliers extracted from top supplier lists from MNOs and GSMA analysis of industry supply chains, including 30 of the largest manufacturers of network equipment and CPE, the top 20 mobile phone manufacturers by market share (covering about 98% of mobile phone sales globally), the top 25 tower companies by tower count (excluding tower companies wholly owned or controlled by a single MNO) and 15 of the largest cloud and IT service providers.

Source: GSMA analysis based on latest CDP disclosures and SBTi.

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Supplier-specific data can track real-world progress

Using supplier-specific emission factors can result in more accurate Scope 3 emissions and track real-world progress by suppliers



Note: Emissions intensity calculated by dividing the sum of Scope 1, Scope 2 (market-based if available, otherwise location-based) and Scope 3 upstream categories by revenue (in USD).

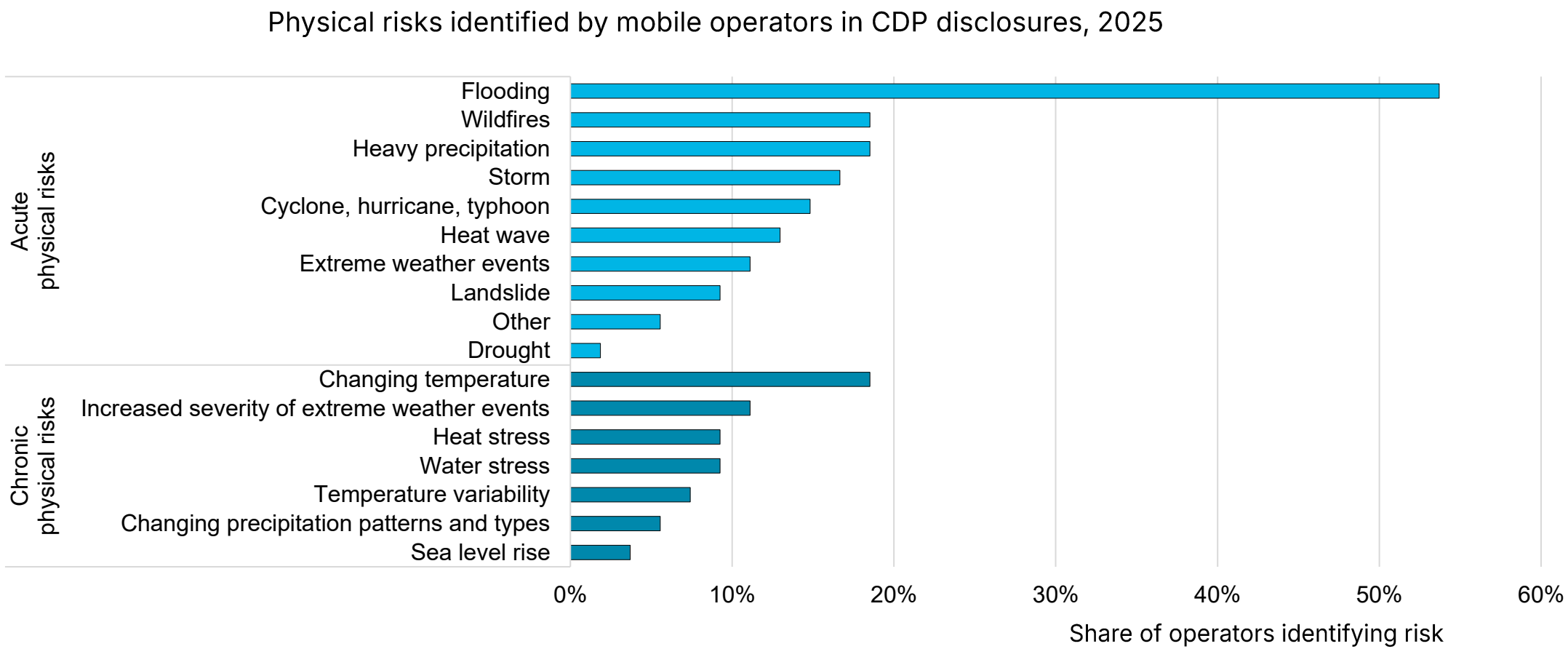
Source: GSMA analysis based on latest CDP disclosures and SBTi.

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Networks must adapt to a changing climate

Networks are facing growing climate risks

Flooding was most frequently identified as an acute physical risk, while changing temperature was the most frequently identified chronic physical risk



Note: Share of mobile operators based on 54 that identified at least one climate-related physical risk.

Source: GSMA analysis of CDP disclosures.

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Achieving net zero requires action and collaboration from operators, suppliers and governments

Recommendations to accelerate progress

Achieving net zero by 2050 while enhancing climate resilience requires strong and concerted action from operators and suppliers, supported by enabling policies and investment from governments



Operators

- Set science-based climate targets and develop a CTP aligned with GSMA guidance.
- Optimise network energy use, retire legacy networks and increase the use of renewable energy, prioritising additionality.
- Engage suppliers on climate action, including disclosures, integrating climate requirements in procurement and supporting circular economy initiatives.

Suppliers and tower companies

- Publish energy and emissions data, including product environmental reports for devices and equipment.
- Increase the use of clean energy in operations and supply chains and incorporate eco-design and circularity in products.
- Manufacturers should develop more energy-efficient equipment, devices and systems.

Governments

- Implement regulations supporting climate disclosure.
- Implement policies that accelerate renewable energy.
- Recognise mobile networks as critical infrastructure in resilience planning.
- Mobilise public and concessional finance to support energy access and decarbonisation in low- and middle-income countries.

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Access the full report

Other topics covered:

- Fuel consumption by mobile operators and tower companies
- Network energy intensity trends
- Impact of legacy network sunsets on energy consumption
- Impacts of AI on energy for telcos (telco data centres and networks)
- Deep-dive on tower companies: ownership structures, energy arrangements/contracts
- Impacts of memory crisis on new and used smartphone sales
- Trends in smartphone embodied emissions
- Water impacts of telecommunications



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