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**REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND
THE COUNCIL**

**pursuant to Article 278a of the Union Customs Code, on progress in developing the
electronic systems provided for under the Code**

{SWD(2019) 434 final}

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1. INTRODUCTION

The Union Customs Code (UCC)¹, which is the main legal framework for customs rules and procedures in the EU customs territory, prescribes moving fully to a paperless environment for customs formalities. The use of electronic systems for all interactions between economic operators and customs authorities reduces administrative costs and red tape and leverages the role of customs to support the competitiveness of European business. At the same time automated processes in the electronic systems allow for reinforced collaboration among customs authorities and interoperability between the different electronic systems which should provide better protection of financial and economic interests and greater protection against fraud, security and safety risks and import point shopping.

To achieve this objective, the UCC requires the European Commission and the Member States to upgrade most of the existing electronic systems, interconnect some of these systems at trans-European level and introduce a number of new systems to complete the full automation of the customs procedures and formalities. Article 280 of the UCC refers to the obligation to establish a UCC Work Programme² (UCC WP) which lists all the UCC projects and systems and the envisaged dates for deployment. In total, the UCC WP defines the upgrading or creation of fourteen trans-European systems and three purely national systems.

This first annual report from the Commission on progress in developing the electronic systems describes the developments since the UCC entered into force. For this purpose, it draws on the UCC WP which sets out a phased and coherent timetable reflecting the stages of development for each of the seventeen electronic systems and which is considered as the baseline for reporting progress.

The projects listed in the UCC WP can be divided into three system categories:

- i) eleven trans-European central systems to be developed or upgraded by the Commission (often also requiring developments or upgrades by the Member States of national systems);
- ii) three decentralised trans-European systems that have to be developed or upgraded by the Commission but have a major national component to be implemented by the Member States; and
- iii) three national systems that have to be developed or upgraded by the Member States themselves.

This report analyses the progress for all three system types, outlining also the objectives to be met by each project, the project architecture and the planning approach. On that basis, it highlights potential delays as well as mitigating measures envisaged. The overall assessment of the progress of the implementation of the UCC WP is summarised in the conclusion section of this report.

2. BACKGROUND

The UCC entered into force on 1 May 2016 and set an initial deadline of 31 December 2020 for the progressive completion of the work in terms of IT transition and implementation. Article 278 of the UCC provides that existing electronic and paper-based systems can

¹The UCC was adopted on 9 October 2013 as Regulation (EU) No 952/2013 of the European Parliament and of the Council. Its legal package consists of the following: the UCC Delegated Act, the UCC Implementing Act, the UCC Transitional Delegated Act, the UCC Implementing Act on technical arrangements, and the UCC Work Programme.

²Article 280 UCC and European Commission Implementing Decision No 2016/578, currently being updated.

continue to be used for the completion of customs formalities (the so-called ‘transitional measures’) until the relevant new or upgraded electronic systems envisaged under the UCC are operational.

The Council and the European Parliament adopted a Regulation in early 2019³ establishing new deadlines of 2020, 2022 and 2025 for cessation of the use of transitional arrangements and therefore the relevant electronic systems must be in place by the same deadlines. Article 278(a) requires the European Commission to provide an annual report on progress with deployment of the outstanding systems.

As the first annual report is due by 31 December 2019, the Commission decided to collect information on such progress **based on (1) reports that Member States are required to provide twice a year and (2) a survey circulated among its services and among the Member States.** The survey asked recipients to indicate any known delays in the planning schedules for the electronic systems. The national plans as well as the progress information from the survey to the Member States reflects mainly the situation at the end of June 2019. The data yielded from the survey are both quantitative in the form of deadlines and milestones met or missed, and qualitative in the form of detailed descriptions regarding the challenges faced, the anticipated risks and the estimated complexity of the projects.

