

techUK's response to the ESNZ Committee inquiry on net zero and trade

About techUK

techUK is the UK's leading technology membership organisation, with more than 1000 members spread across the UK. We are a network that enables our members to learn from each other and grow in a way which contributes to the country both socially and economically. By working collaboratively with government and others, we provide expert guidance and insight for our members and stakeholders about how to prepare for the future, anticipate change and realise the positive potential of technology in a fast-moving world. techUK launched in 2013 to champion the technology sector and prepare and empower the UK for what comes next, delivering a better future for people, society, the economy and the planet.

Executive summary

The tech sector has two primary roles to play in the green transition. Firstly, it must adopt strategies to reach net zero emissions within its own operations. Secondly, it should actively develop and advocate for the use of digital solutions that facilitate decarbonisation efforts across other sectors of the economy. On the latter point, the World Economic Forum estimates digital tech can cut global emissions by 20% if deployed across the heaviest emitting sectors such as transport, power, manufacturing, and construction.

Trade holds significant potential for enabling access to the digital technologies necessary for global sustainability efforts. However, there are structural barriers that are holding back digital technology exports and impeding progress toward achieving net zero goals.

Throughout the response, techUK proposes the following policy recommendations and measures:

- Reducing tariffs for digital technologies and hardware used in net zero solutions.
- Integrating provisions for green and digital skills into mobility packages within trade agreements.
- Organising trade missions to support the growth and expansion of clean tech start-ups and scale-ups.
- Enhancing export finance support for clean tech companies.
- Utilising trade agreements to achieve greener supply chains and foster business opportunities.
- Issuing guidance on electronic trade documents for SMEs.
- Advocating for the adoption of electronic trade documents by British embassies in their respective host countries.
- Careful consideration of the potential impacts of introducing a UK CBAM on tech companies pivotal to achieving net zero, and adopting a pragmatic approach to exclusions.
- Aligning the implementation timelines of the UK CBAM with those of the EU.

Q1: How can trade help in the pursuit of net zero?

Effective trade policy has the straightforward potential to expedite the global transition to net zero emissions while simultaneously fostering economic growth, both domestically and internationally. This can be achieved through various ways, for example:

- **Market access:** Free Trade Agreements (FTAs) open up new markets and create opportunities for UK businesses to export green products and services. This entails eliminating barriers that obstruct the swift sale and implementation of digital technologies that can be used to mitigate carbon emissions.
- **International cooperation:** Environmental clauses within FTAs can incorporate net zero targets, standards and initiatives. FTA negotiations can also be leveraged to emphasise the focus on sustainability and motivate countries with lower performance to improve their efforts, including through the adoption of green technologies.
- **Skills:** FTAs can include provisions related to mobility, enabling businesses to access international talent and tap into the necessary pool of skills for the green transition.
- **Policy alignment:** Complying with various regulations across different trading boundaries can be expensive and complex. Establishing common definitions, reporting rules and criteria for identifying low-carbon or environmentally friendly products and activities (at the UK, WTO, or multilateral levels) has the potential to reduce costs, enhance market confidence and send clear investment signals.
- **Tariff reductions:** Removing customs duties on environmental goods can reduce costs for businesses and consumers, thus encouraging increased utilisation of these products. This should include all components of a digital system, typically a blend of hardware and software tools.
- **Carbon pricing mechanisms:** Governments can implement carbon pricing mechanisms (e.g. carbon taxes or emissions trading schemes) to account for the social and environmental costs of carbon emissions.
- **Competition:** Liberalised energy markets enable the UK to import renewable energy, effectively manage demand, and export excess capacity, which qualifies as a zero-carbon export. Advanced software and digital technologies will be essential for balancing loads and peak flow, enabling a precise understanding of the amount that can be traded internationally in real-time.
- **Trade modernisation:** Modernisation of traditional trade practices, for example through the wider adoption of electronic trade documents, can reduce unnecessary paper use while streamlining trade processes.
- **Financial support:** Export finance helps businesses win export contracts, fulfil orders from customers overseas and receive payment. For clean tech companies, it represents an opportunity to expedite their growth by providing funding to expand operations and penetrate new markets.

Q2: Is the UK's trade policy consistent with its goals for net zero?

Trade policy needs to remove barriers preventing the import and export of technologies that aim to reduce emissions. The UK's lack of prioritisation in this area is resulting in missed opportunities.

While there have been some positive advancements, they have not been implemented strategically. For instance, the elimination of tariffs on environmental goods and services could significantly boost exports of low-carbon products and services. However, many digital technologies (including IoT sensors and robotics) are unable to benefit from this measure. These technologies have vast potential to achieve emission reductions in factories, yet this aspect is entirely overlooked.

