European telecoms post Covid

Resilience in an uncertain world

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Overview

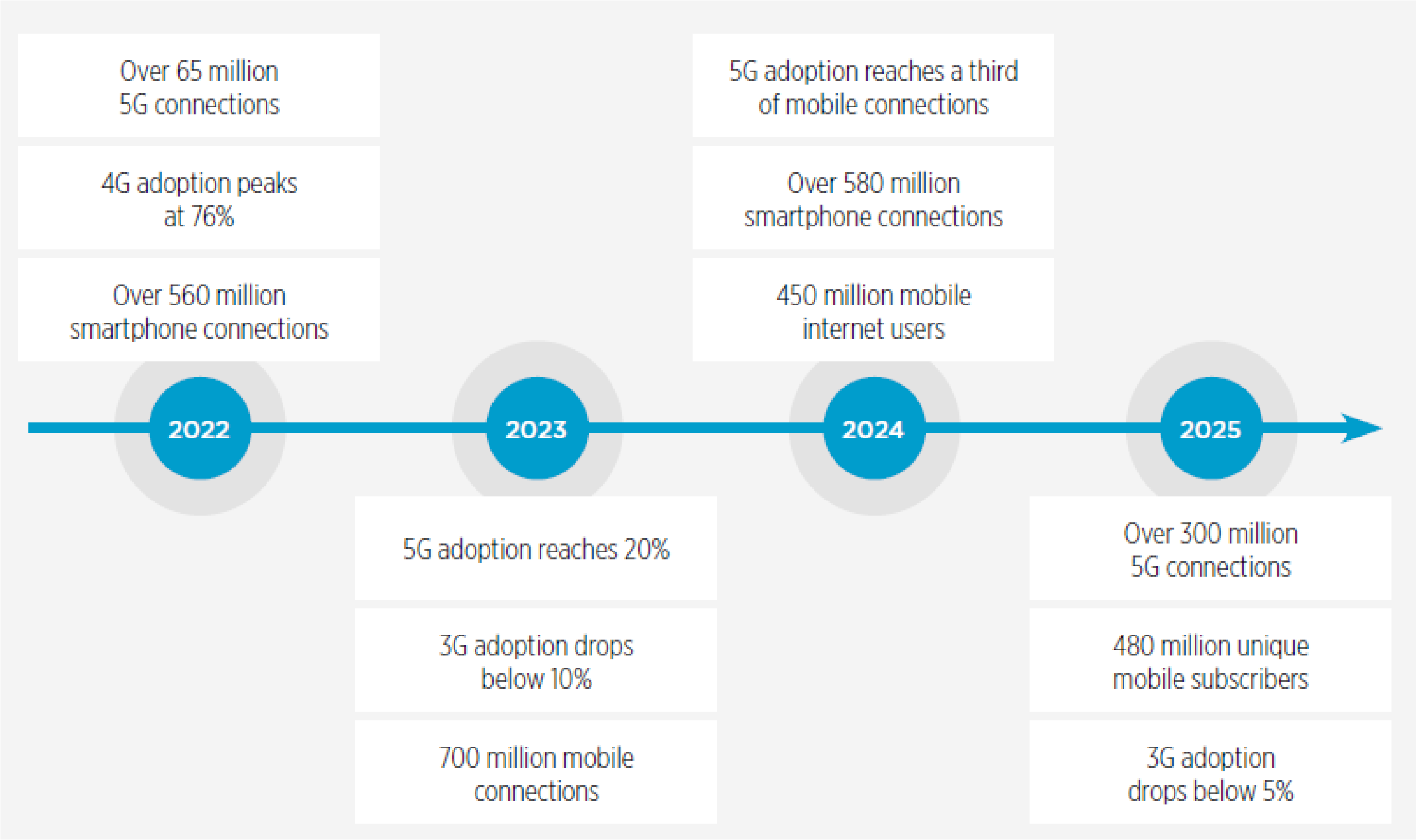
Q&A

ask anything!

