AeroSpace and Defence Industries Association of Europe

Industry considerations on Technological Sovereignty

Concept paper

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Executive Summary

Driven by geopolitical uncertainties and growing awareness of technological dependencies and vulnerabilities, technological sovereignty has become an important point on the EU's strategic agenda. As one of the key objectives of the European Commission, it has begun to appear frequently in EU policies and programmes.

At the same time, coherent and generally accepted responses to key questions are still missing: What does sovereignty mean in the context of technology and how can it be achieved? For which technologies does Europe want to be sovereign? And what does technological sovereignty mean for the EU vis-à-vis Member States and allied third countries?

Technological sovereignty concerns different sectors and a broad variety of emerging technologies, which are pervasive by nature. As a consequence, we propose to use for all strategic sectors a common approach to defining and operationalising the concept.

A general agreement on how to select the technologies for which Europe should have (a higher degree of) "sovereign" control, and how to achieve this sovereignty would help create a common ground to debate the development and implementation of policies, funding priorities, investment and procurement decisions, etc.

We believe that this common approach should consist of a combination of strategic (capability-driven) planning and targeted industrial policy, supported by coherent and persistent investments in selected key technologies. Capability-planning is well known in defence, but as a general approach it can also be used in other strategic sectors to identify critical technologies for which sovereignty matters. At the same time, the EU's new industrial policy offers instruments that can enhance technological sovereignty of value chains in all strategic sectors.

Against this background, we propose to implement the concept of technological sovereignty in each strategic sector through the following five-step approach:

(1) identification of the relevant technologies, through the analysis of the links between function / capability / technology;
(2) selection of the relevant value chains;
(3) definition of the appropriate level and form of European control over the value chain;
(4) identification of gaps and dependencies that (may) undermine sovereignty;
(5) preparation and implementation of the measures to ensure the desired level of control.

Defining and sharing technological sovereignty in a Union of 27 Member States, with extensive political, economic and military ties to third countries, is a major challenge. Moreover, bringing together strategic planning and industrial policy raises thorny issues of governance, as it brings together different policies, actors and instruments. However, we do believe that the stakes are sufficiently high to justify the effort and stand ready to support EU institutions and Member States in this endeavour.

Introduction

Technological sovereignty is one of the strategic policy objectives of the European Commission. The term has gained a considerable prominence in debates about the future of the EU. It mostly refers to digitalisation but has never been clearly defined, and still seems to stand more for a political ambition than a coherent, actionable concept.[1]

In our understanding, this ambition is based on two credible and compelling assumptions:

- the 21st century will be digital in all its aspects, including traditional areas of state sovereignty such as defence, security and space;[2]
- there is a growing competition between great powers to control the new digital and other emerging technologies and a willingness to use them to gain advantage over the other. Consequently, sovereignty over these technologies will determine not only the prosperity but also the security of Europe.[3]

Until now, the concept remains vague. To become reality, technological sovereignty needs to be spelled out in greater detail and translated into concrete actions. This raises three main questions:

- For which technologies does Europe want to be sovereign?
- What does sovereignty mean in the context of technology and how can it be achieved?
- What does technological sovereignty mean for the EU vis-à-vis Member States and allied third countries?

The purpose of this paper is not to provide exhaustive answers to these questions. It does not intend to identify which technologies are most important, nor to describe how to achieve European sovereignty for each of them. Numerous stakeholders currently try to do this in different contexts.[4] However, we have noticed that these attempts are made in a rather uncoordinated ad hoc approach individually for each context. From our point of view, this entails the risk of stovepipes, inconsistencies, unnecessary duplication and lack of synergies. We will therefore try to sketch a methodology that is suitable in different contexts to identify which technologies are critical and which industrial policy tools could be used to achieve an appropriate level of technological sovereignty for each context.

