



INSIGHT

EU STRATEGIC AUTONOMY AND TECHNOLOGICAL SOVEREIGNTY

edited by Charlotte Beaucillon and Sara Poli

FOSTERING ‘EUROPEAN TECHNOLOGICAL SOVEREIGNTY’  
THROUGH THE CSDP:  
CONCEPTUAL AND LEGAL CHALLENGES.  
FIRST REFLECTIONS AROUND THE 2022 STRATEGIC COMPASS

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**ABSTRACT:** The expression “European Technological Sovereignty” (ETS) has gained momentum in EU discourses. However, it is not defined in EU policy documents and legal acts. Although ETS is mainly connected with the functioning of the internal market, this idea is employed in an array of spheres where the EU enjoys different types of competences. This *Insight* moves from the consideration that there is room for analysing its use with reference to defence under the Common Security and Defence Policy (CSDP). First, this allows an examination of how “fostering ETS” shapes EU policy on a matter which is an expression of sovereign prerogatives but on which the EU is far removed from enjoying powers like a sovereign State. Second, this may in turn contribute to the debate on the nature and function of this category now in use. For the purposes of this *Insight*, the focus of the analysis will be the 2022 Strategic Compass. Accordingly, the *Insight* outlines a conceptual framework where the three components of ETS can be broadly understood. Then, it identifies the conceptual tenets of ETS as they appear the 2022 Strategic Compass, as well as the fields and the corresponding EU competences where the Compass envisages “fostering ETS” in relation to defence. Finally, the results of this investigation and their potential broader implications in light of the conceptual framework are discussed against the current configuration of the “defence” element of the CSDP in the Treaties.

**KEYWORDS:** European Technological Sovereignty – European Strategic Autonomy – Strategic dependencies – Emerging and disruptive technologies – CSDP – Strategic Compass.

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## I. INTRODUCTION. THE CASE FOR EXPLORING ‘ETS’ THROUGH THE CSDP AND POSSIBLE IMPLICATIONS

The expression “European Technological Sovereignty” (ETS) has recently appeared in EU discourse.<sup>1</sup> It is often linked with “strategic autonomy”, “cybersecurity” and “digital sovereignty”. In earliest references, “Europe’s strategic autonomy” was essentially related to Europe’s military capabilities, although in different contexts such as the 1998 Franco-British Saint-Malo Declaration and the November 2013 Council Conclusions on the Common Security and Defence Policy (CSDP).<sup>2</sup> Since then, “strategic autonomy” has been vested with a broader and more general scope, to become core nowadays in the EU’s pursuance of EU and Member States interests.<sup>3</sup> In the meantime, a connection has emerged between Europe’s security and, generally, the technological gaps and challenges that are faced with respect to third countries. This has been identified especially in regard to digital technology – thus, the expression “cybersecurity”.<sup>4</sup> Because digital

<sup>1</sup> S Poli and E Fahey, ‘The Strengthening of the European Technological Sovereignty and its Legal Bases in the Treaties’ (23 May 2022) [Eurojus.it](http://Eurojus.it) [rivista.eurojus.it](http://rivista.eurojus.it) identify an early recourse to the concept of ETS in the Council Conclusions of 3 December 2019 on the significance of 5G to the European Economy and the need to mitigate security risks linked to 5G. According to A Bendiek and I Stürzer, ‘Advancing European Internal and External Digital Sovereignty. The Brussels Effect and the EU-US Trade and Technology Council’ (11 March 2022) [Stiftung Wissenschaft und Politik www.swp-berlin.org](http://Stiftung Wissenschaft und Politik www.swp-berlin.org), the term was first used by industry representatives.

<sup>2</sup> A concept similar to “strategic autonomy” was already included in the Franco-British Saint Malo Declaration of 4 December 1998, CVCE, *Franco-British St. Malo Declaration (4 December 1998)* [www.cvce.eu](http://www.cvce.eu), at point 2: “the Union must have the capacity for autonomous action, backed up by credible military forces, the means to decide to use them, and a readiness to do so, in order to respond to international crises”. In the Council Conclusions of 25-26 November 2013, Common Security and Defence Policy, para. 30, the Council recalled “that, including in the context of a fully comprehensive CSDP, a more integrated, sustainable, innovative and competitive European Defence Technological and Industrial Base (EDTIB) remains crucial for developing and sustaining Europe’s military capabilities. This can also enhance Europe’s strategic autonomy, strengthening its ability to act with partners”. The point was reaffirmed in the 2016 Global Strategy: “A sustainable, innovative and competitive European defence industry is essential for Europe’s strategic autonomy and for a credible CSDP” (European External Action Service, ‘Shared Vision, Common Action: A Stronger Europe – A Global Strategy for the European Union’s Foreign and Security Policy’ (2016) 46).

<sup>3</sup> On the broadening of the scope of the European strategic autonomy discourse in the EU, see the speech by Charles Michel, President of the European Council, European Council Press Release, ‘Strategic Autonomy for Europe - The Aim of our Generation’ (28 September 2020) [www.consilium.europa.eu](http://www.consilium.europa.eu), and the speech by Joseph Borrell, High Representative of the European Union for Foreign Affairs and Security Policy/ Vice-President of the European Commission, J Borrell, ‘Why European Strategic Autonomy Matters’ (3 December 2020) [www.eeas.europa.eu](http://www.eeas.europa.eu). For example, in the economic sphere, see HS Gao, ‘The EU-China Comprehensive Agreement on Investment: Strategic Opportunity Meets Strategic Autonomy’ (2022) *Asian Yearbook of International Economic Law* 47, and M Bauer, ‘European Strategic Autonomy – Aim or Bane for our Generation?’ (November 2022) [ECIPE Blog ecipe.org](http://ECIPE Blog ecipe.org).