Performance and outlook	• 5G rollouts and adoption • Financials and macro picture
Energy and green transition	• Energy shocks • Net zero • Cost implications • Revenue implications
Policy support	• Economic engine: GDP and jobs • Pro investment • Fair playing field • Supply chain

The 5G era is well under way in Europe

- 5G rollouts continue, balanced with solid LTE infra
- Sets the stage for…
- Enterprise/B2B story
- Net zero and renewables
- Regaining technology leadership position from US + China

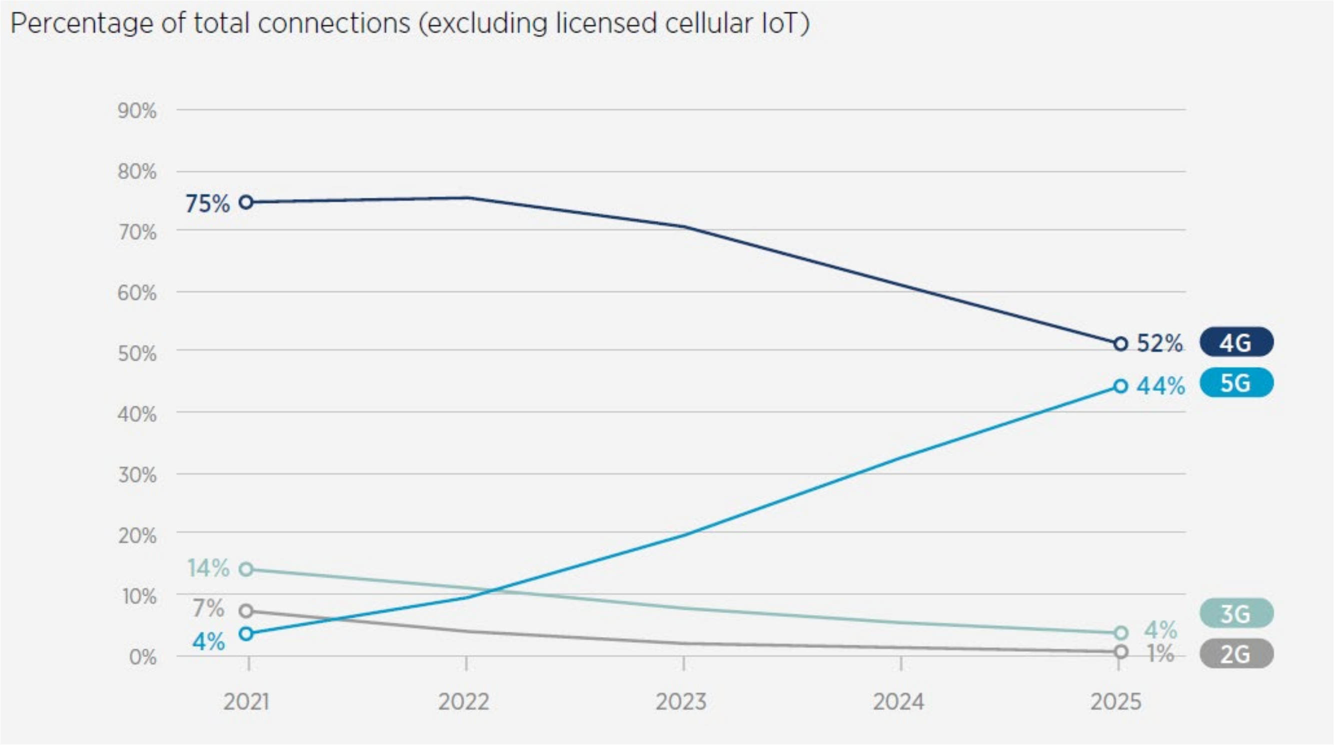


Source: GSMA Intelligence

5G on the rise, though LTE will long co-exist

- 5G take-up will get to around 45% of customers by 2025
- Coverage expansion, post Covid demand rebound, declining handset costs
- But…5G opportunities shouldn't mask LTE's staying power
  - Services
  - Capacity

