

GSMA Services Showcase Live

# Telco sustainability

## Own house, others house, and circular effects

**DATE**

November 2022

**AUTHOR**

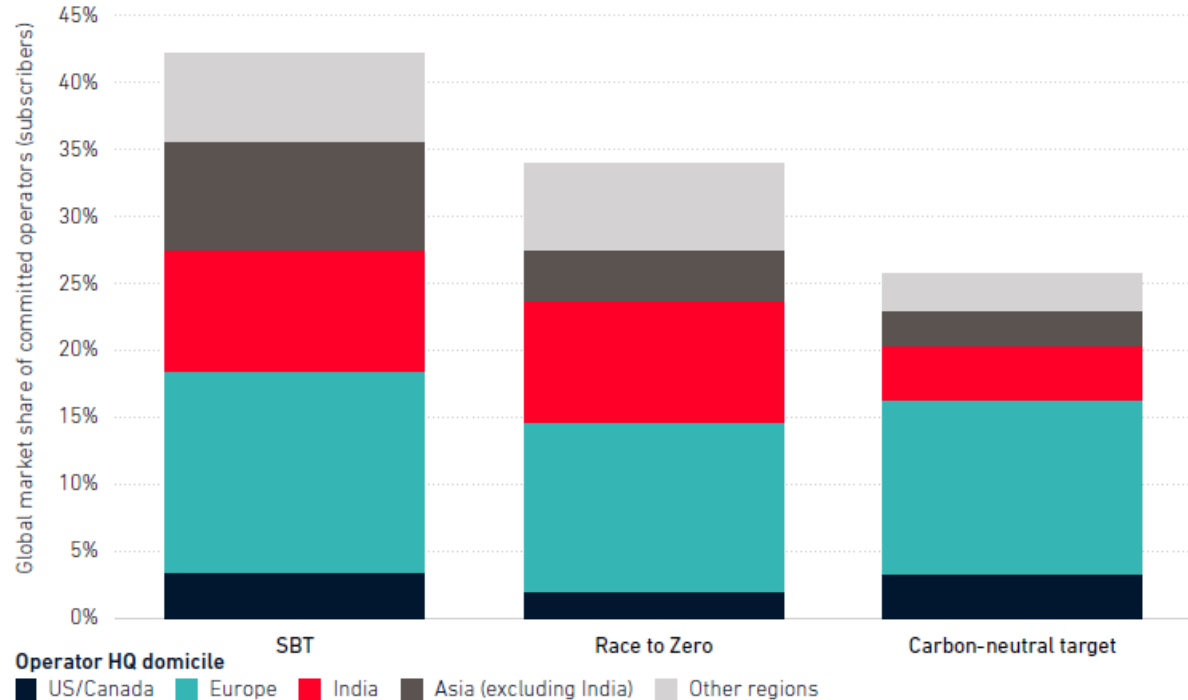
Tim Hatt

Head of Research and Consulting, GSMA Intelligence

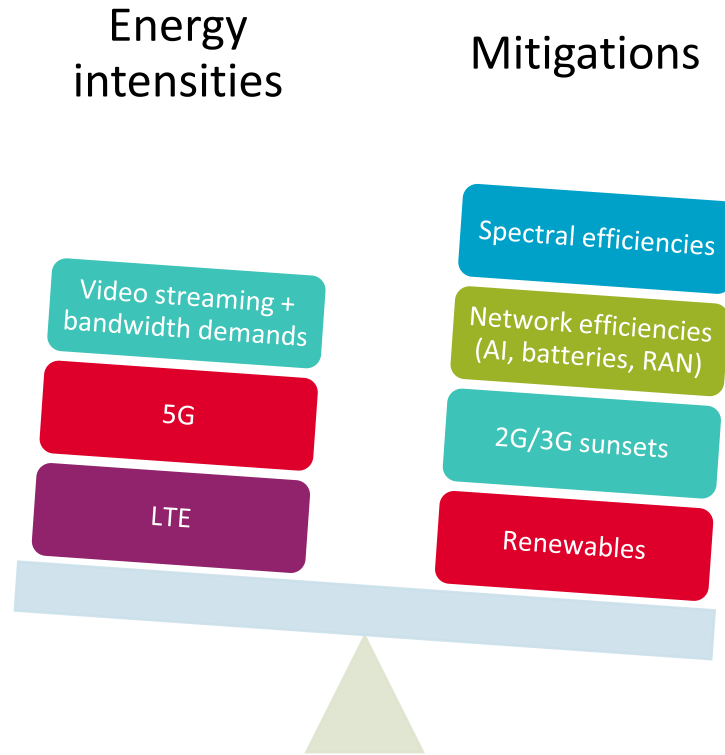
# Climate change waits for no one

- 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



# Lowering energy for telcos is a holistic challenge



# 90% of power is from networks = low hanging fruit

## Efficiency reading

- Primary ratio: kWh per unit of cellular data traffic
- Global average = 0.24 kWh per GB
- Secondary ratios
  - Energy per mobile connection = 14.8 kWh per year
  - Energy per base station site = 28,665 kWh per year

