



Procurement and joint procurement practices: customs control equipment in the EU

FINAL REPORT

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RESEARCH

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Abbreviations and acronyms

AEO	Authorised Economic Operator
APA	Advance purchase agreement
BAXE	Baltic x-ray image exchange network
BCP	Border crossing point
CCE	Customs Control Equipment
CCEI	Customs Control Equipment Instrument
CELBET	Customs Eastern and South-Eastern Land Border Expert Team
CLEN	Customs Laboratories European Network
CPB	Central Purchasing Body
CRIBP	Commission guidelines and report on best practices in EU public procurement
DG TAXUD	Directorate-General for Customs Union and Taxation
EMA	European Medicines Agency
EOS	European Organisation for Security
ESB Networks	Electricity Supply Board (an Irish electricity provider)
ESI	Emergency Support Instrument
ESPD	European Single Procurement Document
ESTF	European Semester Thematic Factsheet on public procurement
EU	European Union
GDPR	General Data Protection Regulation
HMRC	HM Revenue & Customs (UK competent authority for customs)
JPA	Joint procurement agreement
LAB	Customs laboratory
NII	Non-intrusive inspection equipment
OECD	Organisation for Economic Security and Development
PPE	Personal protection equipment
SME	Small- and medium-sized enterprise
SPP	Special procurement procedure
TED	Tenders Electronic Daily
ToR	Terms of Reference
WCO	World Customs Organisation

ABSTRACT

This study is about practices for the procurement of customs control equipment by customs administrations in the EU. It took place following the launch of the Customs Control Equipment Instrument (CCEI), a funding programme to bring the equipment of all Member States up to a high level, and aimed to identify good practices in national procurement and explore possibilities for joint procurement. The study approach entailed an 'overall assessment' comprised of desk research, a written questionnaire for customs authorities, a survey and interviews with a sample of manufacturers of and service providers for customs control equipment, and a workshop with customs authorities. This was complemented by 'in-depth research', based on an examination of nine Member States and thematic case studies on three 'models' of joint procurement. On national procurement practices, the study found that customs authorities were broadly satisfied with their approaches, while also noting common challenges and recommending potential solutions to these. Joint procurement is still in its infancy; while the potential benefits are clear and numerous, any implementation at scale will need to be gradual and based on piloting and intermediate steps to build trust and momentum and to define the most appropriate approaches. As such the study conclusions are aligned with the Commission proposal for a comprehensive reform of the EU Customs Union¹ (the two exercises being run in parallel and independent of each other) which envisages the creation of an EU Customs Authority. It is proposed that the EU Customs Authority is tasked, in addition to other responsibilities, with developing and implementing operational strategies for activities relating to the procurement of control equipment, including the assessment of needs, joint procurement and co-sharing of equipment.

ABRÉGÉ

Cette étude porte sur les pratiques d'achat (passation) d'équipements de contrôle douanier par les administrations douanières de l'UE. Elle a été réalisée à la suite du lancement de l'instrument relatif aux équipements de contrôle douanier (*Customs Control Equipment Instrument*, CCEI), un programme de financement conçu pour homogénéiser et améliorer les niveaux d'équipements de tous les États membres. L'étude avait pour but d'identifier les bonnes pratiques nationales en matière de passation de marchés publics et d'explorer les possibilités de passation conjointe transfrontalière. Elle inclut une "évaluation globale" composée d'une recherche documentaire, d'un questionnaire écrit rempli par les autorités douanières, d'une enquête et d'entretiens auprès d'un échantillon de fabricants et de prestataires de services pour les équipements de contrôle douanier, et d'un atelier avec les autorités douanières. Cette évaluation a été complétée par une "recherche approfondie", basée sur l'examen de neuf États membres et sur des études de cas thématiques portant sur trois modèles de marchés publics conjoints. En ce qui concerne les pratiques nationales en matière de passation de marchés, l'étude a révélé que les autorités douanières étaient globalement satisfaites de leurs approches. Elle a par ailleurs constaté un certain nombre de défis communs et recommandé des solutions potentielles pour relever ces défis. La passation conjointe transfrontalière de marchés n'en est quant à elle qu'à ses débuts. Si les avantages potentiels sont évidents et nombreux, toute mise en œuvre à grande échelle devra être progressive, c'est-à-dire fondée sur des projets pilotes et des étapes intermédiaires, ce afin de renforcer le climat de confiance entre les autorités nationales, de créer une dynamique collective et de définir les approches pratiques les plus appropriées. À ce titre, les conclusions de l'étude sont alignées sur la proposition de la Commission relative à une réforme globale de l'Union douanière² (les deux exercices étant menés en parallèle et indépendamment l'un de l'autre), qui envisage la création d'une Autorité douanière européenne. Il est proposé que cette Autorité douanière européenne soit chargée, en plus d'autres responsabilités, d'élaborer et de mettre en œuvre des

¹ COM/2023/258 final; Hereinafter the Customs Reform proposal.

² COM/2023/258.

stratégies opérationnelles pour les activités liées à l'acquisition d'équipements de contrôle, y compris l'évaluation des besoins, la passation conjointe de marchés et le partage d'équipements.

KURZDARSTELLUNG

Diese Studie befasst sich mit Praktiken für die Auftragsvergabe für Zollkontrollausrüstung durch die Zollverwaltungen in der EU. Sie wurde nach dem Inkrafttreten des Instruments für Zollkontrollausrüstung (CCEI) durchgeführt, einem Finanzierungsprogramm, mit dem die Ausrüstung aller Mitgliedstaaten auf ein hohes Niveau gebracht werden soll, und hatte zum Ziel, bewährte Praktiken bei der nationalen Auftragsvergabe zu ermitteln und Möglichkeiten für eine gemeinsame Auftragsvergabe zu erkunden. Der Ansatz der Studie beinhaltete eine "Gesamtbewertung", die Sekundärforschung, einen schriftlichen Fragebogen für Zollbehörden, eine Umfrage und Interviews mit einer Stichprobe von Herstellern und Dienstleistern für Zollkontrollausrüstung sowie einen Workshop mit Zollbehörden umfasste. Ergänzt wurde dies durch eine "vertiefte Untersuchung", die auf einer Betrachtung von neun Mitgliedstaaten und thematischen Fallstudien zu drei "Modellen" der gemeinsamen Auftragsvergabe beruhte. In Bezug auf die nationalen Auftragsvergabepraktiken ergab die Studie, dass die Zollbehörden im Großen und Ganzen mit ihren Ansätzen zufrieden sind, gleichzeitig aber auch auf gemeinsame Herausforderungen hinweisen und mögliche Lösungen empfehlen. Die gemeinsame Auftragsvergabe steckt noch in den Kinderschuhen; obwohl die potenziellen Vorteile klar und zahlreich sind, muss eine Umsetzung in größerem Maßstab schrittweise erfolgen und auf Pilotprojekten und Zwischenschritten beruhen, um Vertrauen und Dynamik aufzubauen und die am besten geeigneten Ansätze zu definieren. Die Schlussfolgerungen der Studie stehen somit im Einklang mit dem Vorschlag der Kommission für eine umfassende Reform der EU-Zollunion³ (die beiden Maßnahmen werden parallel und unabhängig voneinander durchgeführt), der die Einrichtung einer EU-Zollbehörde vorsieht. Es wird vorgeschlagen, dass die EU-Zollbehörde neben anderen Aufgaben auch mit der Entwicklung und Umsetzung operativer Strategien für die Beschaffung von Kontrollausrüstungen betraut wird, einschließlich der Bedarfsermittlung, der gemeinsamen Beschaffung und der gemeinsamen Nutzung von Ausrüstungen.

³ KOM/2023/258 endg.

1. Introduction

This **final report** was prepared within the framework of the *study procurement and joint procurement practices for customs control equipment in the EU* (the ‘assignment’ or ‘study’), based on contract Nr. TAXUD/2022/DE/332 implementing framework contract No GROW/2021/OP/0001 Lot2, signed on 19 December 2022. The report is submitted to the European Commission – Directorate General for Taxation and Customs Union (DG TAXUD, or the ‘client’) by the Consortium led by Economisti Associati s.r.l. in association with Oxford Research AB (lead partner for the assignment), Wavestone, Intellera and Ipsos, as well as several individual expert sub-contractors (“study team”).

The purpose of this report is to present the full results of the study. It is structured as follows:

- **Chapter 2** outlines the purpose, scope and policy context of the study, and describes the methodology and sources of evidence used.
- **Chapter 3** presents the study results on national procurement practices, including key findings, overarching conclusions and recommendations in the form of a ‘manual’ for addressing widespread procurement challenges.
- **Chapter 4** presents the study results on joint procurement, including key findings, overarching conclusions and recommendations in the form of a ‘roadmap’ for the future joint procurement of customs control equipment.

2. Background and methodology

2.1 Purpose, objectives and scope of the study

The subject of the assignment is a **Study on procurement and joint procurement practices for customs control equipment in the EU**. It took place following the launch of the Customs Control Equipment Instrument (CCEI), a funding programme that was conceived to bring the equipment of all Member States up to a sufficiently high level, and which marks the biggest EU contribution to date for customs control equipment.⁴ For the purpose of the study, ‘customs control equipment’ refers to the full range of equipment eligible for CCEI funding, for both border-crossing points (e.g., non-intrusive inspection equipment like high-energy x-ray scanners, small handheld equipment like cameras for checking under vehicles) and customs laboratories (e.g., spectrometers).⁵

In light of the recent launch of CCEI and the interest of national customs authorities to explore and share best practices in procurement and joint procurement, it has been deemed essential to map the procurement context and practices in each Member State, and thereby identify the best practices to be applied. Moreover, additional insight is needed to scope out the potential for *cross-border joint* procurement for the purchase of customs control equipment in the EU. In this regard, it is noteworthy that the CCEI Regulation (Article 6) states that ‘The Commission shall encourage the joint procurement and joint testing of customs control equipment by two or more Member States’. The purpose of the study was therefore to help fill the knowledge gap, by providing an overview of procurement and joint procurement practices, and identifying good practices and their viability with regard to EU and national legislation. A further aim of the study was to propose ways to proceed in terms of guidance on procurement and joint procurement for customs control equipment.

The **terms of reference (ToR) for the study defined three key tasks**, which collectively cover: (1) collecting data on good practices for the procurement of customs control equipment; (2) identifying efficient joint procurement practices, challenges, recommendations and solutions; and (3) establishing joint terms of reference and common contractual specifications.

In terms of **temporal scope**, the study took place from January to October 2023 and focused on procurement practices at the time of writing, while examining as useful those that were in place prior to 2020, or are planned post-2027 (i.e., before or after the current programming period) of CCEI. As for the **geographical scope**, this includes all EU Member States.

The **main counterpart for the study was a steering group** bringing together officials from DG TAXUD and other Commission services. In addition, the study team engaged with the Member States via the CCEI Coordination Group, which brings together customs officials from all Member States involved with the implementation of CCEI.

2.2 Approach and methodology

2.2.1 Overall approach

The **study approach** was devised based on the above requirements and scope and aimed to facilitate an appropriate balance between the breadth and depth of the analysis. It sought to achieve the

⁴ Background information on CCEI can be found on the Commission’s dedicated website: Customs Control Equipment Instrument (europa.eu).

⁵ The types of equipment eligible for CCEI funding are defined in Annex I of Regulation (EU) 2021/1077 of the European Parliament and of the Council of 24 June 2021 establishing, as part of the Integrated Border Management Fund, the instrument for financial support for customs control equipment.

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required coverage of the whole EU while keeping the data collection activities manageable and proportionate, and also generating innovative, actionable recommendations. This is reflected in the study's two (mostly) sequential, cumulative strands called the 'overall assessment' and 'in-depth research'.

Before describing the methods that encompassed the two analytical strands, it is important to outline the study's approach to the main study tasks. The first two tasks were conceptually straightforward and distinct. **Study task 1 on national procurement practices** entailed mapping these across the EU, with a focus on identifying 'good practices' that could feed into the development of recommendations for wider deployment. What makes a 'good practice' had not been defined prior to the study for the purpose of CCEI or customs control equipment, so doing this formed a preliminary analytical step, which is discussed at the beginning of chapter 3 below. The rest of the work flowed naturally from that point.

Study task 2 on joint procurement was necessarily more exploratory, since this practice is in its fledgling stages in the field of customs control equipment and even in other fields has been applied only sporadically. The research thus combined examples from both customs and other policy areas (particularly public health) and perceptions and expectations that could be gathered from customs authorities and relevant literature. The analytical approach to this task is described in the introduction to chapter 4.

Study task 3 on developing joint terms of references and contractual specifications for future (national and joint) procurement presented a bigger conceptual and practical challenge. As per the ToR for the study, the purpose of this task was to 'establish an optimal and efficient approach towards harmonisation of procurement procedures of customs control equipment'. This is meant to support the implementation of CCEI, whose establishing Regulation states that the procurement of equipment funded by the programme should focus on 'the transparent purchase, maintenance and upgrading of relevant, state-of-the-art and reliable customs control equipment, taking due account of the protection of data, cyber-resilience, and safety and environmental considerations, including the environmentally friendly disposal of the replaced equipment'.⁶

The study ToR also acknowledges that Member States have established procedures for public procurement. From a legal perspective, these stem from the national implementation choices for the EU Procurement Directives,⁷ which allow certain room for discretion, and apply to public procurement in a general sense, far beyond the scope of CCEI. This sets a limit on the amount of harmonisation that can be achieved with the current legal base at EU level. Relatedly, the extensive interactions with customs authorities (including a questionnaire, interviews and a workshop) revealed that procurement practices were rooted in national laws and systems not considered problematic as such, despite the existence of challenges and areas for improvement.

Overall, the interviews, which had specific questions on this aspect, gradually made clear that they were not in favour of common procurement templates, which they would either not need and / or have difficulty using due to national specificities.⁸ To the extent that common specifications for the procurement of customs control equipment *could* be useful, it would be difficult to add to guidance that is already available without going into a level of detail that would be impractical for customs

⁶ Regulation (EU) 2021/1077 of the European Parliament and of the Council of 24 June 2021 establishing, as part of the Integrated Border Management Fund, the instrument for financial support for customs control equipment.

⁷ Directive 2014/24/EU and Directive 2014/25/EU.

⁸ In fact, customs authorities did request common specifications on the technical and functional specifications of customs control equipment, but these aspects are outside the scope of the study.

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authorities.⁹ Meanwhile, in the field of cross-border joint procurement, the results of task 2 (see chapter 4) make clear that this is still in its very early stages, and that it would be premature to define the precise form and content of procurement material.

The challenge for the study was thus to fulfil its purpose of making progress ‘towards harmonisation’ without overstepping with excessively ambitious proposals that would not be readily taken up. This was done in the following ways:

- **National procurement:** the study identified a number of specific challenges faced by customs authorities at various steps of the procurement process. To help the Commission and Member States address these, the study provides a detailed ‘manual’ with solutions in the form of practical guidance and examples, thereby aiming to contribute to harmonisation while observing the limited scope to mandate changes at EU level. The manual is presented after the results of task 1, at the end of chapter 3.
- **Cross-border joint procurement:** needs in this area obviously differ significantly compared to purely national procurement, because instead of trying to refine systems and processes that already exist, the study hopes to help kick-start a new, more collaborative approach to purchasing customs control equipment. This is done by elaborating a ‘roadmap’ towards applying joint procurement in practice, based on lessons learnt from the study and taking into account the preferences and views of national customs authorities. In addition to proposals on different ‘models’ of joint procurement and a description of the circumstances they best apply to, the guide also includes overarching suggestions about how to build the ‘scaffolding’ (i.e., underlying structures) needed to support joint procurement over time. The roadmap is presented after the results of task 2, at the end of chapter 4.

2.2.2 Strands of research

Overall assessment

The overall assessment aimed to map the state of play at EU level and in all Member States in terms of procurement legislation, guidance, processes, organisational structures, perceived needs and results achieved. It took place mostly during the first half of the study process. However, the desk research and ad hoc interactions with stakeholders were of an ongoing nature and certain aspects (the interviews with manufacturers and especially the emerging findings workshop) came relatively late in the study. The overall assessment was comprised of the following main tools:

- **Desk research:** a wide range of documents were reviewed covering procurement in a general sense and customs control equipment specifically, and both international / EU perspectives and procurement at national level. The types of documents included in the review covered the full spectrum from international, EU and national-level policies, legislation, guidelines to academic literature and tendering documents for specific procurement processes. See details in annexes 1 and 2, as well as citations throughout the report.
- **Questionnaire for national customs authorities:** a comprehensive written questionnaire was used to gather input from EU customs administrations on both national procurement practices and joint procurement, including with regard to future developments. The questionnaire was circulated by email to customs authorities from all 27 Member States via the CCEI Coordination Group and obtained 26 replies representing 25 Member States (since some countries sent

⁹ For example, the World Customs Organization (WCO) has published Guidelines for the procurement and deployment of scanning / NII equipment (see Annex 1: Elements to be considered for a request for a proposal / tender, WCO, 2020, World Customs Organization (wcoomd.org)).

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separate questionnaires for border-crossing points and customs laboratories). See details in annex 3 and 4.

- **Survey of manufacturers of customs control equipment:** a survey of relevant manufacturers and service providers was conducted. Like the questionnaire for national customs authorities, the survey covered national and joint procurement, and views about future development. It was circulated to 322 companies identified with the help of the European Organisation for Security (EOS; an EU umbrella organisation) and searches of relevant procurement documentation. A total of 14 replies were received from companies headquartered in 7 EU Member States and 2 third countries. See details in annexes 5 and 6.
- **Interviews with manufacturers of customs control equipment:** to make up for the relatively low survey response rate, interviews were carried out with the EOS and five major suppliers of equipment for both border-crossing points and customs laboratories. Between the survey and interviews it was possible to cover a large portion of the market, as well as capturing its diversity in terms of company sizes, types of equipment and countries of activity.
- **Emerging findings workshop:** towards the end of the study, a workshop with national customs authorities was convened, bringing together about 50 participants from almost all Member States. This allowed the study team to sense-check the draft findings and fill remaining gaps, particularly regarding recommendations for the future. See details in annex 9.
- **Ad hoc interviews and meetings:** throughout the study a number of additional interactions with stakeholders were carried out with Commission officials, national customs authorities and companies, for purposes of familiarisation, identifying other stakeholders for interviews and / or filling data gaps. In a similar vein, members of the study team also attended several relevant events on procurement hosted by the European institutions and other organisations.