3. GLOBAL OVERVIEW OF PROGRESS WITH THE UCC ELECTRONIC SYSTEMS

The work of developing IT systems involves several phases. First, a business case is prepared, which provides the project justification and defines budgetary requirements. Typically, the business case would include the business context, problem description, project description and scope, possible alternative solutions, costs and timescale. Next a vision document is produced, which provides more detailed information regarding the project definition in terms of architecture, cost, time, and risk, as well as information such as milestones, deliverables and project organisation. Subsequently, Business Process Modelling, the practice whereby the business processes from the legislation are graphically represented in process flows or process models is used to help develop the functional specifications for the systems. The benefit of graphically depicting process models is to enable common understanding and analysis. In this context the technical specifications are developed which identify in more detail how the system will be constructed, the architecture to be used, the messages to be submitted by economic operators, the interfaces to other systems, test plans etc.

The Commission and the Member States meet regularly to define and agree these project documents for each trans-European system, systematically involving consultations with the trade community through the Trade Contact Group. A major challenge is to ensure that existing systems continue to function smoothly while the new systems are under development and to ensure smooth IT transitions from existing systems to upgraded ones. This is vital so that trade and customs operations do not come to a standstill.

The Commission has successfully upgraded or deployed six central systems and will complete two further central systems by 31 December 2020. Thus, in total, by end 2020, the Commission will have completed eight of the fourteen trans-European systems for which it is responsible. The six remaining trans-European projects, three of which are

³ Regulation (EU) 2019/632 of the European Parliament and of the Council of 17 April 2019 amending Regulation (EU) No 952/2013 to prolong the transitional use of means other than the electronic data-processing techniques provided for in the Union Customs Code (OJ L 111, 25.4.2019, p. 54–58).

decentralised and include major components for completion by Member States, are on track for the deadlines agreed in the context of the UCC, UCC WP and MASP-C 2019. The activities performed by the Commission so far represent about 62% of its development work due by 2025 as represented in the graph below.

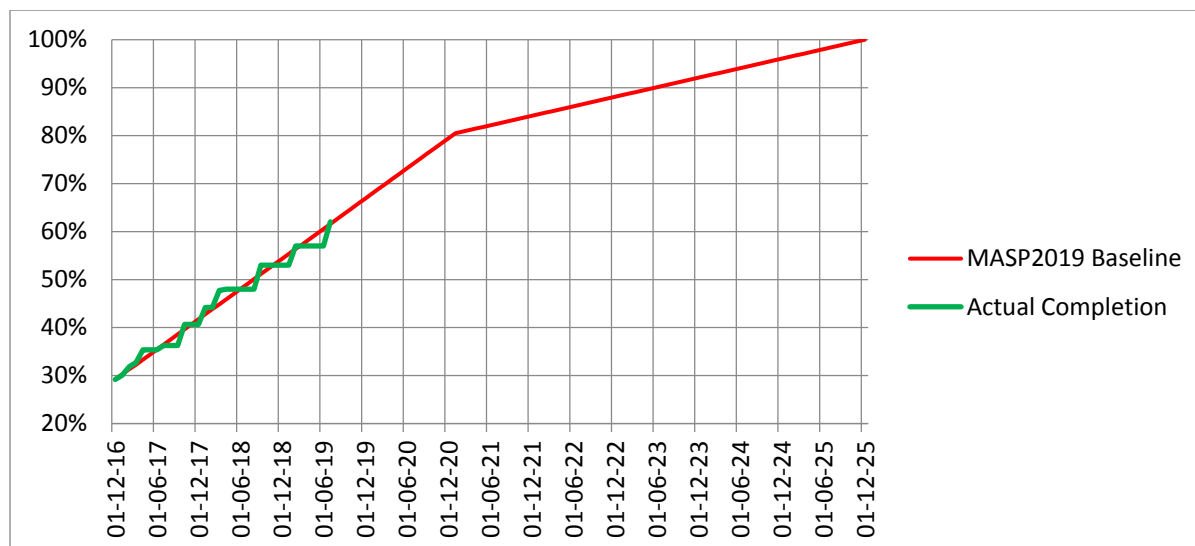


Fig 1: Percentage of achievement of Commission tasks in the implementation of the UCC WP

Member States are due to complete the upgrade of their three national systems by 2022, other than the export component of the National Special Procedures system, which is closely linked to the trans-European Automated Export System and therefore should be deployed at the same time as the latter.