## Energy sourcing

- Renewables: 46%
- Traditional grid supply: 43%
- Diesel: 11%

## Network consumption

- Distribution of power usage across mobile network:
- RAN = 73%
  - Core = 13%
  - Owned datacentres (e.g. excluding leased capacity from AWS, Azure etc) = 9%
  - Other ops = 5%

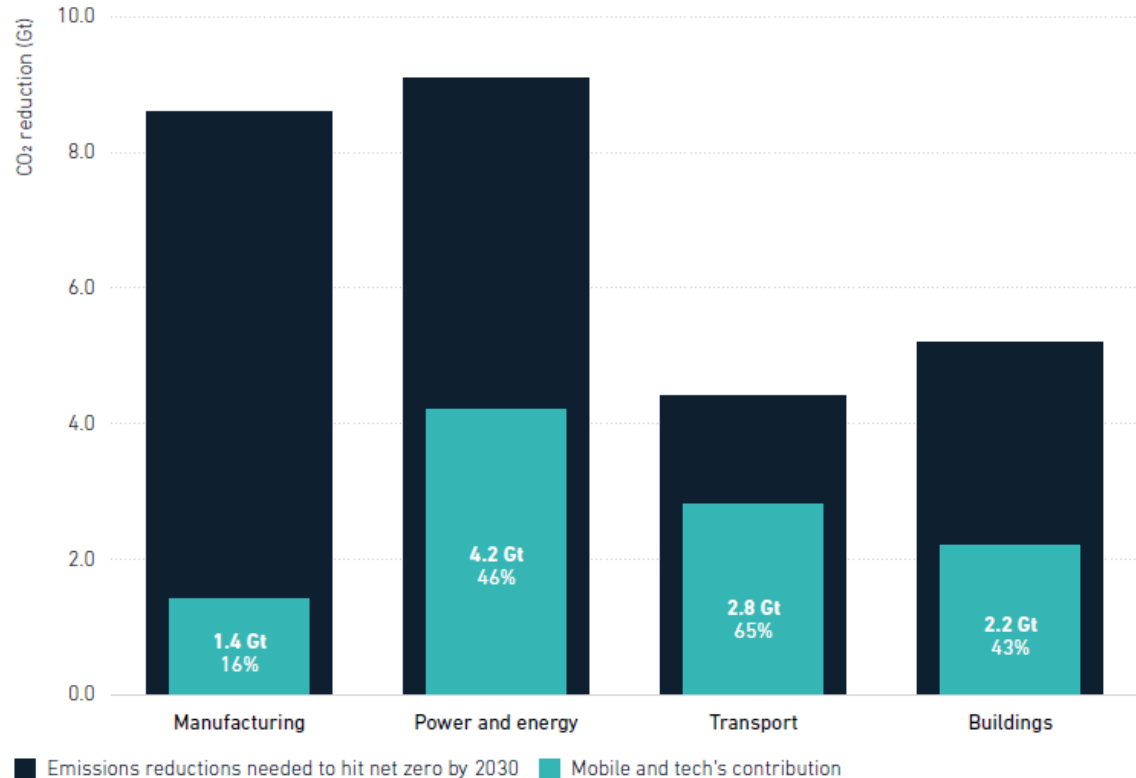
2020

\*Note these figures are averages based on anonymised data inputs from 7 operator groups. Data should not be interpreted as necessarily indicative of a given company, region or overall industry as a whole. Excludes fixed line

