Ministry of Defence

[redacted]

ALEX CHALK KC MP
MINISTER OF STATE FOR DEFENCE PROCUREMENT

4/8/1/2/ap

22 February 2023

Dear Tobias,

MOD follow ups to Land Acquisition Evidence Session

I am writing to provide response to the questions posed in the Land Acquisition session on 11 January.

Q119: Note on policy regarding and implementation of Taiwanese semiconductors in MOD equipment, and principles behind how the Ministry of Defence (MOD) identifies supply-side risks regarding critical/finite supply sources [e.g. specifically semiconductors from Taiwan but might be rolled-up with other risks such as: cyber security risks in equipment; critical mineral supplies etc] including quantification of the risk (RAG-rating or likelihood/impact assessment] and mitigating measures, where appropriate)

- *Q119 Chair: ...Across the MOD capabilities, how many microchips that are used in military equipment in the Army, Air Force and Navy come from Taiwan?*

- *Alex Chalk: I don't know. I will have to write to you on that. I do not know how many microchips we have.*

Given the highly complex and global nature of the defence market, all our critical supply chains require continual analysis of geopolitical and other economic dependencies in a world characterised by increasing supply chain volatility and risk.

We therefore work very closely with a diverse range of suppliers to ensure a continuing flow of essential items and to avoid shortages. These inputs range from microchips and specialised materials used in defence equipment and complex weapons to food, clothing and construction materials in our logistics and infrastructure outputs, to name but a few.

Semiconductors are ubiquitous in goods and equipment that support modern society, including in delivering public services, critical infrastructure (e.g., health, defence, finance, energy, water and food), industrial control systems, and safety and security technology - the resilience and importance of the semiconductor supply chain as an input into Defence capabilities is no different. As is well-known, most advanced semiconductor technologies

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are predominantly manufactured in South-East Asia with these countries holding dominance in different aspects of the market. For example, South Korea is currently dominant in the production of memory chips and Taiwan leads the production of cutting-edge silicon chips of less than 10 nanometres.

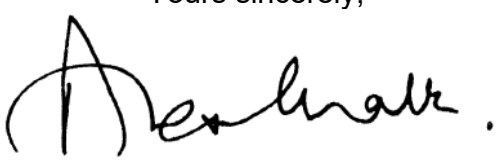
Different types of semiconductors are present across many Defence systems and components, including for example, in high performance thermal imaging systems, radio and microwave frequency systems, range-finders and countermeasures, power amplifiers and all forms of IT hardware. Where required by national security concerns, onshore capability in the design and manufacture of semiconductor chips is already used, and reliance on non-domestic sources of supply is restricted. These supply chains are actively managed through our direct commercial contracting relationships and a series of initiatives designed to build resilience in our critical defence supply chains including an extensive MOD-wide Supply Chain Resilience Programme. In this programme, the MOD is improving its supply chain understanding, visibility and monitoring for our major contracts and capabilities down to Tier 4 level and beyond, supplemented by the introduction of new commercial conditions for contractors to provide detailed supply chain information for all new qualifying contracts over a certain threshold value.

While there are currently no central records held within the Department on the specific origin of semiconductor chips embedded at lower levels of the supply chain, the MOD has recently launched some ground-breaking work with our industry partners to undertake an initial component mapping project in a small number of selected semiconductor applications. This work will be undertaken at a level that facilitates a pan-industry approach to potential mitigation actions - with a view to reporting to the Secretary of State later in 2023 with initial findings. We are also working with our allies in NATO and the US to identify common areas of interest. Collectively this work will help mitigate supply chain vulnerabilities, build resilience and secure supplies domestically and with allied countries.

As a Department, the MOD has also been at the forefront of Cross-Government supply chain programmes and intelligence pilots such as the Global Supply Chains initiative, the UK Critical Minerals Strategy and the forthcoming Semiconductor Strategy sponsored by Department for Science, Innovation and Technology which aims to build resilience into the UK's Semiconductor supply chain. The MOD is ensuring that Defence and National Security interests are properly considered during the development of these strategies.

Taken together, I believe the Department is delivering on its commitment to ensure resilient and sustainable defence supply chains, including in the supply of microchips, in its approach to this complex and fast-moving area.

Yours sincerely,



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