The six completed trans-European central systems (new systems and upgrades) are as follows:

- **UCC Registered Exporter System - REX (new):** makes available up-to-date information on both registered exporters established in GSP countries (countries that benefit from the EU's Generalised Scheme of Preferences that provides preferential access to the EU market) and European Union operators exporting to GSP countries and certain other countries. A first phase of the system, REX1, was deployed in 2015 even before the UCC entered into force and the full system, REX2, was successfully deployed in 2018.
- **UCC Customs Decisions - CDS (new):** aims to harmonise across the Union the processes for customs decisions related to the application of customs legislation, by allowing for the electronic submission of applications through a unique European customs trader portal, by facilitating consultations among customs authorities during the decision-taking period and the management of the authorisations process. This system was successfully deployed in 2017.
- **Direct Trader Access to the European Information Systems – UUM&DS (Uniform User Management & Digital Signature)(new):** aims to provide a technical enabler for authentication and user management of economic operators and allows for the implementation of the EU-harmonised trader access to the different

electronic customs systems provided for in the UCC. This system **was successfully deployed in 2017**.

- **UCC Economic Operator Registration and Identification System Upgrade – EORI** (upgrade): aims at providing a minor upgrade to the existing system that enables the registration and identification of economic operators of the Union and third country persons active in customs matters in the Union. This upgrade of the existing system **was successfully deployed in 2018**.
- **UCC Surveillance 3 – SURV3** (upgrade): aims to upgrade, so as to align with UCC requirements, the existing database that records and centralises all EU trade data (imports and exports) provided on a daily basis by the national customs authorities. This upgrade of the existing system **was successfully deployed in October 2018**. However, full implementation of this project requires the deployment of Member States' upgraded import and export system (see projects below).
- **UCC Binding Tariff Information – BTI** (upgrade): aims to align with UCC rules the long-standing database that contains all binding tariff information issued by customs authorities of Member States. Steps 1 and 2 were completed by October 2017. The second phase faced a delay of two quarters during the elaboration phase. Nevertheless, the overall planning remained on target and the UCC aligned eBTI system **was completed in October 2019**. This entailed also the construction of the access to this system through the EU Customs Trader Portal.

The two trans-European central systems that should be completed by 31 December 2020 pursuant to Article 278(1) UCC are:

- **UCC Authorised Economic Operators – AEO** (upgrade): aims to improve the business processes related to AEO applications and authorisations taking account of the legislative changes in the UCC. Phase 1 was completed on 5 March 2018 and phase 2, part 1 was completed on 1 October 2019, including the new UCC requirements in terms of electronic submission through the EU Customs Trader Portal and the changes in relation to the decision-taking process. Phase 2, part 2 (subsequent processes) **is planned for 16 December 2019**.
- **UCC Information Sheets for Special Procedures - INF** (new): develops a new system to support and streamline the processes of data management and the electronic handling of data required in connection with the customs formality known as Special Procedures. The technical specifications were completed on 30 June 2018. No risks have been identified for **deployment by 1 June 2020**.

The three Member States' systems that are due by 31 December 2022 pursuant to Article 278(2) UCC are as follows:

- **UCC Notification of Arrival (NA), Presentation Notification (PN), and Temporary Storage (TS)** (upgrade): defines the automation of processes at national level in respect of Notifications of Arrival of means of transport, Presentation of goods and declarations for Temporary Storage, as described in the UCC, and supports harmonisation across the Member States as regards the data exchange between trade and customs. Belgium has established a collaboration initiative with 12 other interested Member States in order to prepare specifications. An expert team, co-funded by the Customs 2020 Programme, will continue

delivering the appropriate technical documentation. So far, no delays have materialised. However, risks for delays have been pointed out by a few Member States as referred to in the Member States national planning and progress information.