# Others house. Lower energy, higher revenues

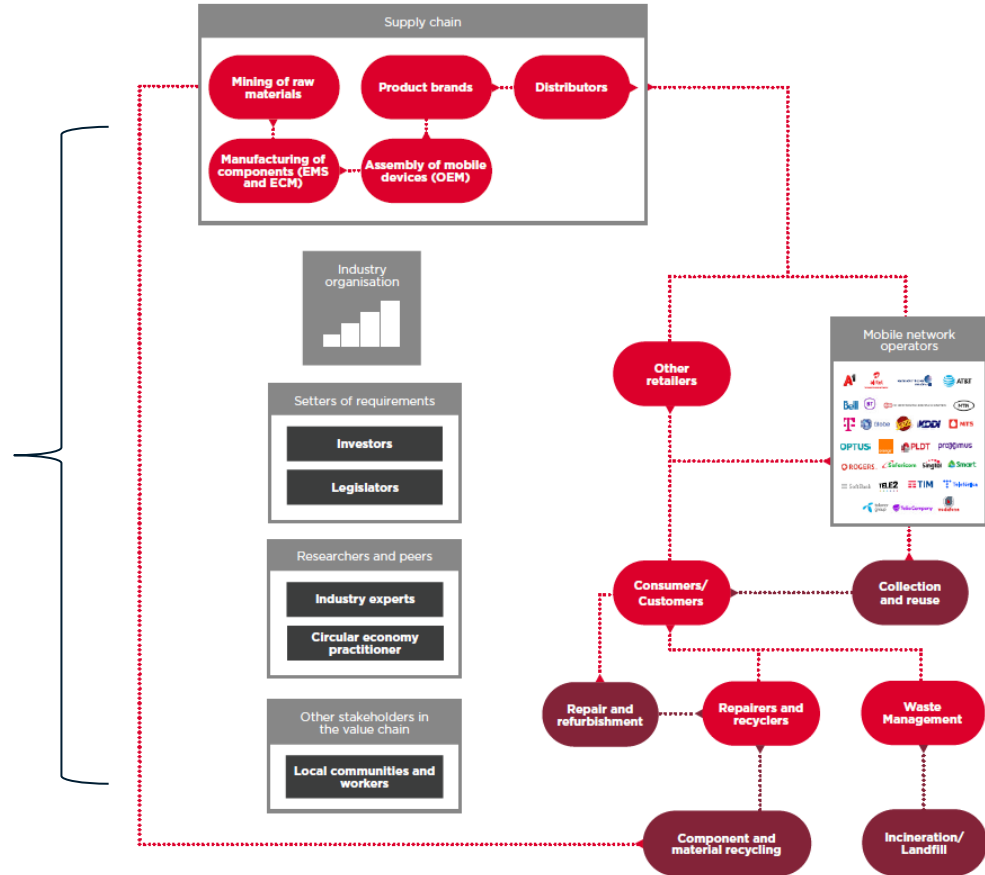
Mobile and digital tech can drive 40% of the required CO2 emission savings needed by 2030 to stay on track for net zero by 2050 (GLOBAL VIEW)

- 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 40% of CO2 reductions needed by 2030 for the 4 most carbon intense industries



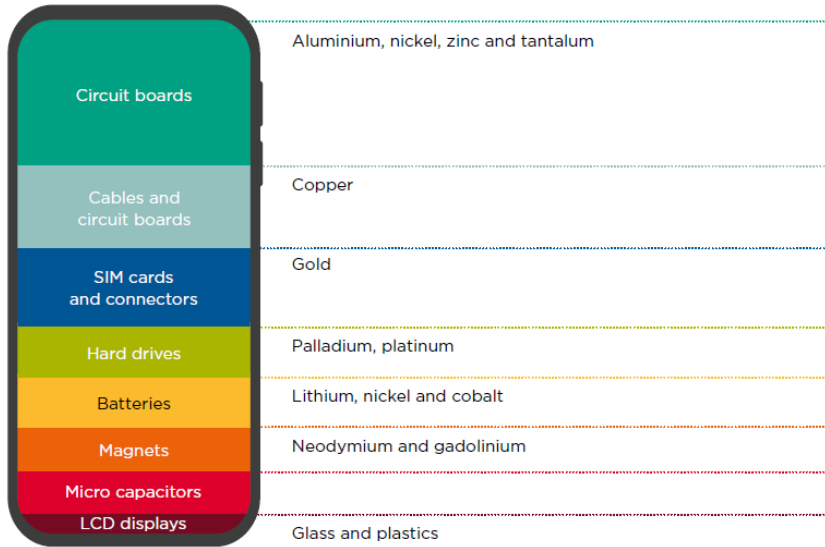
# Devices have a complex value chain

Typical device value chain (may vary depending on the country)



