For directors of companies that issue securities on public markets. Capital at risk.

LGIM

Net-zero: Tech and Telecoms

2% of human-caused greenhouse gas emissions come from information technology and communications.[1]

What does the **tech and telecoms sector** need to do to reach net-zero?

LGIM will vote and implement investment sanctions against companies falling short of our climate expectations. LGIM expects companies' boards to oversee and publicly disclose answers to the following:

Net-zero commitment

- Does the company have a comprehensive target for net-zero by 2050 or earlier, covering scopes 1, 2 and material scope 3 emissions?[2]
- Has the company made a commitment to certify/certified this target with the SBTi or other external independent parties?
- Does the company have a net-zero transition plan that includes short- and medium-term targets?[3]

Strategy

- What are the actions and investments embedded in the company's plan to reach net-zero, and what is the contribution of each action towards meeting its targets?[4]
- Is the company developing low-carbon products and to what extent do these provide climate solutions and help to reduce customers' GHG emissions?
- Is executive remuneration aligned with the company's short- and/or medium-term emissions targets, as set out in the net-zero transition plan?

Resilience

- Has the company analysed its business model resilience to climate-related risks and opportunities using scenario analysis (including the IEA's net-zero by 2050 scenario and a 'Business as usual' scenario) and disclosed how the output has influenced its strategy?
- Has the company analysed the physical climate risks to its assets, operations, and value chain (e.g. water scarcity), including potential financial impacts, and evidenced measures to mitigate or adapt to them?

Targets

- Does the company have targets to increase renewable energy uptake?
- Does the company have targets to increase recycled/zero-carbon materials and improve the circularity of products?
- Does the company have targets to optimise its water usage?

Collaboration

- How is the company working collaboratively across its value chain to reduce emissions (e.g. customers, suppliers, utilities sector, strategic R&D partnerships, sector initiatives etc.)?
- Is the company advocating meaningful policy action, including from regulators, to meet global net-zero targets (e.g. with carbon pricing)?

Red lines

- Does the company have a net-zero operational emissions target?
- Does the company disclose its material Scope 3 emissions?
- Does the company disclose its climate-related lobbying activities, including trade association memberships, and explain the action it will take if these are not aligned with a 1.5°C scenario?

* The applicability of the expectations varies depending on companies' business models

1. Malmodin and Lunden (2018).
2. Aiming to cover all segments of the business, as articulated within the GHG protocol guidance.
3. Short-term refers to 2022 - 2025, medium-term 2026-2035 and long-term 2036-2050.
4. E.g., improving energy efficiency in networks and buildings; increasing access to, and use of, renewable electricity; improving environmental sustainability and circularity of mobile devices and equipment; using mobile connectivity to reduce carbon emissions through smart technologies R&D; alignment of M&A activity with net-zero objectives, etc.

Further areas for company consideration

Biodiversity expectations

Why? The climate and nature crises are inextricably linked.[5] Net-zero requires both emission avoidance and sequestration. Functioning natural systems are essential to this, but increasingly vulnerable due to climate change.

LGIM's expectations: An assessment of the impacts and dependencies on nature and biodiversity, and appropriate mitigation actions.

Sector-specific considerations: Direct impacts could result from building communication networks and the supporting infrastructure. Indirect impacts could result from the raw material extraction needed for hardware, disposal of electronic waste, and creation of hazardous waste.

Company levers

- Renewable energy and storage
- Energy efficiency
- Low-carbon transport
- Recycling and re-use
- Water efficiency

Government policies

- Carbon pricing
- Regulation to decarbonise power grids
- Energy and water efficiency standards
- Reduced waste/increased recycling and refurbishment
- Supply chain standards and monitoring
- Procurement legislation

Challenges

Global growth in data and internet demand outpacing decarbonisation of power

Location and size of data centres, use of on-site fossil fuel power

Over-reliance on renewable energy 'credits'

Opportunities

Onsite renewable energy generation

Cost reductions from energy efficiency and fixed-price power

Digital solutions can drive the decarbonisation of other sectors ('smart' offices, manufacturing etc)

What is needed?

Company leadership

Companies adopting ambitious targets for their power supply and building resilience of operational infrastructure (offices, data centres, etc)

Research and innovation

Battery storage

Artificial intelligence and the internet-of-things

Consumer behaviour

Demand for sustainable digital solutions

5. UN IPCC-IPEBS, Biodiversity and Climate Change workshop report (2021)

Sources of emissions

'Scope 3' Upstream

Indirect GHG emissions from a company's supply chain (e.g. extraction of metals and rare earths for semiconductors etc)

'Scope 1'

Direct GHG emissions from owned and operated facilities, company vehicles, on-site diesel generators etc

'Scope 2'

Indirect GHG emissions from purchased energy to power operations and data centres

'Scope 3' Downstream

Other **indirect** GHG emissions from product distribution and transportation, consumer use/ disposal of devices

Sources: Malmodin and Lunden (2018).

'Just Transition' considerations

The potential implications for employees, the supply chain, customers and communities from the transition to a lower-carbon business model

Workers' rights in supply chain

The impact of automation

Physical risk impacts

Disruption to operations from extreme weather

Energy usage for cooling data centres expected to increase

For more information and to see how companies are rated

LGIM Climate Impact Pledge score

LGIM Climate Impact Pledge

Important information
Source: LGIM as at September 2023. The value of an investment and any income taken from it is not guaranteed and can go down as well as up, you may not get back the amount you originally invested. The above information does not constitute a recommendation to buy or sell any security.