- **UCC National Import Systems – NIS:** (upgrade) aims at implementing all process and data requirements deriving from the UCC which relate to imports. Member States must develop technical specifications at their level as a first step towards the completion of the systems. They have informed the Commission that these specifications are in progress and should be completed by various dates up to 1 July 2021. So far, no delays have been reported, as regards the 2022 deadline.
- **UCC Special Procedures (SP)** (upgrade): aims at harmonisation and facilitation of special procedures (customs warehousing, end-use, temporary admission and inward and outward processing). Member States will have to implement in their national systems all UCC changes required for these special procedures. The first (export) component of the SP will be implemented in-line with and as part of the national UCC Automated Export System (AES) project (with a 2025 deadline), while the second (import) component will be part of the upgrade of the National Import Systems (with a 2022 deadline). Five Member States have started working on the technical specifications for Component 1. Five Member States have completed the technical specifications for Component 2 while eight others are in progress. New functionalities, a new data structure and a transitional period all contribute to the complexity of this project. Furthermore, delays may be triggered by the interdependencies with AES and the National Import Systems Upgrade. So far, no risks have materialised, and the first deadline is now 2022.

The six trans-European projects with their specific architecture, requiring in some cases a combination of central and national components or linked to a national system, and containing sometimes more than one phase or project component, due by 31 December 2025 pursuant to Article 278(3) UCC are as follows:

- **UCC Guarantee Management – GUM** (new): aims to allow a real time allocation and management across the EU of comprehensive customs guarantees that traders lodge where there are risks that duties might not be paid. The technical specifications are planned to be completed by 30 September 2022 for the project Component 1 related to the *trans-European GUM* and 30 November 2024 for the project Component 2 related to the *National Guarantee Management system*. The project has just started.
- **UCC Import Control System Upgrade – ICS2** (upgrade): aims to strengthen the safety and security of the supply chain by means of improving data quality, data filing, data availability and data sharing in regard to pre-arrival notifications (“Entry Summary Declarations”) and related risk and control information. The technical specifications were completed on 30 June 2018 so work is on track and no risks for delays are reported. The project will be delivered in three releases to allow a feasible transition per mode of transport.
- **UCC Proof of Union Status - PoUS** (new): will store, manage and retrieve all declarations that traders provide to prove the Union status of their goods. This project can be deployed either centrally or nationally but many Member States have explicitly conveyed their intention to use the central system developed by the European Commission. In view of the dependency between the implementation of

the UCC customs goods manifest as a proof of Union status and of the European Maritime Single Window the project in two phases to avoid inconsistency and reduce risks. For those Member States that prefer to deploy a system component nationally, they reported to have difficulty in predicting if their implementation will follow the timeline indicated in the Work Programme due to the early project stage.

- **UCC Centralised Clearance for Import – CCI (new):** aims to coordinate between relevant customs offices the processing of customs declarations and the authorisation to release goods so that economic operators can centralise their dealings with customs authorities. The system will be based on the new national import systems and enable an automated functioning of the centralised clearance process at European level. The functional specifications for CCI Phase 1 have been approved in March 2019, so the project is on track. The technical specifications should be completed by 30 September 2020 for Phase 1 and 30 June 2022 for Phase 2.
- **UCC New Computerised Transit System – NCTS (upgrade):** The New Computerised Transit System aligns the existing Union and common transit system to the new UCC requirements, the alignment of information exchanges to UCC data requirements and the upgrade and development of interfaces with other systems. So far, no delays have materialised for *NCTS Phase 5*, the technical specifications were completed in December 2019 and the project is currently on track. The plan is to finalise the business case for *NCTS Phase 6* (interconnection with other systems) in 2020.
- **UCC Automated Export System – AES (upgrade of both the existing trans-European system and of the existing National Export Systems):** aims to implement the UCC requirements for export and exit of goods. The project related to the *trans-European AES* (project Component 1) entails implementing the UCC simplifications offered to trade to facilitate export of goods for European companies, such as centralised clearance, and the UCC obligations to better monitor what exits the EU customs territory to prevent fraud. So far, no delays have materialised, the technical specifications for Component 1 (Trans-European AES) were completed in December 2019 and the project is currently on track. For the project Component 2 as regards the *National Export Systems upgrade*, the technical specifications should be completed by 1 September 2022. Member States should complete the Export Component of their Special Procedures systems (see above) at the same time as the AES.