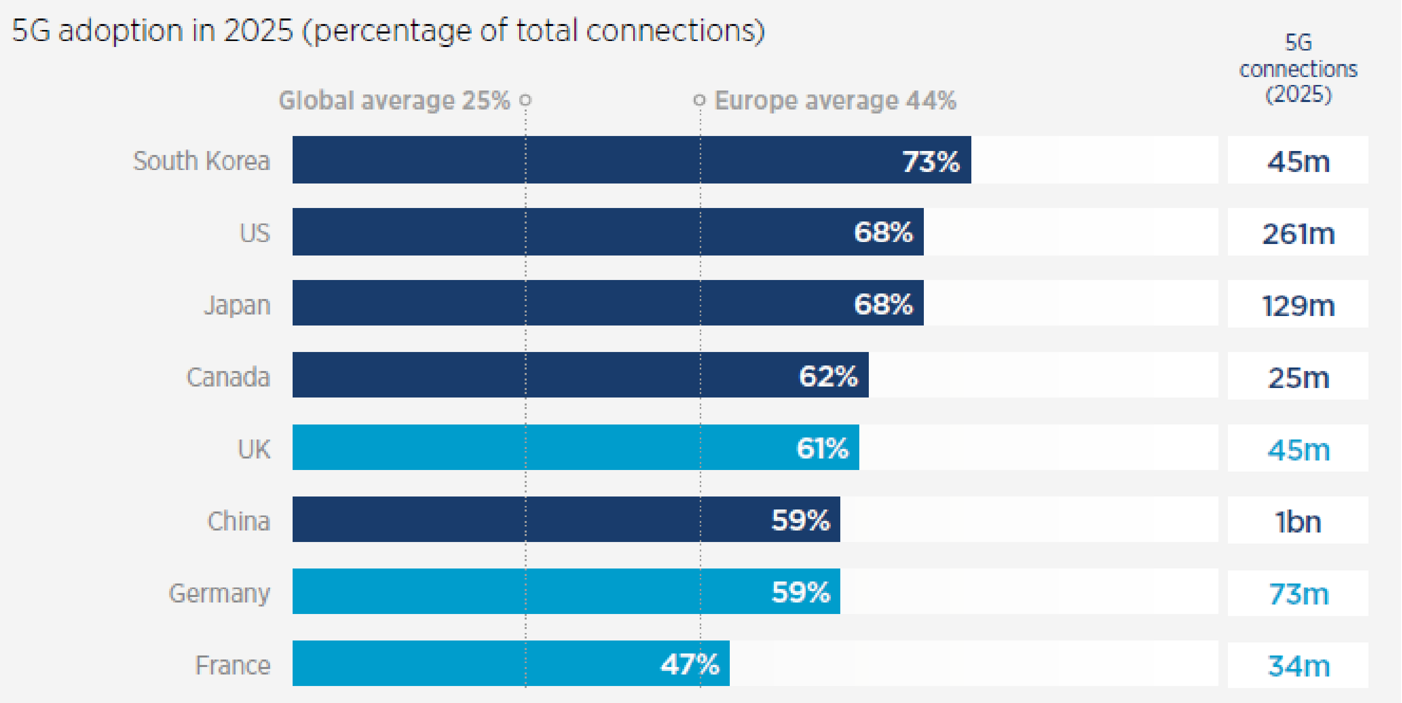
5G will be around 45% of the base by 2025, with 2G/3G largely (though not completely) sunsetted



Source: GSMA Intelligence

Part of this reflects country variation…

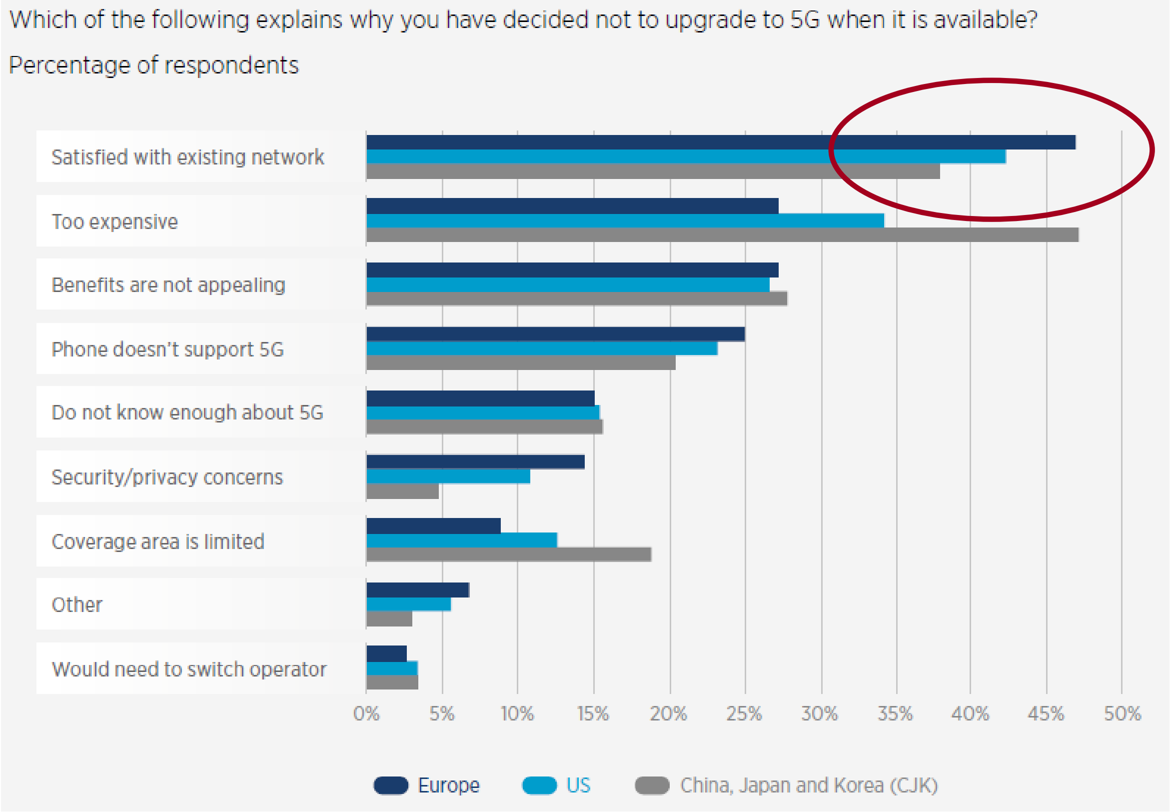
How do leading European countries stack up against the CJK + US vanguard? Generally lower…