In-depth research

The in-depth research was conducted after the questionnaire and survey exercises and aimed at gathering the additional insight needed to complete the study tasks. This was comprised of two main activities, namely:

- **Analysis of a sample of nine Member States:** to follow up on the questionnaire responses and gather additional detail on national situations, the study included further research on a sample of Member States. The country research focused on obtaining in-depth insight on the practicalities of procurement, as well as any experiences or preferences on joint procurement, and ideas for making the study outputs as useful as possible. The sample was chosen with a view to capturing a range of needs and practices with regard to customs control equipment, as well as diversity in terms of country size and geographical region, and was comprised of Belgium, Bulgaria, Cyprus, Germany, Finland, Hungary, Italy, Lithuania and Poland. For each of these, the research included additional desk research and interviews with a sample of customs officials with responsibilities for the procurement of customs control equipment, end users of the equipment at both border-crossing points and customs laboratories and (where relevant) central purchasing bodies. Between three and six interviews were conducted for each country, leading to the production of dedicated country reports (see details in annex 7).
- **Thematic case studies on models of joint procurement:** three main models were identified for cross-border joint procurement (i.e. procurement where goods and services are collectively purchased on behalf of more than one Member State). To better understand their dynamics and potential application to the joint procurement of customs equipment, case studies were

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conducted on each of these, covering (1) procurement between authorities in multiple Member States without the involvement of an EU institution; (2) procurement where the EU plays a coordinating role through a joint procurement agreement (JPA); and (3) procurement where the EU is the contracting authority (as was the case for the Covid-19 vaccines). Since the joint procurement of customs control equipment is in its early stages, the case studies extended to other policy areas (particularly public health) and were based on desk research and 3-5 interviews each with relevant officials from the EU institutions, Member State authorities and suppliers. This led to reports for each case study that provide details on the procurement model, its advantages and disadvantages, and potential application to customs control equipment (see details in annex 8).

2.2.3 Validity and limitations

The approach to the study was carefully chosen with a view to the requirements and likely availability of evidence. In a practical sense, the work proceeded in line with initial plans. Desk research was conducted in a structured, systematic way, and strong support from DG TAXUD and high levels of interest from stakeholders made it possible to gather rich, detailed information from almost all customs authorities as well as the most important manufacturers of customs control equipment. While there were some difficulties, such as a few countries from the initial sample for in-depth research declining to take part and minor delays due to the time needed for certain stakeholders to provide feedback, these were resolved satisfactorily. In all, this meant that the study was able to build a strong evidence base for the analysis.

That said, the data and findings are subject to two limitations. The first was a **heavy reliance on stakeholder feedback**. Documentary sources, such as studies and guidance on procurement as well as material on specific purchases, were a useful part of the evidence base for the study. However, much of the detail about practices, experiences, preferences, expectations etc., and how procurement is conducted and experienced in practice, is not written in official documents, but rather needed to be collected directly from stakeholders, most importantly customs authorities. The second was a **need to base many of the study findings on small sample sizes**. This was in part due to the niche character of customs control equipment, which involves relatively few customs officials and companies. The limitations were even more pronounced in joint procurement, for which real, existing examples were very thin on the ground, both in customs and other policy fields.

To ensure the validity of results, to the extent possible the data collection consisted of objective input, such as questions on the facts of procurement practices. While certain questions posed to stakeholders were necessarily subjective, findings were triangulated wherever possible, either using input from different stakeholders or data collection methods or secondary sources. Overall, this has allowed the study results to be presented with sufficient confidence. However, it should be borne in mind that findings are not statistically representative samples or comprised of 'hard' data that could be fully verified, especially on certain topics (e.g., the examples of joint procurement) where samples of interviewees and use cases were very small.

3. Study task 1 – National procurement practices

3.1 Introduction

As defined in the ToR of the study, task 1 requires collecting data about good practices for the procurement of customs control equipment by Member States' customs authorities. This raises the immediate question of what is meant by "good practices".

The answer to this question is not self-evident. Procurement of public goods and services in general, and of customs control equipment in particular, is a complex and multi-level process. It is defined and regulated by both EU and national legal and regulatory frameworks. These frameworks set core principles and guidelines and define the legal tools that can be used by national (or sub-national) authorities throughout the procurement process. This process and its output can take different forms depending upon the types of procedures (e.g., centralised or decentralised, open or restricted, competitive, innovation partnerships, coverage of a single, several or all Member States, etc.) and types of contractual arrangements (single or mixed, partnerships, framework agreements, Central Purchasing Body, etc.) used. It is also subject to practical and material aspects that relate to technical and business / operational knowledge, staffing and management, not to mention timing and budgetary constraints.

To define a "good practice" framework for the purpose of the analysis, after reviewing a number of guidelines and studies, it was deemed appropriate to apply the principles described in the European Semester Thematic Factsheet on public procurement (ESTF). This was published in November 2017 and states that "modern public procurement is based on some key elements", namely:

- **Value for money:** providing the required goods, works and services in an economic, efficient and effective way;
- **Transparency:** disclosure of information related to public procurement procedures in a comprehensible, accessible and timely manner;
- **Fairness:** the public procurement process should be free from bias and ensure equal treatment of all bidders; and
- **Good governance** (also called Strategic procurement): procurement should not be seen as an administrative process but as an opportunity to deliver various societal objectives (e.g. green, social or innovation).

The factsheet also highlights the role of the EU Procurement Directives¹⁰ for effective procurement, which is important because these form the legal foundation of the procurement of customs control equipment by all Member States: "the implementation of the Directives also can greatly contribute to achieving the objectives of value for money, transparency, fairness and good governance." These four elements are equally reflected in the recent Commission guidelines and report on best practices in EU public procurement (CRIBP)¹¹.

Because another objective of this study is to assess the future potential for joint procurement in the field of customs control equipment, for the purpose of the analysis an additional dimension has been

¹⁰ Directive 2014/24/EU and Directive 2014/25/EU.

¹¹ The report is available at:

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021DC0245>

added to the four listed above, in the form of **Joint Procurement conditions and readiness**¹². This is meant to cover the legal framework and practical experience of national customs authorities in terms of national and cross-border cooperation, which may set the ground for cross-border joint procurement in the field of customs control equipment. In addition, the **transparency and fairness** dimensions, which are closely related, will be considered together, along with **safety** and **security** aspects pertaining to customs control equipment (which cover a variety of issues from radiation safety to cybersecurity and data protection).

The evidence base for the identification of national practices across EU Member States includes sources and documents from the desk research, primary data collected from the written questionnaire to national customs authorities and the online survey of suppliers, as well as semi-structured interviews carried out by the study team with customs officials (particularly the in-depth research in nine Member States) and companies involved in the manufacture and servicing of customs control equipment.

The ensuing section presents the findings in terms of the different ‘objectives’ of public procurement. In each case, the analysis starts with the state of play in terms of typical practices and challenges observed in the Member States, then is followed by a discussion of good practices and a brief conclusion. The chapter then finishes with a set of overarching conclusions, and the ‘manual’ for improving practices in the future, based on a series of solutions aimed at addressing common challenges.

3.2 Value for money

3.2.1 Common practices and challenges faced

The Value for money objective of the analytical framework covers two dimensions: (1) economy and efficiency; and (2) effectiveness and quality of the equipment. The main challenge of fulfilling the objective lies at the intersection of the two dimensions: **obtaining equipment of good value, i.e., that fills the identified needs in an efficient way (efficiency) and is of good quality (effectiveness), for the lowest possible value (economy)**. For customs administrations, maximising the value for money can take at least three forms. First, they can target a minimum standard of quality, and select the tender with the cheapest price among all those that meet the quality standard. Alternatively, they can set a maximum price for the tender value and select the tender that offers the best quality among all of those equal to or below the maximum price. Or they can do a mix of both, by assigning a score for price, and another for quality criteria, then assigning weighting to each criteria and awarding the purchase to the tender whose weighted sum of price and quality is the highest among all received tenders.

In practice, most customs administrations reportedly use either the first (focus on the cheapest acceptable price) or the third options (weighted sum of price and quality), with the weight of price usually equal to 60% or 70% minimum, against 30% to 40% maximum for quality. The second approach (criteria of the highest acceptable value) is used rarely. Indeed, only one Member State has been found to use it consistently, in the context of the so-called ‘reverse procurement’ procedure. Similar award criteria exist in other Member States, but their use is restricted to very specific situations and has to be justified, which makes it rare, and far from systematic. This implies that in most situations, price has the largest weight in the selection of the winning tender.

¹² This dimension was added for the purpose of this study. Good practices for national procurement do not necessarily include a joint procurement element.

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The **importance of price in the award criteria** for the procurement of customs control equipment does not strike many customs administrations as problematic, and this is indeed consistent with various guidance documents¹³. Specific tender requirements, such as long guarantee and maintenance periods, are meant to protect buyers against defective or low-quality equipment despite price considerations, while both customs authorities and manufacturers tended to stress the similar levels of quality on offer from the main market players for most frequently purchased equipment, making price the distinguishing feature.

Still, it would be **simplistic to assume that the emphasis on price is the best way to obtain value for money on the long term**. This is because, by discouraging manufacturers from proposing (often more expensive) innovative and higher-performing equipment, the focus on price could contribute to an inherent conservatism and cause the market to stagnate, e.g., by systematically favouring the same companies. Relatedly, it could also lead customs authorities to miss out on opportunities offered by new technologies.

On a different but related note, efficiency and economy also relate to *internal* processes, and to the time dimension of the overall procedure. The **procurement of customs control equipment is usually perceived as lengthy, bureaucratic and administratively burdensome**, which comes with two risks for value for money. First, longer time usually means higher costs, especially in terms of staff resources. Second, because actual needs and technology on offer evolve over time, extended timelines imply that the needs identified upfront may have changed, or the market offering may have evolved, between the start of the procurement process and the time at which equipment is ultimately received. This might lead to partly outdated or inaccurate specifications, and equipment that does not exactly meet the needs of customs officers.

Indeed, obtaining good value for money by striking the right balance between economy and efficiency on one hand, and effectiveness and quality on the other, only partly depends on the award criteria used. Another key requirement for good value for money is ensuring that **equipment needs have been identified ahead of the procurement process**, and that these correspond to the actual needs of customs officers 'on the ground' (i.e., in border crossing points and customs laboratories). Then, that technical and/or functional requirements directly and accurately reflect the identified needs.

The first aspect, needs identification, seems to be performed well by national administrations: most of them run regular surveys/interviews with customs officers (often annually) to enquire about their needs, verify the status of their equipment, and ensure that no needed equipment becomes outdated without being replaced. Such feedback ensures that needs can be anticipated, discussed, and that no unexpected request is made outside of exceptional circumstances. Still, there is a common feeling that **short-term needs are favoured over long-term, more strategic thinking**, which risks stifling innovation and reducing future effectiveness.

The second aspect, however, which is to ensure that drafted requirements for a tender actually respond to the needs that have been identified previously, comes with challenges. At the heart of these is the step of **drafting technical requirements, usually identified as both the most complex and crucial step of the procurement process**. Indeed, customs control equipment is often complex and highly technical, which calls for requirements that are accurate, precise and realistic. Technical requirements must reflect the needs identified upfront, lead to the procurement of good quality equipment while remaining within the financial scope of the project and be consistent with market expectations. For this reason, the early and continuous involvement of technical experts is key. But

¹³ To give an example, the European Commission's own *vade-mecum* on procurement states inter alia that 'If a weighting is applied to price in relation to the other criteria it must not result in neutralisation of price in the choice of contractor. For example, a weighting of less than 30% for price is normally too low to have a significant impact on the result.' See *Vade-mecum on public procurement in the Commission*, updated in February 2016.

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many administrations face **issues with the availability of technical experts**, which for budgetary or organisational reasons, is often restricted to specific (and sometimes, late) parts of the drafting process. In certain countries, these issues are exacerbated by an ageing civil service, and the related challenge of facilitating knowledge transfer over generations.

Moreover, although accuracy and precision are important, **over-specific or restrictive technical requirements** can give the impression of favouring specific contractors, hence biasing competition. This creates the risk of unsuccessful contractors appealing against the decision, which creates additional administrative burdens for the customs authority and substantial delays to the procurement process. Requirements that are too detailed may also run the risk of preventing innovation, by focusing on already-existing, common features of customs control equipment, rather than leaving room for design or conceptual improvements.

3.2.2 Key good practices

As outlined above, the key success factor for achieving optimal value-for-money is the drafting of **accurate and sufficiently detailed technical specifications** that reflect the needs identified while leaving room for innovation, and that strike the right balance between efficiency (price) and effectiveness (quality). The research has identified multiple, complementary ways to ensure this:

- **Conducting a thorough needs-assessment with the involvement of field officers** to identify and characterise the equipment needs effectively. A good needs assessment also considers possible future needs and practical opportunities, for example to bundle the procurement of different types of equipment.
- **Running comprehensive market research** to explore the availability of the to-be-procured type of equipment on the market, identify relevant potential suppliers and estimate the prices needed for different types, models or features. This usually proves easier for Member States whose market is smaller and who are able to maintain good individual relationships with all potential suppliers. Such relationships guarantee a proper understanding of the customs needs from suppliers, and also reduces the likelihood that clarification questions after initial publication of the technical specifications will lead to important corrections and other changes that lengthen the procurement process.
- The **early and continuous involvement of technical experts**, from the market research phase up to the awarding of the contract, is a way to ensure that technical requirements strike the right balance between covering identified needs and avoiding excessive detail, which can stifle innovation. When procurement is decentralised, for example when it is managed at regional levels, the use of 'excellence centres', which centralise technical expertise and which regional offices can draw from, can prove very effective.
- **Testing the equipment** from different manufacturers is a good way to ensure that it works and allows to identify the best-quality, fit-for-purpose equipment. Arranging a trial phase for equipment features highly in the procurement process of certain Member States, with some customs authorities even temporarily renting equipment before purchasing it to ensure it matches with their needs. Testing and short-term renting opens also new opportunities to look into aspects with increasing importance, such as (cyber)security aspects of the equipment and privacy. One limitation is that this may exclude smaller suppliers which may not be able to provide readily available pieces of equipment, which may threaten the equity of the procedure (see next section).
- **Using clear and transparent award criteria** and involving different stakeholders in the award decision process to ensure that the best offer is selected and reduce the room from appeals from

unsuccessful tenderers. Regarding the award criteria, **increasing the weight/importance of quality criteria (including security requirements) over price** may avoid a 'race-to-the-bottom' in terms of quality while allowing smaller, local-based competitors to remain competitive. At the very least, **multiple-year guarantee and maintenance periods** can be included in the contractual terms of the procured equipment, to protect buyers against potential unpleasant surprises and allow national customs authorities to return/repair defective goods at no additional cost.

- **Exchanging information with other national agencies and other Member States** through regular exchanges and participation in cooperation networks such as the Customs Laboratories European Network (CLEN)¹⁴ or the Customs Eastern and South-Eastern Land Border Expert Team (CELBET) that works under the Customs programme and gathers experts from 11 Member States¹⁵. These networks collect good practices from their members, develop recommendations and may even draft minimum technical requirements for certain types of equipment. Other smaller networks on specific types of equipment, such as the Nordic Scanner Forum, can also prove useful fora for exchange. The CCEI and its working groups are also considered promising platform(s) and tools to align knowledge and share good practices on the procurement of customs control equipment. Essentially, the more opportunities for exchange between officials facing similar needs and challenges, the better.

3.2.3 Conclusions

Achieving value for money in the procurement is crucial for both economic and operational reasons. The **complex and multifaceted nature of many purchases of customs control equipment raises a number of challenges** for customs authorities, such as how to balance price and quality, avoid processes from becoming overly lengthy and burdensome, identify needs and reflect these in technical specifications. **Good practices in certain Member States** seem to go a long way towards addressing the challenges, particularly with regard to conducting needs assessments and market research, exploiting the availability of scarce expertise where it can be found, channelling this into tender specifications and – where possible – increasing the weight of quality compared to price in award criteria. By applying these practices more widely, it should be possible to increase meaningfully value for money in the procurement of customs control equipment.

At the same time, it must be acknowledged that **many problems are still widely experienced and do not have simple solutions**. For example, most Member States have trouble stepping back from day-to-day needs in order to develop a long-term, strategic vision for customs control equipment. The widespread emphasis on price contributes to this by encouraging conservative choices, since innovative equipment may be more expensive at first. This is especially important in light of digitalisation and the growing emphasis on the interoperability of equipment in different locations. In addition, procurement processes often remain cumbersome and subject to legal challenges or cancellations that increase their length and cost, while resource constraints force customs authorities to weight price heavily; this sometimes prevents authorities from purchasing the best-quality equipment or using the most trustworthy suppliers. Progress on these fronts would probably require more fundamental changes affecting the approach and organisation of customs authorities, and / or more direction and support from the European level, as discussed further in chapter 5.

¹⁴ Taxation and Customs Union, European Commission. See further information here:

https://taxation-customs.ec.europa.eu/customs-4/customs-laboratories_en

¹⁵ Finland, Estonia, Latvia, Lithuania, Poland, Hungary, Slovakia, Croatia, Romania, Bulgaria and Greece.

3.3 Transparency, fairness and security

3.3.1 Common practices and challenges faced

Most of the rules about transparency, security and safeguards against corruption introduced in the 2014 EU Directives on public procurement are applied by Member States. According to the written questionnaire for national customs authorities, 88% of Member States use self-declaration of absence of conflict of interests; 85% of them make procurement data publicly available through national platforms or EU portals above a certain value threshold; and 69% of Member States have some type of procedures in place for the safe and secure handling and storage of equipment.¹⁶ In contrast, less than half (46%) Member States use self-cleaning procedures, which can allow potential bidders to demonstrate their suitability for a procurement procedure despite grounds for exclusion and thereby increase fairness.