Similarly, although the potential introduction of a Carbon Border Adjustment Mechanism (CBAM) is a step in the right direction, it could increase the costs of ICT products and advanced networking equipment essential for delivering digital services that are crucial for green transition. As the UK undergoes digital transformation, deploying data centers, 5G infrastructure, and full-fibre telecoms, alongside rapid expansion of the electricity grid to prepare for net zero, CBAM could drive up raw material costs for these initiatives. This, in turn, could jeopardise delivery timeframes and result in increased costs passed down to consumers, businesses, as well as the government.

Q3: How can the UK's trade policy further help with its goals for net zero?

The potential of technology to reduce carbon emissions often receives insufficient consideration within trade policy frameworks. In FTAs and WTO agreements, technology is often confined to 'digital chapters'. Standard Industrial Classification (SIC) codes and customs classifications take a product-by-product methodology, having been designed to support physical exports. However, this approach is not fit for purpose given that digital technologies only reach their full potential for decarbonisation when integrated into comprehensive systems or applications (increasingly cloud-based).

A more effective approach to fostering enhanced exports could involve implementing a zero tariff and zero barriers policy for net zero digital systems made of various components. At present, hardware that has been imported for use in such systems (e.g. temperature sensors, IoT devices, wireless networking equipment) has to be inspected and, in some cases, tariffs are applied. These trade barriers hinder the delivery of technology-driven decarbonisation initiatives in the UK by increasing complexity and costs.

In order to achieve net zero, it will also be imperative for all companies across all sectors to be able to access people with the right skills. This is directly tied to the critical role of technology in facilitating the transition to net zero. The industry often struggles to fill skill gaps and this issue has become more pronounced since the UK's exit from the EU. FTAs can address this by including provisions for green and tech skills within mobility packages.

The Export Strategy and UK Export Finance should redirect their low-carbon trade efforts towards supporting digital tools and enhancing their support for market access opportunities for high-potential start-ups and scale-ups. Austrade and the US have been proactive in organising trade missions and supporting clean tech start-ups, and considering the size of the start-up ecosystem in the UK, there is significant potential for similar initiatives to be successful here. Furthermore, the Department for Business and Trade should broaden its support for clean tech companies in terms of export finance. While the £2bn Direct Lending Facility is a good start for clean tech companies, overall support for export finance is comparatively lower than in countries like

Germany. UK Export Finance gave out £6.5 billion between 2022-2023, whereas Germany's equivalent KfW IPEX-Bank gave out a total of €71.1 billion in 2022.

The Government has had the right idea when it comes to signing various technology-focused bilateral agreements, whether they are Science and Technology Agreements, Semiconductor Partnerships, or Critical Mineral Agreements. However, these agreements lack comprehensive detail, follow-up mechanisms, industry engagement, and delivery. In techUK's [Open and Secure report](#), we noted that the growing emphasis on industrial policy within the clean tech space, exemplified by initiatives like the Inflation Reduction Act and the Green New Deal, might result in insufficient funding for British industry or potential resource wastage due to competition among allies. Critical Mineral Agreements are instrumental in bolstering British industry, but in order to be effective, they must include tangible opportunities. Given the geopolitical imperative for providing manufacturers with a steady and affordable supply of materials for technology products and the need to reduce dependency on Chinese battery processing plants, the UK-Australia Critical Mineral Agreement could be improved. One way to achieve this is by incorporating joint funding for battery processing plants, an area of strategic interest for both countries. This would provide opportunities for British manufacturers while safeguarding the UK's technology supply chains and strengthening international cooperation.

The enactment of the Electronic Trade Documents Act 2023 marked a positive stride forward, leading to streamlined trade processes, reduced paper usage, and more opportunities for digital technologies that can serve as 'reliable systems'. However, clear guidance should be widely provided to SMEs on exactly how to use electronic trade documents. The Foreign, Commonwealth and Development Office should also work with the Department for Business and Trade to incentivise international adoption and interoperability of electronic trade documents and single trade windows. This approach would streamline the process of international trade, making it more environmentally friendly, cost-effective, and straightforward. For example, embassy teams should advocate to their host governments the advantages of adopting laws on electronic trade documents, whether domestically or through the UNICTRAL Model Law on Electronic Transferable Records.

For the UK CBAM, as set out in our answer to the second question, the potential impacts on tech companies that play a role in the development and deployment of net zero solutions should be carefully assessed. techUK is currently collecting members' views to form a comprehensive response to the government's consultation on this topic. However, broadly speaking, we advocate for a more pragmatic approach to exemptions and recommend aligning implementation timelines with the EU to ensure a level playing field. Additionally, we encourage the government to provide financial support for businesses for the purchase of digital tools designed to exchange data and calculate tax, as this would help them handle the administrative burden of the mechanism once it is in place.