Source: GSMA Intelligence

...and part the need for a 'wow' factor

5G may be better and faster, but that hasn't necessarily *cut through* in people's perceptions

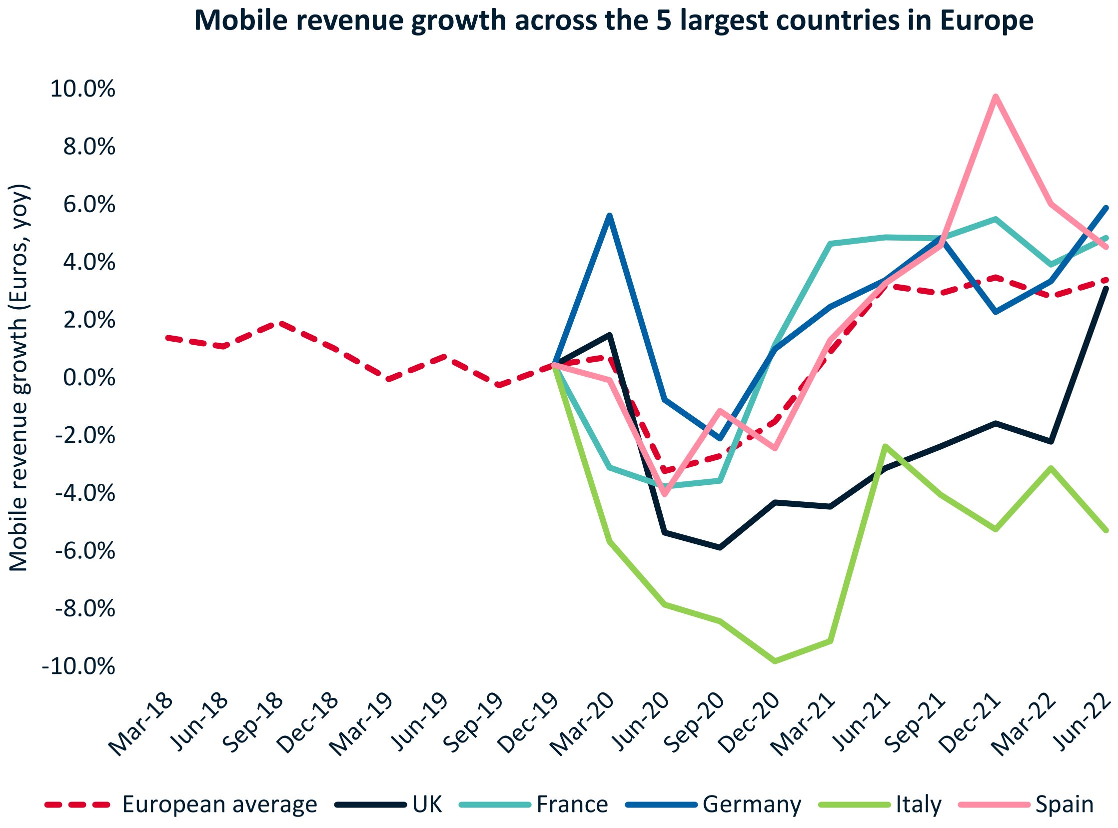


- Europeans are happy with LTE smartphones
- Need to overcome comfort inertia

Source: GSMA Intelligence

Weathering a world of macro shocks

- Pre Covid, trend revenue growth was 1-2% for European telecoms as a whole
- While the pandemic took 4-8ppts off growth (lockdowns, roaming, income pressures), some resilience is feeding through
- Why?