Virtually all customs administrations also follow EU and national guidelines on the prevention and fight against corruption throughout the procurement process. The wide use of open procedures (62% of Member States use it “all or most of the time” and an additional 19% use it “often”) is considered to encourage free competition and help safeguard against risks of corruption by enhancing transparency, narrowing room for discretion and providing traceable, time-stamped records of the procurement process. Overall, most if not all Member States suggested that the **corruption and conflict of interest risks are properly regulated and highly scrutinised and do not report significant challenges in preventing substantial irregularities from arising**.

Regarding the criteria of fairness, Member States adhere to EU and national laws and regulations on market competition. In addition, many of them subdivide tenders into smaller lots to enable SMEs to bid for specific portions of contracts, and limit turnover requirements for potential suppliers, which promotes SME participation in tenders for customs control equipment. These measures are however not always sufficient to ensure level playing field between SMEs and larger supplying companies, as the former might face other barriers as part of the pre-procurement¹⁷ and procurement procedures.

One such barrier mentioned by a customs authority is the ability to dedicate enough resources to monitor national online platforms where tender documentation is made available by national authorities. These platforms can prove complex and hard to navigate, which makes their use time-consuming for smaller companies for which the preparation and submission of a tender can already be a practical and financial burden. Another reported barrier for SMEs is that, due to limited in-house capacity and stock of equipment, they **cannot always provide reference equipment for testing or lending**. This puts them at a disadvantage compared to larger competitors, as the testing of equipment may be a necessary step in the procurement process. More broadly, especially for large-scale equipment to be deployed at border crossing points (BCPs), there are simply not many SMEs active in the market.

Challenges can also be identified in the area of security. First, some of the smaller Member States declared that despite security being a sensitive issue for customs authorities, they have **insufficient national experience and knowledge in security matters** when it comes to customs control equipment. In this respect, the Commission issued security guidance to national CCEI coordinators in 2022, which the Member States need to reflect in the selection and award criteria and procedures for all purchases of customs control equipment. Nonetheless, several interviewees wished for technical guidance from

¹⁶ Self-declaration forms are completed by bidders and are required to confirm the absence of conflicts of interests.

¹⁷ Pre-procurement procedures typically involve market research, including identify potential bidders and/or solutions, part of which may include participating to fairs, exhibitions, presentations and equipment tests.

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the EU level to help customs officers identify and deal with common security issues, and to define common practices for discouraging higher-risk economic operators to participate in the procurement process.

Indeed, interviewees from a diverse range of Member States pointed out that if a company formally meets the criteria for participation in a given tendering process, it must be considered despite any lingering concerns. **Cybersecurity, data protection and intellectual property rights, as well as privacy issues** loomed especially large in this respect, given the increasing digitalisation of equipment and the importance of using and sharing outputs (e.g., images) securely. In the absence of common detailed requirements and tools to address this challenge, interviewees worried about the customs service being exposed either to security and privacy risks, or the procurement procedure being put at risk by legal challenges if companies are excluded on unjustified grounds.

This is an area where efforts will need to be made in order to enable customs authorities to mitigate new risks in the domains of (cyber)security, data (GDPR¹⁸) and privacy. These risks are particularly relevant for interlinked equipment, or equipment interfaced with a communication network, where confidential data and private details might be transferred and/or intercepted beyond what is legally authorised or required for control purposes. Further to this, even in larger Member States where security and transparency experts may be available, **security experts are usually involved at later stages of the procurement process**, and do not take part in the development of technical specifications, nor in testing related to new risks. Earlier input from such experts would seem desirable, since procurement departments may not have the knowledge to verify whether security criteria are fully met, and whether any costs put forward by a bidder to implement these are appropriate.

3.3.2 Key good practices

As described above, the fight against corruption and conflicts of interests in the procurement of customs control equipment is considered effective by all Member States due to the multiple tools and the existence of national guidelines and dedicated central offices or services to prevent and detect fraud, corruption and conflicts of interests. In that sense, **Member States share similar good practices**. One Member State has taken a step further through the compilation of a so-called 'risk atlas' for the prevention of corruption, which allows the customs administration to identify and address corruption risks when they arise. Certain countries, particularly those that have recently undergone important reforms in procurement, rely on central purchasing bodies and other central authorities outside customs to ensure the integrity of the procurement process.

The picture is similar when turning to the fairness criteria, and inclusivity towards SMEs. The widespread use of open procedures for the procurement of customs control equipment ensures that the procurement process offers a high level of transparency and equity among competitors. National customs administrations apply similar tools to create low participation barriers by SMEs, notably the division of tenders into smaller lots and the limitation (or absence) of turnover requirements. The **increased use of digital tools**, especially e-procurement platforms, over the past few years has also simplified the bidding process for SMEs by providing online access to tender documents, submission of bids, and communication with procurement authorities. The remaining challenges for SMEs are mostly related to the procurement process in its entirety, such as long timelines, heavy administrative burdens/requirements, and testing requirements when applicable.

As for anti-corruption and transparency aspects, the security dimension of public procurement is regulated by EU and national laws that customs administrations follow through the entire procurement process. No strong difference appeared between Member States in terms of the

¹⁸ GDPR: General Data Protection Regulation (EU) 2016/679 [GDPR Regulation](#)

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provisions and criteria used to ensure security and safety, at least through the evidence that has been made available to the study team. Still, a couple of Member States mentioned **opportunities to go further in strengthening security requirements**, for example by requesting background checks for the maintenance personnel hired to deliver services on critical infrastructure, or by having experts checking equipment for data transfers directly from the procured equipment. But these potential good practices are not applied yet and are currently closer to ‘wishful thinking’ from national customs authorities.

3.3.3 Conclusions

Practices were not found to differ significantly in the area of transparency, fairness and security, and in **the vast majority of cases the Member States were satisfied with the system in place**. The EU Procurement Directives provide the underlying framework, while some Member States have recently enacted major reforms to deal with previous problems with corruption. Indeed, the scope for Member States to go further is limited, both to avoid making procurement processes more burdensome, and to minimise charges of unfairness (for example, if only one supplier could meet requirements that go beyond the scope of the Directives). It follows that the specific good practices identified were relatively few and relate to specific details.

One noteworthy challenge remains, to **ensure a high level of security, especially regarding (cyber)security of the equipment, data protection and intellectual property**. This was described as an increasingly urgent problem in light of quickly developing digitalisation in the field, and the lack of tools for identifying and excluding companies that might pose a risk. Interviewees were of the view that dealing with this consistently and correctly would require action or guidance at EU level.

3.4 Strategic, digital and innovative procurement

3.4.1 Common practices and challenges faced

Directive 2014/24/EU provides recommendations about ‘strategic procurement’, meaning procurement involving social and environmental criteria. These criteria can be applied as part of the evaluation process, or included as additional requirements, such as specific certifications¹⁹ or full life cycle costing²⁰. According to the written questionnaire for customs authorities, 81% of Member States report applying at least one environmental or sustainability criteria. In many Member States, these criteria have been introduced recently as part of national public procurement plans, guidance and/or programmes and are meant to play a bigger role in the future. However, some administrations have the feeling that **strategic criteria are not tailored to the field of customs**, and that they are sometimes neglected, underestimated or applied only superficially. It can also happen that despite existing national green strategies, the application of environmental criteria ultimately depends on the willingness of contracting authorities, which may choose not to apply them to avoid risks of reducing competition.

The use of specific certifications and full-life cycle costing in the procurement of customs control equipment is widespread among Member States but not systematic (73% of Member States for the former, 54% for the latter). The use of social criteria is even less frequent, with only 38% of Member States applying one or more of such criteria, mostly depending on the existence of a national plan or legislation on this aspect. It was suggested by one Member State that standardised requirements on

¹⁹ This can include certifications for environmental impact, declarations of conformity, technical specifications for energy performance and emissions, European Commission certificates and reports, etc.

²⁰ This approach evaluates not only the upfront acquisition cost but also the total cost of ownership, including maintenance, operation, and disposal costs over the entire lifespan of the equipment. By considering the full life cycle costs, the procurement process aims to ensure long-term cost-effectiveness and sustainability.

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strategic green and social procurement, with ready-made ‘formulas’ for social and environmental criteria provided by the European Commission, would be a useful tool to streamline their use.

The prevalence of digital procurement for customs control equipment varies significantly depending on what exact tool or procedure one is looking at. All Member States use a national tendering platform or system, which is a requirement in many national public procurement laws. Electronic signatures are also very widespread (92%), as is the use of TED (85%). In contrast, electronic self-declaration for bidders is used by only two-thirds of Member States (65%), E-certis by half of them (50%), and electronic catalogues by 31% of Member States. Their application is therefore not systematic, which seems due to a **lack of time and willingness to adapt national public procurement systems to new digital tools**. But their implementation is meant to increase over time and has not been reported to come with any specific challenge or barrier.

Innovative procurement can take several forms. One of them is the use of innovative procedures, such as negotiated procedures without prior publications, competitive procedure with negotiation, electronic auctions, competitive dialogues, dynamic purchasing systems, and innovation partnerships. These however are used infrequently, by less than half to less than one-tenth of Member States. Indeed, awareness and knowledge of these procedures appeared quite low from the questionnaire and interviews with customs authorities.

The other component of innovative procurement is to procure equipment that is innovative as such. This can be done through innovative procedures, such as those mentioned in the previous paragraph, or through ‘traditional’ procurement procedures. As mentioned in section 3.2 above, **the main obstacle to this type of innovative procurement lies in the time and strategic thinking that is required to anticipate long-term needs and draft technical/functional specifications that are both precise enough to lead to the procurement of effective, useful equipment, and flexible enough to encourage innovation**. Striking the right balance is considered a difficult exercise, especially in the context of restricted timelines and budgets. Customs authorities naturally want to avoid equipment that is unproven or unnecessarily costly, which, as mentioned above, can engender a certain conservatism in procurement and discourage the development and marketing of innovative equipment. The geopolitical context also matters, as some respondents from one Member State with a non-EU Eastern border suggested that it is not a time for innovation but for the procurement of tried and tested customs controls equipment.

3.4.2 Key good practices

Although the trend for making procurement more strategic is widespread across national customs authorities of the EU, some Member States are already ahead in that process and apply environmental and/or sustainability criteria as part of all procurement procedures. To ensure they are relevant, some of these criteria need to be customised to the type of equipment being procured, such as a preference for electric over thermic vehicles, use of sustainable materials, restricted use of packaging, sustainable way of disposing materials, etc. One Member State collaborates with foreign experts and institutes to offer trainings on green public procurement that raise awareness among agents and businesses about implementing innovative, energy-efficient and environmentally friendly solutions. Another administration set up a ‘Green Procurement Procedure’ Unit by which all technical specifications for customs control (and other types of) equipment should be approved, to ensure that they are fully compliant with green procurement standards.

As described in the previous sub-section, social criteria are more rarely applied, as the procurement of customs control equipment is deemed by many customs administrations to have no significant social impact. Still, in one Member State, bidders may be required to submit a self-declaration to

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demonstrate their adherence to social standards and responsibilities. Another Member State applies tie-breaking social criteria in the event of a tie between several proposals.

Turning to innovation, the procuring of innovative customs control equipment is triggered by Member States through different ways, most of which taking the form of small tweaks, or additional steps, to traditional procurement procedures. For instance, bonus points are allocated to the award criteria for innovative elements found in the tender. Some national customs administrations also include phases of testing and presentation of new equipment as part of the pre-procurement process, and if relevant, include new features in technical requirements. But usually, the procurement of innovative equipment requires a continuous knowledge and monitoring of the market by customs officers. In this respect, participation in suppliers' fairs and exhibitions helps give officials a sense of the state-of-the-art in customs control equipment and the features/specifications available on the market, thereby ensuring knowledge of the most innovative and cutting-edge equipment.

Regarding electronic/digital procurement, good practices mostly lie in the application of the different digital tools envisaged in the EU Directive 2014/24 on public procurement. As seen in the previous sub-section, some of these tools are already applied widely among national customs administrations, while other are still not used in many Member States. The best practices can be found in Member States which not only used all or most digital tools available, but who have integrated them all into a single digital system or platform, allowing efficiency gains for both national administrations and potential suppliers, as well as greater transparency and publicity of the entire process.

3.4.3 Conclusions

Practices in strategic, digital and innovative procurement were found to be at different levels of development and use depending on the specific aspect in question. For example, environmental / sustainability criteria are widely applied. While this is done perfunctorily in some countries, rolling out good practices from others could lead to more consistency and meaningfulness in this area. Similarly, digital tools are widespread, while lessons could be learned from the several Member States that have embraced the more advanced tools for digital procurement in order to improve effectiveness and increase efficiency.

In other areas practices did not seem as highly developed. Most importantly, as discussed in section 3.2 above, use of the procurement system to encourage the purchase of innovative equipment is limited, due in part to such factors as an emphasis on price and short-term thinking. A few Member States had introduced practices to privilege innovation at the margins, but the overriding problem is more organisational, and relates to a difficulty to consider equipment needs from a long-term, strategic perspective. The use of innovative procurement procedures, such as innovation partnerships, is also very rare, in part because these are relatively new and not yet well understood. Similarly, social criteria only seem to be applied in a few Member States.

3.5 Joint procurement 'readiness'

3.5.1 Common practices and challenges faced

Most national customs administrations from the EU have never been involved in the cross-border joint procurement of customs control equipment. Only four have over the past decade: Estonia, Latvia and Lithuania in the context of the BAXE project in 2014-2017; and Ireland, along with the United Kingdom, for the procurement of mobile gas chromatography equipment in 2016. Six national customs authorities have been involved in the joint procurement of customs control equipment with another public entity within their Member State, and an additional three have participated in a joint procurement outside the field of control equipment. This shows that joint procurement procedures

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are still in their infancy, even more so in a cross-border context. This **lack of experience and track record** is therefore the main challenge in developing and mainstreaming joint procurement practices, as few Member States can refer to successful experiences of joint procurement of customs control equipment in the EU²¹, and the assumed legal and practical barriers can seem insurmountable.

Still, the example of the BAXE and IE-UK cross-border joint procurement projects, and other examples of cross-border joint procurement in the EU outside the customs field (see Annex 8 for related case studies) show that long-term, continuous cooperation between administrations is key in understanding each other's needs and identifying potential challenges that could be solved by applying cross-border solutions, which in turn may translate into identifying opportunities for joint procurement. As shown in the next sub-section, increased cross-border cooperation between administrations through fora or expert networks will be crucial in raising awareness for joint procurement. One challenge will be for Member States where procurement is often managed by regional offices to **first centralise or at least harmonise procedures at the national level** before engaging into cross-border projects.

Although the heterogeneity of legal frameworks and requirements is considered a common challenge of joint procurement, national customs administrations are mostly preoccupied by the **additional human resources and/or costs required for joint procurement procedures**, as well as **differences in national procurement practices** among Member States. After all, it is obvious to customs officials that cross-border joint procurement does require close cooperation and strong communications to ensure that the needs and role and responsibilities of all parties are properly identified and reflected in the procedures, and that these are fair and effective for all. This implies a '**learning curve**' for most customs administrations, which is considered hard to embark on due to time and resource constraint.

Another identified challenge of joint procurement is the need to **harmonise technical/functional requirements** among Member States, which tend to vary substantially from one administration to the other, especially for the most complex types of equipment. This applies not only to the specifications of equipment themselves, but to the entire ecosystem surrounding them (e.g., the compatibility of procured equipment with wider IT and/or physical infrastructures, rules for radiation safety, etc.²²).

Still, national customs officials express a high interest in cross-border joint procurement, the envisaged benefits and challenges of which are discussed in detail in the next chapter. When it comes to 'readiness', it is worth noting that there is a **tension between the willingness to test joint procurement with cheaper, easier equipment** whose specifications would be easier to harmonise across Member States, and **that of jointly procuring more complex and expensive equipment in an effort to put downward pressure on prices**, which is seen as one of the main potential benefits of joint procurement, especially among smaller Member States.

3.5.2 Key good practices

Given the lack of practice experience of cross-border joint procurement, good practices in joint procurement readiness mostly lie in frequent, ongoing cooperation of national customs administrations with other national/public offices on one hand, and foreign customs administrations

²¹ The BAXE project is not about custom control equipment *per se*, but about the procurement of IT infrastructure (and training) surrounding customs control equipment. As for the Irish-British joint procurement of gas chromatography equipment, all people directly involved from the Irish customs authority have left and there seems to be no detailed record of the details and lessons learnt of the project. Other national-level examples of cooperation, for instance with police border guards, often did not involve joint procurement, but one administration sharing their expertise or buying equipment for another.

²² For example, at least a couple Member States mentioned a lack of space in their ports, which calls for equipment of specific reduced sizes.

on the other hand. Through the evidence collected as part of this study, Member States provided multiple concrete examples of such cooperation. Most of these examples took place nationally, typically with the National Police, border control agencies, the national revenue administration (when separate from the national customs administrations), or another public body such as national railways. These mostly consisted in joint purchases of e.g., scanner equipment or IT software, with one authority fully managing the procurement process on behalf of other.

To promote and facilitate joint procurement at the national level, some Member States have created a **public body specialised in public procurement and purchases across national administrations** or developed a national procurement strategy that includes quantitative objectives of joint procurement. One Member State went as far as **adopting binding legislation to oblige public administrations to use joint procurement where relevant**, including a dedicated service unit that provides support and recommendations to national bodies willing to procure jointly.

Turning to cross-border joint procurement, the only ‘recent’ examples that could be found in the domain of customs control equipment are those mentioned in the previous sub-section, namely the BAXE project between Estonia, Latvia and Lithuania, and the joint procurement of mobile gas chromatography equipment from the Irish and British customs. In both cases, these projects were born in the context of **close and long-term cooperation among national customs administrations**. These have long been used to hold meetings together and to share information, knowledge and challenges around customs control equipment. When potential opportunities for joint procurement arose, they could therefore identify them. Besides, the **trust built by regular exchanges** allowed the parties to agree the terms of their cooperation in a relatively quick and straightforward way.