Risks for delays

In 2018, the European Court of Auditors looked at the reasons for the delays in delivering the electronic systems of the UCC in their Special Report N°26⁴. They highlighted that the delays were due to several factors, in particular: changing project scope, insufficient resources allocated by the EU and Member States, and a lengthy decision-making process due to the multi-layered governance structure. They also noted that the Commission did not report appropriately on delays, and that the Customs 2020 programme objectives and reporting arrangements were not suitable for monitoring the implementation. Meanwhile the

⁴ European Court of Auditors (2018) *A series of delays in Customs IT systems: what went wrong?*

Commission and the Member States have taken important steps in improving oversight of implementation and delivering and as such are now in a better position to avoid risks of further delays in the implementation of the UCC WP and ensure follow up to the recommendations in the Special Report.

On a general note, it should be kept in mind that any new political initiatives adopted between now and 2025 that impose obligations on customs systems would risk leading to a delay in the completion of the UCC electronic systems by the relevant deadlines. The world is changing rapidly and it may become crucial – for example for safety and security reasons – to require customs authorities to perform additional tasks at the EU’s borders. However, such new tasks may require further changes to electronic systems.

Turning to the survey, **a key finding is a common pattern of difficulties and risks of delays in Member States due to their lack of resources and to the complexity of the UCC projects.** A considerable number of the Member States have reported a lack of national preparation in relation to project management. There are cases where tenders have not yet been awarded for any of the projects and in some cases national project managers have not yet been assigned to the projects. Member States have pointed to the lack of human resources as a particular risk for the successful and timely implementation of the projects. The problem of human resources is observed not only in a quantitative context, but also qualitatively, with some Member States stating that their personnel lack the required customs expertise.

In addition, a number of Member States have expressed their **concern about the perceived instability of the common data requirements to be utilised for the purpose of the electronic systems.** These common data requirements are set out in Annex B⁵ of the UCC Delegated Act package (UCC-DA). During the development of some trans-European systems it emerged that in some cases Annex B could not be implemented in view of the functional needs or it could be implemented only with disproportionate costs. For example, in the context of ICS2 it was necessary to insert additional columns into Annex B in order to reflect all data sets that are possible in ICS2. This led to a review of Annex B to align it with functional and technical specifications for trans-European systems and to ensure cross-system harmonisation, as requested by the Member States and the trade community. This review will naturally have an impact on national systems, even though a joint effort was made to keep the impact on these systems minimal. This is regretted by those Member States that are advanced with their national systems developments despite the fact that the revision of Annex B is in general appreciated.

It is envisaged that an agreement with Member States on the revised Annex B will be reached by the end of 2019 and the related legislation will then be adopted in 2020. However, Member States are concerned that this instability negatively impacts their national planning efforts. Specifically, they agree that the frequent addition of new obligations and deadlines via the updates to the UCC WP jeopardises their ability to reflect the common data requirements in their national systems. However, it should be noted that the current review of the UCC WP has become necessary in order to properly implement the amended Article 278 of the UCC. The amendment to Article 278 of the UCC is the result of the compromise found between the European Parliament, the Council and the Commission. The applicability of the different columns of Annex B to the UCC-DA is linked to the deployment dates of the electronic systems defined in the UCC WP.

⁵European Commission Delegated Regulation (EU) 2015/2446 of 28 July 2015 supplementing Regulation (EU) No 952/2013 of the European Parliament and of the Council as regards detailed rules concerning certain provisions of the Union Customs Code (OJ L 343, 29.12.2015, p. 1).

Another concern that Member States have expressed is **the instability created and the difficulties to plan due to the ongoing review cycles of business and IT documentation.** These review cycles (where documents go through iterative updates as a result of input from experts) are necessary to ensure a common understanding and implementation of the systems. Where Member States depend on the finalisation of the project documentation, they sometimes do not yet have any form of national planning for some projects. Though many Member States express their willingness to take mitigating actions to ensure that they respect the planning deadlines set out in the UCC WP, their impact assessment processes are long and complex and are slowing down their efforts.

Member States reported that they operate based on an “**Agile**”⁶ **approach**, which allows for flexibility. However, such an approach means that at the same time some projects are planned only six quarters in advance. Hence, these Member States do not yet have an accurate view on their ability to meet the target deployment dates for some systems.