<sup>4</sup> Resolution 2019/2575(RSP) of the European Parliament of 12 March 2019 on security threats connected with the rising Chinese technological presence in the EU and possible action on the EU level to reduce them (see, e.g., point 4, where the Parliament “calls on the Commission to develop a strategy that

technology is what the ETS expression usually considers, ETS occurs synonymously with “digital sovereignty”.<sup>5</sup> Moreover, the outward-looking characteristics of these expressions suggest that they principally refer to “external” sovereignty.<sup>6</sup> Notably, sectors of concern from this perspective are telecommunications, space (especially for satellite navigation systems), industrial strategy (for critical digital infrastructures), and defence.<sup>7</sup> Overall, the understanding is shared and propelled that ETS points to the capacity to use technology for the functioning of the internal market with respect to external threats, dependence, or influence relating to the development and use of new, digital technologies. “Critical technologies” are identified by the EU within several sectors and across sectors.<sup>8</sup>

In the EU treaties currently in force, “technological development” together with research and space fall under a shared, parallel competence. More precisely, art. 4(3) TFEU specifies that the EU shall carry out activities in these spheres, in particular to define and implement programmes, without preventing Member States from exercising their competences. Also, the TEU distinctively addresses technology in the defence sector, by conferring certain tasks to the European Defence Agency (arts 42(3) and 45(1)(d) TEU). The EU shall thereby contribute to strengthen the “technological base of the defence sector” – by identifying and, where appropriate, implementing “any measures needed” to that effect – and support “defence technology research”. At the same time, pursuing or ensuring ETS has been featured as an aim in a broad array of EU policies. It shapes not only EU

puts Europe in a leading position in cybersecurity technology and is aimed at reducing Europe's dependency on foreign technology in the field of cybersecurity”); European Council Conclusions of 21-22 March 2019, acknowledging the need for action at the Union level, by envisaging a Commission recommendation on a concerted approach to the security of 5G networks; Commission Recommendation (EU) 2019/534 Cybersecurity of 5G networks of 26 March 2019; Council Conclusions of 3 December 2019 cit.

<sup>5</sup> S Poli, ‘Il Rafforzamento della Sovranità Tecnologica Europea e il Problema delle Basi Giuridiche’ (20 December 2021), I Post di AISDUE [www.aisdue.eu](http://www.aisdue.eu).

<sup>6</sup> *Ibid.*

<sup>7</sup> S Poli and E Fahey, ‘The Strengthening of the European Technological Sovereignty and its Legal Bases in the Treaties’ cit.

<sup>8</sup> See the idea of “critical technologies” presented in the Communication COM(2020) 102 final from the Commission of 10 March 2020, A New Industrial Strategy for Europe, pointing mainly to digital technologies, and the detailed list of critical technologies relevant *across* the civil (including security), defence and space industries, provided in the Communication COM(2021) 70 final from the Commission of 22 February 2021, Action Plan on synergies between civil, defence and space industries, 9-10. The latter Communication is a follow up of the former and also includes technologies which are covered by the dual use export control regulation (see ft 34 of the Communication COM(2021) 70 final cit.). See, then, Regulation (EU) 2021/821 of the European Parliament and of the Council of 20 May 2021 setting up a Union regime for the control of exports, brokering, technical assistance, transit and transfer of dual-use items (recast).

industrial policy<sup>9</sup> and space policy,<sup>10</sup> but also the regulation of the internal market<sup>11</sup> and the Common Commercial Policy (CCP).<sup>12</sup>

Accordingly, a growing literature on the subject highlights that fresh questions arise from the integration of the ETS discourse into EU policies and measures. These concern the legal bases according to which the EU “operationalizes” the enhancement of ETS. Pushed further, some point out that the endorsement of the ETS concept seems able to touch upon the very nature of the EU as a subject pursuing sovereignty.<sup>13</sup> This *Insight* is the first version of a work which aims at addressing such issues through an analysis of ETS under the CSDP. For this purpose, this *Insight* investigates the most recent CSDP strategic document, the 2022 Strategic Compass, to identify any specific content of ETS relating to defence, and to detect any CSDP-triggered content of ETS in other areas of EU policy and action. The initiative was launched by the Member States in June 2020 to offer guidance on the CSDP, through a common vision of key threats, challenges and efforts in security and defence in the short and medium term. The Compass was “adopted” by the Council in its Foreign Affairs/Defence formation on 21 March 2022. It was then “endorsed” by the European Council on 24-25 March.<sup>14</sup> It also reflects a “common acknowledgement” of a need for a step change in the defence area, which accelerated in 2021 and again immediately after Russia’s invasion of Ukraine in February 2022. To translate a “common

<sup>9</sup> Communication COM(2020) 102 final cit.

<sup>10</sup> The EU legislator has recently incorporated the instrumental aim of “strategic autonomy across key technologies and value chains”, to ensure security, in the Regulation (EU) 2021/696 of the European Parliament and of the Council of 28 April 2021 establishing the Union Space Programme and the European Union Agency for the Space Programme and repealing Regulations (EU) No 912/2010, (EU) No 1285/2013 and (EU) No 377/2014 and Decision No 541/2014/EU, (Recitals 60 and 71, and art. 1). See J Wouters and R Hansen, ‘Strategic Autonomy in EU Space Policy: A Conceptual and Practical Exploration’ in C Al-Ekabi (ed), *European Autonomy in Space* (Springer 2015) 49.

<sup>11</sup> Art. 114 TFEU provides the legal basis, alone or more often in combination with other Treaty provisions, for several legal acts addressing technological dependency in Europe. In the former case, see the Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market for Digital Services and amending Directive 2000/31/EC (Digital Services Act).

<sup>12</sup> Technology is addressed under the current trade policy approach to an “open strategic autonomy”, from three perspectives: promotion of green technology; the digital agenda and innovation; screening of acquisition or control operations and dual-use control for security reasons. For an explicit mention to “sovereignty”, see Commission Recommendation (EU) 2019/534 cit. on cybersecurity, Recital 6: “Ensuring European sovereignty should be a major objective, in full respect of Europe’s values of openness and tolerance [...] Foreign investment in strategic sectors, acquisition of critical assets, technologies and infrastructure in the Union and supply of critical equipment may also pose risks to the Union’s security”.

<sup>13</sup> S Poli and E Fahey, ‘The strengthening of the European Technological Sovereignty and its Legal Bases in the Treaties’ cit. The authors argue that, in this sense, ETS may differ from “SA”, which does not imply changing the legal nature of the EU.