For this reason, the **involvement in cross-border expert groups and cooperation networks** seems a first step, and a good practice, for national customs authorities willing to engage in joint procurement. A number of such networks exist, such as the **CELBET**²³ group, whose objective is to strengthen cooperation, information sharing and resource pooling between customs authorities in equipment and procurement and five other customs areas. The **CLEN** network, coordinated by DG TAXUD and bringing together customs laboratories from across the EU, has also been referred to by customs authorities as an important cooperation forum that allowed them to grow and consolidate their relationships with other Member States based on frequent discussion and knowledge exchange, thereby progressing towards more harmonised practices.

According to one Member State, the cooperation between customs laboratories showed its positive effects when the CCEI was introduced: the different Member States had a uniform level of knowledge on relevant topics and were immediately aligned on their requests. In contrast, little evidence was shown of systematic cross-border cooperation and knowledge sharing for the procurement for border crossing points, which might at least partly come from the lack of a similar ‘CLEN-like’ network for BCPs. Generally, the **CCEI and its working groups** are seen as important fora for current and future cooperation in the field of customs control equipment, and many Member States hope for it to evolve further as a place to share knowledge, good practices and common challenges, which in turn may lead to identifying concrete opportunities for cross-border joint procurement.

3.5.3 Conclusions

Few Member States have direct experience of the cross-border joint procurement of customs control equipment, while even domestic examples are limited. Combined with the perception of high barriers to making joint procurement happen in practice, it is clear that customs authorities are not prepared to ‘jump in with both feet’, but rather require a gradual, step-wise approach. As shown in the examples

²³ See the end of section 3.2.2.

that do exist, the willingness and ability to try joint procurement is underpinned by high levels of trust and the identification of common needs, as well as adequate legal and operational frameworks. For the former, existing fora at EU level, such as CELBET, CLEN and the CCEI Coordination Group, provide a good foundation and should continue to be encouraged and cultivated. As discussed in the next two chapters, there is also a crucial role for the EU in the latter aspect, namely putting in place a framework that enables Member States first to test and then to more widely adopt joint procurement as a way to meeting current and emerging needs.

3.6 Overarching conclusions and recommendations

3.6.1 Overarching conclusions

The foregoing sections examined national practices for the procurement of customs control equipment, based on extensive consultation as well as desk research. This was not an evaluation – rather than forming judgements on the quality of different procurement systems, the study aimed to identify good practices and lessons learnt that could be applied more widely and feed into the implementation of CCEI. At the same time, the exercise inevitably gathered insight on the aspects of procurement that are perceived as working more and less well, and on the challenges experienced. The issues covered ranged from the high-level and strategic to details such as maintenance arrangements.

Overall, **the picture that formed was a positive one**. No customs authorities doubted their compliance with EU or national procurement legislation, and they were also broadly satisfied with their systems and processes, and the results achieved. Despite differences in the specifics, approaches were found to be similar – and similarly well-functioning – in many respects. These included consistency in terms of the basic look and feel of the main procurement steps (from initial preparation through performance of the awarded contract), central organisation of procurement within the customs authority, a high usage of open procedures (rather alternatives such as framework contracts) and a reliance on both national and EU digital platforms to publish tendering information. Taken together, these similarities contributed to a general sense that national procurement systems were functioning in line with expectations, and that customs authorities had little appetite for major changes.

Nonetheless, it was also clear that **the situation was far from perfect, and that complacency would bring its own risks**. Of the several widespread challenges identified, most of these related to a difficulty for customs authorities to formulate and implement a strategy for the longer term, with decisions instead focused on day-to-day operational needs. Such challenges include:

- Giving the appropriate weight to price criteria, which provide a necessary incentive to keep costs down, but are also hard to set at a level that would still encourage companies to offer innovative equipment / new technologies; these may be expensive at first but provide greater value for money over time;
- Marshalling the technical expertise needed to design tender specifications effectively, which is requiring more specialisation as equipment becomes more advanced;
- Ensuring sufficient standards in terms of (cyber-)security, data protection and privacy, which is especially urgent given the growing role of data and digitalisation in customs operations;
- Prioritising innovation in the tendering process, which can take a back seat to more immediate needs;
- Making procurement less lengthy and cumbersome, which in many countries remains the case despite the adoption of digital tools.

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- Defining and meaningfully applying environmental and social criteria, which have been adopted in many Member States but with practices and actual effects still varying widely;
- Developing and promoting joint procurement, which (as discussed in the next chapter), is not close to being realised in most countries despite its numerous potential strategic, operational and financial benefits.

The study identified good practices for addressing these challenges across the four procurement ‘objectives’ that were used to structure the analysis, namely value for money; transparency, security and fairness; strategic, digital and innovative procurement; and joint procurement ‘readiness’. With a view to facilitating the uptake of these, the next section presents a detailed ‘manual’ with proposed ‘solutions’ and examples. The ‘solutions’ are not a panacea – the more strategic issues are especially difficult to resolve and will require concerted action at different levels– but the results of the study show that thoughtful planning and inclusive, active communication can go a long way towards making procurement systems more effective.

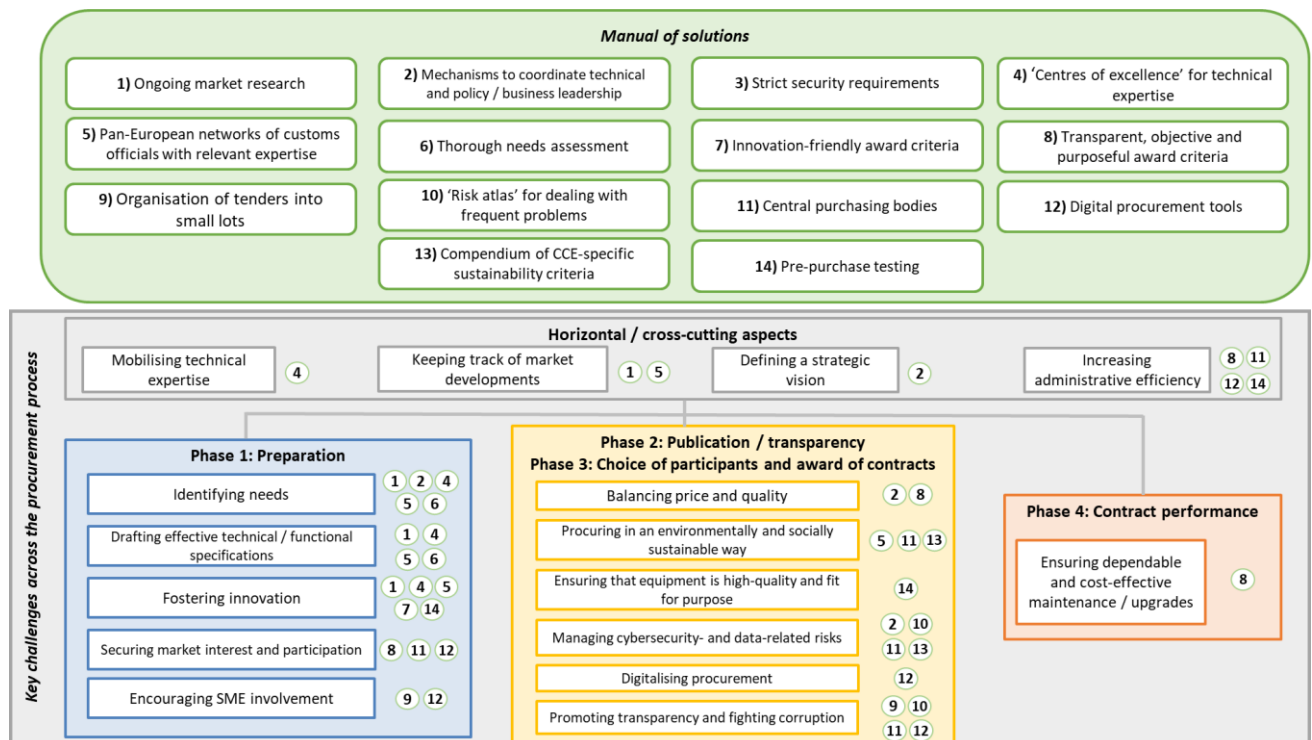
3.6.2 ‘Manual’ for addressing common challenges

This section considers typical challenges faced in the procurement of customs control equipment and puts forward a ‘manual’ with a set of specific ‘solutions’ to help address these, thereby fostering convergence and the uptake of good practices. The term ‘solution’ is used liberally, with a view to covering a range of mechanisms, practices, measures etc. that have emerged from the study as possible ways of generating improvements. Since certain ‘solutions’ would contribute to more than one challenge, the text is structured by solution. In each case, a brief overview of the solution and challenge(s) it addresses is followed by a more detailed discussion on application and practical examples from customs and (where relevant) other fields that can be used for inspiration.

The diagram below presents a high-level overview of the solutions and challenges. The rounded boxes at the top of the diagram show the 14 solutions that are proposed. The rectangular boxes underneath depict the challenges experienced across the four procurement phases defined in Directive 2014/24/EU: (1) preparation, which runs from early market consultations until the terms of a procurement are set; (2) publication and transparency, which concerns the launch and running of the tendering process; (3) choice of participants and award of contracts; and (4) contract performance; phases (2) and (3) are grouped, given that they are closely related, while certain challenges relate to horizontal / cross-cutting aspects. The numbers next to each challenge stand for the tool(s) that help address each of them.

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Figure 1: Overview of 'solutions' for procurement processes at national level



Source: Authors' elaboration

Solution #1 – Ongoing market research

Relevant challenges: keeping track of market developments, identifying needs, drafting effective technical / functional specifications, fostering innovation.

Overview: making effective purchases relies on a good understanding of the market offering, which in turn relies on market research. While all customs authorities conduct market research, the study has shown that 'ongoing' (in addition to tender-specific), systematic market research is especially important for the purpose of keeping track of developments in terms of evolving technology, technical and functional characteristics of new equipment, suppliers and prices. It is then possible for customs authorities to feed this knowledge into decisions concerning strategic planning as well as individual purchases, helping to develop accurate and valid specifications while leaving room for innovation.

Application: the evidence from the study indicates that successful market research is underpinned by giving it strategic importance and high priority in the customs administration. This ensures that market research is purposeful and systematic rather than ad hoc, that the officials involved are able to devote sufficient time to it and that the knowledge is retained and shared among relevant officials. Within this broad framework several approaches can be effective, depending on where expertise on customs control equipment is situated in the customs authority, size of the Member State, etc. For example, one large Member State has a 'centre of excellence' (see Solution #4) that brings together expertise on customs control equipment in order to set strategy and assist in procurement processes. It is part of the job of the involved or other mandated officials to put time into attending trade fairs, visiting manufacturers for demonstrations and taking part in EU-level fora to exchange experiences, while systems are in place to ensure this cascades down to the regional offices in charge of controls on the ground. In contrast, a small Member State described a simpler approach, based on keeping in regular contact with the few manufacturers who are active in the country, which led to more extensive interactions when necessary. In both cases, the key point is that ongoing market research is considered a priority rather than an afterthought or distraction from pressing day-to-day tasks.

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Solution #2 – Mechanisms to coordinate technical and policy / business leadership

Relevant challenges: defining a strategic vision, identifying needs, balancing price and quality, managing cybersecurity and data-related risks.

Overview: purchasing customs control equipment is not an end in itself, even if the equipment is state of the art and high quality. Rather, it should serve clear aims in terms of the effectiveness and efficiency of controls, and thereby contribute to the EU customs mission. For this to happen it is crucial that some mechanism exists to translate the policy goals of a customs authority into a strategy for defining needs for customs control equipment over the medium- and long-term. However, unlike for most of the other challenges discussed in this section, the study did not find readily applicable examples of good practice during the research. Rather, the situations that were evident from the questionnaire responses and interviewees tended to resemble the traps identified in a 2012 article in the *World Customs Journal*, namely that procurement is ‘clear on purchase intent but not on strategic intent’, and isolated ‘from business and operational strategy’.²⁴ The long life and staggered replacement periods of key pieces of equipment compounds these issues by ‘locking in’ authorities to a certain approach. Addressing the challenge thus requires new ways of situating customs control equipment within strategic plans at the policy level.

Application: the long-standing and complex nature of this challenge suggests that solutions are multifaceted, will differ by country. Nonetheless, it is possible to lay out some generally applicable steps. First, decisions about what customs control equipment to purchase and deploy should be elevated to the strategic level rather than ‘merely’ seen as a way to implement an existing strategy. Second, policy / business leaders and technical experts need the space to look beyond pressing needs in order to interact with each other about ‘big-picture’ challenges and long-term trends, and what these mean for customs control equipment needs. Third, based on this joint work, a ‘strategic vision’ for the procurement of customs control equipment can be created, and given the political weight needed to make this more than a paper document and see it implemented in practice. While the details beyond these steps can differ, to the extent that the study has seen examples of success, these have tended to involve units at national level with a high profile, officials with different types of expertise and significant resources at their disposal. As the Customs Union continues to develop, and as CCEI takes on greater prominence as source of funding for customs control equipment, the EU could also have a role to play in marrying technical and policy / business functions. This could be manifested via fora for exchange such as the CCEI Coordination Group, the development of work programmes calls, and the potential adoption of future political strategies and legislation.

Solution #3 – Strict security requirements

Relevant challenges: managing cybersecurity- and data-related threats.

Overview: a key issue that emerged during the research is that certain tenderers qualify to participate in procurement processes despite lingering concerns about cybersecurity, data protection, intellectual property rights and privacy issues. This was despite the fact that, as noted above, the Commission issued security guidance to national CCEI coordinators in May 2022 which must be included in the selection and award criteria for procurement processes. Moreover, these risks are growing over time, as customs control equipment increasingly relies on using and sharing images and other types of information securely, and equipment is increasingly interlinked or interfaces with communication networks. The nature of the Single Market makes it difficult to take sufficient mitigating action individually, meaning that these issues often go unaddressed or are dealt with in an ad hoc manner,

²⁴ Doyle, Tom, ‘Rethinking Customs’ procurement practices to deliver improved business outcomes’, *World Customs Journal*, volume 6, number 2, September 2012, url: 09 Doyle.pdf (worldcustomsjournal.org).

creating litigation risks as well as the potential security breaches. The proposed 'solution' in this case would thus be action to strengthen the security standards at EU level that companies will either meet or do not meet. Provided that the standards are sufficiently clear and applied from early in the procurement process, this would alleviate the uncertainty and reduce the risks of breaches. It is also important to emphasise that the solution proposed will need to be continuously monitored and updated as it gains in maturity and insight grows over time.

Application: the study did not find a readily available solution to this challenge, suggesting that fresh thinking is needed. In the first instance, a stock-taking exercise could be made on the security criteria that are already in use, to ascertain whether they have shortcomings and / or problems with implementation. Measures could then be taken to verify compliance, for example by requiring manufacturers to agree to monitoring by a designated conformity assessment body.²⁵ Then, if certain manufacturers of customs control equipment are deemed to pose security risks, a second line of defence could be to adapt for the EU's purposes an approach used in the US. This entails designating as a security risk certain companies, products and components, as well as rules to avoid workarounds via other companies that are not subject to the restrictions. Such a decision could not be taken lightly, given the potential implications for international trade law, and would need to be carefully considered and formulated. However, if the risk is deemed sufficiently great and cannot be addressed in other ways, it is worth noting that such restrictions would in principle be in line with Directive 2014/24/EU, which in recital 41 states that 'Nothing in this Directive should prevent the imposition or enforcement of measures necessary to protect [...] public security'.

Solution #4 – 'Centres of excellence' for technical expertise

Relevant challenges: mobilising technical expertise, identifying needs, drafting effective technical / functional specifications, fostering innovation.

Overview: difficulty to mobilise the technical expertise needed to procure customs control equipment was the most frequently cited problem during the study. Interviewees explained that much of the equipment is highly technical, individuals with the expertise are spread thinly around the customs authority and resource constraints mean that the number of experts is too small. The way one Member State has found for making the most of the available expertise is to organise it into a 'centre of excellence'. This centre brings together expert officials from around the customs authority and acts as a central resource despite the regional character of the customs authority, which can be drawn on as needed by (mostly regional) officials when preparing and carrying out a purchase.

Application: establishing a centre of excellence is a way to mobilise and organise scarce expert resources effectively. This could be especially relevant for large and / or decentralised Member States, where sharing knowledge between levels might not otherwise come naturally, and where regional offices might lack expertise and resources. Aside from whatever administrative measures are needed, establishing a centre would involve defining its mission and terms, identifying the relevant experts within the customs authority, designating them as part of the centre of excellence, giving them sufficient time to devote to the tasks at hand (including with regard to such aspects as market research in addition to specific purchases) and defining the arrangements for them to provide input. For example, a priority for the centre that was identified in the study was to involve its experts from tender preparation all the way to delivery of the equipment. Other matters may also be decided based on national preferences and capacity, such as the qualifications of the experts, how often and in what

²⁵ The requirements for certified conformity assessment bodies laid down in Regulation (EU) 2020/1056 on electronic freight transport information seem appropriate for this purpose. As per Article 11 and Annex II (and in line with the broader accreditation requirements set out in Regulation (EC) 765/2008), each Member State shall designate an authority responsible for certifying conformity assessment bodies according to strict criteria for independence and technical expertise in matters of data processing and security.

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format they meet, the proportion of working time involved, and how relevant information is stored, organised and shared.

Solution #5 – Pan-European networks of customs officials with relevant expertise

Relevant challenges: identifying needs, drafting effective technical / functional specifications, fostering innovation, keeping track of market developments, procuring in an environmentally and socially sustainable way

Overview: the 27 customs authorities of the EU are all charged with applying and enforcing the same customs rules, but do this from their own unique perspectives. This creates common needs which can potentially be addressed through joint procurement (discussed in chapter 4) and other forms of operational collaboration. It also means that national authorities have a lot to learn from each other when it comes to knowledge and experiences of procurement. Several existing fora bring together officials with both technical and procurement expertise on customs control equipment, including the CCEI Coordination Group (and working groups therein), CELBET²⁶ (comprised of officials from countries with land borders on the EU's southern and eastern flank, which includes a procurement sub-group), and CLEN²⁷ (representatives of customs laboratories from all Member States), as well as PEN-CP²⁸ (the Pan-European network of customs practitioners, a Horizon 2020-funded research project bringing together customs authorities to boost innovation in the field of customs).