Finally, new challenges will emerge, requiring new customs policy, legal and IT measures to be put in place, sometimes with urgency, and often endanger the already agreed planning schemes for the UCC WP implementation (e.g. e-commerce, etc.).

As a conclusion, there is for the moment no critical risk identified concerning the deadline for finishing the implementation of the UCC systems by the end of 2025. This said, the IT teams of the Commission and of the Member States Customs Administrations need to be provided with the appropriate resources to mitigate the existing high risks of missing deadlines for some of the systems, notably concerning national systems. There is a need to ensure appropriate statutory staff in the IT teams to lead the projects, and financial resources in the current Customs 2020 and future replacement programme to ensure the delivery by outsourcing partners. There is also a need to avoid scope creep and new legislation with an impact on Customs systems before the end of 2023. If these measures are in place, as per the recommendations of the European Court of Auditors report, the risk level should be reasonably under control.

Mitigation actions

A Multi-Annual Strategic Plan for Customs (MASP-C) dashboard is used as a progress tracking and information tool from the Commission side on its progress. The baseline for the dashboard milestones is the MASP-C 2019 and the UCC WP 2019. The dashboard is presented on a quarterly basis to the Member States (Electronic Customs Coordination Group) and the trade community (Trade Contact Group) for information and steering purposes.

The Commission is now not only monitoring progress against the main project milestones as in the UCC WP and MASP-C but is also setting specific interim milestones per project (e.g. milestones by which all Member States should have completed the conformance testing). Such closer monitoring is needed in order to make the deployment of the decentralised trans-European systems manageable and to avoid additional costs for operating old and new systems in case of an extended deployment window. As these core trans-European systems with their decentralised architecture will only be successful if all Member States have switched to the new environment, the Commission has urged Member States not to wait until the end of the deployment window to make the switch to the new

⁶A method of project management, used especially for software development, that is characterised by the division of tasks into short phases of work and frequent reassessment and adaptation of plans.

systems. A **“National Administration quarterly monitoring programme”** for the trans-European systems AES and NCTS with Key Performance Indicators will run from 2020, in order to measure progress on a regular basis and raise flags well in advance where problems might occur.

As another accompanying measure, the Commission will establish a **“National Administration coordination programme”** in early 2020 to support Member States in the development and deployment of their national components for the trans-European systems. These systems are specifically targeted because, Member States agreed in 2016-2017 that the import, transit and export systems were the core systems and should be considered as the top priorities for deployment. As a number of Member States have pushed their transition work on the national systems and components related to import, transit and export procedures to the very end of the deployment windows, there is a risk that they haven't foreseen sufficient time for testing and finalising the deployments according to the common specifications and IT transition policy. As the trans-European systems will only function properly when all Member States have joined in, national deployment issues or delays will impact the trans-European system layer and endanger the timely completion.

In addition, based on feedback from the Member States the Commission already identified a risk of completion of the national systems due by 2022, in particular in relation to the entry of goods and import domain, which would negatively impact the completion of CCI.

These programmes will help to steer the IT transition process from 2020 with a dedicated helpdesk, webinars, bilateral visits, training, conformance testing follow up, quarterly progress reporting, service delivery management, etc. Member States and the Commission need to be well equipped to face the challenges ahead.

The output of these programmes is considered to bring valuable progress information and will be used for the future annual progress reports. It will provide for detailed progress information per project and per Member State.

4. CONCLUSION

In conclusion, it is evident that the Commission and Member States **face challenges** in ensuring the full deployment of the UCC electronic systems by the relevant deadlines. There are resource issues in Member States, the systems are complex and interconnected, and there must be a smooth transition from existing systems to upgraded ones, so that the impact on trade is minimised.

Nevertheless, it is also clear that **tangible progress is being made. An important number of electronic systems have already been deployed and are now fully operational.**

The remaining ones are mostly on track and planned to be completed in the period 2020-2025 in line with the planning of the projects defined in the UCC WP. A summarised overview of the planning and progress can be found in Fig 2 below.