  - Price firming
  - 5G upgrade cycle
  - Bundling
  - Early B2B success?
- Energy has emerged as a critical issue

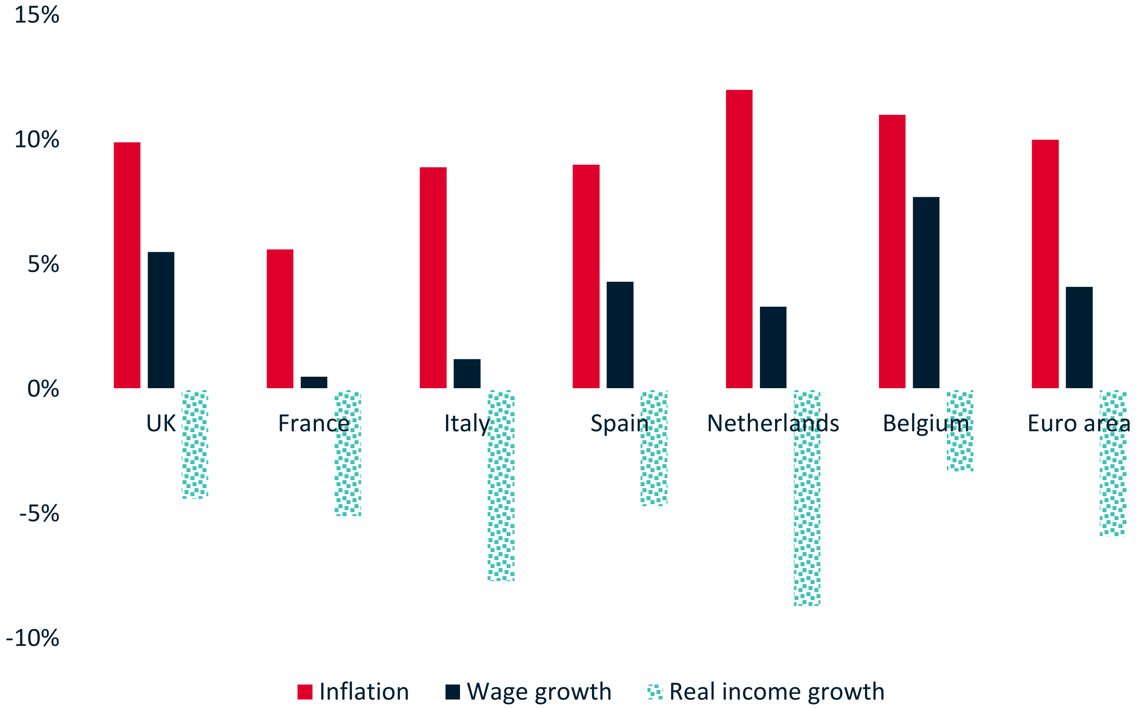


Source: GSMA Intelligence

However, consumer pressures are unabated

- Relentless pressures on cost of living
- Energy (precipitated by the war) and food are most common drivers
- Import-reliant countries exposed to higher degree (or those for a specific commodity, such as gas in Germany)
- Mobile is fairly inelastic as an essential item, but the challenging household economics will strain upgrade volumes

