



D6.2.2 Report on development of multi-national or European level support system for National Bodies (ENBOSS)

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Abstract

This deliverable represents the Feasibility Study and Operational Roadmap for the European National BODy Support System (ENBOSS), developed within Task 6.2 of the NAPCORE project (WG6 – Compliance Assessment and National Bodies). ENBOSS is proposed as a centralised workflow platform to support National Bodies (NBs) in conducting compliance assessments of multi-national service and data providers under the Delegated Regulations of the ITS Directive (2010/40/EU), addressing the fragmentation, duplication of effort and inconsistent outcomes that currently characterise cross-border compliance assessment.

Building on milestone M5.10 (2025) and the results of the WG6 Member State questionnaire, the study assesses the operational feasibility, resource availability, strengths, weaknesses, opportunities, threats and estimated costs of implementing ENBOSS. The analysis confirms a clear operational need and growing interest among NBs, while highlighting that operational maturity and resource capacities vary considerably across Member States. It concludes that ENBOSS is operationally, technically and strategically feasible, provided implementation follows a gradual, phased approach based on voluntary participation and supported by adequate governance, legal and technical frameworks. The study sets out the key preconditions, cost estimates and recommended next steps for the further development of ENBOSS within NAPCORE.

Abbreviations

Abbreviation	Meaning
AD	Accompanying Documents
CA	Compliance Assessment
CAT	NAPCORE Core Alignment Team
DR	Delegated Regulation
EC	European Commission
ENBOSS	European National BODy Support System
EU	European Union
GDPR	General Data Protection Regulation
MS	Member State
MVP	Minimum Viable Product
NAP	National Access Point
NAPCORE	National Access Point Coordination Organisation for Europe
NB	National Body
SC, SCOM	NAPCORE Steering Committee
SCS	NAPCORE Steering Committee Support
SD	Self-Declaration
SP/DP	Service and/or data provider
SWG	Sub-working Group
SWOT	Strengths, Weaknesses, Opportunities and Threats Analysis
WG	Working Group
WP	Working Programme

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1. Introduction

General description of ENBOSS

ENBOSS (European National BOdy Support System) is a centralized platform that manages the end-to-end workflow for self-declarations and compliance assessments, providing a standardized mechanism for data providers, National Bodies, and NAPCORE to communicate and process relevant documents. It ensures consistency across participating bodies by handling submissions of self-declarations, random selection for compliance assessments, document management, and final compliance reporting.

The challenge

National Bodies (NBs) across Europe face significant challenges when performing compliance assessments (CA) for multi-national organisations under the ITS Delegated Regulations. As confirmed by both [Milestone M5.10](#) (2025) and the analysis of the WG6 Member State questionnaire, the core difficulty lies in the complexity of compliance assessment procedures involving multi-national organisations.

These cases require coordination across Member States, alignment of interpretations, and consistent handling of self-declarations and assessment results — all of which place additional operational and organisational pressure on NBs and make multi-national CA particularly demanding.

The main challenges can be summarised as follows:

- **Limited resources, lack of practical experience, and uneven maturity of National Bodies**
Many National Bodies (NBs) across Europe operate with constrained human and technical resources, which limits their capacity to establish robust national compliance assessment routines and to handle complex cases involving multi-national organisations. Questionnaire results further show that a large share of NBs have not yet implemented regular national compliance assessment processes and remain in a planning or preparatory phase. For these NBs, multi-national compliance assessment is therefore not an advanced extension of existing practice, but an additional layer of complexity on top of missing national experience. This situation is compounded by uneven maturity levels across Member States, where differences in established procedures, expertise, and operational readiness make coordinated handling of multi-national organisations difficult and increase the risk of fragmented processes and inconsistent outcomes.
- **Fragmented and non-harmonised processes**
Where compliance assessments do exist, they are organised differently across Member States, with variations in interpretation, templates, timing, and documentation requirements. This fragmentation becomes especially problematic once providers operate across borders.
- **Risk that a multi-national organisation fails to adequately acknowledge a non-compliance finding from a single Member State**
By coordinating their efforts NBs can strengthen their position when engaging with multinational stakeholders, ensuring that compliance assessments are more credible and less burdensome.

Key message

The challenges faced by National Bodies when conducting compliance assessments for multi-national organisations are structural and operational. The ENBOSS system has been designed precisely to address these challenges. By centralising the submission of self-declarations, enabling coordinated multi-national compliance assessments, and supporting harmonised procedures and communication flows, ENBOSS significantly reduces administrative burden and the risk of inconsistent outcomes. More importantly, it strengthens the collective position of National Bodies when engaging with multi-national organisations and enhances the credibility, consistency, and efficiency of compliance assessment across Europe.