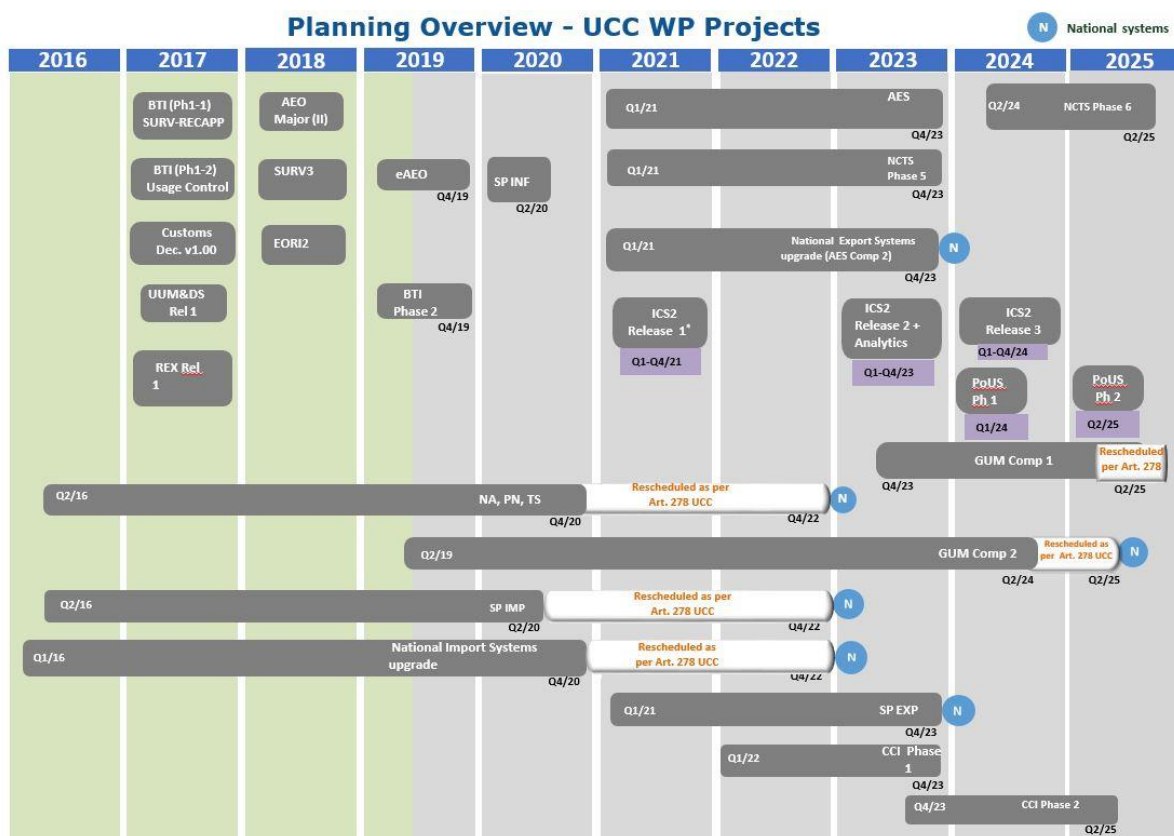


Fig 2: Planning for UCC WP projects

With regard to these remaining systems, while a number of issues have been highlighted at Member States level, **no critical risks** have been identified at the time of writing of this report. The Commission and the Member States will continue their regular meetings **to steer and monitor the projects** via the MASP-C dashboards and via the reinforced planning and progress reporting requirements for the UCC WP implementation. The Commission and the Member States will also continue the elaboration and development work for the remaining trans-European systems in terms of business cases and vision documents, as well as to prepare the functional and technical specifications (including transitional technical specifications in some cases) as the basis for the systems rollouts and deployments.

The Commission is planning **additional mitigating actions** as of early 2020, in the form of a coordination programme to assist Member States in the deployment of their components of the AES and NCTS systems, in particular, and a monitoring programme to assess their progress in this area. With these managerial instruments, the Commission is confident that it has the appropriate mechanisms in hand to face the upcoming dynamic challenges. Many Member States, for their part, have expressed their willingness to take mitigating actions to ensure that they respect the planning deadlines set out in the UCC WP.

More details of the planning and status of each project are provided in a **Commission staff working document published alongside this report**.