Thus, our approach is driven from the perspective of strategic industrial policy, not sectoral policy. As this paper is prepared by the association of aerospace and defence industries, it is inevitably inspired and shaped by the experience of our sectors. At the same time, the currently emerging technologies are pervasive and relevant across many sectors. A strategic industrial policy must

[1] For an overview over the current debate, see: What is 'tech sovereignty', Science Business report, September 2020.
[2] E.g. Communication by the European Commission "Shaping Europe's Digital Future" (pp. 2, 7 & 8), Mission Letters to Thierry Breton and Margarete Vestager, Op-ed by Ursula von der Leyen „Shaping Europe's digital future"; Speech by HR/VP Josep Borrel, "Welcome address at the European space conference".
[3] Speech by HR/VP Josep Borrel „Cyber diplomacy and shifting geopolitical landscapes"; written answers by Thierry Breton to the European Parliament.
[4] Over the last months we have examined several initiatives aimed to strengthen or rationalize the European presence in technology areas. Every document or presentation included some form of evaluation of the reason behind the strategic interest of the area and the approach to become "sovereign": we can mention, for instance, the European Battery Alliance, the European Raw Material Alliance the JU on High Performance Computing, the Gaia-X alliance for European Cloud, the H2020 projects on CBRN, several cyber security initiatives from ENISA, ECSO and Member States.

therefore cover these technologies both at a generic level and at the level of their sector-specific application. Moreover, the pervasiveness of emerging technologies creates new opportunities for synergies between sectors. All this makes coherence of efforts as important as challenging and convinced us to propose an approach that is suitable to different contexts. Ideally, such an approach can help frame policies and funding instruments in a way that creates synergies by design rather than by opportunity.

In the following, we will first describe a possible way to identify which technologies are so critical that Europe may want to become sovereign for them. In a second step, we will discuss what technological sovereignty could actually mean, and how it can be achieved. We will then end with a short consideration on the challenges that European technological sovereignty brings for the EU and its relationship with Member States and other European countries.

We are fully aware that this scope is broad for a paper of this length. Consequently, many aspects can only be touched upon briefly and clearly deserve further assessment. We therefore consider this paper not as an exhaustive treatment of the subject, but rather as a proposal for a conceptional framework that aims to increase coherence between ongoing initiatives and to stimulate further reflection.

Technologies

The concept of technological sovereignty remains vague also in its scope. Official EU documents talk about “critical” or “next frontier of technologies” and point to technologies like Artificial Intelligence, Internet of Things, Blockchain, etc[5]. In any case, we believe that efforts to enhance European sovereignty should focus not exclusively on digital technologies, but include also other emerging technologies, such as quantum, novel materials, and biotechnology.

At the same time, terms like “Artificial Intelligence” are extremely generic. This makes it difficult to implement the concept of sovereignty, as it would be unrealistic and unnecessary to seek sovereignty in all aspects of Artificial intelligence. Efforts to become sovereign can only be effective if they are precise: Do we mean by technology a certain component built on the basis of Research and Development, e.g. semiconductors technology? Or do we refer to a subsystem that integrates that chip, together with other components, and can have many uses, e.g. transmitter technology? Or do we mean the whole system based on physical and software components, e.g. 5G technology? For which element(s) do we want to achieve sovereignty: the chip, the transmitter, or the whole network? And what is then required (in technical, political, economic or any other terms) to become “sovereign”?

To operationalise the term “technological sovereignty”, it must therefore first be specified which technology bricks and applications matter most, and for which purpose. To do this, we suggest putting technology in context and linking it to the objective that it is expected to achieve. This objective is determined by technical, operational and regulatory requirements, which are themselves based on strategic considerations, legal requirements and political guidelines. This context can then be translated into a top-down planning and decision-making process which includes several levels.

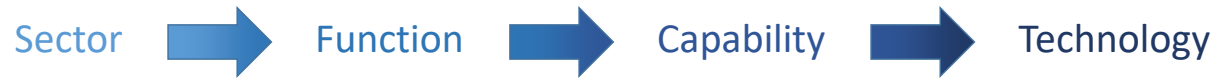
[5] E.g. Commission White Paper on AI; Communication by the European Commission “Shaping Europe’s Digital Future” (p. 4); Online contribution by Roberto Viola, Director-General of DG Connect, “Artificial Intelligence: The next frontier”.

Against this background, we argue that sovereignty should be considered as an objective for those technologies that make a decisive contribution to a capability[6] that is key for a critical function[7] of a strategic sector.

