

# United States: Export Control Reform Act (ECRA)

## SUMMARY

Against the backdrop of the growing relevance of certain new technologies for security and defence, the United States of America introduced the Export Control Reform Act (ECRA) in 2018. The Act aims to restrict the export of emerging and foundational technologies that can potentially be used for civilian and military purposes ('dual use technologies') and that have not been subject to export control in the past. The adoption of the Act coincides with growing concerns about China's access to critical new technologies.

The first set of controls, targeting various 'emerging technologies' that China has stated a desire to develop, will take effect in 2020. Controls on 'foundational technologies' should come later, although specific details about which technologies will be included in this category are not yet available.

Functionally, ECRA represents a modification of the existing US Export Administration Regulations (EAR). Under the EAR, the Bureau of Industry and Security assigns an Export Control Classification Number to each technology, which determines the specific restrictions that apply to it.

There has been significant debate around ECRA in the USA. Industry leaders have expressed concern about their level of input in the process and have urged the government to clarify its definitions of emerging and foundational technologies. Overall, stakeholders emphasise that aspirations to safeguard national security must be balanced with support for economic growth and innovation.

The timing of ECRA coincides with the review of dual-use export controls in the European Union (EU). There have been calls for increased dialogue with the USA and other crucial partners on export control, as well as for a coordinated EU response to ECRA.



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## Background

Competition in technology has become a central [component](#) of the relationship between powerful international actors. Perhaps the most visible manifestation of this is the rising relevance of technological supremacy in the competition between the USA and China. China's ambition to be a world leader in certain technologies, as laid out in its [Made in China 2025](#) (MIC2025) industrial policy, has led to concerns, including about the potential erosion of Western norms governing the use of emerging technologies. The proliferation of technology that can be used for both civilian and military purposes, terrorism, and/or weapons of mass destruction-related applications – known as [dual-use](#) technology – is a growing source of concern globally. Within this context, debate and regulation of export controls has come to the fore on both sides of the Atlantic.

## ECRA: Introduction and state of play

In August 2018, the USA enacted the [Export Control Reform Act](#) (ECRA), as part of the John S. McCain National Defense Authorization [Act](#) for Fiscal Year 2019. Introduced as bi-partisan legislation, ECRA enables increased controls on 'emerging and foundational technologies [that are] essential to the national security of the United States'. It mandates that the President 'shall establish and maintain lists published by the Secretary of Commerce of items that are controlled under [ECRA]'. Controls, in this context, refer to 'export, reexport, or transfer'. Export is defined as 'the shipment or transmission of the item out of the US, including the sending or taking of the item out of the US, in any manner; and the release or transfer of technology or source code relating to the item to a foreign person in the US'.

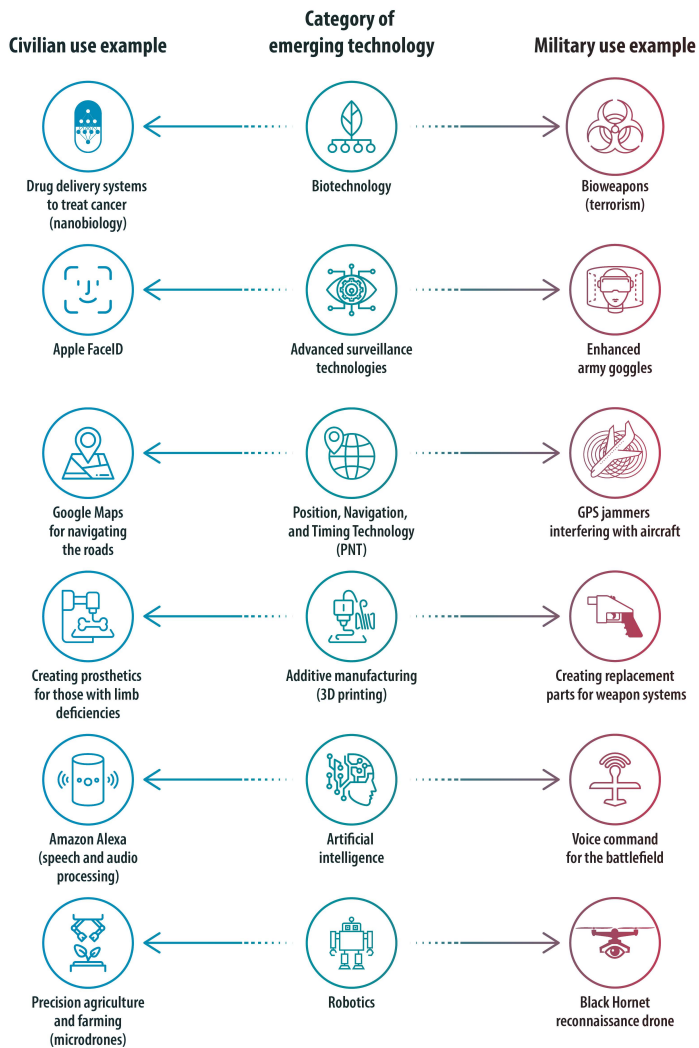
Although evocative of established laws on dual-use items, ECRA differs in that it targets new digital technologies whose transfer is not subject to customs checks at physical borders, and that would therefore evade enforcement of existing regulations. These technologies are also novel because of their '[omni-use](#)', meaning they may have a wide range of simultaneous functions, and their 'omni-presence', as they are typically embedded throughout various sectors of society.

