

## Our position

# White Paper on Export Controls



AmCham EU speaks for American companies committed to Europe on trade, investment and competitiveness issues. It aims to ensure a growth-orientated business and investment climate in Europe. AmCham EU facilitates the resolution of transatlantic issues that impact business and plays a role in creating better understanding of EU and US positions on business matters. Aggregate US investment in Europe totalled more than €3.7 trillion in 2022, directly supports more than 4.9 million jobs in Europe, and generates billions of euros annually in income, trade and research and development.

## Executive summary

The European Economic Security Strategy underscored the need for coordinated EU action on export controls to protect national and EU security interests while preserving industry competitiveness. This was further stressed in the Commission's recent White Paper on export controls. Closer coordination on export controls between Member States is key to ensuring a fair and competitive environment and reducing uncertainties for EU exporters. It has become increasingly complex for EU exporters to navigate conflicting national rules – particularly smaller organisations, such as SMEs and academic institutions, which have fewer resources available for export control compliance – and further action is needed in this regard.

Export controls can only be effectively applied through multilateral alignment and inclusive stakeholder participation, and should be grounded in the principles of proportionality and flexibility, narrowly targeting nefarious end-users. Regarding the application of export controls to dual-use 'critical technologies', we stress the need for effective, future-proof, technologically neutral and globally coordinated export controls to prevent unintended hindrances to innovation. The Commission should also provide guidelines on intangible transfers and call for harmonised interpretations of article 5 of the Dual-Use Regulation to balance controls without disproportionately burdening exporters. These comprehensive recommendations seek to align EU export controls with an evolving technological landscapes, fostering a secure and competitive environment for EU exporters in the global marketplace.

## Introduction

The European Economic Security Strategy, published by the Commission in June 2023, highlighted the need for coordinated action on dual-use export controls at the EU level to improve the effectiveness of the current regime, address the complexities resulting from divergences in national approaches, and account for the challenges posed by new and emerging technologies. This was further underscored in the Commission's White Paper on export controls, published on 24 January. The Commission and EU Member States are appropriately focused on improving the existing EU's export control regime to achieve national and economic security objectives while enhancing industry competitiveness. Ensuring a harmonised and effective application of national export control rules in the EU is vital to enabling cross-border innovation, creating legal certainty for exporters, and protecting the security interests of the EU and its Member States.

While we commend the efforts that the Commission and Member States have made to align export control approaches both within the EU and multilaterally – including through working group 7 of the EU-US Trade and Technology Council (TTC)<sup>1</sup> – there are still areas where further progress is needed (eg intangible transfers of software and technology). This paper provides recommendations on where the Commission and Member States – in collaboration with trusted partners – should focus their ongoing assessment of the EU's export control regime.

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<sup>1</sup> See AmCham EU consultation [response](#) on 'Export Controls under the Trade and Technology Council'.

## Background

Regulation 2021/821 (Dual-Use Regulation) was an important step towards modernising export control rules in the EU. The introduction of new EU general export authorisations for certain intra-group transfers and listed encryption items, for example, was a meaningful improvement that has simplified exporters' compliance procedures.

However, some conceptual and procedural ambiguities in the Dual-Use Regulation have resulted in divergences between Member States' export control rules. These divergences have been exacerbated by the delay in the publication of the Commission's Guidelines on the export of cyber-surveillance items, as required under article 5(2) of the Dual-Use Regulation.

One area where there have been significant contrasts in national approaches is the transfer of software and technology by electronic means (intangible transfers), defined under article 2(2)(d) of the Dual-Use Regulation. As a result of these divergences, the treatment of intangible transfers in some EU Member States is at odds with the treatment of such transfers in other jurisdictions, including allied countries such as the United States and the United Kingdom. This puts EU exporters at a competitive disadvantage, as they need to spend resources to obtain export authorisations not required elsewhere.

In sum, the implementation of the European Economic Security Strategy offers an opportunity to evaluate the EU's export control regime and address conceptual and procedural ambiguities relating to the Dual-Use Regulation. Industry needs stable and predictable rules to plan investment efficiently and to sustain financial growth. The sections that follow offer recommendations on how the Commission and Member States can make the EU's export control rules fit for an age of rapid cross-border innovation and technological progress.

## Ensuring effective and well-targeted export controls

Assessing the EU's dual-use export control regime requires careful consideration of two macro-level factors. On one hand, controlling the export of certain dual-use items may be necessary to ensure that they are not used or misused by nefarious actors. On the other hand, if these controls are not narrowly targeted to meet specific and well-defined security risks, they may inadvertently restrict legitimate business, limiting EU exporters' ability to compete globally and driving prospective customers to alternative suppliers. This reduces EU exporters' ability to invest in research, development, innovation, job creation and talent acquisition, undermining the EU's economic resilience and competitiveness.