<sup>14</sup> Council of the European Union, A Strategic Compass for Security and Defence – For a European Union that protects its citizens, values and interests and contributes to international peace and security, Doc. 7371/22, 21 March 2022 (hereinafter “Strategic Compass”); European Council Conclusions of 24-25 March 2022, para. 12.

ambition", the Compass sets out proposals for concrete actions in four work strands ("Act", "Secure", "Invest", and "Partners").

The work at stake is premised and justified on the following considerations. First, conceptualization of ETS is a complex task from a legal point of view. It has so far been left behind in the EU discourse evoking this expression, while it has attracted some qualitative and theoretical analysis in the literature.<sup>15</sup> Detailing some aspects or components of it in single documents may help the picture emerge. Second, focusing on the declination of ETS with respect to defence allows for testing the conceptual tenets of ETS as well as its political and legal implications for the EU and the Member States. Defence is an expression of sovereign prerogatives, but the EU is far from enjoying powers like a State on that matter, according to EU primary law. With the CSDP being part of the CFSP, the latter's set of competences, institutions, decision-making and judicial review apply. While art. 42 TEU includes the progressive framing of a "common Union defence policy" among the aims of the CSDP, this has been envisaged in three possible scenarios towards a Security and Defence Union: security and defence cooperation; shared security and defence; and common security and defence.<sup>16</sup> None of these scenarios has been fully endorsed or opted for yet, and elements of each can be found in the progress made so far.<sup>17</sup> Third, however, recourse to ETS in the EU strategy on CSDP raises questions as to whether it determines something different/more than the current framework of EU competences; and more broadly, whether it has any legal implication from the viewpoint of statehood and sovereignty.

In light of the above, this *Insight* is divided into four sections. Section II will sketch a conceptual framework for ETS. Against that, Section III will analyse the Strategic Compass as regards ETS conceptual tenets and policy tools in connection with the Union defence and security policy. Section IV will set the results of the previous analysis against the current treaty framework and draw indications on the broader potential implications of the use of ETS in EU defence-related strategy.

## II. A CONCEPTUAL FRAMEWORK. 'E-T-S': WHAT'S IN IT?

Intrinsically, ETS alludes to a thematically qualified idea of sovereignty in the framework of EU supranational integration. However, neither the three conceptual components under "E-T-S" nor the overall concept have been defined yet by the EU, as regards their

<sup>15</sup> R Csernatoni, 'The EU's Hegemonic Imaginaries: from European Strategic Autonomy in Defence to Technological Sovereignty' (2022) *European Security* 395.

<sup>16</sup> Reflection paper COM(2017) 315 final from the Commission of 7 June 2017 on the future of European Defence.

<sup>17</sup> L Paladini, 'La Politica di sicurezza e di difesa comune (PSDC)' in S Poli and ME Bartoloni (a cura di), *L'azione esterna dell'Unione europea* (Editoriale scientifica 2021) 289; C Cellarino, 'La Difesa Europea dinanzi alla Guerra in Ucraina tra "Autonomia Strategica" e Vincoli Strutturali: quali Prospettive per la Difesa Comune?' (18 May 2022) *I Post di AISDUE* [www.aisdue.eu](http://www.aisdue.eu).

political and legal dimensions. This is not surprising. It is surely due not only to the fact that such expression has appeared in EU political discourse only recently, but also to the complex issues which are involved and the impossibility of defining them in a single document or short timeframe.<sup>18</sup>

In the State of the Union 2018,<sup>19</sup> the then-President of the European Commission Jean-Claude Juncker embraced quite an ambiguous concept of “European Sovereignty”.<sup>20</sup> He pointed to its international facet (“the capacity to play a role, as a Union, in shaping global affairs. Europe has to become a more sovereign actor in international relations”).<sup>21</sup> At the same time, he hinted at its internal “arrangement” and at its functionalist character by noting that “European sovereignty is born of Member States’ national sovereignty and does not replace it. Sharing sovereignty – when and where needed – makes each of our nation states stronger”. However, the concept of “European sovereignty” has remained unclear.<sup>22</sup> Existing legal literature on the subject has debated whether such a concept suitably pertains to EU integration.<sup>23</sup> Some have highlighted its mainly discursive function.<sup>24</sup> Others have maintained that international law does not accommodate a claim to sovereignty by the EU as it is a non-State actor, but rather that the EU may claim rights and powers to act as if it were sovereign.<sup>25</sup> Others have argued that EU sovereignty is “a future sovereignty”<sup>26</sup> or even “the only future sovereignty”.<sup>27</sup> Against this debate, it is not evident whether ETS specifies or complements “ES”.

<sup>18</sup> On the conceptualization of sovereignty in the framework of supranational integration, see E Cannizzaro, *La sovranità oltre lo Stato* (Il Mulino 2020), 89 ff.

<sup>19</sup> Jean-Claude Juncker, State of the Union 2018, ‘The Hour of European Sovereignty’ (12 September 2018) [ec.europa.eu](http://ec.europa.eu).

<sup>20</sup> For the origin of the recent discourses on European sovereignty, see S Barbou des Places, ‘Taking the Language of “European Sovereignty” Seriously’ European Papers (European Forum Insight of 17 July 2020) [www.europeanpapers.eu](http://www.europeanpapers.eu) 287.

<sup>21</sup> “European sovereignty” was central in the French President Emmanuel Macron’s vision of Europe and its role in the world, in his Sorbonne speech: speech of French President Emmanuel Macron of 26 September 2017, ‘Initiative pour l’Europe’ [www.elysee.fr](http://www.elysee.fr). For a summary with the main points of the discourse, see Fondation Robert Schumann, ‘Emmanuel Macron’s Europe - A Vision, some Proposals’ (2 October 2017) European Issues [www.robert-schuman.eu](http://www.robert-schuman.eu).

<sup>22</sup> H Kundnani, ‘Europe’s Sovereignty Conundrum’ (13 May 2020) Berlin Policy Journal - Blog, [berlinpolicyjournal.com](http://berlinpolicyjournal.com).

<sup>23</sup> See, notably, S Barbou des Places (ed) ‘Questioning European (Union) Sovereignty’ (2020) European Papers [www.europeanpapers.eu](http://www.europeanpapers.eu) 287.