Moreover, we consider a sector as strategic if it is essential for

a) the security or continuity of life (*e.g. defence, security, health, energy, water****), or***

b) the security or continuity of our way of life (*e.g. political system, financial system, economy, justice, media, education****).***



Each element of this definition is a variable and needs to be determined case by case. To this end, the four following aspects need to be taken into consideration:

1. ***Which sector is essential for our life or way of live?***

Whether a sector is considered essential for our life or our way of life is a political choice. In most countries, the list of essential sectors is probably very similar, but the ranking and the resources allocated to each sector can differ considerably. Defence, for example, is in most countries considered as an essential sector for the security of life, but the ranking and resources allocated to it differ widely, as do the ambitions to have sovereign control over defence capabilities. At the same time, ranking and resources evolve over time, depending on political, societal, scientific or other circumstances. Public health, for example, has become a top priority and has received additional resources as a consequence of the COVID-19 crisis. The pandemic has also led to greater awareness of dependencies for critical medical supplies.

2. ***Which functions are critical for the sector?***

Which function is critical for an essential sector is a strategic choice that is again determined by a broad variety of considerations (e.g. political, societal, geographical). In security, border protection would certainly count as a critical function for example. At the same time, it is more critical for Member States with an external EU border than it is for Member States that are surrounded by other EU Member States.

3. ***Which capabilities are key for a function?***

The choice of key capabilities for critical functions is also a strategic decision, depending on political and geographical factors. Maritime surveillance, for example, is certainly a key capability for border protection of EU Member States in the Mediterranean, whereas it is by definition irrelevant for Member States without any sea borders. Other capabilities, such as secure and reliable communications, for example, are crucial for many strategic sectors.

[6] "Capability" is a term commonly used in the defence sector. To make it applicable also to civil sectors, we understand it here in a generic sense as "a set of processes, resources and tools (including technologies) that any type of organization (private or public, civil or military) needs to be able to pursue a particular policy priority or achieve a desired operational effect".

[7] "Function" is understood here as a subset of actions that are needed to fulfil the purpose of a sector.

4. Which technologies make a decisive contribution to a key capability?

Capabilities are made of numerous factors (training, logistics, processes, equipment, etc.). Technologies support capabilities through applications, i.e. systems, software-based applications and infrastructures, that fulfil specific tasks. Normally different technologies are integrated into a single system. There can be both alternative systems for a specific task, and alternative technologies for a specific system. The question is which system is essential for the capability, and which technologies used in that system are critical for its performance. A key criterion in this context is the user's operational sovereignty, i.e. his freedom to use the system in all circumstances and without (or with an acceptable degree of) potential restrictions and/or conditions. For technologies that determine operational sovereignty, the user may want to impose special requirements in terms of reliability, robustness, control and security of supply.

This last level of this sequence is particularly important for our purposes as it determines which applications and technology (bricks) matter for technological sovereignty. It also illustrates the need to be precise in the definition of technology to be effective in the support.

The following table illustrates our approach. It does neither propose a new taxonomy, nor aim at completeness or consistency within each column. It "only" shows the line of reasoning and sequence of steps described above.

Sector	Function	Capability	Technology	Candidate[8]
Defence	Border protection	Land surveillance	Radar	*
Security	Infrastructure protection	Maritime surveillance	Sonar	
Health	Public spaces protection	Air surveillance	Electro-optical	*
Energy	Maritime protection	Earth observation	Other sensors	
….	Air protection	Infrastructure monitoring	Cable communications	
	Space protection	….	Optical fiber communications	
	…..		Radio communications	*
			Infrared and visible comms	
			Edge computing	
			Cloud Computing	
			Data fusion	*
			Image recognition	*
			Pattern recognition	

[8] The asterisk in the "candidate" column indicates that this specific technology is critical enough to further evaluate whether sovereignty should be aimed at and what it would imply.

			Data analytics	
			Data display	*
			Decision support	
			Command and Control	*
			…	

Thus, the identification of critical technologies is a process that consists of numerous steps and depends on different variables. The more systematic this process is, the better the chances become to identify the technologies that really matter, and to efficiently allocate resources to develop these technologies.