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In this sense, ENBOSS is not merely a technical platform, but a practical operational tool designed to make the conduct of compliance assessment for multi-national organisations substantially more manageable, coherent, and efficient for National Bodies.

What ENBOSS is NOT: ENBOSS is not an automated tool that directly evaluates data or checks the technical compliance of data sets; rather, it is strictly a management and workflow platform designed to coordinate and streamline the assessment process between providers and National Bodies.

Functional Components and Data Flow

ENBOSS consists of five modules that form a complete end-to-end workflow, covering submission, validation, selection, assessment, and reporting. They enable ENBOSS to function as a centralised, harmonised system for multinational compliance management across the EU.

Submission of SD at NAP

This part the initial entry point of the process, which primarily takes place at the National Access Point (NAP) and is therefore not considered as part of the ENBOSS system. Service or data providers submit their self-declarations (SDs) via the NAP where available, and the system distinguishes whether the submission is national or multinational. For multinational cases, this part ensures that SDs are transferred or redirected into ENBOSS, either automatically (via system integration) or manually (via user redirection). For automatic integration between ENBOSS and NB/NAP systems an API interface shall be defined in future containing specification for automatic data exchange. Proposed API interface shall be in line with NAPCORE proposed NB Reference architecture. The key function of this part of system is therefore to act as a bridge between national systems and the ENBOSS platform, establishing the foundation for harmonised EU-level processing.

ENBOSS Core Process: modules 1 to 4 diagram

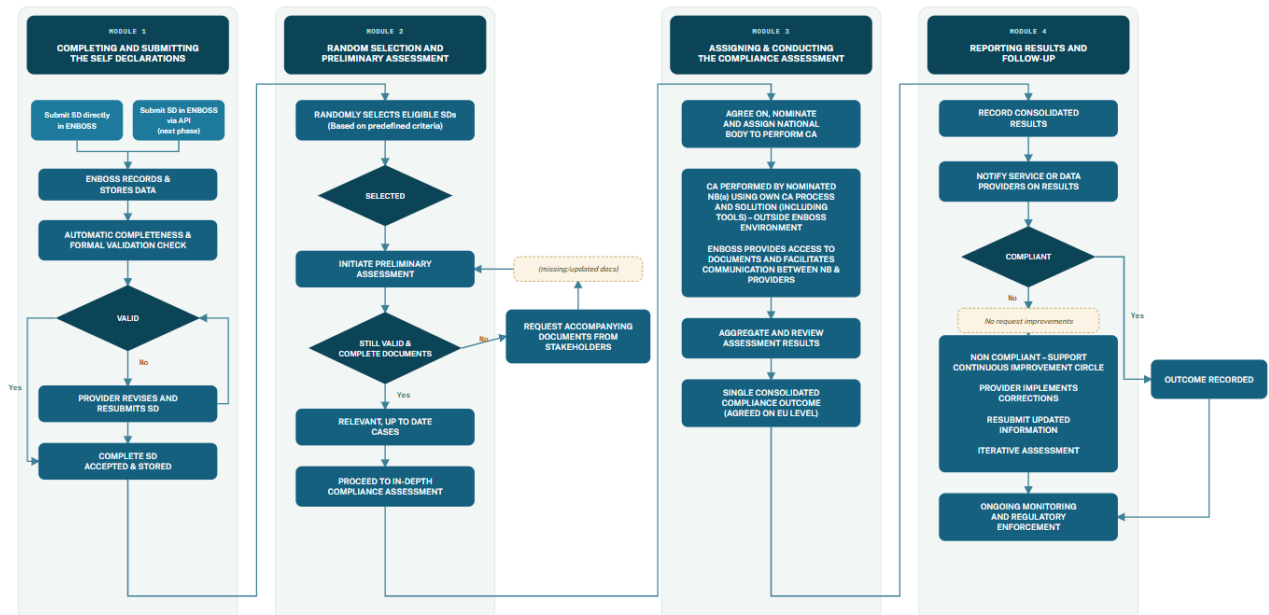


Figure 1 ENBOSS Functional Components and Data Flow (Generated by AI)

Module 1 – Completing and Submitting the Self-Declaration

Module 1 represents the first core ENBOSS process step, where self-declarations are created, completed, and managed within the system. Users either submit SDs directly in ENBOSS system via WEB interface (primary and currently preferred option) or have them transferred from the NAP via API (if prerequisites from Module 0 are fulfilled and for NAP/NB system with technical capabilities) after which the system securely records and stores the data. A key function of this module is the automatic completeness and formal validation check, ensuring that all required fields and information are



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provided. If deficiencies are identified, providers are asked to revise and resubmit their SDs; otherwise, complete SDs are accepted and stored for further processing, including potential selection for compliance assessment.