<sup>24</sup> S Barbou des Places, ‘Taking the Language of “European Sovereignty” Seriously’ cit.

<sup>25</sup> C Eckes, ‘EU Autonomy: Jurisdictional Sovereignty by a Different Name? (2020) European Papers [www.europeanpapers.eu](http://www.europeanpapers.eu) 319.

<sup>26</sup> M Abvelj, ‘A Sovereign Europe as a Future Sovereignty’ (2020) European Papers [www.europeanpapers.eu](http://www.europeanpapers.eu) 299.

<sup>27</sup> A Bailleux, ‘The Two Faces of European Sovereignty’ (2020) European Papers [www.europeanpapers.eu](http://www.europeanpapers.eu) 303.

In a “maximalist” view relating to the “European” component of ETS, the concept would be put forward of making the EU a sovereign entity or making it capable of acting like a sovereign entity. This encompasses both the idea of negative jurisdictional sovereignty (exclusivity of “rights to decide what acts should be given effects” within one’s jurisdiction) and positive jurisdictional sovereignty (“the ability to determine one’s own course of action as a polity”).<sup>28</sup> This in turn could imply an interrelationship between (external) sovereignty and internal autonomy.<sup>29</sup> In the case in which “European” sovereignty were meant to cover both Member States’ and the EU’s sovereignty,<sup>30</sup> accommodation of external sovereignty and internal autonomy would be implied as well. But if the “European” component in ETS were to identify the “European” part (*i.e.*, the part consisting of the EU with its Member States) in an international scenario involving third States and international organizations as the counterparts, “European sovereignty” could be understood from a minimalist approach. As regards the EU, it could ‘simply’ imply easing sovereign entities within the EU (*i.e.*, Member States, according to international law) to effectively exercise sovereignty *vis-à-vis* non-European counterparts.

It may be argued that the determination of the “jurisdictional” dimension of ETS (which entity, or jurisdiction, is “sovereign”) is intrinsically linked to the meaning of “technological sovereignty”. “Sovereignty” with respect to technology has been understood as encompassing the capacity to own and control technology within a given jurisdiction *independently* from “others”.<sup>31</sup> In particular, “digital sovereignty” points to the idea of reducing or avoiding risks of *dependency* within a jurisdiction from technologies developed,

<sup>28</sup> C Eckes, ‘EU Autonomy: Jurisdictional Sovereignty by a Different Name?’ cit.

<sup>29</sup> Some have notably associated “European sovereignty” and “autonomy” as “the ordering principles of, respectively, the international and the EU legal orders”: T Verellen, ‘European Sovereignty Now? A Reflection on What it means to Speak of “European Sovereignty”’ (2020) European Papers [www.europeanpapers.eu](http://www.europeanpapers.eu) 307, 307.

<sup>30</sup> This perspective is spelled out in the Proposal COM(2021) 775 final from the Commission of 8 December 2021 for a Regulation of the European Parliament and of the Council on the protection of the Union and its Member States from economic coercion by third countries. The proposed text at art. 2 thereof refers to “legitimate sovereign choices of the Union or a Member State” and to “area of the Union’s or Member States’ sovereignty”.

<sup>31</sup> S Poli, ‘Il Rafforzamento della Sovranità Tecnologica Europea e il Problema delle Basi Giuridiche’ cit. See S Sassen, *Losing Control? Sovereignty in an Age of Globalization* (Columbia University Press 1996) xii, highlighting “a partial shift of some components of state sovereignty to other institutions, from supranational entities to the global capital markets”, whereas the current debate on ETS addresses the dependence scenario brought about by technological innovation. For an illustration, see paradigmatically, L Moerel, ‘The Ebb and Flow of Transatlantic Data Transfers: It’s the Geopolitics, Stupid!’ (4 April 2022), Future of Privacy Forum [fpf.org](http://fpf.org). The European economic and social committee, in its opinion of 26 October 2022, (European Economic and Social Committee, Opinion (INT) 980 of 20 January 2022, Digital Sovereignty: a crucial pillar for EU’s digitalisation and growth [www.eesc.europa.eu](http://www.eesc.europa.eu)), expresses the belief that “EU’s heavy reliance on non-EU-based tech companies is limiting its leadership and strategic autonomy in the digital world”. See also, *e.g.*, S Fleming, ‘What is Digital Sovereignty and Why is Europe so Interested in it?’ (15 May 2021) World Economic Forum [www.weforum.org](http://www.weforum.org).

owned and managed by entities which are not established in that jurisdiction.<sup>32</sup> However, how sovereignty of a governing entity is expressed with respect to technological dependencies is left undefined in current EU discourse. On this, it may be noted that the concept of “autonomy” as “autonomous decision-making” is rarely employed in EU documents alongside ETS.<sup>33</sup> There, ETS does not seem qualified and understood in terms of process, as a “multi-level political practice”.<sup>34</sup> On a general tone, “autonomy” may be understood both formally and substantively. On the one hand, formal autonomy implies the power of a governing entity to self-regulate matters within its own jurisdiction and in its relations with other entities because of legal and institutional *entitlement* to do so – in other words, because such power derives from the founding act of that entity.<sup>35</sup> On the other hand, the substantive dimension of “autonomy” relates to the ability of a subject to *effectively* self-regulate a certain matter. It points to the political analysis on “sovereignty”, giving scope to “qualified sovereignties”, such as “economic sovereignty”, “digital sovereignty”, etc. Often, formal and substantive meanings are not specified, although they may both be implied, as seems to be the case in the definition of “digital sovereignty” as “the ability to act independently in the digital world”.<sup>36</sup>

Taking the above into consideration, ETS might be stated in different ways. Would the “E” point to the EU, the implication might be for the EU to be the “sole” aims-setter and decision-maker on matters relating to technological enhancement, to the exclusion of current Member States. This is, however, far from being the case. The EU is given a diversified set of competences under the treaties establishing it to act in the different sectors where ETS is pursued. Very few sectors concern spheres where the EU enjoys full-fledged regulatory powers through exclusivity, such as in the CCP – and still, the exercise of such competence accommodates Member States’ public security interests.<sup>37</sup> A complementary role of the Member States would necessarily be envisaged in sectors where

<sup>32</sup> Notably, the Commission has described “critical technologies” as technologies that “are important for technological sovereignty (*i.e.* where there is a need to reduce the risk of dependence)”: Communication COM(2021) 70 final, cit.