Application: the study showed that the existing fora have been extremely useful in the context of procuring customs control equipment, in terms of sharing experience and material on technological developments, the market offering, innovation and technical specifications, as well as on how to define environmental and social sustainability criteria that can be applied in the field of customs control equipment. However, it was also clear from the interactions with customs authorities that engagement with the various fora differs by country, with some participating more actively – and getting more benefit – than others. The active involvement of more Member States also increases the usefulness of such fora for everyone, making it even more important for as many countries as possible to prioritise participation and ensure that individuals with the right profiles can take part. This is especially true of the CCEI Coordination Group, which is in its early stages and still creating a 'culture' that will set the tone for the coming years and CCEI calls.

Solution #6 – Thorough needs assessment

Relevant challenges: identifying needs, drafting effective technical / functional specifications.

Overview: identifying equipment needs before launching a procurement process is vital, since otherwise even high-quality equipment may not correspond to actual needs 'on the ground'. Needs assessment was duly mentioned as a key step for all of the customs authorities providing input to the study. On top of this, a number of Member States had especially thorough and systematic processes for needs assessment that could be considered and implemented more widely.

Application: the stronger approaches to needs assessment combine several key features. First, they start very early, before any preconceptions about the equipment are made; this could be enabled by Solution #2, which aims to bring more strategic, long-term thinking into the procurement of customs control equipment. They also draw on a wide variety of sources, including field officers and experts on

²⁶ See the dedicated CELBET website, CELBET - Customs Eastern and South-Eastern Land Border Expert Team.

²⁷ An overview of CLEN is provided at Customs Laboratories (europa.eu).

²⁸ PEN-CP runs from 2018 to 2025. More details on the project, including a list of its consortium partners and information on activities carried out so far, can be found at Innovation for Customs Administrations | PEN-CP Project.

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customs control equipment as well as officials with a higher-level, strategic view, and procurement specialists. The involvement of these different profiles can prevent opportunities from being missed, such as the possibility to bundle equipment that will be used by different parts of the customs authority into a single procurement. The strategic angle can also ensure consideration of likely future needs and any implications for the upcoming purchase. While the research suggests that high-quality needs assessment can take different forms, they are distinguished by being systematic, inclusive and timely.

Solution #7 – Innovation-friendly award criteria

Relevant challenges: fostering innovation

Overview: encouraging innovation through the procurement process is a major challenge that has been noted with regard both to customs control equipment and procurement in other policy areas that have been examined for the study. Addressing it is the subject of significant efforts from a variety of actors, as shown in e.g., DG GROW's guidance on innovation procurement,²⁹ the iProcureNet project,³⁰ the PEN-CP³¹ and others. It follows that only so much can be achieved with tweaks to existing approaches. Nonetheless, the problem is due to a certain extent to the fact that award criteria are often designed rigidly, in a way that discourages manufacturers from proposing new ideas. By designing award criteria in an 'innovation friendly' (or at least not innovation un-friendly) way, tenderers can be given more freedom while still ensuring that needs are met.

Application: this tool was described as successful in the Member State where it is employed, and it simply involved reserving a certain number of points in the quality score for innovative elements. This encourages tenderers to propose novel approaches and functionalities, while still obliging them to meet technical requirements.

Solution #8 – Transparent, objective and purposeful award criteria

Relevant challenges: increasing administrative efficiency, securing market interest and participation, balancing price and quality, promoting transparency and fighting corruption, ensuring dependable and cost-effective maintenance / upgrades.

Overview: according to interviews with manufacturers, one reason that they sometimes decline to participate in a tendering process is an impression that the award criteria will privilege a certain competitor. This is especially the case when they perceive the weighting of price to be too high, but can also be when the award criteria for the technical score are either too vague (which can favour privileged tenderers who are already in the know) or so precise as to be applicable only to the equipment of one manufacturer. The evidence for the study suggests that transparent and objective award criteria increase confidence in the tendering process among manufacturers and encourage them to participate, increasing competition and the quality of bids. Moreover, given that maintenance and servicing can account for half the price of large-scale equipment, it is important to be precise about what is expected and weight this accordingly in the scoring grid. Aside from increasing competition and the ultimate quality of equipment, getting the award criteria right can also reduce the potential for misunderstandings and thereby the chances that the tender documents will need to be amended after launch or that losing bidders will engage in costly and time-consuming appeals or litigation.

Application: the study questioned whether emphasising price was an effective way to secure value for money, because this may contribute to a certain conservatism in procurement and make it harder for

²⁹ Commission notice: Guidance on Innovation Procurement, C(2021) 4320 final, See: DocsRoom - European Commission (europa.eu).

³⁰ See www.iprocurenet.eu.

³¹ Ibid.

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manufacturers to dare to propose innovative and / or better-quality equipment that performs better in the long run. The ‘reverse procurement’ approach used in one Member State, which effectively takes price out of the equation may not be feasible everywhere, but the quality criteria should be an important way for competitors to distinguish themselves and play a role in the award decision, *de facto* as well as *de jure*. Maintenance and servicing requirements should also count for a meaningful proportion of the award score. Part of the way to do this is to involve officials with complementary areas of expertise in the design of the award criteria as well as the decision process. Relatedly, the WCO’s guidelines for the procurement of scanning / NII equipment provides a handy checklist about how to define and describe the award / evaluation process in tender documents in a clear and transparent way,³² while whenever relevant the award criteria should include the security requirements defined by the Commission.

Solution #9 – Organisation of tenders into small lots

Relevant challenges: encouraging SME involvement.

Overview: smaller firms can be effectively blocked from responding to a potentially interesting tender because they lack the scale to produce the required volume of goods. This challenge was most acutely felt in the area of customs laboratories, where SMEs are relatively active, while the market for scanners and other equipment used at BCPs tends to be dominated by larger firms. Even if SMEs remain at a disadvantage for other reasons (e.g., limited ability to produce prototype equipment for testing), subdividing tenders into smaller lots has been described as a way to lower the barriers. This is both because SMEs are likelier to be able to produce the required volume of equipment, and because administrative requirements (e.g., turnover thresholds) can also be reduced. While this approach may increase the costs of the tendering process, by introducing a degree of redundancy it can also reduce the risks of relying on a single supplier for all the needed equipment; in other words it avoids ‘putting all your eggs in one basket’.

Application: most procurement of customs control equipment is already organised as ‘single procurement’, which is better for SMEs than even larger multiple procurements. In addition, tenders can be further subdivided in different ways depending on the situation. For example, a large volume of a certain type of equipment can be broken down by the different locations where it will be deployed, or a tender involving several complementary types of equipment can be subdivided by equipment type. If deemed appropriate, certain components or maintenance and servicing can also be procured separately from the main equipment. Moreover, where it is not feasible to subdivide a purchase, larger firms and SMEs may be encouraged to submit a joint tender if their potential offering is complementary.

Solution #10 – ‘Risk atlas’ for dealing with frequent problems

Relevant challenges: managing cybersecurity and data-related risks, promoting transparency and fighting corruption.

Overview: the study did not identify major problems with transparency and corruption in the procurement process, in part because of the harmonisation mandated by the EU Procurement Directives, which are complemented by EU and (in many cases) national guidelines. Several Member States have also recently reformed their procurement systems in order to align with EU rules and norms (in some cases establishing central purchasing bodies, see Solution #11). Nonetheless, risks continuously develop and need to be monitored and mitigated, regarding both corruption and emerging issues like cybersecurity and data protection (discussed in more detail in Solution #3). To

³² Guidelines for the procurement and deployment of scanning / NII equipment, Annex 1: Elements to be considered for a request for a proposal / tender, WCO, 2020. See: World Customs Organization (wcoomd.org).

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ensure that solutions to dealing with such risks are found and dealt with consistently, one large Member State compiles and continuously updates a so-called 'risk atlas'.

Application: while the contents of the risk atlas identified for the study were considered confidential and could not be shared, conceptually it is a very simple tool. Essentially, officials dealing with procurement throughout the customs authority keep track of risks and come up with approaches for dealing with these proactively, which are recorded in the atlas that is made available electronically in a secure location. To assure the quality of the atlas and to make sure it remains up to date, it would be important to assign responsibility for 'curating' it, e.g., to a single official, or to a group of officials on a rotating basis, while still allowing others to make edits. The existence of the atlas could also be highlighted at training or induction courses for new staff. To promote the sharing of insight about relevant risks at EU level, a similar atlas could also be developed under the auspices of the procurement working group of the CCEI Coordination Group.

Solution #11 – Central purchasing bodies

Relevant challenges: increasing administrative efficiency, securing market interest and participation, promoting transparency and fighting corruption, procuring in an environmentally and socially sustainable way, managing cybersecurity and data-related risks.

Overview: a central purchasing body is a central authority that takes full or part responsibility for procurement on behalf of other authorities. Especially (but not only) in countries that recently underwent reforms, involving central actors outside the customs authority is seen as a way to oversee implementation of the EU Procurement Directives, standardise procurement practices, deploy procurement expertise more efficiently (thereby lowering transaction costs) and prevent corruption and manage other risks.³³ Central purchasing bodies are also able to keep track of and apply the latest thinking on environmental and social sustainability criteria. Provided that officials who are involved with strategic and operational aspects for the customs authority are still involved, this can be a way to increase transparency and perceptions of fairness, in turn increasing interest from relevant manufacturers. By making sure that processes are followed to the letter, it can also reduce chances of delayed or cancelled tenders, and appeals or litigation by unsuccessful tenderers, which leads to reduced costs. Moreover, by giving an overview to a central authority outside customs, a central purchasing body can help identify opportunities for joint procurement at national level, leading to larger procurement volumes and reduced prices through economies of scale. That said, depending on how it is organised, a central purchasing body can have the drawback of inserting an additional administrative layer between a purchase and operational level, meaning it should only be employed when the case for centralisation is clear.

Application: the decision to establish a central purchasing body is normally taken with a view to a country's procurement system as a whole, rather than 'just' the customs field. Applying this tool in practice would thus entail discussions between the senior leadership of the customs authority and the relevant government departments (e.g., Ministry of Finance). If a central purchasing body is established (regardless of the role of the customs authority in the decision), it is important to make the most of it by taking stock of what 'services' it provides, and arranging procurement-related functions in the customs authority so as to maximise complementarity and reduce duplication.

³³ For an overview of the benefits and drawbacks of central purchasing bodies, see the OECD procurement factsheet 9 at: gov_glance-2015-45-en.pdf (oecd-ilibrary.org).

Solution #12 – Digital procurement tools

Relevant challenges: increasing administrative efficiency, securing market interest and participation, encouraging SME involvement, digitalising procurement, promoting transparency and fighting corruption.

Overview: digital procurement tools are permitted in the EU Procurement Directives and widely promoted because they are associated with manifold benefits such as increased efficiency, and making tendering processes more visible and less costly to reply to (thus increasing transparency and participation). The study found that actual use of the available digital procurement tools varies considerably, from near universal use of national tendering platforms, electronic signatures and TED, to far lower use of tools like E-certis and electronic catalogues.³⁴ The limited uptake of certain tools seemed mostly related to a reluctance to make significant changes to existing platforms and processes which have a certain upfront cost in time and resources. Nonetheless, some Member States did achieve success in adopting most or all of the relevant tools, by integrating them into a single digital system or platform.

Application: many aspects of the procurement system often stem from the central government level rather than the customs authority, which makes it hard for them to pursue digitalisation unilaterally. Nonetheless, the senior leadership has a role to play in embracing tools as soon as possible (e.g., at the beginning of implementation timelines, even if they are still optional) and ensuring that relevant developments at EU level (such as the EU Single Digital Gateway³⁵) are followed.

Solution #13 – Compendium of specific sustainability criteria

Relevant challenges: procuring in an environmentally and socially sustainable way.

Overview: Article 67(2) Directive 2014/24/EU allows the social and environmental characteristics of a tender to be assessed as part of its technical quality score. The Commission also publishes environmental criteria that Member States can voluntarily incorporate into procurement procedures³⁶ and guidance for social procurement.³⁷ However, the study found that such criteria (mainly in the environment field) were applied only to a limited extent, often in a superficial way. Moreover, approaches varied widely, with very little consistency between Member States. This seemed in part due to difficulties either to define or translate criteria to the field of customs control equipment. This provides an opportunity for compiling and sharing relevant criteria at EU level, which could then be fed into specific procurements when appropriate. More consistent and objective criteria would also make it easier to consider tenderer's sustainability performance as part of the evaluation and award process without risking uncertainty or legal challenges.

Application: this is a new tool that the study did not find already existing in any Member State. The CCEI Coordination Group (specifically the working group on procurement) could be a suitable forum for the discussions and effort needed to compile environmental and social sustainability criteria, tailor them to customs control equipment and share them among the Member States. The experiences of certain Member States could provide inspiration, both in terms of the criteria to use, and how to employ them (e.g., as selection criteria that must be met, part of the technical score, or as a 'tiebreaker' between similar tenders). Some of the voluntary environmental criteria published by the Commission

³⁴ This was consistent with a 2016 EU-wide survey of all Member States covering a wide variety of fields, which found that only four Member States were using digital technology at that time for all major procurement steps. As cited in the Communication 'Making public procurement work in and for Europe', COM(2017) 572 final.

³⁵ Single digital gateway (europa.eu).

³⁶ These can be found on the Commission website: GPP Criteria and Requirements (europa.eu).

³⁷ This can be found on the Commission website: Social procurement (europa.eu).

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could also be considered, for example, with regard to computers,³⁸ data centres³⁹ and imaging equipment.⁴⁰ While social criteria have not been elaborated in the same way, the Commission has published a book of good practices, which includes relevant experiences in the field of ICT.⁴¹ Finally, when compiling criteria and any guidance, it should be acknowledged that sustainable procurement is a developing field, and a gradual approach is needed to develop criteria that are sufficiently objective and comparable, and for suppliers to adapt their practices and supply chains.

Solution #14 – Pre-purchase testing

Relevant challenges: fostering innovation, ensuring that equipment is high-quality and fit for purpose.

Overview: the purchase of large-scale equipment is inherently risky, because if the wrong decision is made then a buyer may be stuck with the goods for 10+ years. This encourages a certain conservatism, as customs authorities may stick with tried-and-tested solutions even as they become obsolete, while shying away from more innovative equipment. Some customs authorities have found a part-solution to this, which entails building trial phases for equipment into the procurement. This allows for a 'test drive' before a purchase is finalised, increasing the chances that needs will be met and giving buyers the flexibility to be more daring.

Application: in practice, trialling usually takes place at an early stage in the tendering process, before the technical specifications have been fully developed. The customs authority makes contact with a number of suppliers, arranging for prototype versions of the equipment to be delivered for the purpose. When necessary, funding is put aside to cover the costs to the suppliers. Experiences with the trial equipment are then recorded and taken into account for the full tender. In the countries that already make use of the possibility to test equipment, it reportedly helps the customs authority to purchase equipment that is high-quality and fit-for-purpose. However, it also slows the procurement process down, meaning that trialling is best for purchases of innovative equipment, where uncertainty remains about functionalities and performance. It might also de facto exclude SMEs, which might lack the prototypes needed for testing purposes.

³⁸ Circabc (europa.eu).

³⁹ Circabc (europa.eu).

⁴⁰ Circabc (europa.eu).

⁴¹ European Commission, Executive Agency for Small and Medium-sized Enterprises, Tepper, P., McLennan, A., Hirt, R. et al., *Making socially responsible public procurement work – 71 good practice cases*, Publications Office, 2020, <https://data.europa.eu/doi/10.2826/844552>

4. Study task 2 – Joint procurement

4.1 Introduction

The chapter focuses on the second task of this assignment, which is to identify efficient joint procurement practices, challenges, recommendations, and solutions in order to promote the (cross-border) joint procurement of customs control equipment in the frame of CCEI. This is done based on an analysis of (1) examples of joint procurement, both within and beyond the customs domain, and (2) customs stakeholders' expectations, preferences and ideas.

After an overview of the state of play, the analysis is structured in terms of a 'SWOT' analysis⁴² of joint procurement. This focuses first on the benefits (both regarding 'strengths' proven from past experiences and 'opportunities' that could be expected in future if joint procurement is implemented at scale), then on challenges in terms of observed 'weaknesses' and future 'threats' which would need to be mitigated or minimised. This is followed by a short discussion on a cross-cutting issue, namely the advantages and disadvantages of the main models of joint procurement. The section ends with a short presentation of overarching conclusions, then recommendations in the form of a 'roadmap' with concrete steps for continuing to develop joint procurement in the future.

Several types of joint procurement models were analysed for the study:

- **Joint procurement between several public administrations within a Member State**
Article 38 of Directive 2014/24/EU authorises two or more contracting authorities to perform joint procurement. Either the purchase is conducted by a central purchasing body in accordance with Article 37 of the Directive 2014/24/EU or one administration leads the public procurement procedure on behalf of the others.
- **Joint procurement between Member States**
Article 39 of Directive 2014/24/EU allows Member States to jointly award public contracts. Although several variations of this governance model exist and are described in the Directive, this report focuses on Article 39(4), whereby several contracting authorities from different Member States can jointly award a public contract, conclude a framework agreement or operate a dynamic purchasing system. The allocation of responsibilities and the applicable national law must be indicated in the procurement documents and subjected to an agreement by the participating contracting authorities. This variation is the only model of cross-border joint procurement that has been used to date by Member States in the field of customs control equipment.
- **Joint procurement governed by a dedicated agreement between the contracting parties, known as a "joint procurement agreement"**
As envisaged in Article 165 of Regulation 2018/1046 (commonly referred to as the "Financial Regulation"), the EU institutions, Member States and possibly also third countries (such as European Free Trade Area – EFTA – states and EU candidate countries) may engage in a joint procurement procedure preceded by a dedicated agreement determining the practical arrangements governing that procedure, known as a joint procurement agreement (JPA). The

⁴² A 'SWOT' analysis is a way of structuring an analysis in terms of an initiative's **Strengths**, **Weaknesses**, **Opportunities** and **Threats**. Given that the joint procurement of customs control equipment is in its early stages, this provides a useful framework to take stock of existing experiences (strengths and weaknesses), while also casting light on opportunities and threats for the future. As per the Better Regulation Toolbox (Tool #57), SWOT analysis is especially useful as a way to synthesise the results of an analysis for the purpose of developing a strategy.