In November 2018, the Department of Commerce's [Bureau of Industry and Security](#) (BIS) released an [initial list](#) of 14 emerging technologies to be restricted, including robotics, additive manufacturing (e.g. 3D printing), and advanced surveillance technologies. This list closely reflects China's MIC2025 ambitions to be the world leader in these technologies, much like the rationale behind the Foreign Investment Review Modernization Act ([FIRRMA](#)), which was passed simultaneously with ECRA. Following the ongoing incorporation of [feedback](#) from the public and government advisory committees, controls on the agreed emerging technologies will [likely](#) become effective in 2020. The Fiscal Year 2020 Budget [provides](#) US\$2.5 million for the BIS's role in the implementation of ECRA. As regards [foundational](#) technologies, the BIS has yet to [issue](#) an advance notice of proposed rulemaking. The precise scope of the latter remains unclear, but some experts have [suggested](#) that they will likely include items that 'enable progress and applications in a variety of problem domains', such as semiconductor technologies. Elsewhere, foundational technologies are understood as 'existing technology already integrated into commercial products'.

## Existing US export control frameworks

The USA has two main legal frameworks for controlling exports: the [Export Administration Regulations](#) (EAR) and the [International Traffic in Arms Regulations](#) (ITAR). Under the EAR, the BIS regulates exports of 'dual-use and less sensitive military items' by placing them on its [Commerce Control List](#) (CCL). In contrast, the ITAR restricts those articles and services with explicit defence purposes on the [US Munitions List](#) (USML). The [most recent reforms](#) under the Obama administration resulted in many items being moved from the USML to the CCL in order to expedite their approval processes.

Figure 1 – Example of dual uses of technologies listed as 'Emerging' in BIS list



Source: EPRS; Graphic by Samy Chahri.

ECRA functions as an addition to the EAR; emerging or foundational technologies selected for control will therefore be [subject](#) to the same rules as other items currently on the CCL. This means that ECRA is [relevant](#), for a given controlled technology, to US-based companies but also 'to any company anywhere that is re-exporting American goods or technology; incorporating technology previously exported from the US; and by persons subject to the jurisdiction of the United States'. Consequently, even non-US made products may be [subject](#) to ECRA if their usage of controlled technology or components originating in the USA exceeds a certain threshold (percentage). This percentage will ultimately depend on the Export Control Classification Numbers (ECCNs) that the BIS decides to assign to the newly controlled emerging or foundational technologies.

The USA also participates in four [multilateral](#) export-control regimes, including the [Wassenaar Arrangement](#) on Export Controls for Conventional Arms and Dual-Use Goods and Technologies. All EU Member States participate in the arrangement, with the exception of [Cyprus](#).

## Initial reactions to ECRA

Since its introduction, there has been significant debate around ECRA within the USA, as some [sectors](#) of the business community have highlighted a discrepancy between company interests and the national security interests advanced by the government. Technology [industry](#) leaders initially [called](#) for more time to review the BIS proposals, citing concerns over the clarity of its definitions of emerging technology. Experts [regard](#) the role of companies as fundamental for export controls to be effective. As pointed out in a recent Center for Strategic and International Studies [report](#), this is particularly the case with emerging technologies, where innovation takes place predominantly in the commercial sector.

Various market-oriented research institutes have also pushed back on the new legislation. The Mercator Center at George Mason University argues that ECRA ['runs amok'](#) in its wide breadth of controls, and that it will result in numerous negative consequences, such as threatening international competitiveness and hindering the beneficial applications of controlled technologies (see Figure 1). The Information Technology & Innovation Foundation [estimates](#) that the new laws may come at a cost of as much as US\$56.3 billion for US industry. On the other hand, American law

firm Skadden [assessed](#) that the controls are likely to be effective in hindering Chinese threats to US technological supremacy. Other [analyses](#) suggest that China's own plans to [regulate](#) export controls may in the future take the form of [retaliation](#) to US policy. In a Senate [hearing](#) in March 2019, expert witnesses maintained that the US government needs to address security risks effectively without impeding US innovation, technological leadership and competitiveness and while taking into consideration the interconnected nature of China-US relations. An external assessment on the implementation of ECRA presented in July 2019, as [testimony](#) to the Senate, recommended regular reviews of control categories; Congressional oversight; and allowing for more time for the Act to work, in the expectation of positive results.

## EU position

The reform of US export controls was included in the agenda of the European Commission's [Export Control Forum](#) in December 2018, and is increasingly part of the wider discussion on EU export control reform. The Commission has [expressed](#) the EU's readiness to engage with the USA to ensure 'in particular that controls on trade in emerging technologies are effective and reinforce international security'. It has also proposed that the transatlantic dialogue on this issue be extended to other partners, such as Japan. Some experts have [advocated](#) a coordinated EU response to ECRA.<sup>1</sup>

### EU approach to dual use export controls

Dual-use goods are subject to the EU's export control regime, which is currently under [review](#), aiming to take account of technological developments and to create a more level playing field among EU Member States. Interinstitutional negotiations are under way, with the aim of finding a compromise between the [position](#) adopted by the European Parliament in January 2018, and the [mandate](#) adopted by the Council of the EU in June 2019.

## MAIN REFERENCES

Dekker B. and Okanjo-Heijmans M., '[The US-China trade-tech stand-off and the need for EU action on export control](#)', Clingendael, 2019.

Rosanelli R., [US export control regulations explained to the European exporter: A handbook](#), University of Liège European Studies Unit, 2014.

## ENDNOTE

<sup>1</sup> The report by Clingendael specifically suggests measures such as an electronic licensing system, a 'Dual Use Coordination Group', and a 'mandate to discuss and cooperate on export control with third parties -- especially the US -- on behalf of the EU member states.'

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