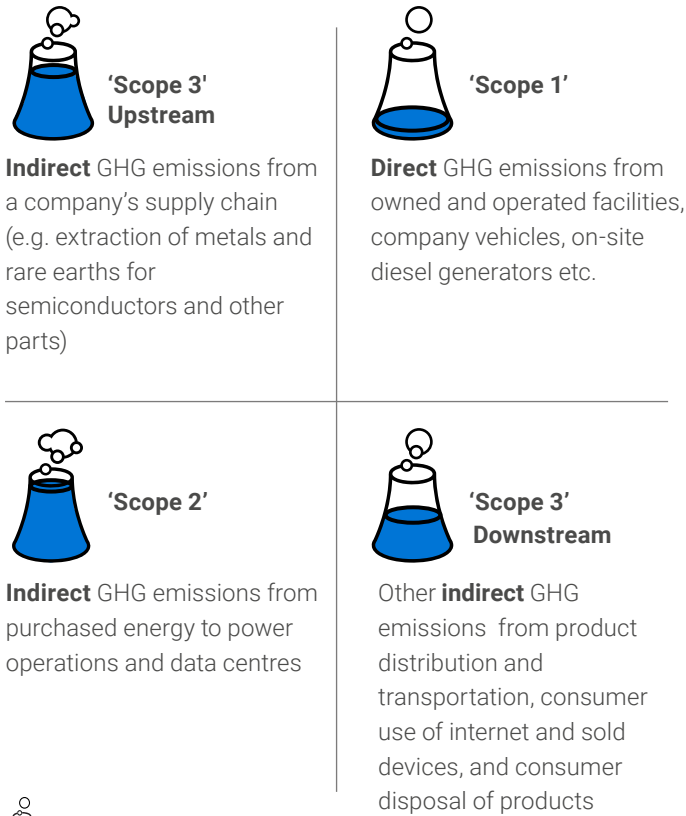


Net zero: tech and telecoms

To prevent dangerous climate change, greenhouse gas emissions must reach net zero. What does the **technology and telecommunications sector** need to do?

2% of human-caused GHG emissions derive from information technology and communications

Sources of emissions



 Sources: Malmodin and Lunden (2018)

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 energy generation
- Cost reductions from energy efficiency and fixed-price power
- Digital solutions can drive decarbonisation of other sectors ('smart' offices, manufacturing etc).

Companies

Governments

Key levers	Key policies
Renewable energy and storage	Carbon pricing
Energy efficiency	Regulation to 'green' power grids
Low-carbon transport	Energy and water efficiency standards
Water efficiency	Reduced waste/increased recycling and refurbishment
	Supply chain standards and monitoring



Other environmental considerations

- Waste disposal
- Impact on land use and biodiversity from supply chain (e.g. mining)

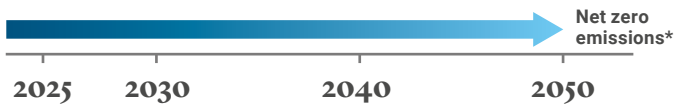
Social impacts and the just transition

- Risks around automation
- Workers' rights in supply chain

Physical risk impacts

- Disruption to operations from extreme weather; energy usage for cooling data centres expected to increase

Decarbonisation effort



Easier to achieve

- Low-carbon transport
- Energy efficiency
- Recycling and re-use
- Own renewable generation, Power Purchase Agreements and energy storage

Possible with effort

- Greening the global power grid
- Transparency and procurement legislation

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 Internet-of-Things



Consumer behaviour

Demand for sustainable digital solutions

LGIM will vote and implement investment sanctions against companies falling short of our climate expectations.

*To be followed by reducing emissions of other GHGs such as methane to net zero

How are we assessing companies' net zero pathways?

Net-zero Commitment	<ul style="list-style-type: none"> Does the company support the Paris Agreement target? Does the company have a net-zero target?
Strategy	<ul style="list-style-type: none"> How much capital is being committed to decarbonisation efforts? What percentage of R&D is allocated to low-carbon technologies?
Resilience	<ul style="list-style-type: none"> Is the company analysing the physical climate risks to its portfolio and evidencing measures to manage these? Resilience of business model in – and alignment to – climate scenarios?
Targets	<ul style="list-style-type: none"> Does the company have targets related to use of "green" electricity? Does the company have targets to increase recycled/zero-carbon materials?
Collaboration	<ul style="list-style-type: none"> Evidence of the company working collaboratively across its value chain to reduce emissions? Is there evidence of the company advocating for meaningful policy action from regulators?
Red lines	<ul style="list-style-type: none"> Operational emissions target?

For more information...

Please see: <https://www.lgimblog.com/categories/esg-and-long-term-themes/climate-impact-pledge>

Important information

Source: LGIM as at September 2020. 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

© 2020 Legal & General Investment Management Limited. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, including photocopying and recording, without the written permission of the publishers. Legal & General Investment Management Ltd, One Coleman Street, London, EC2R 5AA Authorised and regulated by the Financial Conduct Authority.