<sup>33</sup> The Regulation (EU) 2021/696 cit. draws a relationship between “strategic autonomy” and “independent decision-making”. The objective of providing space services, information and data that support the Union’s political priorities and related independent decision-making is explicitly set at art. 4(1)(a) thereof.

<sup>34</sup> On this approach, see A Bendiek and I Stürzer, ‘Advancing European Internal and External Digital Sovereignty. The Brussels Effect and the EU-US Trade and Technology Council’ cit.

<sup>35</sup> This consideration is here spelled out to evoke the understanding of ‘independence’ under international law, as a constitutive element of international legal personality of both States and international organizations, *mutatis mutandis*.

<sup>36</sup> T Madiega, ‘Digital Sovereignty for Europe’ (July 2020) European Parliament Research Service Ideas Paper Briefing [www.europarl.europa.eu](http://www.europarl.europa.eu), cited in S Poli, ‘Il Rafforzamento della Sovranità Tecnologica Europea e il Problema delle Basi Giuridiche’ cit. See E Fahey, *The EU as a Global Digital Actor. Institutionalising Global Data Protection, Trade, and Cybersecurity* (Hart 2022).

<sup>37</sup> Opinion 2/15 *Free Trade Agreement between the European Union and the Republic of Singapore* ECLI:EU:C:2017:376 paras 100-104.



competence is shared or retained at the Member-State level.<sup>38</sup> Were the “E” component of ETS left undefined, as is actually the case, then the ability to effectively manage technology in Europe would count first and foremost and guide EU action. In other words, this would essentially require that the capacity to shape regulation on relevant matters irrespective of third countries is effective. At the same time, although this way of stating ETS would not intrude into the “jurisdictional” dimension of ETS, allowing cumulative and interrelating action by the EU and the Member States could hinder effectiveness. The “functionalist” approach perceived in Juncker’s speech on “ES” could thus be key in advancing pursuance of ETS by the EU.

### III. ETS IN THE STRATEGIC COMPASS: CONCEPTUAL TENETS AND REGULATORY TOOLS

As already mentioned, the TEU distinctively addresses technology in the defence sector, by conferring certain tasks to the European Defence Agency (arts 42(3) and 45(1)(d) TEU). Accordingly, the EU shall contribute to strengthen the technological base of the defence sector and support defence technology research. Under the “technological and industrial defence base” (TIDB) such aspects are considered as defence expenditure (through investment, financing, public procurement...); defence industry (including access to raw materials, technologies, industrial capacities, production and equipment); and defence capabilities (e.g., stockpiles, air and missile systems).<sup>39</sup> “Research and Technology” lies at the heart of defence capability development, as it relates to technical challenges and technology gaps.<sup>40</sup>

Technological advances together with security of supply in the defence sector ensure freedom of action and choice in military affairs.<sup>41</sup> Retaining or fostering the production or trade of arms, munitions and war material at member State level has always been respected by EU treaty law through now-art. 346 TFEU. However, duplication of national expenditures and increase of costs propelled the argument that a fully adequate TIDB was no longer sustainable on a national basis.<sup>42</sup> This prompted plans at the EU level to make a “European defence technological and industrial base” (EDTIB) the essential component of the CSDP, as early as 2007. Because of the financial and economic crisis, such

<sup>38</sup> However, see B De Witte, ‘Exclusive Member States Competences: Is there such a Thing?’ in S Garben and I Govaere (eds), *The Division of Competences between the EU and the Member States: Reflections on the Past, the Present and the Future* (Bloomsbury 2017) 59.

<sup>39</sup> See, e.g., European Commission Representation in Cyprus Press Release, ‘EU Steps up Action to Strengthen EU Defence Capabilities, Industrial and Technological Base: Towards an EU Framework for Joint Defence Procurement’ (18 May 2022) [cyprus.representation.ec.europa.eu](https://cyprus.representation.ec.europa.eu).

<sup>40</sup> See European Defence Agency, *What we do – Research technology* [eda.europa.eu](https://eda.europa.eu).

<sup>41</sup> B Wilkinson, ‘The EU’s Defence Technological and Industrial Base’ (January 2020) In-Depth Analysis [www.europarl.europa.eu](https://www.europarl.europa.eu).

<sup>42</sup> *Ibid.*, quoting K Hartley, ‘Creating a European Defence Industrial Base’ (2011) Security Challenges 95.

plans did not materialize in the following years, but have been reasserted and enhanced since 2013.<sup>43</sup> The underlying idea is that of pursuing “self-sufficiency for security of supply”, moving from a fragmented, nation-based landscape to a more integrated one.<sup>44</sup> Addressing defence technological and industrial dependencies has been identified as “a topic of strategic importance for securing European freedom of action”.<sup>45</sup> Such tools were developed out of the Lisbon Treaty in recent years, as the European Defence Fund (EDF), the Permanent Structured Cooperation (PESCO) and the Coordinated Annual Review on Defence (CARD), which are precisely aimed at facilitating cooperation and coordination of Member States in the defence industry sector.<sup>46</sup>

The most recent policy documents in the CSDP include ETS – and argumentation around it – alongside the concept of “SA”. Indeed, in the 2013 Conclusions, the Council had already drawn a connection between technology and autonomy when noting that strengthening the technological and industrial base of the European defence industry would enhance Europe’s strategic autonomy in its relations with partners.<sup>47</sup> However, as already noted, since then “SA” has developed as an encompassing objective throughout EU action and ETS has emerged with a broader scope of application than the sole defence industry.