Therefore, while export controls can bring economic security benefits, they also have economic security costs. EU policymakers must ensure that the expected economic security benefits of export control rules are not offset by the economic security costs associated with exporters' reduced competitiveness. In order to manage this trade-off, EU policymakers should consider the following questions when assessing whether certain dual-use items can be effectively controlled:

- **Is the item broadly available?** Placing export controls on dual-use items that are broadly available in other jurisdictions is unlikely to prevent access by end-users, and will thus impact domestic industry without generating meaningful security benefits. Therefore, EU policymakers must assess whether dual-use items are available outside the EU when evaluating export controls.

- **Can the item be clearly specified?** If EU policymakers and regulators are unable to make a clear and objective specification of a dual-use item, it is unlikely that export controls can be targeted with sufficient precision to minimise their negative economic impacts. In fact, if EU exporters are subject to overly broad and unspecified export controls, they may be perceived by prospecting customers as unreliable suppliers. This puts them at a competitive disadvantage vis-à-vis alternative supplier.
- **Are the export controls enforceable?** Even if items can be adequately specified and are not broadly available, EU policymakers must ensure that export controls cannot be easily circumvented by nefarious actors. When export controls are easily circumventable, they are likely to create more economic damage than security benefits.
- **Are partners willing to adopt similar controls?** In order to ensure effective application and avoid disadvantaging EU exporters at the expense of alternative suppliers, EU policymakers must ensure that export controls are applied effectively and consistently across a broad range of jurisdictions. This is why existing institutional fora such as the G7, NATO and the EU-US Trade and Technology Council are crucial for formulating and coordinating export control policy. Recital 39 of the Dual-Use Regulation highlights the importance of ‘dialogue and cooperation with third countries in order to support a global level-playing field and enhance international security’.

If these four tests are adequately met (ie the dual-use item is not broadly available, it can be clearly specified and effectively controlled, and partners are willing to adopt similar controls or already have them in place) export controls may prove effective at preventing end-user access. In these cases, the Commission and Member States should consider the following guiding principles to ensure export controls are adequately targeted and preserve industry competitiveness:

- **Multilateral alignment:** Controls should be implemented only on a multilateral basis to provide greater consistency and avoid subjecting EU exporters to restrictions that do not apply to non-EU competitors. In this regard, the Commission’s White Paper appropriately intends on ‘strengthening its support for the work of multilateral regimes as the best route to identify and accept the export controls that underpin the EU export control framework’. However, the White Paper does not clarify how the Commission intends to institutionalise this multilateral cooperation outside the existing Wassenaar framework. The EU-US TTC is a key mechanism to align export control approaches both within the EU and multilaterally.
- **Proportionality:** Export controls should be proportional to identifiable security threats. In case new item controls are adopted, general licenses should be adopted for destinations and end-users of lower concerns.
- **Flexibility:** The European Economic Security Strategy notes that the EU’s export control rules should be ‘fit for purpose in the rapidly changing technology and security environment’. This requires flexibility and regular evaluations of existing rules. When these evaluations indicate that certain controlled items have become globally available, the Commission and Member States should consider removing the relevant controls and allowing EU exporters to compete with other suppliers.
- **End-user focus:** Rather than relying exclusively on broad geographic criteria, the Commission and Member States should consider developing a comprehensive list of entities covered by

export controls. This tiered approach would facilitate EU exporters' compliance and avoid restricting exports to legitimate users. It would also complement the flexibility principle, as the list could be adjusted when deemed necessary by the Commission and Member States, and would cause fewer disruptions than applying/disapplying export controls to entire jurisdictions at once.

- **Inclusive stakeholder participation:** Any new controls should be subject to stakeholder consultation with sufficient time provided for analysis and comment to ensure control criteria are understood and implementable by EU exporters. The Commission White Paper's appropriately emphasises the importance of systematically involving the business community in export control discussions. The intra-EU coordination/consultation mechanism proposed in the Commission's White Paper, which would allow Member States to consider the broader impacts of their national export control measures, should provide opportunities for industry input.

## Recommendations for 'Critical Technologies'

The October Recommendation 2023/2113 on 'critical technologies', where the Commission singled out four 'technology areas' for risk assessments – namely advanced semiconductor technologies, AI technologies, quantum technologies and biotech – was referenced in the Commission's White Paper on export controls as an additional element in the evaluation of the EU's export control regime. This section outlines factors that should be considered by the Commission and Member States when assessing the application of export controls to dual-use 'critical technologies'.

### Supply chain dispersion

As outlined above, export controls are only likely to be effective when applied to dual-use items that are not broadly available. A comparison between the semiconductor industry and the quantum industry – two of the 'critical technology areas' identified by the Commission in October – offers a clear illustration of this issue. On one hand, the high degree of specialisation in the semiconductor supply chain has created a number of strategic chokepoints that can be surgically targeted with export control measures. On the other hand, the nascent quantum industry has had less time to mature and specialise, and is thus still highly geographically and functionally dispersed. In fact, the quantum supply chain is currently comprised largely of general-purpose electronics and photonics components that are widely available globally. This means that export controls are likely to prove ineffective and have an outsized impact on innovation.