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Commission does not act as a central purchasing body, but it is one of the contracting parties, with responsibility for the overall preparation and organisation of each joint procurement procedure conducted in the framework of the agreement. The JPA for medical countermeasures was approved by the Commission in April 2014. The Agreement was initially signed by 14 countries, and by April 2020 the number of signatories had increased to 37.

- **Joint procurement involving a European Institution acting as a central purchasing body for one or several contracting authorities from the Member States**

As foreseen in Article 37 of Directive 2014/24/EU, an EU institution such as the European Commission or another agency can serve as a central purchasing body for the purpose of joint procurement involving multiple Member States. The role of the Commission and Frontex, respectively, in the conclusion of an advance purchase agreement of Covid-19 vaccines and inter-institutional agreements to purchase personnel protective equipment illustrate the use of this governance model.

4.2 State of play

The use of joint procurement, especially *cross-border* joint procurement, is relatively rare in the customs domain. This was evident from the written questionnaire and other interactions with national customs authorities, which showed **very little experience with joint procurement in the field of customs control equipment**. Only a few examples were identified, which are as follows:

1. **One example of cross-border joint procurement when one Member State purchases customs equipment on behalf of two or more Member States:** in 2017, the customs authorities of the Baltic countries jointly implemented a project to create an X-ray image exchange network, known as BAXE. The Lithuanian customs authority coordinated the project and acted as the contracting authority for the purchase, with the cooperation between the three countries involved underpinned by a memorandum of understanding. The purpose of the joint procurement was to address a need for more coordination among the countries' eastern borders with Russia. It covered the development of a tool to exchange X-ray images between customs administrations, a common universal format of X-ray images, a database/library of X-ray images of infringements, a training tool for X-ray operators, and the setup of training facilities in Lithuania and Latvia. However, importantly, the project did not entail the purchase of actual customs control *equipment*. The x-ray machines to be involved had already been purchased separately by the three customs authorities, while the project served 'only' to develop and operate the back-end digital elements needed to enable the sharing of images and related control operations.
2. **One example of cross-border joint procurement when contracting authorities from multiple Member States jointly award a public contract:** in 2014 (i.e., prior to Brexit), Irish customs purchased detection equipment for customs laboratories, namely and mobile (i.e., van-based) gas chromatography equipment for the analysis of a particular fuel marker, together with the British customs authority, HM Revenue & Customs (HMRC). The purpose of the joint procurement was to deal with a common problem concerning counterfeit diesel fuel, and the decision for both countries to combat this using the same fuel marker. The purchase consisted of 50 vans with the relevant equipment, of which 5 were for Irish customs, as well as related maintenance and other services.

3. Three examples of joint procurement between different authorities within a single Member State:

- a. The Hungarian police force and customs authority launched a joint public procurement for the provision of mobile scanners in 2022. Although the coordination of technical specifications was reportedly challenging, once an agreement was found, the procedure reportedly resulted in the successful purchase of equipment.
- b. Irish customs uses joint procurement for the provision of radio equipment for customs front-line officers, in conjunction with *An Garda Síochána* (Irish police forces), the Health Service Executive, the Department of Agriculture, and ESB Networks (the Electricity Supply Board, an Irish electricity provider) among others. The purchase took place in 2020 as part of a similar, repeated exercise roughly every 10 years, where joint procurement allows public administrations to obtain the equipment at a lower cost while mutualising technical expertise. A central purchasing body, supported by a steering group comprised of all participating authorities, was used to deal with the complexity of involving such a large number of interests.
- c. In December 2017, the Belgian government adopted the Royal Decree on federal centralised public procurement⁴³ in the context of the **federal purchasing policy**, which obliges federal public administrations to use joint procurement where relevant. In this context, the Belgian police and customs authorities have jointly purchased scanners to secure lower prices and reduce administrative burden by pooling procurement resources.

The rarity of joint procurement in the customs field is **mirrored by the situation in the EU more broadly**. On the one hand, numerous initiatives aim to promote cross-border joint procurement between purchasing authorities from different Member States. These include the Big Buyers Initiative, launched by DG GROW in 2020, which is an online platform (complemented by physical events) for promoting collaboration between public buyers.⁴⁴ Through the end of 2022, the initiative had facilitated in-depth exchange of experiences between 60 purchasing entities, whose total procurement budget exceeds EUR 40 billion. There are also EU-funded research projects, such as iProcureNet, which brings together purchasers and experts in the field of security-related procurement in order to boost joint and innovative procurement and inter alia has led to the production of toolboxes to facilitate joint procurement.⁴⁵ On the other hand, actual joint procurement (including both domestic and cross-border) is estimated at only 11% of the total procurement volume in the EU, while the above-mentioned initiatives appear to have yielded few concrete examples of joint procurement in practice.⁴⁶

Turning to **joint procurement where an EU institution plays an active role, actual use has also been very limited**. In the last decade, the main experiences of joint procurement led by the EU have been in the health sector, through inter-agency agreements, Joint Procurement Agreements (JPA), and Advance Purchasing Agreements (APA) for the purchase of medical equipment, personnel protection equipment (PPE) and Covid-19 vaccines. Three types of examples have been identified, as follows:

⁴³ 22 December 2017, Royal Decree on federal centralised public procurement in the context of the federal purchasing policy.

⁴⁴ <https://public-buyers-community.ec.europa.eu/about/big-buyers-working-together>

⁴⁵ The iProcureNet project is funded by the Horizon 2020 programme for research, runs from 2019 to 2024 and involves security expert organisations from 11 countries, of which 10 are procurement agencies. More information on the project, including its joint procurement toolbox, can be found on its website: iProcureNet | An H2020 project.

⁴⁶ https://single-market-economy.ec.europa.eu/single-market/public-procurement_en

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1. **Inter-agency agreements:** amid the Covid-19 crisis, Frontex led a procurement of personal protective equipment (PPE) and sanitary items on behalf of several EU institutions by leading an inter-institutional agreement, as defined by the [EU Financial Regulation](#) which governs the agency. The joint purchase was performed in an effort to pool procurement resource and respond to a common need. To do so, Frontex launched an invitation to potential participating agencies to raise interest. A total of 48 EU agencies decided to participate in the inter-institutional agreement.⁴⁷ Once the participating agencies were identified, they signed Memoranda of Understanding (MoU) with Frontex to define the specifications and contractual requirements and ensure that everyone's needs (e.g., types of equipment, volume) were covered. Once the framework contract was awarded, Frontex took on the role of overseeing administrative management on behalf of all participating institutions and agencies. This has included administering amendments to the contract, such as price revisions, which may be necessary due to factors like mergers or takeovers, or renewals to the contract's terms. In addition to this, Frontex is responsible for taking any necessary legal actions that may have an impact on the framework contract, such as suspensions or litigation.
2. **Joint Procurement Agreements:** on the basis of Article 5 of the Decision 1082/2013/EU, the JPA for medical countermeasures was approved by the Commission in April 2014 to improve EU countries' preparedness to mitigate serious cross-border threats to health, secure more equitable access to specific medical countermeasures and improve the security of supply, together with fair prices and better purchasing conditions. The Agreement was initially signed by 14 countries, and by April 2020 the number of signatories had increased to 37. It sets the framework of rules that enables signatories to organise joint procurement procedures for medical countermeasures.⁴⁸ Participation in a joint procurement procedure taking place under the JPA – which is referred to as a Specific Procurement Procedure, or SPP – is voluntary. This means that signatories may or may not participate in an SPP, and if they do, they are free to purchase the same medical countermeasures even from the same contractors through other independent procurement procedures. It is compulsory for the Commission to be one of the contracting parties for a SPP to be launched. The Commission is also in charge of conducting an analysis of the market, finalising the technical specifications, publishing the contract notice in the Official Journal of the EU, and awarding the contract. Thanks to JPAs, hundreds of contracts with a total value of nearly EUR 13 billion ensure that up to 36 participating countries have access to essential medical supplies and innovative therapeutics, as well as to protective and medical equipment in line with the EU policies on testing and vaccination.⁴⁹
3. **Advance Purchase Agreements:** as the race for the purchase of Covid-19 vaccines began in mid-2020, the Commission took a leading role in securing the sought-after goods on behalf of all Member States through Advance Purchase Agreements (APAs) signed with manufacturers to ensure the timely supply of vaccines to all EU Member States (rather than only those – mostly larger – Member States with a strong market position). On the basis of the [Regulation 2016/369](#) on the Emergency Support Instrument (ESI), the Commission acted as a central purchasing body for Member States. A specific organisational structure was established, including a Joint Negotiation Team comprised of representatives from certain Member States, as well as a Steering Board in which all Member States were represented. The Commission also facilitated implementation of the contract, acting as a bridge for communication between

⁴⁷ European Border and Coast Guard Agency, 2020, Frontex 2020 in Brief, p.48.

⁴⁸ Under Art.2 of this Joint Procurement Agreement, "medical countermeasures" means any medicines, medical devices, other goods or services that are aimed at combating serious cross-border threats to health, as referred to in Decision No 1082/2013/EU.

⁴⁹ https://health.ec.europa.eu/health-security-and-infectious-diseases/preparedness-and-response-planning_en#:~:text=The%20Agreement%20provides%20a%20voluntary,%2C%20antivirals%2C%20and%20other%20treatments

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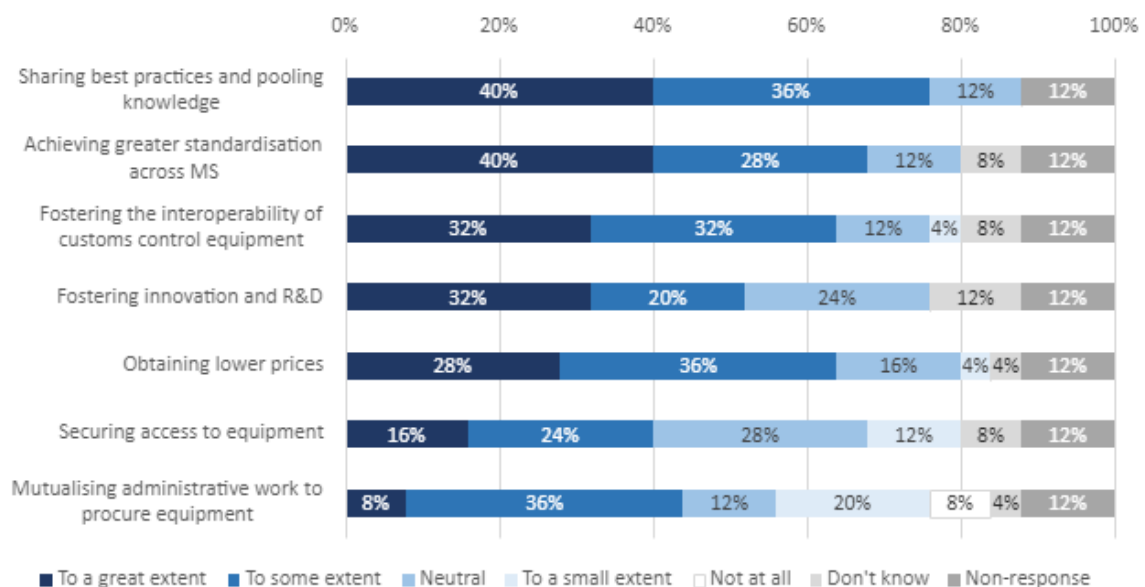
Member States and vaccine manufacturers. Financially, the EU budget played a crucial role, with initial down payments shared between the EU budget and Member States to mitigate development risks for vaccine manufacturers. These payments would then later be used for vaccine purchases when authorised by the European Medicines Agency (EMA).

Apart from these initiatives in the medical sector, the study has not identified further examples of joint procurement where EU institutions act as a contracting authority. The closest were discussions involving Frontex and the Member States that would mutualise the purchase of border control equipment, but these were still in progress at the time of writing and not yet operational.

4.3 Strengths and opportunities

The analysis of the above-mentioned examples of joint procurement within and beyond the customs control equipment domain shed light on several strengths (i.e. benefits) and future opportunities that Member States could leverage, such as securing access to equipment, reducing administrative burden, and pooling expertise. The questionnaire completed by national customs authorities for the study gave a preliminary idea of the benefits expected by EU customs administrations regarding joint procurement. These benefits and opportunities were further explored through the in-depth research in nine Member States on national practices and views (including joint procurement) and three case studies on cross-border joint procurement.

Figure 2 Applicability of joint procurement benefits to customs control equipment



Source: Questionnaire of national customs authorities, n=26

4.3.1 Pooling expertise

In the questionnaire for national authorities, 40% of Member States stated that they would expect that joint procurement would enable the sharing of best practices “to a great extent” and 36% “to some extent”. Customs authorities largely supported the idea that the joint procurement of customs control equipment could enable national customs administrations to take advantage of their knowledge and experience with customs control equipment and procurement processes. This is also reflected in the data collected through in-depth research.

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More specifically, one of the main challenges highlighted by Member States regarding procurement at national level was the difficulty to develop technical specifications. This was due to the need for numerous experts (both on customs and procurement) as well as for detailed knowledge of needs and the available equipment to be procured. Such expertise can be hard to mobilise, especially for novel, innovative equipment. The ability to marshal such expertise was cited by Belgian customs as a key reason for using joint procurement with the federal policy to purchase automatic number plate recognition scanners by the Belgian federal police and customs administrations. Leveraging complementary knowledge on various types of scanner equipment, the two administrations were able to exchange experience on technical requirements that led to the purchase of high-quality equipment.

In this way, cross-border joint procurement is seen by numerous customs officials as an opportunity to pool expertise on customs control equipment in order to improve the quality of the technical specifications and award criteria, with a view to purchasing better quality equipment that corresponds to customs administrations' needs. Defining a strong role for the EU institutions was seen as one way to catalyse the necessary exchange and common work to prepare tendering processes.

Relatedly, several interviewees also attributed to a lack of sufficient expertise the difficulties to draft clear and high-quality terms of references, leading to delayed and cancelled tendering processes, and frequent appeals by unsuccessful bidders. Availing themselves of joint procurement, particularly if it involved an EU institution, was seen a possible way to address these issues, as well as to increase trust and the credibility of the procurement process, making the procurement system quicker and more efficient.

Finally, as noted in the previous chapter, the **CCEI Coordination Group** is already seen as the main place to exchange information and experiences on procurement-related matters. Not only does it bring together all Member States, but participants collectively possess expertise on both customs control equipment and procurement. Such a role would be expected to grow in a context where joint procurement was pursued through CCEI, further enhancing its usefulness as a forum for pooling expertise. In this regard, other long-standing fora such as CELBET (focus on land borders) and CLEN (customs laboratories) can provide inspiration for their success in building relationships of trust and mutual reliance among customs authorities.

4.3.2 Achieving standardisation

Among respondents to the written questionnaire, 40% of Member States would expect joint procurement to foster greater standardisation across Member States "to a great extent" and 28% "to some extent", while 32% would expect joint procurement to foster the interoperability of customs control equipment "to a great extent" and 32% "to some extent". In turn, standardising customs control equipment, and the coordinated use of similar equipment, was regarded as a way to facilitate the exchange of information between customs administrations and to increase the opportunities for joint operations and training.

Joint procurement is not the only way to foster interoperability and standardisation, which can be achieved by other coordinating action such as defining common technical requirements at EU level. Still, **the chance to purchase standardised / interoperable equipment can be a key part of the rationale for joint procurement. It can also make this more likely**, since by definition joint procurement involves multiple buyers seeking the same or very similar equipment.

Both dynamics were at play in the cases examined. For example, the joint purchase of gas chromatographers by British and Irish customs was in part related to the choice by both countries to use the same fiscal marker to deal with the common problem of illegal sales of discounted fuel. Joint procurement was seen as a logical way to purchase equipment that would have needed to be

standardised in any case. Once obtained, the use of the same equipment made it easier for the two authorities to cooperate. Similar, the BAXE project in the Baltic countries was predicated on the operational need to facilitate the sharing of images between the authorities involved. The **future opportunities for standardisation and interoperability can be further illustrated with a hypothetical example on larger scale equipment**. In cases where multiple Member States need to procure high-energy scanners to inspect incoming shipments at their border, they could work together with the EU to develop standardised technical specifications for the scanners (such as size, scanning capabilities, image resolution, and data export formats) based on common needs. In this way, all countries would ensure that the scanners to be acquired are not only compatible but also meet the same high standards of performance.

As a result of the joint procurement effort, Member States would be able to purchase scanners from the same manufacturer, adhering to the standardised technical specifications. These scanners would be equipped with interchangeable components, such as X-ray sources, detectors, and software interfaces, making them highly interoperable. With interoperable scanners in place, customs officials from all EU countries could seamlessly share and exchange outputs, such as image files and other information. When a shipment arrives at the border, the image could be inspected by the authorities any of the countries involved, and the collected data could easily be shared between their respective customs databases. This interoperability would significantly enhance the efficiency of border operations. Furthermore, the joint procurement, by standardising equipment and facilitating cooperation, would contribute to Customs Union's goal of achieving a uniform level of control across Member States.

At the same time, manufacturers of X-ray scanners would also benefit from this joint procurement approach; with standardised technical specifications and a larger combined order from both countries, they would be able produce the equipment more efficiently, reducing production costs. This, in turn, would lead to cost savings for both countries.

Such benefits seem realistic, but it is also important to point out that they would take time to emerge. This is because (as discussed in sections 4.4 and 4.6) the complexity of joint procurement calls for a gradual approach. This would likely start with relatively simple, hand-held equipment that could be purchased centrally and distributed, rather than high-energy scanners and other large-scale equipment.