Household incomes are dropping at around 5% in real terms

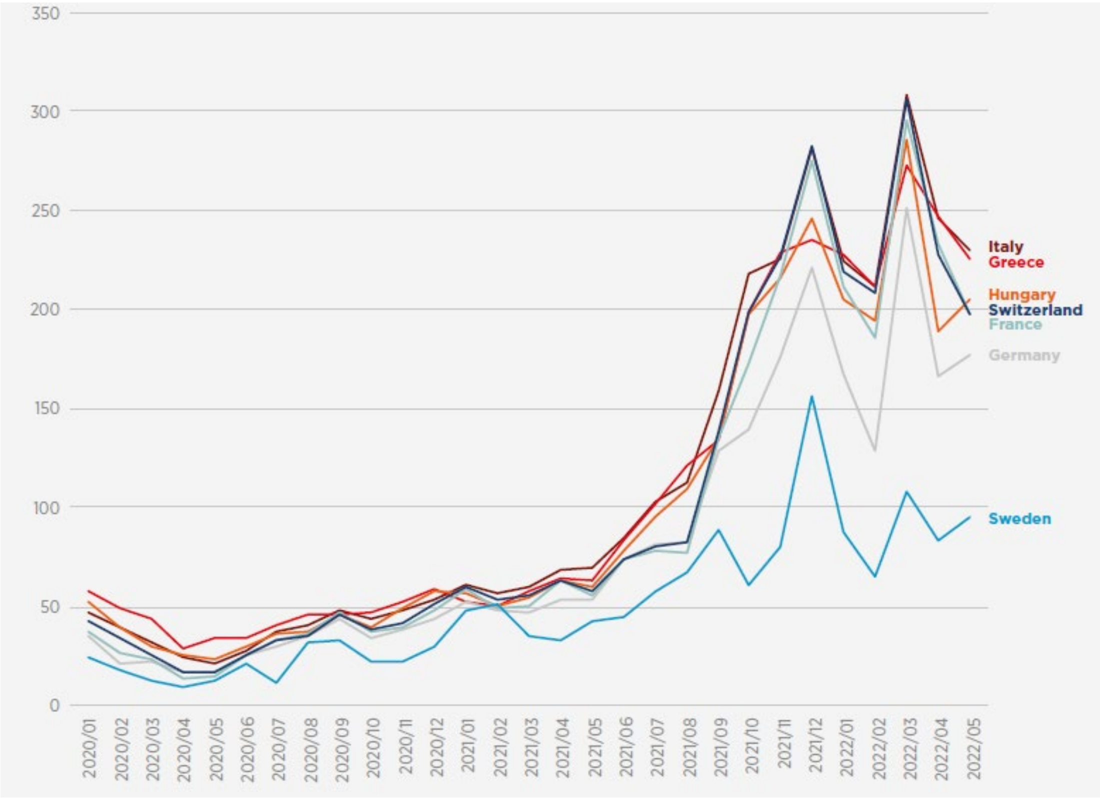


Source: GSMA Intelligence, national statistics agencies, IMF

What happens if energy costs keep going up?

- Energy = 20-40% of network opex (or 10-15% of total)
- Wholesale prices rising fast, mostly driven by the war. Offsets network efficiency gains
- While some of the rise can be mitigated/blunted through forward contracts or hedging, some cannot
- Implications
  - Pressure on free cash flow given low revenue growth environment = constrains investment
  - Pass through?
  - Infra rollout delays?
  - Others?
  - Reinforces renewables imperative

Average wholesale electricity prices per mWh (Euros)