In reality, however, this process is hardly ever performed systematically. It is most developed in the defence sector (in the form of capability development plans) and exists partly for security (mainly in the form of taxonomies for research activities). It is also increasingly formalised in the space sector, where European policies address issues of critical supplies and technological dependencies. If technological sovereignty is to become more than a buzzword, such processes should be established for all strategic sectors. These processes will of course vary, depending on the specificities of each sector, but all sector-specific processes should have the following basic features in common:

- Compatibility with each other, to foster synergies across sectors;
- Clarity, to facilitate communication between all levels;
- Simplicity, to allow for a strategic debate on choices and rationales;
- Openness, to actively involve relevant stakeholders (end-users, industry, policy makers) at the appropriate level;
- Orderliness, i.e. performed in the right sequence from the beginning to the end, to ensure coherence of decisions and actions.

Sovereignty

The identification of critical technologies does not provide an absolute answer on where technological sovereignty should be achieved. It is always a choice based on many considerations that have to be balanced against each other. In defence, for example, these considerations include the military significance of a capability, and the extent to which sovereign control over it delivers (or could deliver) key aspects of military advantage, including freedom of action/to deploy, scope for rapid adaptability, upgradeability, security of supply, ability to support, etc. These must be balanced against the very real considerations of affordability, development risks, ease of access to alternative imported solutions (along with what constraints come with these) and the impact on interoperability.

A further factor to consider is timescales and investment that will be required to achieve a target level of sovereign control, and how best to transition from current situation of (presumably) having some dependencies on third countries, to achieving greater levels of technological sovereignty:

Can it be done smoothly, or will it inevitably incur disruptive change, e.g. because a current supplier refuses to supply given that it is being eased out?

Another consideration is the security of supply from non-European sources, e.g. the breadth of the supply base and its geographical distribution: The more diverse the supply base is, and the more it is located in like-minded and politically stable countries, the less risky it becomes to rely on non-European suppliers (although the COVID-19 pandemic has shown that such calculation may not stand-up to black-swan events).

In this context, it is also important to be clear why to support a certain technology: increase the freedom to decide and act vis-à-vis other geopolitical actors would be a political objective; improve market competitiveness is an economic goal. The former is particularly relevant for critical functions of sectors that are essential for the security of life and the functioning of state institutions. In this case, technological sovereignty becomes a matter of sovereignty of states. Technological leadership is the precondition for both objectives, but it is evident that the underlying business model and cost structure would be very different.

For all these reasons, technological sovereignty can neither be absolute nor all-encompassing. From our point of view, the only realistic and reasonable approach is to seek an "appropriate level of technological sovereignty". How to define "appropriateness" in this context is a question of careful consideration, and the answer will vary between both countries and sectors, but also evolve over time.

European control

Moreover, the meaning of sovereignty itself is open to debate. This is true for sovereignty in general, and even more so when applied to technology. According to the European Commission, technological sovereignty "is not a protectionist concept, it is simply about having European technological alternatives in vital areas where we are currently dependent."[9] In our understanding, this implies at least a certain degree of self-sufficiency, also to enhance Europe's resilience against systemic shocks and crisis.

To achieve this objective, there must be suppliers established in one or more Member State(s) and operating in the Union that master the relevant technology and are able to translate it into applications (systems, systems of systems, software-based applications or infrastructures). This concerns the whole technology development and industrial cycle, from basic research to manufacturing and in-service-support. The more this cycle is under European control, the higher the level of European technological sovereignty.

In this context, European control should not mean that all materials and components required for a key technology must be supplied from sources located in Europe. In many cases this would simply be unrealistic. European control must therefore not exclude cooperation with or purchases from third country entities. There are trustworthy and reliable partners outside Europe with whom cooperation and trade are possible and desirable also in critical technology areas.

However, to achieve an appropriate level of technological sovereignty in strategic sectors, Europe should avoid dependencies that would enable a non-European actor to unilaterally impose constraints on European technologies, or to hinder European suppliers from mastering and executing all of the key steps of the technology development and industrial cycle.[10]

[9] Written answers by Thierry Breton to the European Parliament, p. 3.

[10] In this context, see: Technological sovereignty – from demand to concept, Frauenhofer Institute, July 2020.