4.3.3 Fostering innovation

The questionnaire also showed that 32% of Member States expect that joint procurement would foster innovation "to a great extent" and 20% "to some extent". Cross-border joint procurement can encourage innovation by increasing the size of the market and pool of buyers for economic operators, while also leveraging expertise from multiple countries, thereby harnessing the Single Market to spur innovation. Indeed, this can help offset the risks for individual Member States of purchasing equipment that is innovative rather than 'safer' options they have already deployed at scale. The new strategies of cooperation in public procurement may allow contracting authorities "to derive maximum benefit from the potential of the internal market in terms of economies of scale and risk-benefit sharing".⁵⁰

Joint procurement can also foster innovation in an indirect manner by pooling expertise, promoting / facilitating the purchase of high-quality equipment, allowing the emergence of a strategic vision for the procurement of customs control equipment, and identifying cross-border needs that would require innovative equipment.

⁵⁰ Silvia Ponzio, 2014, Joint procurement and innovation in the new EU Directive and in some EU-funded projects, pp.9-10.

4.3.4 Obtaining lower prices

Obtaining lower prices by jointly purchasing goods and services is one of the main reasons that joint procurement is often promoted by the EU and international organisations. Participating countries can increase the attractiveness of tenders for suppliers through the increase of the volume/value of the goods or services procured while benefiting from greater bargaining power to drive the prices down.⁵¹ Hence, 28% of questionnaire respondents expect “to a great extent” and 36% “to some extent” that joint procurement would allow Member States to obtain lower prices.

This advantage is illustrated by the joint procurement of gas chromatography equipment by the Irish and British customs authorities. This joint purchase allowed the Irish customs administration to procure innovative pieces of equipment which it reportedly could not have obtained in such small quantities, or only at prohibitive prices. Similarly, the stakeholders interviewed in the frame of the case study on the advance purchase agreements of Covid-19 vaccines and literature on the JPA⁵² confirmed that the EU obtained lower process than other countries thanks to the EU-led negotiations.⁵³ ‘Pooling’ equipment needs with other Member States to secure cheaper prices seems to be a proven benefit of (cross-border) joint procurement, in particular for smaller Member States whose limited purchase volume would result in high prices, regardless of the joint procurement model used.

4.3.5 Securing access to equipment

Following a similar logic to the securing of lower prices, individual Member States, especially smaller ones, reportedly face difficulties to secure access to equipment, especially advanced or innovative equipment. For example, during the workshop with national customs authorities organised by the Study Team, one Member State shared that several tenders had never received responses from manufacturers, adding that joint procurement – especially with the involvement of the EU institutions – would support small Member States in accessing the customs control equipment market. Grouping such countries in with other Member States can make them more attractive for suppliers, and thereby help them to obtain the desired equipment. An added benefit is that this would contribute to standardisation.

The expected dynamic was demonstrated in the Irish-British example of joint procurement of gas chromatographers cited above, whereby the supplier would not have been able to produce the equipment in the small volume required by Irish customs. In the health field, it also played out to spectacular effect during the Covid-19 pandemic, to when the use of APAs allowed the EU to purchase a large quantity of vaccines amid the international race to purchase doses with the purchase of 2.5 billion of doses.⁵⁴ As mentioned above, the EU also used the APA to pursue the political objective of guaranteeing the supply of vaccines to all EU Member States as smaller Member States ran the risk of not being able to secure access to them.

⁵¹ Sabine Vogler et al., 2021, 'European collaborations on medicine and vaccine procurement' in Bulletin World Health Organisation, 99, p.715.

⁵² Sabine Vogler et al., *ibid.*

⁵³ At the time of writing this report, no information is publicly available regarding the prices of the COVID-19 vaccines purchased by the EU via APAs but this information was confirmed in an interview with the European Health and Digital Executive Agency (HaDEA).

⁵⁴ Emma McEvoy, 2022, 'Procuring in a pandemic: assessing the use of the EU Public Procurement Directives, the Joint Procurement Agreement and advance purchase agreements' in *Legal quarterly*, 73(2), p.271.

4.3.6 Reducing administrative burden

Joint procurement, including cross-border joint procurement, has been shown to generate economies of scale and organisational efficiencies,⁵⁵ which in principle could contribute to reducing the administrative burden by mutualising some of the tasks such as the preparation of technical and legal specifications, assessment of the bids, award of the bids. Cross-border joint procurement also incentivises Member States to streamline their procurement processes to facilitate collaboration by harmonising regulations and standardising procedures, thus leading to a reduction to administrative burden.⁵⁶ However, while well-documented in the academic literature, few Member States (8% “to a great extent”, 36% “to some extent”) expected this benefit to materialise in practice. One explanation can be that, since cross-border joint procurement has been very little used in the customs domain so far, Member States are expecting a ‘onboarding cost’, i.e., extra efforts to familiarise themselves with the new legal and operational procedures that joint purchases would entail and dealing with multiple legal frameworks and national procurement procedures.

Nonetheless, it is noteworthy that the examples of cross-border joint procurement highlighted that the administrative burden was indeed reportedly reduced for the participating Member States, unless they were leading the joint purchase. In particular in the APA and the JPA, where the European Commission has been the contracting authority, the administrative burden was effectively reduced for Member States. In the frame of the APA, the Commission was in charge of preparing the technical specifications (in collaboration with national experts), drafting the tender documentation, evaluating the bids received, award the contracts, and overseeing the framework contract. It is therefore expected, that although a familiarisation effort is probable, joint procurement presents opportunities for reducing administrative burden in the long run.

4.3.7 Conclusion

(Cross-border) joint procurement, within and outside of the customs control equipment domain, has been proven to live up to the expected benefits regarding e.g., the pooling of resources, reduction of prices, standardisation of equipment, better meeting of needs, and improved market access. Examples of joint procurement show that it also presents opportunities to reduce administrative burdens and encourage innovation. Indeed, this suggests that some of the concerns about joint procurement (discussed in the next section) making public purchases less nimble and more bureaucratic can be less serious than feared if the right approaches are found and once new ways of working take root. To this effect, it is noteworthy that the Member States have combined a certain uneasiness about the practicalities of joint procurement with a high degree of interest. This was in evidence not only in replies to the written questionnaire, but also the results of the interviews in nine Member States, and the workshop on the subject organised for the study, which secured participation from around 50 national officials.

4.4 Weaknesses and threats

Along with the benefits and opportunities of (cross-border) joint procurement, the study team also analysed the weaknesses and threats that joint purchases could present, in order to understand its feasibility and relevance in the context of customs control equipment. The written questionnaire of national customs authorities gave a preliminary idea of the challenges expected (and to a certain

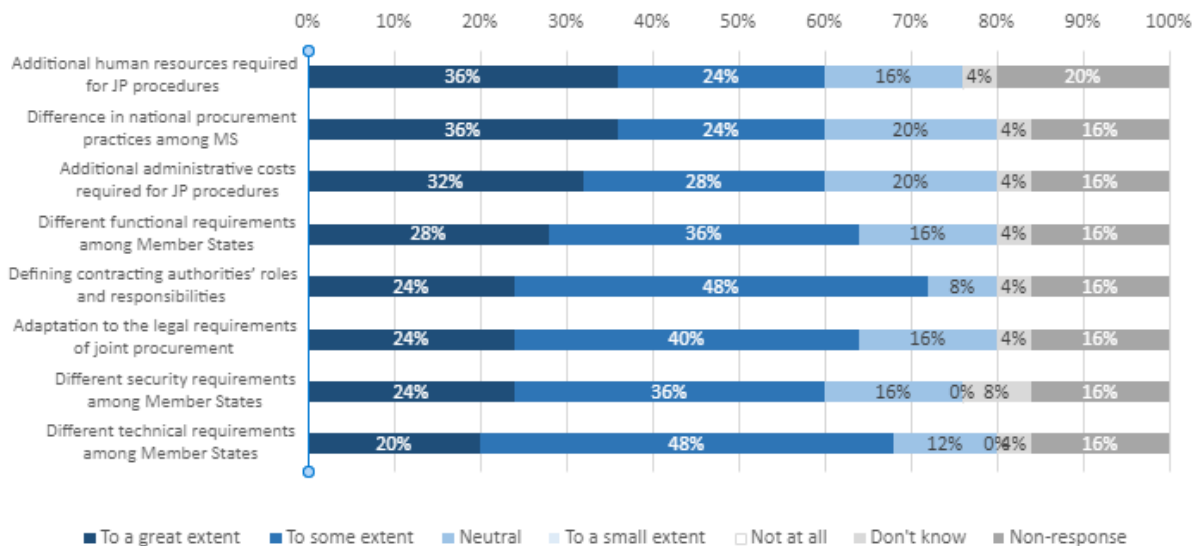
⁵⁵ Albert Sanchez-Graells, 2016, 'Collaborative Cross-Border Procurement in the EU: Future or Utopia?' in *Procurement Law Journal*, vol.1, p.15.

⁵⁶ Luke Butler, Michael Bowsher, and Christopher R. Yukins, 2022, 'No Man Is An Island In Defense Procurement: Developments In EU Defense Procurement Regulation And Its Implications For The U.S', in *GWU Legal Studies Research Paper*, No.2022-70.

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extent, already experienced) from joint procurement. Similar to the previous section, these weaknesses and strengths were further explored through the conduction of a series of nine country reports on national practices (including joint procurement) and three case studies on models of cross-border joint procurement.

Figure 3 Applicability of joint procurement challenges to customs control equipment



Source: Questionnaire of national customs authorities, n=26

4.4.1 Additional administrative costs

The most common concern about cross-border joint procurement relates additional administrative costs, mainly due to the extra human resources expected compared to procurement by just one customs authority. This is shown by the large majorities of questionnaire respondents citing these aspects as challenges of joint procurement. Similarly, when presented with a list of possible *benefits* of joint procurement, the possibility to mutualise administrative work was met with the least enthusiasm (and most scepticism). In other words, as was also clear from the interviews, customs authorities assume cross-border joint procurement involves significant additional hassle.

This assumption goes against the expected benefits of joint procurement, often characterised in the academic literature as an enabler of administrative economies of scale, since participating entities join forces to prepare the tender procedure, instead of requiring multiple, separate procedures for the purchase of similar goods.⁵⁷ Examples from the in-depth research conducted for the study also tend to contradict this negative assumption. Indeed, the use of joint procurement – either at national level between public administrations – or cross-border joint procurement have been shown to alleviate part of the work to be conducted by officials by reducing the need for them to ‘reinvent the wheel’. At the same time, there do seem to be start-up costs for joint procurement, which are associated with familiarisation and the development of new procedures. Changes in administrative burdens are also not evenly felt, depending on the model chosen and how responsibility is allocated across the different actors involved in a joint procurement.

The case of domestic joint procurement within Belgium is particularly indicative of the potential gains and drawbacks in this respect. As mentioned, Belgian federal administrations have the legal obligation to explore joint procurement opportunities between federal administrations. In the past, Belgian

⁵⁷ Organisation for Economic Co-operation and Development, 2021, Toolbox: OECD Reports on Public Procurement.

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customs have procured automatic number plate recognition scanners jointly with the federal police, making the most of an existing framework contract already set up by the federal police. Examples of cross-border joint procurement analysed showed similar efficiency gains, in particular in the cases outside the customs domain where the EU was the contracting authority. In spite of the dedicated and well-known procedure for joint purchases, in the case of a joint procurement, the leading public administration bears additional administrative burden and the process is delayed by an additional 6 to 8 months.

Looking at cross-border joint procurement in the customs field, economies of scale and the distribution of administrative benefits from them can be unclear depending on where the burden lies.⁵⁸ For purchases made on behalf of several Member States, the lead Member State is likely to face an increase of the administrative burden as it will assume a coordinating role in addition to the procurement process. This was reportedly the case for Lithuania when leading the BAXE joint procurement. Additionally, procurement experts have to be involved for a longer period of time as joint procurement processes tend to be longer than 'traditional' ones. Belgian customs officials estimate that their national joint procurement procedure takes an additional 6 to 8 months due to the organisation of alignment meetings between the participating administrations.

Lastly, it is worth highlighting some strategies identified by academics for grappling with the administrative cost challenges of joint procurement: first and foremost, standardised legal and contractual frameworks are essential, providing a common basis for streamlined processes across diverse Member States; within this framework, establishing clear governance structures is crucial for decision-making clarity, while unified procurement procedures ensure consistency; lastly, defining financial arrangements minimises disputes, while dispute resolution mechanisms expedite conflict resolution.⁵⁹

4.4.2 Organisational challenges

In addition to the administrative burden and delays expected by Member States, several organisational challenges are likely to complicate the use of (cross-border) joint procurement:

- procedural challenges;
- uncertainty about maintenance services;
- linguistic issues.

Regarding **procedural challenges**, 36% of questionnaire respondents expect joint procurement to suffer from differences in national procurement practices "to a great extent" and 24% "to some extent", showcasing the point made inter alia by the OECD that joint procurement can add complexity to the process.⁶⁰

The nature and extent of the complexity vary depending on the model of joint procurement. For joint procurement between Member States without an EU institution, in theory this could be simplest because it limits the number of actors to those directly using the equipment. However, working out the rules and procedures between Member States can still be notably complex. Agreement needs to be found on various aspects, from the legal framework governing the purchase and allocation of responsibilities through to the development of specifications and choice of contractor. Different national legislation and ways of working can complicate the process further, even if there is a common understanding of operational needs. Negotiating and reconciling these differences can be time-

⁵⁸ Albert Sanchez-Graells, *ibid.*, p.27.

⁵⁹ SIGMA - Joint Initiative of the EU and the OECD. (2016). In-house Procurement and Public/Public Co-operation. In <https://www.sigmaweb.org/>. SIGMA.

⁶⁰ Organisation for Economic Co-operation and Development, SIGMA, 2016, Brief 39: In-house Procurement and Public/Public Co-operation.

consuming and resource-intensive, especially considering the web of stakeholders who may be involved across countries. All of this can increase the time and cost of a procurement, as well as risking delays.⁶¹ That said, if joint procurement is going to be extremely rare or indeed one-off, this model may still be more efficient from an organisational perspective than coming up with a more elaborate framework involving EU institutions.

However, if a larger volume of joint procurement is foreseen, more models where the EU plays a leading role can be more appropriate. These entail certain up-front costs from an organisational perspective, since the different actors involved need to elaborate and agree on a suitable framework. But afterwards, that framework is in place and can be used to organise purchases relatively smoothly, as was shown in the analysis of the JPA for medical countermeasures.⁶²

Another notable ‘threat’ of joint procurement mentioned by several Member States is **uncertainty regarding the delivery of maintenance and training services**. Oftentimes, the procurement of complex pieces of customs control equipment such as scanners is bundled with the provision of maintenance and training services by the manufacturer. In the case of cross-border joint procurement, several Member States flagged the risk of heterogeneity regarding the provision of such services. The successful tenderer might not have the linguistic and geographical coverage necessary to maintain the equipment and train personnel in all participating countries. One solution mentioned by a workshop participant is to allow tenderers to bid jointly (through consortia for instance) as it is allowed by the EU Directive on public procurement. A concrete example given was the recent purchase of Raman spectrometers by the Slovenian customs authorities with a Slovenian company, although the maintenance services will be provided by a Czech company.

The question of **linguistic barriers** is also important regarding the collaboration between Member States throughout the joint procurement procedure and can add complexity to the process in the case of linguistic requirements in national legislations.⁶³ For instance, it is required by Belgian law that all tender documentation is available both in French and Dutch. Some other Member States also have legal requirements related to language in public procurement. These requirements must be taken into account to ensure compliance with national laws, and in cases of joint procurement may mean publishing documentation and allowing tenders in many languages. On the other hand, conducting procurement processes only in English, or a small number of major languages, could raise concerns of transparency and make it difficult for some firms to take part.

Finally, negotiation of procurement procedures by EU institutions inevitably leads to a decrease of Member States’ control over the procurement process. While this was not identified as a problem in the case of the JPA (maybe due to the flexibility of the mechanism), the use of APA to purchase Covid-19 vaccines attracted some criticism for a perceived lack of transparency.⁶⁴ Specifically, the critics argued that the negotiations between governments and vaccine manufacturers were shrouded in secrecy, making it difficult for the public to access information about the terms and conditions of the contracts. This lack of scrutiny made it hard to gauge whether the agreements were in the public interest. Moreover, many APAs included non-disclosure clauses that prevented governments from sharing detailed information about the contracts, including pricing, delivery schedules, and liability clauses. This made it challenging for the public to evaluate whether governments were getting value for money and whether vaccine manufacturers were being held accountable for any issues. Lastly, in

⁶¹ Luke Butler, *ibid.*

⁶² Notably, this JPA allows Member States to join and withdraw from procedures until a contract is awarded, and does not preclude purchases of similar products by individual countries. This was found to have both benefits (flexibility lowers the risks of participation) and drawbacks (late changes can lead to delays, and parallel negotiations can undermine the bargaining power inherent in joint procurement).

⁶³ Silvia Ponzio, *ibid.*, p.4.

⁶⁴ Emma McEvoy, *ibid.*, p.282.

some cases, governments signed exclusive agreements with specific vaccine manufacturers, limiting competition and potentially affecting the availability and affordability of vaccines. However, it can be assumed that the nature of the goods procured – Covid-19 vaccines – contributed to the secrecy of the negotiations as intellectual property and pricing strategies stakes were higher given the context of an international competition to purchase vaccine doses.

