Task Force on Climate-related Financial Disclosures (TCFD)

In meeting the requirements of Listing Rule 9.8.6 R, the Board has concluded that:

- We comply with recommended disclosures Governance, Risk Management
- We partially comply with recommended disclosures Strategy (B5), Metrics (D10)
- We do not comply with recommended disclosures n/a

Disclosures	Recommended disclosures	Response
A. GOVERNANCE		
Disclose the organisation's governance around climate-related risks and opportunities.	Describe the board's oversight of climate-related risks and opportunities.	The Xaar plc Board reviews key climate-related risks and opportunities and oversees mitigation strategies as part of the bi-annual review of principal and emerging risks.
		Alison Littley, Senior Independent Director, has specific responsibility for ESG matters, including climate change and sustainability.
	2. Describe management's role in assessing and managing climate-related risks and opportunities.	Executive management receives reports from an ESG Committee whose members consist of senior managers across the Group.
		The ESG Committee meets on a quarterly basis to assess the opportunities and proposals developed by the Sustainability Working Group.
		The Sustainability Working Group meets regularly and is developing a roadmap whilst also receiving information from both the Carbon Net Zero team and Energy Efficiency team.
		See governance structure on page 29
B. STRATEGY		
Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning where such information is material.	3. Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term.	Short term (2021-2025): We do not anticipate any significant physical risk changes over the short term. Implementation of transitionary regulatory controls (e.g. carbon pricing) could potentially commence, and could affect raw material pricing, that would need to be passed onto customers.
		Medium term (2025-2035): Mitigating the physical impact of climate change is critical because we depend on raw materials sourced from countries that are particularly vulnerable to rising seas and temperatures from changing weather patterns. We have performed high-level assessments on our business in respect of 2°C and 4°C global warming scenarios which show that without action, both scenarios represent increased financial risks by 2030, with increased risk of property damage and business disruption from e.g. flooding. Under the 2°C scenario, transition risks and mitigation actions lead to carbon pricing being introduced in key countries and hence there are increases in both manufacturing costs and the costs of raw materials e.g. plastics and the metals used in products. Change in customer expectations as more companies committed to becoming net zero and set Science Based Targets, assessing the supply chain and Scope 3 emissions.
		Longer term (2035-2050): Under the 4°C scenario, there are likely to be significant risks arising from failure to transition, leading to significant increase in physical and adaptation risks. With significantly hotter summers (+4°C to +7.6°C), leading to increased flooding and storm losses and an expectation of significant uninsurable losses affecting financial markets and global economic growth.

Disclosures	Recommended disclosures	Response
B. STRATEGY continued		
	4. Describe the impact of climate- related risks and opportunities on the organisation's businesses, strategy, and financial planning.	In managing these financial climate-related risks our business model would not require material change, except for increasing inventory levels of components to account for transport delays arising from exceptional weather events, and to consider mitigation for potential business disruption, e.g. flood defences.
		Opportunities exist in the transition to a low carbon manufacturer, by reducing both energy usage and utilising renewable energy sources to deliver lower costs to the business. Product development will incorporate sustainability as a central objective, to transition manufacturing from a linear to a circular process and to being a process to reduce, re-use and recycle materials all to be undertaken as part of Xaar's overall Sustainability Roadmap.
		See Risk Management on page 45
	5. Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	We have undertaken a high level review of the likely impact of 2°C and 4°C global warming scenarios (see above) as outlined by the IPCC report issued in 2021. As part of the sustainability strategy to deliver Science Based Targets to achieve 1.5°C, an independent external climate related scenario review will be researched in 2022 to identify physical and transition risks and opportunities in delivering carbon neutral manufacturing leading to 'Net Zero by 2030'.
C. RISK MANAGEMENT		
Disclose how the organisation identifies, assesses, and manages climate-related risks.	6. Describe the organisation's processes for identifying and assessing climate-related risks.	The Group has processes in place for identifying, evaluating and managing the principal risks, which could have an impact upon the Group's financial performance. Climate change has been disclosed as an emerging risk in recent years, and has been escalated to a principal risk category in 2021.
		The Board has considered the potential impact of regulatory change that could occur in the short to medium term.
		See Risk Management on pages 45 and 49
	7. Describe the organisation's processes for managing climate-related risks.	See above – A. Governance – Xaar has introduced a new structure to identify climate-related risks to be reported to the Board bi-annually including making decisions to mitigate, transfer, accept, or control those risks.
	8. Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.	As part of the Group's risk management, within the detailed risk register, climate-related risks are determined alongside other principal risk areas e.g. manufacturing facility, inventory and supply chain risks. The assessment is quantified via a Likelihood / Magnitude matrix to determine the overall net risk after mitigation.

Task Force on Climate-related Financial Disclosures (TCFD) continued

Disclosures	Recommended disclosures	Response
D. METRICS & TARGETS		
Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	9. Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	 Initial metrics as outlined in 2020: Investigate metrics and targets to be defined as part of Science Based Target initiative Continuing improvement / reduction in Scope 1 & 2 emissions along with intensity measurement Scope 1 & 2 emissions to be offset to become 'carbon neutral' Scope 3 emissions recognition. Initial targets as outlined in 2020: Set, measure and disclose a zero waste to landfill target, any waste not recycled being sent to a waste to energy recovery process. Generation of a Sustainability Roadmap.
	10. Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	GHG emissions are disclosed as per the SECR requirements for Scope 1 and Scope 2. An initial assessment has commenced for Scope 3 emissions, and a boundary developed. We have recognised Scope 3 emissions arising from employee travel and commuting; the difficulty remains in determining the supply and quality of data via upstream and downstream value chain (ongoing).
	11. Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	 Xaar has committed short-term targets: To achieve a net zero target by 2030 100% renewable (green) electricity at UK facilities Zero waste to landfill Offset of all Scope 1 & 2 Group emissions as we continue to drive reductions in energy use. See page 36 for progress summary