Such dependencies can be excluded by different means; which one is best suited depends on the specificities of the sector and the technology, and can vary between the different stages of the technology and industrial cycle (IPR, patents, multiple sourcing, certification, FDI screening, joint ventures, capital investment,…).

Strategic Value Chains

Technological sovereignty is thus a comprehensive concept. Covering the whole technology and industrial cycle, it needs to encompass a broad range of competences, assets and sources. Strategic Value Chains (SVCs), which are a key element in the Commission's new industrial policy, offer a conceptional framework for such a comprehensive approach: "The term Value Chain is associated with both a set of interdependent economic activities creating added value around a product, process or service, and a group of interlinked economic actors, operating in a strategic network across firms of different sizes, including SMEs, sectors and borders."[11]

The EU has already identified and launched coordinated initiatives in support of three SVCs (batteries, high-performance computing, microelectronics). These SVCs can serve as precursors for other value chains of systemic importance. For each of them, strategic action plans should be established to combine targeted measures at EU level including in raw materials, research and innovation, financing/investment, standardisation, regulatory, trade and skills development, etc.

Measures to support the SVC and ensure European control will have to come from different EU policies and combine different EU instruments (IPCEI, Horizon Europe, InvestEU, FDI…), Coherence of these measures will therefore be key and necessitate a robust governance structure in particular for those (parts of) SVCs directly related to defence and security.

To ensure that measures foreseen under such action plans are well-targeted and effective, we propose to distinguish for each SVC three core elements which represent specific capacities:

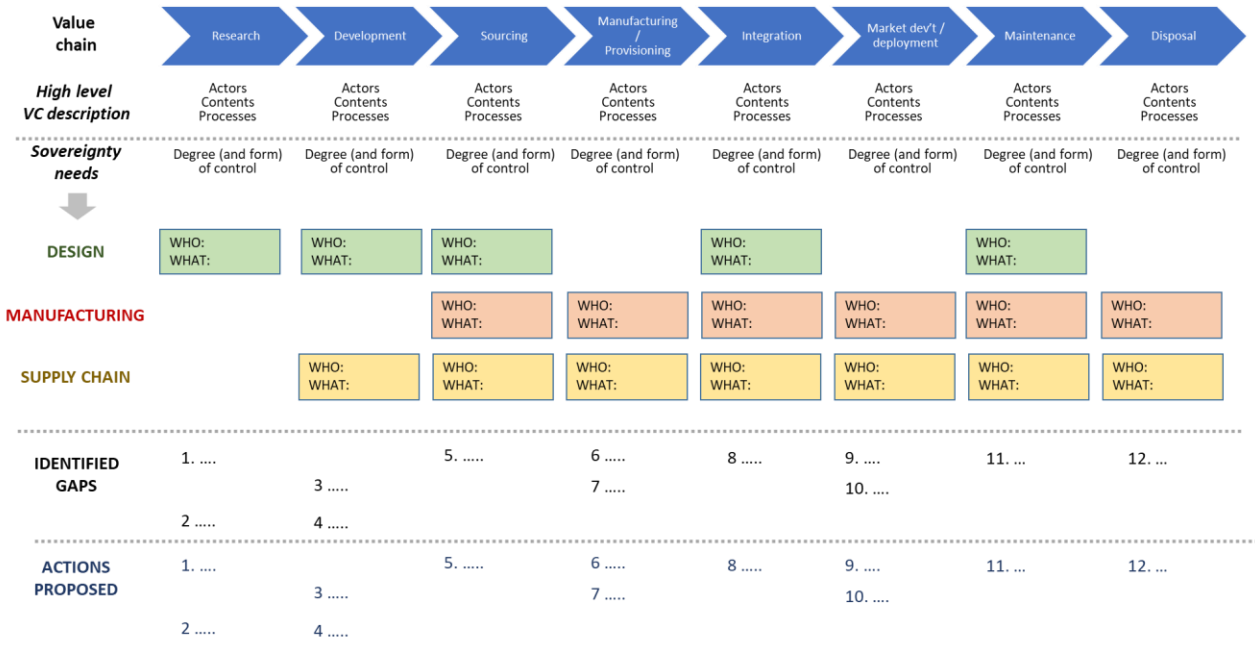
- Design (i.e. the capacity to master the knowledge required to develop and use a technology);
- Manufacturing (i.e. the capacity to produce, assemble, integrate and deploy specific technology);
- Supply chain (i.e. the capacity to ensure the quantity, quality and timely delivery of whatever is required to design and manufacture a technology (application)).