4.4.3 Legal constraints

A majority of Member States providing feedback in the questionnaire raised concerns regarding **national legal obligations** that could prevent customs administrations from participating in cross-border joint procurement. This is reflected in the questionnaire results as 24% of respondents expect the legal constraints to be a challenge of joint procurement “to a great extent” and 40% “to some extent”. In the healthcare domain, which is the most advanced in terms of joint procurement at EU level, legal, institutional, and organisational differences between healthcare systems in the EU are a constant challenge to joint procurement and can require changes in the national legislations to be alleviated.⁶⁵ For instance, Member States have different applicable legislation in case of problems with the procurement process regarding delivery delays and penalties, and different finance inspection processes. These differences could create uncertainty about which national legislation would apply unless this is defined as part of the joint procurement arrangement. Literature on joint procurement in other domains such as the defence sector also highlights the differences of national legislative frameworks as a potential obstacle to joint procurement.⁶⁶

- Relatedly, procurement processes include **various requirements that can create complexity when the specificities of several or many countries need to be adhered to at the same time**. Examples that emerged from the research included the need to obtain budgetary appropriations according to the requirements and timescales of multiple Member States, and to publish procurement information on multiple national platforms, in the national languages of all countries involved, while accepting tenders in all of these languages. Additional requirements that are applied to public procurement in some Member States, such as on warranties, could also need to be reconciled. Such issues were not described as ‘dealbreakers’, but rather as obstacles that could pile up and make joint procurement more burdensome and time-consuming.

Interestingly, several Member States hoped that, if led by an EU institution, certain national legal requirements would not need to be applied. They saw this as a key justification for EU-led procurement models, which would (hopefully) have the related benefit of spurring further harmonisation in areas where rules still differ, creating a virtuous circle that would lower barriers even further.

4.4.4 Divergent functional and technical requirements

Although customs administrations procure the same type of equipment, a large number of Member States interviewed highlighted that requirements are defined on a case-by-case basis and are often country specific. Therefore, the joint elaboration of technical specifications is likely to be difficult in some cases. This was evident from the questionnaire results, which showed that 28% of respondents expect joint procurement to be difficult due to divergences in functional requirements “to a great extent” and 36% “to some extent”, while 20% expect joint procurement to be difficult due to divergent technical requirements “to a great extent” and 48% “to some extent”. Such functional and technical requirements can include: size and weight requirements to adapt to the location of the equipment, ensure compatibility with legacy IT infrastructure, as well as compliance with country-specific health

⁶⁵ Sabine Vogler et al., *ibid.*, p.718

⁶⁶ Luke Butler, *ibid.*

and safety obligations, in particular with X-ray scanners. Solutions may be found in many cases (e.g., by adopting the safety standards of the strictest Member State involved in a joint purchase), and joint procurement itself can be a driver of convergence and standardisation that would address the problem. Nonetheless, different requirements are likely to pose an initial practical challenge.

4.4.5 Conclusion

As mentioned in previous sections, (cross-border) joint procurement has rarely been used to purchase customs control equipment. This can be explained in part by the relative scarcity of joint procurement in general. But it also stems from a number of specific challenges faced by customs administrations that in principle are willing to purchase jointly, such as the need to ensure the process complies with all relevant procurement legislation and rules at national level, expectations for increased administrative complexity and lengthier tendering processes, and divergence in terms of functional and technical requirements.

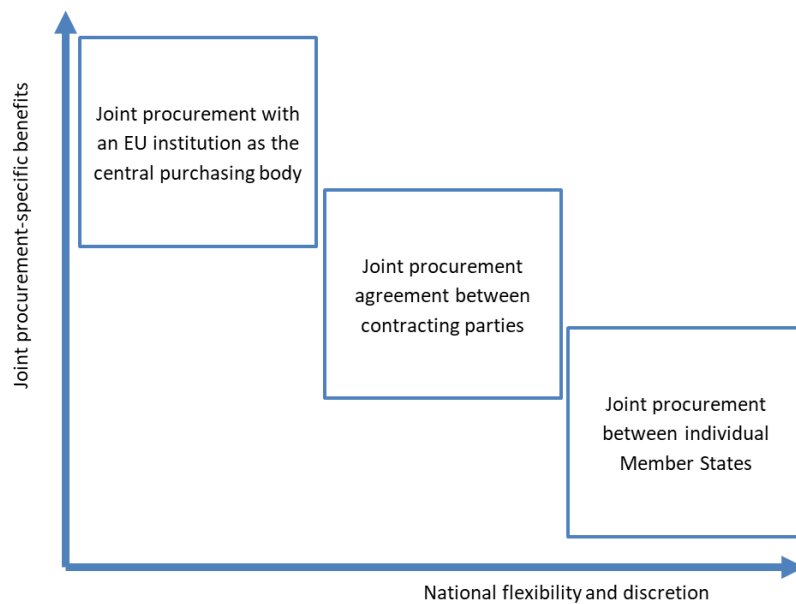
However, the evidence also suggests that these challenges can be overcome, and are worth addressing, when the participating countries share common needs. In these cases, the benefits brought by the cross-border joint procurement outweigh the drawbacks, which can be tackled and reduced through fluid communication, efficient coordination mechanisms among the participating countries, and by investing time and efforts to familiarise Member States with the new procedures.

4.5 Cross-cutting issue – choosing between models of joint procurement

Having analysed joint procurement from several perspectives, it is also important to highlight that the models of joint procurement have different advantages and disadvantages. In essence, the greater the level of centralisation, the greater the potential benefits. This is because of the possibility to involve more Member States, rationalise administrative processes and achieve economies of scale in terms of both operational aspects (e.g., interoperability) and prices. However, this comes at a cost, namely the flexibility for Member States to make individual choices.

The dynamic at play is illustrated in the simple figure below, then briefly summarised for each model of joint procurement. As shown, procurement with an EU institution as the contracting party and procurement between individual Member States as two ends of a scale; JPAs, which involve an EU institution but allow Member States to opt into specific purchases, fall somewhere in the middle.

Figure 4: Key trade-off of models of joint procurement



Source: Authors' elaboration

- Procurement among Member States:** for a one-off purchase, joint procurement between Member States without the involvement of an EU institution can offer greater flexibility and simplicity from an operational viewpoint, as it usually involves a small number of Member States (2-3 in the examples analysed), meaning fewer stakeholders to coordinate and fewer legal and practical challenges to resolve. On the other hand, the scale of benefits is also limited by the small number of Member States and volumes of equipment involved. Since one Member State typically has to lead the process, it bears the brunt of the administrative and coordination costs, while the lack of an overarching framework for cooperation using this model entails reinventing the terms for cooperation (e.g., by defining them each time in a new Memorandum of Understanding).
- Joint procurement agreements:** JPAs offer the advantages of scale (e.g., potential to involve more Member States and achieve higher bargaining power, the reduction of Member States' individual administrative burden) coupled with a high level of flexibility (since participation in specific purchases is voluntary). This can be a good 'compromise solution' for joint procurement, since, once in place, it can be used as a facility whenever multiple Member States express interest in joint purchases. Usage can also be ramped up over time, as Member States learn from experience and (hopefully) success begets further success. On the other hand, it would be important to find ways to encourage and incentivise uptake, against the risk of a long delay before a 'critical mass' of use is attained. The level of flexibility chosen also necessarily entails trade-offs and an appropriate balance needs to be found based on the priorities of the stakeholders involved. This was shown in the JPA for medical countermeasures, which allows Member States to purchase the same products both individually and through the JPA. This may increase uptake because the Member States need not worry about their hands being tied. At the same time, it reduces the Commission's bargaining power, undermining part of the rationale for the JPA in the first place.
- EU institution as contracting authority:** benefits on the largest scale can be expected from procurement led by an EU institution (such as the Commission or future EU Customs Agency), since this offers the possibility to maximise economies of scale and operational synergies. However, this model would strictly limit the wiggle room for individual Member States,

meaning that this model is likely to be feasible only after testing, once smaller-scale initiatives have achieved a high level of buy in for the joint procurement concept, and / or in a future scenario where changes to the Customs Union governance model place more responsibility for customs control equipment at the EU level. It is also more naturally applicable to types of equipment whose key features can be fully standardised and used throughout the EU.

4.6 Overarching conclusions and recommendations – ‘roadmap’ towards joint procurement

Joint procurement has attracted a lot of attention in recent years for its potential to bring various operational and financial benefits. The evidence from the study also suggests that these benefits do materialise when joint procurement is tried in practice. However, by scratching below the surface, the study also showed that real-life examples are small in number and narrow in scope, especially but not only in the field of customs control equipment. There are many reasons for this, not least a natural reticence among Member States to depart from tried and tested approaches when fundamental national responsibilities such as border security are at stake.

Nonetheless, the study uncovered **significant interest from customs authorities and manufacturers** to discuss and learn more about the benefits, and – among the small number of interviewees with joint procurement experience – to promote achievements already made. This was clear from the high response rates and replies to the various data collection tools, as well as the largely enthusiastic reception from the circa 50 customs officials participating in the study team’s workshop on the subject.

A consensus emerged in the workshop to **recognise that joint procurement could generate several welcome benefits**, such as the opportunity to pool expertise, better meet common operational needs, foster standardisation and interoperability, lower prices, and obtain better access to scarce equipment (especially for smaller Member States). Still, it was also clear that **many Member States also were uncertain about feasibility and preoccupied by practical and legal challenges** that could hinder the realisation of cross-border joint procurement in the short-term, such as expectations of increased complexity, heavy administration, and difficulties to deal with different national requirements. Taking a step back, it was obvious from the questionnaire and interviews that customs authorities are broadly satisfied with their approaches to procurement. This means that officials are unlikely to favour – or put their credibility on the line – for major changes unless the business case is ironclad.

For these reasons, the study recognises that **the road to joint procurement is necessarily a gradual and challenging one**, more like mountaineering (with stops at intermediate camps to recharge and plan for the next stage) than a simple hike in rolling hills. This means taking a gradual approach based on principles like starting small, building on existing networks and operational links, proactive communication and testing concepts before deciding whether and in what circumstances to scale them up.

These principles are encapsulated in the **‘roadmap’ towards joint procurement that is presented below**. It is considered against the backdrop of CCEI and a potential successor programme, and consists of three cumulative steps for consideration over the short-, medium- and long-term. Distinct actions are suggested for the Commission and for the Member States.

The **exact timeframe** will depend on the amount of attention that can be put into joint procurement during the coming years, as well as evidence of success (or lack thereof) from the initial efforts and the effects of this on the will to move forward. Other factors could also play a role, particularly the envisaged reform of the Customs Union, which could extend EU responsibilities for customs operations. Roughly, it is expected that the first, short-term step would run for at least 2024 and 2025. During this time, a new CCEI call for proposals will be active, giving customs authorities the opportunity

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to apply for support for additional customs control equipment. However, since it is already known that this call will not place special emphasis on joint procurement, it seems sensible to focus on foundational aspects aimed at stock-taking, exploratory discussions, the discovery of areas for cooperation, establishing partnerships and awareness-raising.

Over the medium-term, the second step is characterised by gaining experience through pilot projects. Such projects could be built into future CCEI calls for the last part of the current budget period, for 2026 and 2027. However, it is unclear when or even whether progress would be made beyond this step, because further decisions will depend on the evidence from pilot projects and the extent to which they are successful. Since the related purchases of customs control equipment and assessments of these experiences will naturally take considerable time, it is expected that this step will last at least until well into the post-2027 funding period. A third step towards scaling up joint procurement could then be launched if the evidence and political will are sufficient.

Step 1 – Stock-taking and awareness-raising (short-term). The aim of this step is to make key officials in national customs authorities aware of the benefits and feasibility of joint procurement, and to take stock of pre-conditions and enabling action that would be needed (e.g., through setting standards for certain types of equipment). This would serve to build motivation, enthusiasm and willingness to consider it in practice. The initial work has started in the form of this study and related efforts in the CCEI Coordination Group, which is already playing a vital role as a forum to pool expertise, facilitate the identification of common needs and share experience and guidance.

Actions for the Commission as part of this step could include:

- Sharing and publicising the results of the of the present study;
- Using meetings of the CCEI Coordination Group to facilitate the collection of further views concerning the expected benefits of and barriers to joint procurement;
- As part of the technical work on customs control equipment itself (which is in part being served by a parallel study to this one), identifying types of equipment for which common standards could be developed, since these can be both a benefit and an enabler of joint procurement, and working with the Member States to take this forward;
- Communicating about the likely evolution of plans for joint procurement and how CCEI / its successor programme could encourage this;
- Encouraging individual Member States and teams of Member States willing to try joint procurement at this early stage to do so using CCEI funding;
- Monitoring developments of joint procurement in other policy fields.

Actions for the Member States (CCEI Coordination Group members) as part of this step could include:

- Recording views, initial areas of common interest and preferences/priorities on the future of joint procurement, with a focus on articulating preferred outcomes over the short-, medium- and long-term; this could take the form of a deliverable of the CCEI working group on procurement;
- Coming up with and proposing actions to address the challenges / barriers to joint procurement, such as agreeing mutual recognition or harmonisation of safety standards or dealing with maintenance arrangements;
- Sharing within the CCEI Coordination Group insight on types of equipment that could potentially be standardised across the EU or sub-sets of Member States;
- ‘Selling’ the idea of joint procurement to the leadership in national customs authorities;

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- Using the CCEI Coordination Group to identify common needs and a list of ideas for pilot projects in joint procurement that could be implemented in the current and next CCEI calls, forming ad hoc partnerships to take the ideas forward as appropriate. The study findings indicate that the best candidates for pilot projects would involve (often neighbouring) Member States who already collaborate closely and share common needs. In terms of the type of equipment, the 'lowest hanging fruit' would most likely concern small-scale equipment such as hand-held scanners that tend to be deployed in large numbers, enabling economies of scale.

The **output** of this step could be a strategy within the CCEI Coordination Group to outline the approach to the next step, including such aspects as types of equipment that could potentially be jointly procured and initial ideas for pilot projects, which could in turn feed into the next CCEI call for proposals.

Step 2 – Piloting (medium-term). This second step is about gaining practical experience through pilot projects using joint procurement and learning lessons from these that can be used to determine the viability of joint procurement in different circumstances / for different types of equipment.

Actions for the Commission as part of this step could include:

- Promoting joint procurement in a CCEI call for proposals, either through dedicating a specific proportion of the budget to joint procurement pilot projects, and / or by offering more attractive conditions to proposals based on joint procurement;
- Developing a framework to assess the results of pilot projects in joint procurement, e.g., by defining indicators of success, costs and benefits, and the kinds of evidence that should be collected and reported on, and synthesising the results (either internally or with an external study);
- Collecting input from the Member States (with the help of the CCEI Coordination Group, see below) on preferences (e.g., to identify the type of equipment most suitable to JP) and views on the longer-term approach to be taken, bearing in mind that the benefits of joint procurement at scale is likely to rely either on a JPA or procurement that is EU-led, or with the EU at least providing guidelines / setting standards or playing a coordinating role;
- Considering the evidence with a view to taking decisions about whether joint procurement should be scaled up, and if so what the framework for this should be and how it should relate to a future iteration of CCEI. This could involve commissioning a study to feed into an impact assessment for a future budget period, which would compare the impacts with the status quo of mainly national procurement.

Actions for the Member States (CCEI Coordination Group members) as part of this step could include:

- Working with the Commission to agree the framework for recording experiences with joint procurement pilot projects;
- Engaging in as many joint procurement pilot projects as possible, involving different combinations of Member States and types of customs control equipment, and recording data on experiences, costs and benefits and the results achieved; the data could be presented in the form of a deliverable of the working group on procurement;
- Providing the Commission with input (potentially as a procurement working group deliverable) on long-term preferences for joint procurement, in terms of such aspects as the model to be pursued, the types of procurement to be prioritised and the proportion of the budget of a CCEI successor programme to be devoted to joint procurement;

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- Taking stock of any actions that would be needed at national level to facilitate joint procurement and feeding into any consultation activities in the frame of a potential impact assessment on a future iteration of CCEI.

The **output** of this step would include an assessment of the results of the pilot projects and other evidence and analysis needed to decide on the next step.

Step 3 – Defining the longer-term approach (long-term). The course of action at this stage is necessarily uncertain and dependent on the previous steps. The key point is that it will involve taking stock of the previous experiences and any other relevant developments to decide on an approach to joint procurement for the longer term.

Indeed, it is important to emphasise that the future situation will be heavily influenced by such developments, particularly the proposed EU Customs Reform, where initiatives such as a ‘EU Data Hub’ and ‘EU Customs Authority’ will contribute to the harmonisation and interoperability of customs operations, including namely "providing support to the Commission for developing and implementing an operational strategy for activities relating to the allocation, funding and procurement of control equipment, including the assessment of needs, joint procurement and co-sharing of equipment" (article 209 as per Commission proposal). This could also include the domains of risk management and control policy, based on new technologies which will tend towards fully automated customs control procedures based on EU standards. These will ideally be supported by interoperable, connected Customs control equipment. This new approach could favour and indeed depend on joint procurement as a way to improve collaboration and interoperability, and turn the high-level policy ambitions into future reality.

Overall, **three broad scenarios** can be envisaged, reflecting different levels of ambition:

1. **Scaling up:** if the evidence suggests that joint procurement should be more widely applied, then efforts could be focused on scaling up in priority areas. This could involve building a JPA into the Regulation for a future CCEI programme or other appropriate legislation, working with the Member States to develop and adopt any necessary corresponding legal changes, adopting any additional necessary guidelines and / or standards, and reflecting about establishing or extending the role of a future authority for coordination or even acting as the contracting authority.
2. **Continued joint procurement at a moderate level:** another eventuality, in a less ambitious setting, is that the piloting shows joint procurement to be suitable to specific, fairly limited sets of circumstances. In such a case, efforts could be devoted to going beyond the ‘pilot’ phase to firmly establish joint procurement as the way that customs control equipment is purchased in certain circumstances / for certain types of equipment, and to ensuring that customs authorities notice and take advantage of them (e.g., via dedicated CCEI budget lines and communication in the CCEI Coordination Group).
3. **Limited intervention:** if joint procurement is found to add limited value, and / or if the benefits are best achieved between small groups of Member States, then the Commission could take a backseat role. Nonetheless, it should still continue to promote coordination and knowledge-sharing among Member States, which could at some stage lead to closer cooperation and / or the a newfound willingness to try joint procurement in the future.

Finally, regardless of the scenario pursued, it will be **important for the Commission and Member States to keep abreast of the evolving circumstances** and to be ready to adjust when appropriate. For example, if some of the key costs / drawbacks to joint procurement are circumstantial (e.g., specific security concerns, varying safety standards, lack of operational cooperation), then it may become more viable when conditions change.

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