### Future-proof controls

The technology industry is in constant evolution, and export controls applied today may rapidly become obsolete. One example would be the current export controls on compute performance and encryption capabilities. These can be outdated when compared to current technological capabilities (eg almost all products have encryption capabilities). Therefore, rather than focusing on creating new controls, it is important for the Commission and Member States to re-evaluate current controls to ensure they are commensurate with technological advancements, and remove unnecessary roadblocks for technologies and products that are globally available.

### Technological neutrality

There are often various technical approaches that can be used to meet equivalent technological performance standards. Quantum computing platforms, for example, can utilise diverse technical approaches – including superconducting, trapped ion, photonic and topological. Any export control

measures would have to remain technology-neutral across these varying platforms and supply chains in order to avoid creating distortions and inefficiencies in this nascent industry.

### Retaliation risk

While export controls may be effective at preventing end-user access – provided they meet the four tests highlighted in the preceding section – the globalised nature of technology supply chains facilitates the imposition of retaliatory measures by targeted jurisdictions/entities. This retaliation could have a chilling impact on technological innovation. In the quantum industry, for example, certain critical components and materials are supplied solely or primarily by companies in China. This is especially true for nonlinear crystals and other materials vital for laser technology.

### Globalised supply chains

Cross-border research, development, standardisation and innovation initiatives are a lynchpin of global innovation and innovation security. Therefore, EU policymakers should consider the impact of export control measures on international technological cooperation efforts, particularly in nascent and/or highly globalised industries such as the ones outlined in the Recommendation on ‘critical technologies’. A recent study found that, unless the EU and its trusted partners combine their research efforts, they will lead global research output in only 7 of 44 critical technologies.<sup>2</sup> Ongoing initiatives such as the Defence Innovation Accelerator for the North Atlantic (DIANA) illustrate the security benefits brought by international cooperation. However, these initiatives require an enabling export control framework.

In light of these factors, we recommend that the approach adopted by the Commission and Member States for ‘critical technologies’ adheres to the following principles:

- **International cooperation:** Any controls should be accompanied by licensing requirements, general export authorisations and licensing policies that facilitate collaboration among like-minded countries and enable (after sufficient review) contributions by individuals from around the world.
- **Interoperability:** Any controls should leverage existing, well-understood concepts in the EU export control regime. In the case of quantum, controls should be defined at the overall system performance level, and then parts/components that are uniquely responsible for enabling the quantum systems to meet or exceed the defined criteria.
- **Targeted end-user controls:** In areas where controls have proven too difficult to specify or would hinder technology development and standardisation efforts, controls should be focused on nefarious actors that present a risk to the EU’s economic security.
- **Architecture agnosticism (specific to quantum):** Any controls should be designed around neutral performance criteria to avoid any inconsistent or unequal treatment of universal quantum computers simply as a result of using different qubit architectures.

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<sup>2</sup> See ASPI’s 2023 [‘Critical Technology Tracker’](#).



## Recommendations for other areas of improvement

- **Intangible transfers:** AmCham EU has recommended that the Commission publish export Guidelines on intangible software and technology transfers, in line with article 26 of the Dual-Use Regulation<sup>3</sup>. Recital 11 of the Dual-Use Regulation recognises the administrative complexities posed by the application of export controls on intangible software and technology transfers, highlighting the need for ‘harmonised interpretations’. This is further emphasised in Commission Recommendation 2019/1318 on internal compliance programmes for EU exporters, which notes that, ‘because of the [...] nature of controlled software or technology in electronic form, ensuring compliance with dual-use trade regulations can be particularly challenging’. The development of EU guidelines on intangible transfers is needed to facilitate consistent interpretation and implementation across the EU, as well as ensure alignment with like-minded countries. In this regard, the Commission’s Proposal for a Council Recommendation appropriately emphasises the importance of research security to the benefits of ‘interpretative guidance’ on intangible transfers.
- **Human rights due diligence:** The absence of harmonised guidelines for interpreting article 5 of the Dual-Use Regulation hinders the effectiveness of the controls and unbalances the playing field for EU exporters on the global market. Absent detailed product of concern controls, the Commission should strive to place restrictions on end-users without causing a disproportionate burden of diligence on the exporter. The EU should adopt clarifying guidelines on article 5 while they study the possibility to adopt end-user controls.

## Conclusion

The EU needs a harmonised and future-proof export control framework that adequately accounts for evolving technologies and creates a competitive environment for EU exporters, with special consideration for SMEs and academic institutions. This requires modernising the 2021 Dual-Use Regulation, ensuring effective export controls that are proportional, flexible and focus on end-users, and encouraging inclusive stakeholder participation in export control discussions.

Moreover, as cross-border research, development and innovation initiatives become the global norm, it is essential that the EU and its trusted partners focus on developing interoperable export control rules. This would help ensure that their businesses can compete on a level playing field and jointly benefit from cutting-edge innovations – including AI technology, quantum computing, semiconductors and biotech – and make it harder for nefarious actors to exploit loopholes. As an organisation representing businesses with a large operational footprint on both sides of the Atlantic and across the EU, AmCham EU is well positioned to facilitate transatlantic dialogue and support intra-EU coordination on export controls.

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<sup>3</sup> See AmCham EU [position](#) on ‘Technology and software transfers in the context of export controls’.