For SVCs where technological sovereignty is aspired to, the extent of European control matters for each of these capacities. To achieve this control, it is necessary to identify:

1) actors, contents and processes relevant for the respective SVC;
2) the necessary degree and appropriate form of control for all relevant actors, contents and processes to ensure an appropriate level of sovereignty over the SVC as a whole;
3) existing control gaps that undermine the desired level of sovereignty of the SVC;
4) measures to be taken to address these gaps and ensure for all actors, contents and processes the desired degree and form of control.

[11] Report by the Strategic Forum for Important Projects of Common European Commission, p. 11.

This assessment could be done with the help of an extended version of the classical Porter's Value Chain Analysis (see picture below). A standardised application of this approach across strategic sectors and value chains would help achieve the compatibility, clarity, simplicity, openness and coherence that we have recommended previously for the identification of critical technologies.



In the table above:

High level Value Chain description: present (in Michael Porter's style) the actors, contents and processes of the value chain.

Sovereignty needs: define for each phase of the value chain the degree of control aspired for political, strategic, security, industrial, societal, etc. reasons.

Design, Manufacturing, Supply Chain: identify elements for which European control is necessary to ensure the sovereignty of the value chain. These elements can be both actors ("WHO"), e.g. manufacturers, research centers, academia, startups, etc. and content ("WHAT"), e.g. patents, plants, processes, tools, raw materials, software codes, etc.

Identified gaps: list the elements of the value chain for which the necessary degree of control is not ensured.

Actions: Propose measures to mitigate or fill the identified control gaps (e.g. investments, policies, governmental agreements, research agreements, industrial participations, procurement agreements, governance).

European technological sovereignty

Any discussion about Europe's technological sovereignty cannot ignore the delicate distribution of competences between European institutions and Member States, differing priorities and interests among Member States, and the inherent (conceptional and political) tension between national and European sovereignty.

On top of this comes the question how to define "European" in this context? The European Union is by all evidence ***the*** reference, as it has not only the necessary level of integration to share sovereignty between Member States in core political and economic areas, but also the competences and instruments to foster technological sovereignty across a broad spectrum of strategic sectors. At the same time, the relevant European industrial and technological base is located also in non-EU European countries (Norway, Switzerland, United Kingdom). We believe that it would be highly beneficial for Europe's technological sovereignty if these countries and their respective industries participated in the endeavour. Which form this participation would take remains to be seen, in particular in the case of the UK, but we are confident that an appropriate modus operandi can be found. Already today, EFTA countries participate in many EU programmes, and experience in the space sector shows that European technological sovereignty can be pursued both in the EU and beyond (ESA).

In any case, a European approach to technological sovereignty aims at an appropriate degree of self-sufficiency and non-dependence from non-European governments and suppliers. At the same time, it aims at a common European sovereignty, not just a juxtaposition of national sovereignties. This also seems the only realistic approach, as European countries individually will hardly be capable to ensure the desired degree of sovereignty over SVCs for critical or "new frontier" technologies. The flip side of enhanced European technological sovereignty is therefore growing interdependencies between individual European countries and probably a shift of control (on decisions, investments, ownership, relationships, etc.) from the national to the multinational European, or even supra-national European level. This raises politically sensitive governance issues in particular in sectors which are essential for the security and continuity of life, namely security and defence.

Challenges arise from rivalry and competition between European countries, on the one hand, and diverging strategic visions and ambitions on the other. This makes it challenging to reach agreement on what is the "appropriate" level of technological sovereignty. These divergences are related to – and further exacerbated by – the uneven distribution of existing and future technological capabilities. Sovereignty is rarely, if ever, something that will be universally applicable across Europe. In reality, most critical technologies will probably be developed in a small number of European countries, and the others will therefore be dependent on them.