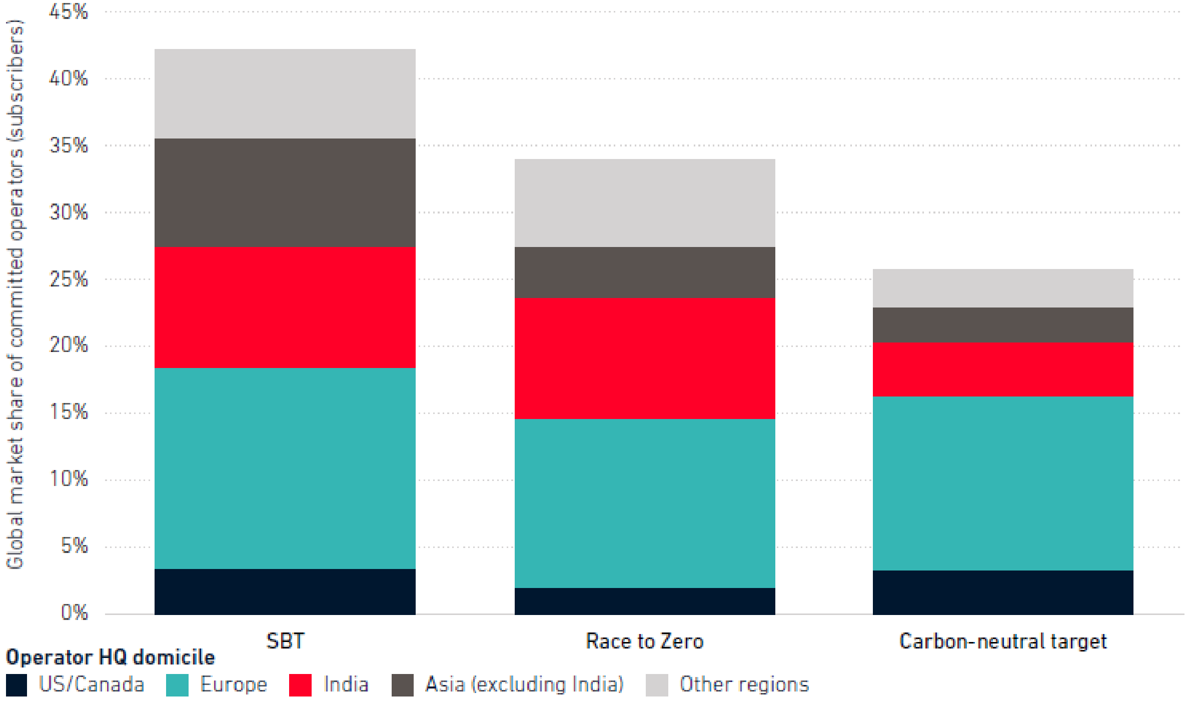


Source: GSMA Intelligence, national statistics agencies, IMF

Net zero by 2050 means here and now

- Strategic priority, not CSR
- COP 26/27 momentum
- Globally, gaps remain to south and east

Europe has set the pace where 25-40% of the global telco sector is committed on the major climate measures



Source: GSMA Intelligence

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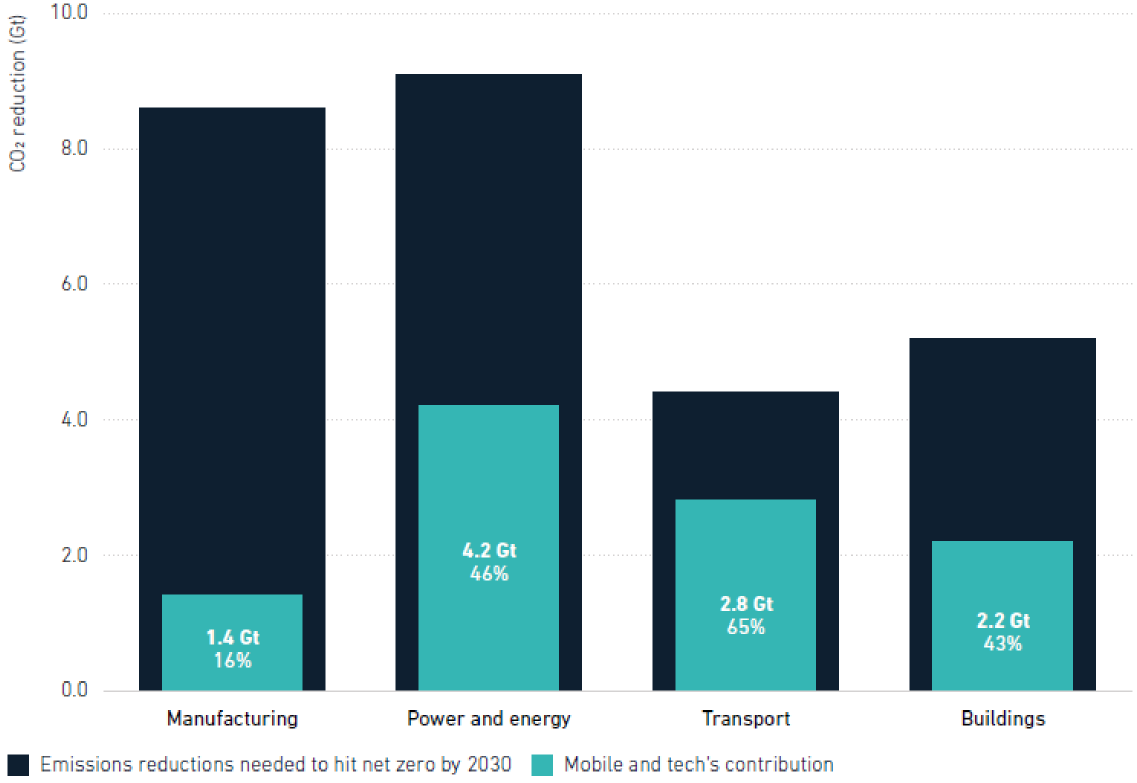
Green isn't just environmental, it's good business