This trend is apparent in the most recent strategic document on the CSDP, the Strategic Compass. The document significantly illustrates some conceptual dynamics concerning ETS and their policy and regulatory implementation. The Compass identifies disruptive technologies and strategic dependencies among the emerging and transnational threats and challenges with strategic implications for the EU – broadly, geopolitical competition, economic rivalries, technological development and disinformation, climate crisis, as well as regional and global instability.<sup>48</sup> “Technological sovereignty” is exactly evoked with respect to the former issues, to be enhanced through defence innovation and the use of civilian technology in defence.<sup>49</sup> Indeed, throughout the Strategic Compass ETS is not confined to the ambit of freedom of action in the defence sector but is a

<sup>43</sup> B Wilkinson, ‘The EU’s Defence Technological and Industrial Base’, cit. See Council Conclusions of 25-26 November 2013 cit.; European Council Conclusions EUCO 217/13 of 19-20 December 2013; Communication COM(2013) 542 final from the Commission of 24 July 2013, Towards a more competitive and efficient defence and security sector; Report COM(2014) 387 final from the Commission of 24 June 2014, A New Deal for European Defence: Implementation Roadmap for Communication COM(2013) 542 Towards a more competitive and efficient defence and security sector.

<sup>44</sup> V Briani A Marrone, C Molling and T Valasek, ‘The Development of a European Defence Technology and Industrial Base (EDTIB)’ (June 2013) Directorate-General for External Policies [www.europarl.europa.eu](http://www.europarl.europa.eu).

<sup>45</sup> European Defence Agency, *European Defence Technology and Industrial Dependencies* [eda.europa.eu](http://eda.europa.eu).

<sup>46</sup> See G Perotto, ‘The Legal Framework of the EU Defence Industry and the Pursuit of Strategic Autonomy’ European Papers (European Forum Insight of 27 July 2023) [www.europeanpapers.eu](http://www.europeanpapers.eu) 475.

<sup>47</sup> Council Conclusions of 25-26 November 2013 cit. para. 30.

<sup>48</sup> Strategic Compass 7371/22 cit. 11. In particular, “emerging and disruptive technologies” thereunder are Artificial Intelligence, quantum computing, advanced propulsion, bio- and nano-technology and new materials and industrial capacities, *ibid.* 34.

<sup>49</sup> *Ibid.* 35.

broader aim for the EU to pursue with the contribution of the CSDP as well (section III.1). In parallel, several tools relying on different legal bases come into play, in a mutual and interacting dynamic (section III.2).

### III.1. ETS AS A MEANS FOR, AND AS AN AIM OF, DEFENCE

Throughout the Strategic Compass, ETS appears to be addressed under two perspectives: as a means for defence (a condition for defence); and as an aim of defence (a matter of security).<sup>50</sup> This is quite evident at the level of the general aims pursued. There, the Strategic Compass declares, on the one hand, that it “will enhance the EU’s strategic autonomy (...) It specifies how we should anticipate threats, secure our interests and protect our citizens. This in turn requires that we innovate and invest in technologically superior and interoperable defence capabilities and reduce technology and resource dependencies”. On the other hand, it is stated that “[a]chieving technological sovereignty in some critical technology areas, mitigating strategic dependencies in others, and reducing the vulnerability of our value chains are critical if we are to meet the challenges of a more dangerous world and be more resilient”.

However, these perspectives are not clearly distinguished and rather look complementary or instrumental to each other under the CSDP strategy. This is shown by the identification of instrumental objectives in the Strategic Compass where the ETS terminology is most recurrent.

For instance, in the “Secure” strand, emphasis is on understanding and reducing space-based risks, threats and vulnerability. There, green technology and sustainable digitalization within the armed forces and in the defence industrial sector are identified as a response to the challenges which are posed by climate change, disasters and emergencies, while cyber defence counters hybrid threats<sup>51</sup> (the “ETS as a means for defence” perspective). In the same vein, some other passages of the Strategic Compass suggest that achieving ETS is instrumental to improving defence capabilities, and thus security. For example, better defence capabilities are made dependent on acquiring advanced technologies and securing technological advantage in land, maritime, air, space, and cyber domains as well as on fortifying cyber defence and cybersecurity. To this end, the development and intensive use of new technology is considered necessary, notably as concerns “quantum computing, Artificial Intelligence and Big Data, to achieve

<sup>50</sup> See, in a similar vein, Communication COM(2021) 70 final cit.: “On the one hand, given that some essential services depend on digital technologies for their functioning, it is a matter of security to maintain their functioning. On the other hand, the Union may safeguard its security from internal or external threats only if it possesses the technology necessary to do so and is not dependent on third countries to perform this task. In this sense, technological sovereignty is the EU’s ability to better address security threats (such as cyber-attacks to critical infrastructure), interferences in the domestic affairs of a Member State as well as acts of espionage”.

<sup>51</sup> Strategic Compass 7371/22 cit. 26.

comparative advantages, including in terms of cyber responsive operations and information superiority" (again, the "ETS as a means for defence" perspective).

On the other side (and in turn), "investing in innovation and making better use of civilian technology in defence" is considered "key to enhancing technological sovereignty, alongside reducing strategic dependencies and preserving intellectual property in the EU".<sup>52</sup> It is also pinpointed that "an innovative, competitive and resilient European Defence Technological and Industrial Base [...] guarantees security of supply and cutting-edge technologies", which are "key for employment, trade, investment and research in the EU" (the "ETS as an aim of defence" perspective).<sup>53</sup>

### III.2. TOOLS FOR PURSUING ETS UNDER THE CSDP: SPHERES AND INSTRUMENTS OF EU ACTION

As has been noted in the literature on a more general note, pursuance of ETS within the CSDP induces the adoption of two types of measures by the EU. Certain measures are aimed at reacting to a situation of technological dependence by others, while other measures are aimed at preventing further weakening of ETS.<sup>54</sup> In broader terms, they aim at redressing and preventing "loss of control" in the face of threats arising from the digital world.<sup>55</sup>

In light of its general aims and the instrumental objectives revolving around ETS, the Strategic Compass identifies concrete measures of a horizontal or sectoral scope. Remarkably, while some rest on the action that the EU may undertake under the TEU rules on the CSDP, implementation of the Compass objectives is not confined to this. Instead, it involves several other spheres of EU action, providing for the treaty legal bases on the envisaged tools.

By way of illustration, the Invest strand in the Compass encompasses a vast array of different measures. Some square within the existing tools of the CSDP (namely, the PESCO, the EDF and the CARD) but aim at boosting Member States cooperation to develop coherent and ambitious defence capabilities.<sup>56</sup> Some pertain to the instrumental objective of developing "an innovative, competitive and resilient European Defence Technological and Industrial Base" – which, in turn, is the response to emerging and disruptive technologies.<sup>57</sup> To boost research, technology development and innovation, closer cooperation and coordination between the EU and Member States is sought according to the methodology proposed in the Commission's Roadmap on critical technologies for

<sup>52</sup> *Ibid.* 35.