At the same time, one should not underestimate the innovative strength of high-tech companies in smaller countries (e.g. cyber in the Baltic states). Facilitating access of these companies to trans-European SVC would be an appropriate way to mitigate the uneven distribution of technological capabilities across Europe, and its consequences for the applicability of sovereignty. Moreover, technological dependencies between Member States will certainly not have the same political ramifications as dependencies from certain non-European sources, who may follow a geostrategic agenda that is not always aligned with common European interests.

One way to mitigate the inherent tension between European and national sovereignty in particularly sensitive sectors like defence, security and space could be to focus on technologies that are critical for a broad variety of applications from different strategic sectors and (potentially)

used in many Member States. European sovereignty aspirations would then be achieved at the level of critical technology (bricks), whereas national sovereignty could persist at the level of applications. The relevant Strategic Value Chains would span across Europe and be supported by the EU (at least up to the integration of the technology into a system), whereas Member States would own the systems that integrate the relevant technology and remain free to use them independently (except in cases where the Union itself owns the systems supported by the technology).

This approach would be in line with the Commission's current focus on digital technologies, which are, by definition, cross-sectorial and critical for all high-tech systems. Moreover, they are dual use by nature, which opens the door for synergies between commercial sectors, security, defence and space.

Conclusion

The purpose of this document is to propose a common approach to defining and operationalising the concept of technological sovereignty. An agreement on how to select technologies for which Europe should have (a higher degree of) "sovereign" control, and how to achieve this sovereignty would help create a common ground to debate the development and implementation of policies, funding priorities, investment and procurement decisions, etc.

We believe that this approach should consist, in each sector, of five steps:

(1) identification of the relevant technologies, through the analysis of the links between function / capability / technology

(2) selection of the relevant value chains

(3) definition of the appropriate level and form of European control

(4) identification of the relevant control gaps and dependencies

(5) preparation and implementation of the measures to ensure the desired level of control.

Furthermore, we argue that technological sovereignty can only be achieved with a combination of strategic (capability-driven) planning and targeted industrial policy, supported by coherent and persistent investments in selected key technologies. This combination is challenging, as it brings together different policies, actors and instruments. This makes it also difficult to set up robust governance structures, which are crucial for successful implementation.

At the European level, we see the combination of strategic planning and industrial policy to a certain extent applied in the space sector, which has also developed some governance structures (ESA, European Commission). This has enabled the establishment of coordinated cross-border supply chains and even the development of EU-owned infrastructures of strategic importance (Galileo and Copernicus). In defence, European policies and structures are only just emerging with the launch of the EDF and the creation of DG DEFIS on the one hand, PESCO, CARD and CDP on the other. In the security sector, neither capability- or technology planning, nor an industrial policy exist, and only a patchwork of embryonic governance elements has been developed (ECCC and ENISA for cybersecurity, FRONTEX, Communities of Users, …). In commercial sectors, there is an emerging awareness of the virtues of technological sovereignty and the need for greater resilience, which has led to Alliances with light governance structures

for certain Strategic Value Chains (batteries, high-performance computing, microelectronics, and soon raw materials).

We strongly doubt that the existing structures are sufficient to put in place and run the processes that are needed for achieving a meaningful enhancement to the current levels of European technological sovereignty. They would all need to be further developed and strengthened to implement the five-step approach outlined above.

Strong governance structures are needed not to suspend market forces, but to provide a common reference framework for both the public and the private sector. This may include requirements and obligations on market operators on the one hand (e.g. need for multiple sources, European sources only, escrow agreements, etc), and actions to be taken by public institutions (e.g. investment priorities, funding for pilot projects, eligibility criteria for procurements, etc).

Since each sector would need its own specific governance, it would go beyond the limits of this paper and the competence of ASD to propose concrete and detailed solutions. However, we believe that, in spite of their diversity, all sector-specific governance structures should follow the same general approach in the identification of the technologies for which Europe should be seeking to become more “sovereign” and in the way to accomplish this. This would make it easier to give strategic guidance, but also to avoid unnecessary duplication and exploit possible synergies between sectors and technologies.

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Signed by Jan Pie, ASD Secretary General, on 15 October 2020