- Beyond helping fight climate change, going green has clear direct financial benefits
  - Lower network energy costs (20-40% of opex)
  - Ease transition to renewables
  - Cloud workloads + AI
- However, less appreciated is latent incremental revenue from B2B digitisation
- Mobile + digital can enable <u>40% of CO2 reductions</u> needed by 2030 for the 4 most carbon intense industries

Mobile and digital tech can drive 40% of the required CO2 emission savings needed by 2030 to stay on track for net zero by 2050



Source: GSMA Intelligence

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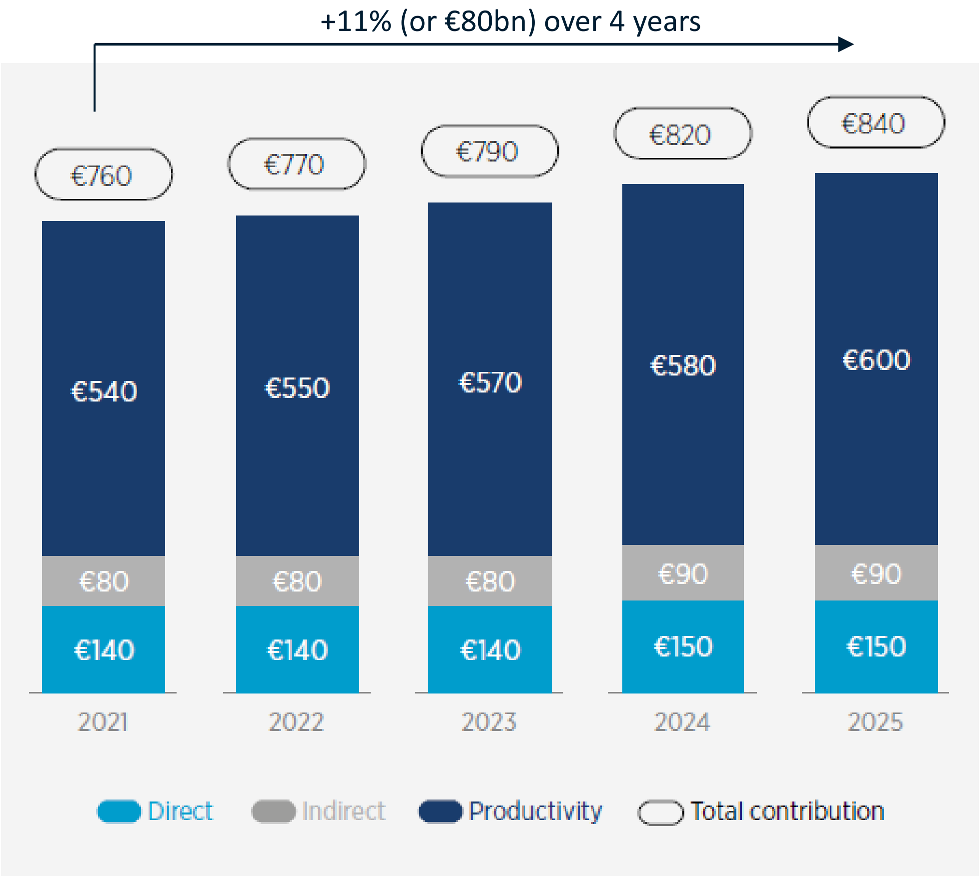
...and a key part of renewing a growth story

Recouping network investments is a long running challenge in the telco sector
Europe view...

Source: GSMA Intelligence

So, while telco is an economic engine house



- Telco sector accounts for 4.5% of European GDP. Output, jobs, tax contributions
- Projected rise driven by productivity gains, digitisation (with 5G)

Source: GSMA Intelligence

Policy priorities centre on driving investment

Competition policy and enforcement

Fairer spectrum licensing conditions

Reduce red tape for infra roll outs

Share costs of network traffic growth

Supply chain diversity

Thank you

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