<sup>53</sup> *Ibid.* 34.

<sup>54</sup> These two facets are identified by S Poli, 'Il Rafforzamento della Sovranità Tecnologica Europea e il Problema delle Basi Giuridiche' cit.

<sup>55</sup> S Sassen, *Losing Control? Sovereignty in an Age of Globalization* cit.

<sup>56</sup> Strategic Compass 7371/22 cit. 31 ff.

<sup>57</sup> *Ibid.* 34.

security and defence.<sup>58</sup> The Roadmap is put under the responsibility of the Commission Secretariat-General and combines EU industrial strategy with defence peculiarities to strengthen the competitiveness and the resilience of the European defence market.<sup>59</sup>

Other measures under the "Invest strand" of the Compass pursue the instrumental objective of "investing in innovation and making better use of civilian technology in defence". These measures present quite a mix of competences and bodies. The latter include the European Defence Agency with reference to its Action Plan on Emerging and Disruptive Technologies,<sup>60</sup> and the Commission with the Observatory on Critical Technologies<sup>61</sup> and the European Cybersecurity Competence Centre.<sup>62</sup> The former range from the origin of funding in the defence sector to trade.<sup>63</sup> Notably, the Strategic Compass designs a specific role for FDI screening, by envisaging "full use of the Union's framework and national mechanisms".<sup>64</sup> In this vein, it also points to anti-coercion tools, countering extra-territorial effects of third countries measures.<sup>65</sup> It is to be noted here that the text of the proposed regulation on anti-coercion, which rests on the CCP exclusive competence, refers to "the Union's [and] Member States' sovereignty" but does not explicitly address ETS. Such link is established through the CSDP Strategic Compass, whereby the envisaged instrument is shaped as a measure pursuing an instrumental objective of the CSDP strategy, as regards "technological sovereignty".

<sup>58</sup> *Ibid.*

<sup>59</sup> Communication COM(2022) 61 final from the Commission of 15 February 2022, Roadmap on critical technologies for security and defence.

<sup>60</sup> See European Defence Agency, 'Driven by Global Threats, Shaped by Civil High-tech' (European Defence Matters 22-2021) 6.

<sup>61</sup> Envisaged under action 4 of the Synergies Action Plan (Communication COM (2021) 70 final cit.), to coordinate and get a full understanding of critical dependencies. See Communication COM(2022) 61 final cit. 5 ff.

<sup>62</sup> Regulation (EU) 2021/887 of the European Parliament and of the Council of 20 May 2021 establishing the European Cybersecurity Industrial, Technology and Research Competence Centre and the Network of National Coordination Centres. The Centre is established under arts 173(3) and 188(1) TFEU to develop a strong European cyber industrial and technological ecosystem (see the Centre's "Mission" at art. 3 thereof).

<sup>63</sup> Strategic Compass 7371/22 cit. 35, envisaging access to private funding in the defence sector.

<sup>64</sup> In Regulation (EU) 2019/452 of the European Parliament and of the Council of 19 March 2019 establishing a framework for the screening of foreign direct investments into the Union, screening is set on grounds of security and public order – altogether, a classical exception under international treaty law on trade and investment. Although the emerging conceptual dimensions of "security" are not mentioned in the text of the Regulation explicitly, they are encompassed in the criteria for screening, *i.e.* the "factors that may be taken into consideration". These are listed in art. 4 thereof: "(a) critical infrastructure, whether physical or virtual, including energy, transport, water, health, communications, media, data processing or storage, aerospace, defence, electoral or financial infrastructure, and sensitive facilities, as well as land and real estate crucial for the use of such infrastructure; (b) critical technologies and dual use items [...], including artificial intelligence, robotics, semiconductors, cybersecurity, aerospace, defence, energy storage, quantum and nuclear technologies as well as nanotechnologies and biotechnologies; (c) supply of critical inputs, including energy or raw materials, as well as food security; (d) access to sensitive information, including personal data, or the ability to control such information; or (e) the freedom and pluralism of the media".

<sup>65</sup> Proposal COM(2021) 775 final cit.

Other recently proposed tools under the umbrella of “digital sovereignty” are not mentioned in the Strategic Compass, though. Such is the case, for example, of the February 2022 European Chips Act proposal, by which the Commission seeks to have harmonized rules in place at the EU level for facing semiconductor shortages.<sup>66</sup> This is so, notwithstanding the fact that defence and other activities that are relevant for public safety and security are considered as a critical sector for the purposes of the proposed Regulation.<sup>67</sup> Should this omission signal a selective approach of EU measures from the perspective of the Strategic Compass, it could perhaps be related to the type of intervention of the EU. While EU trade measures necessarily substitute Member States powers in the field, EU harmonization on grounds of non-exclusive competence is premised on the principle of subsidiarity. While in the former field it may be said that the EU exercises “negative jurisdictional sovereignty”, in the internal market and other fields of non-exclusive competence accommodation of “positive jurisdictional sovereignty” and “internal autonomy” may be more a sensitive issue (see above, Section II). On another note, selectivity of EU measures for defence strategy purposes could perhaps also depend on their aptitude to *directly* address external threats – but this does not appear to be in line with the strategy put forward by the Strategic Compass, broadly encompassing action to react and to prevent identified external threats. Overall, however, it is quite clear that the Commission, from its side, has moved in the direction of systematically embedding defence considerations in both the EU industrial and technological policy, including its funding and financing aspects, and common commercial policy.

#### IV. ETS AND DEFENCE: MOVING ACROSS AND OUTSIDE THE CSDP LEGAL FRAMEWORK. SOME CONCLUDING REMARKS OPENING TO FURTHER RESEARCH

From the above some general aspects on the way ETS is understood in the CSDP strategy may be detected, and possible broader implications envisaged.