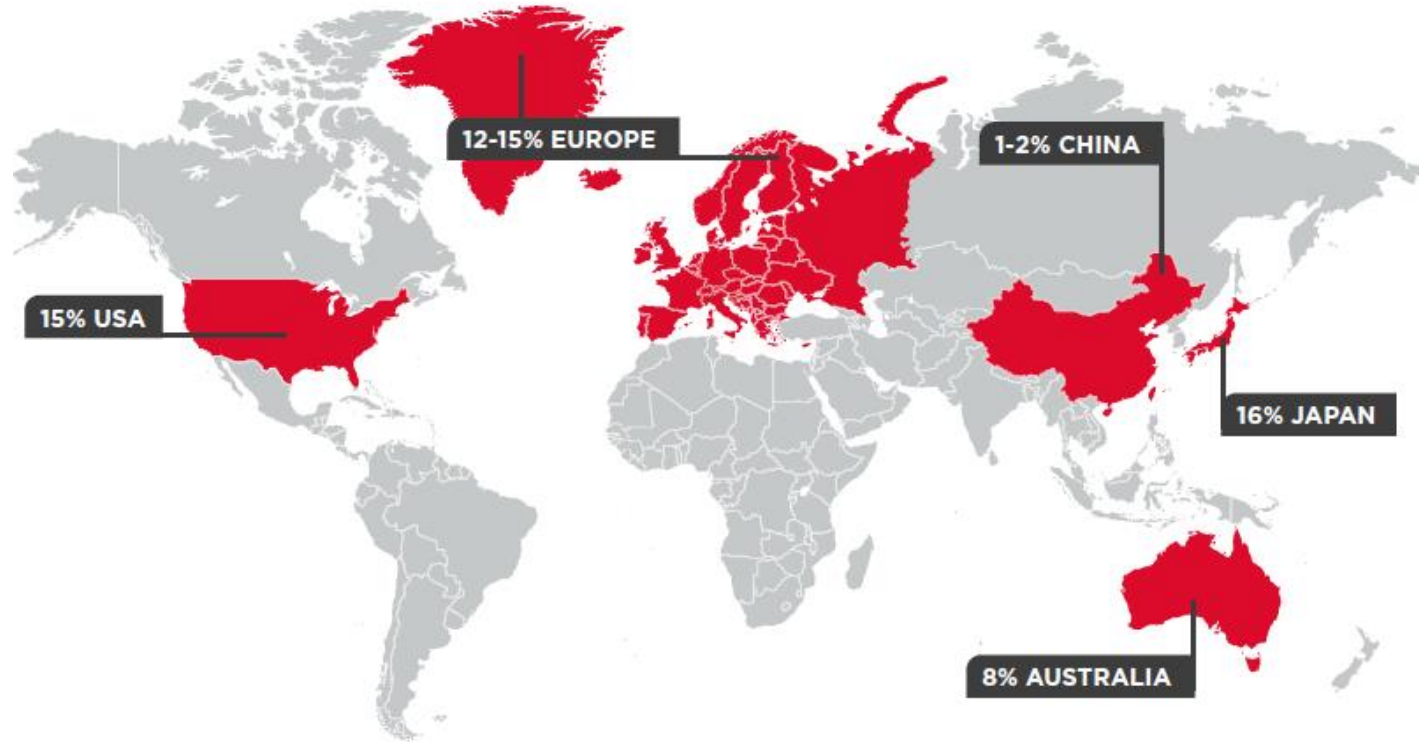
# Lots of metals, but what to do with them?

## Typical mobile phone metal inclusions



# Low recycle rates augur for change

Mobile phone recycling rates (where data available)





GSMA Intelligence

Serves **800** organisations

**40,000** users worldwide

**Data**

**1,400** Mobile operators

**80** Operators groups

**5,000** Networks

**30M** Data points updated daily

**Research**

**130+** Reports annually

**1M** Report downloads in 2019

**100+** Global, Regional & Topical Research, Deep Dives & Analysis

**Pinpoint accuracy**

Five-year forecast consistently accurate within +/- 2.5% of reported data, updated quarterly

**50+ Analysts & industry experts**

Supporting the business strategy of our subscribers and the wider ecosystem

Search Data

Mobile

- By Operator
- By Market
- By MVNO
- Operator List
- Network List
- MVNO

**CUSTOM SEARCH**

**NETWORK LIST**

**RESEARCH**

**Intelligence**

**The 5G FWA opportunity**

A TCO model for a 5G mmWave FWA network

**GSMA Intelligence**

**IoT market update: assessing disruption and opportunities, forecasting connections to 2030**

December 2021

© 2021 GSMA Association

**GSMA Intelligence**

**Analysing the behaviour of early 5G users: 10 things to know when planning consumer 5G strategies**

December 2021

© 2021 GSMA Association



# Thank you

---

Tim Hatt, Head of Research and Consulting

[thatt@gsma.com](mailto:thatt@gsma.com)