First, the above shows that the Strategic Compass mainly describes defence-related ETS in terms of strengthening technological independence from competitors outside the EU. Thus, as far as the “S” component is concerned, this approach is in line with the outward look of security, to which both defence strategy and “ES” are connected. In addition, ETS has a similar use in the CSDP and in other EU policy areas. Specifically, the document under consideration does not really point to a formal idea of independence, one which refers to autonomous decision-making, or self-regulation. It is rather focused on factual dependencies, identifying strategies and concrete measures to mitigate or prevent them. This would suggest that “sovereignty” has mainly an “operationalizing” meaning and use in EU discourse. The “T” component of ETS induce the identification of fields and

<sup>66</sup> Proposal COM(2022) 46 final from the Commission of 8 February 2022 for a Regulation establishing a framework of measures for strengthening Europe's semiconductor ecosystem (Chips Act). The envisaged act is to be established pursuant to arts 114, 173, 182 and 183 TFEU.

<sup>67</sup> *Ibid.* Recital 46 and art. 2(1)(16).

measures which serve the aim of fostering "ES". Also accordingly, the "European" component of ETS is not specifically addressed in the Strategic Compass. In this way, the EU is forging an overall concept without defining whose sovereignty it refers to. This would apparently leave the issue of "competence" aside, but it could also overlook or hide it – as will be further argued below.

Second, achieving or preserving ETS appears to be both a means of defence and an aim of security and defence policy in the Strategic Compass. This reflects (and enables) a holistic approach to ETS under EU law, spanning EU policies and concerning "all" critical technologies. Thus, the argument may be advanced that the ETS works as a "policy enhancer" to project the CSDP strategy into extra-CSDP areas of action. Although it is not new that the EU "operationalizes" its CSDP by recourse to non-CSDP measures,<sup>68</sup> ETS-related considerations within the CSDP enlarge the scope of measures which are designed to serve the purposes of the CSDP by reversing the approach: defence considerations are in the process of being systematically embedded in other EU policy areas. In other words, the EU bases its ETS defence strategy on actual needs for technological independence and identifies all useful action to tackle them. A first, tentative implication of this analysis is that fostering ETS under the CSDP triggers an ever-expanding scope of EU action on defence issues. However, examined the other way round, it could also be noted that the progressive "finalization" of other EU policies to defence needs stretches the limited competences conferred to the EU in this sectoral policy.

Although action as relates to the Strategic Compass is envisaged in the existing framework of competences, three main questions revolve around the above considerations.

One is whether the current competence on the CSDP provides a specific legal basis for pursuing issues which are addressed by the concept of ETS. As concerns the objectives of the CSDP, which is an integral part of the CFSP, reinforcing "European independence" in order to promote "security ... in Europe and in the world", as stated in the TEU Preamble, may arguably accommodate technological independence. Several measures that have been pinpointed by the Strategic Compass in relation to ETS find coverage in the CSDP, as defined in arts 42 and 45 TEU. In particular, measures needed to strengthen the industrial and technological base of the defence sector, as well as defence technology research and the study of technical solutions meeting future operational needs, fall under the scope of the supporting tasks conferred to the European Defence Agency. At the same time, by referring and recurring to existing CSDP tools such as the PESCO, the EDF and the CARD, the Strategic Compass stresses Member States cooperation towards quite

<sup>68</sup> Directive 2009/81/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of procedures for the award of certain works contracts, supply contracts and service contracts by contracting authorities or entities in the fields of defence and security and amending Directives 2004/17/EC and 2004/18/EC. Most recently, the establishment of a Defence Joint Procurement Task Force has been presented as one of the measures towards a "joint defence procurement": see the European Commission Representation in Cyprus Press Release, 'EU Steps up Action to Strengthen EU Defence Capabilities, Industrial and Technological Base: Towards an EU Framework for Joint Defence Procurement' cit.

an enhanced level of coherence and ambition. In addition, measures to react or prevent technological dependencies from third countries contribute to the fulfilment of the Member States undertaking to progressively improve their military capabilities under the same Treaty provision.

However, several such measures that are put forward by the Strategic Compass do not square within the provisions on the CSDP. They rely on recourse to other legal bases in the Treaties. Thus, in a symmetrical fashion as to the first question, a second question arises about the limits which any EU ETS-led action on defence through legal bases that go beyond the boundaries of the CSDP encounters under EU Treaty law. Overall, they must meet the requirement that the EU respects the essential State functions of the Member States, including “safeguarding national security” (art. 4(2) TEU). Respect for this inward-looking limitation is reiterated by the EU in many documents in connection with “SA”, “cybersecurity”, “digital sovereignty”, and ETS.<sup>69</sup> This, however, projects a potential collision between single Member States measures and the EU action, calling for arrangement within the EU framework.<sup>70</sup> On the other hand, the same measures may respond to the principles and objectives that the EU must respect and pursue in its external action, which include safeguarding its security, independence and integrity (art. 21(2)(a) TEU). This argument is also mentioned in the Strategic Compass and in other EU initiatives. It is yet to be defined whether these trends are contrasting or mutually supportive, and whether they can contribute to define the “E” component of “E(T)S”.

Finally, the analysis undergone in this *Insight* suggests that a further question may be considered: whether the concept of ETS is capable of driving EU action on defence beyond Treaty limits, on the grounds that the latter may potentially hinder the achievement of the goals that such concept underpins. The articulation of the ETS aim into concrete measures in the Strategic Compass shows some stretching in the exercise of conferred competences but does not appear disruptive of the principle of conferral. Such operationalization of the ETS argument would not lead to a formal evolution of sovereignty within the EU supranational framework. However, it may simply be too soon to detect a “creeping” effect, or a “spill-over” effect.

<sup>69</sup> Commission Recommendation (EU) 2019/534 cit., esp. para. 26 of the Preamble: “This Recommendation should be without prejudice to the competences of the Member States regarding activities concerning public security, defence, national security and the activities of the State in areas of criminal law, including the right of the Member States to exclude providers or suppliers from their markets for national security reasons”.

<sup>70</sup> See F Casolari, ‘Equality of States and Mutual Membership in European Union Law: Contemporary Reflections’ in D Amoroso and others (eds), *More Equal than Others? Perspectives on the Principle of Equality from International and EU Law* (Springer 2023) 39, 43.