Module 2 – Random Selection and Preliminary Assessment

The goal of this module is to select a self-declaration in alignment with relevant NBs and national selection processes, request the necessary filled in accompanying documents from the stakeholder (if not yet available) and to perform the theoretical assessment. ENBOSS, in coordination with NAPCORE, randomly selects pre-determined number of self-declarations based on predefined criteria for further evaluation. Once selected, the system initiates a preliminary assessment phase, verifying whether the SD is still valid and requesting any missing or outdated accompanying documents. This module ensures that only relevant, up-to-date, and sufficiently complete cases proceed to the more resource-intensive in-depth compliance assessment phase.

Module 3 – Assigning and Conducting the Compliance Assessment

Module 3 governs the core compliance assessment process, where one or more National Bodies are selected and assigned to conduct an in-depth evaluation. ENBOSS coordinates the assignment, provides access to all relevant documentation, and ensures that all actors follow a harmonised assessment methodology ([link to Guidelines for a harmonised Compliance Assessment](#)). During this phase, ENBOSS also facilitates communication between National Bodies and providers, reducing duplication and ensuring efficient information exchange. The module concludes with the aggregation and review of assessment results, leading to a single, consolidated compliance outcome agreed at the European level.

Module 4 – Reporting Results and Follow-Up

Module 4 focuses on the finalisation and communication of compliance assessment outcomes. ENBOSS records the consolidated results and notifies relevant stakeholders (NAP, NB, service or data providers) whether the data set is compliant or non-compliant. In addition, the module supports a continuous improvement cycle, where non-compliant providers are required to implement corrections and resubmit updated information. This enables iterative reassessment and ensures that compliance is maintained over time, reinforcing the system's role in ongoing monitoring and regulatory enforcement.

ENBOSS System will consist of following components: Web Interface for Self-Declaration (SD) Submission; API for Data Transfer (optional feature non-existing yet), Secure Database, document Management System and System Administration Module, as presented on Figure 2.

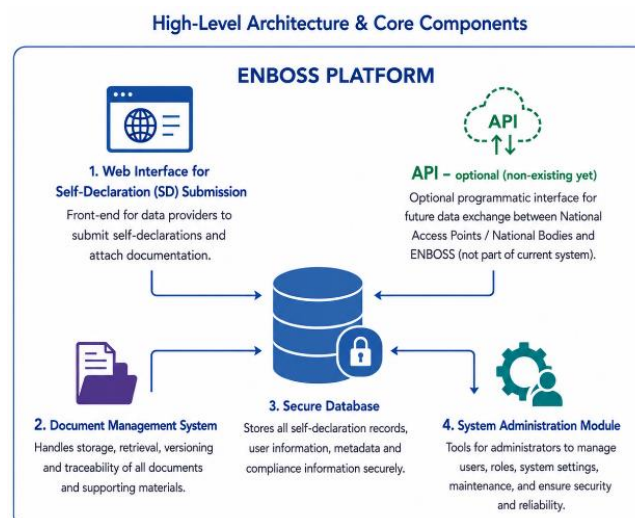


Figure 2 ENBOSS Platform high level architecture & Core components (Generated by AI)



2. Operational Feasibility

This chapter assesses the operational feasibility of establishing and implementing the European National BOdy Support System (ENBOSS) as a multi-national support framework for compliance assessment activities under the ITS Delegated Regulations. The assessment is based on the ENBOSS prototype developed within milestone M5.10, the questionnaire results collected from National Bodies, and discussions carried out within WG6 and Task 6.2 activities in NAPCORE.

The analysis focuses on operational readiness, expected benefits, implementation challenges and the conditions necessary for successful deployment of ENBOSS across participating Member States (MSs).

Existing operational basis and readiness of NBs

A significant operational foundation for ENBOSS has already been established through M5.10, which developed a detailed prototype of harmonised workflows for multi-national self-declarations and compliance assessments. The proposed concept defines processes for submission and validation of self-declarations, assignment of responsible NBs, communication with stakeholders, reporting of results and follow-up activities. It introduces the basis for harmonised templates, communication procedures and semi-automated support functionalities, including interoperability with NAPs and digital support tools intended to simplify compliance assessment procedures and improve consistency between Member States.

Task 6.2 within NAPCORE further supports operational implementation through activities related to governance structures, implementation guidelines, stakeholder coordination and support for the NB Reference Architecture. In the initial phase of the task, additional analysis of milestone M5.10 was carried out on a module-by-module basis in order to further assess operational workflows, identify open issues and propose potential improvements to the ENBOSS system and its future implementation approach.

As part of WP6 activities, a questionnaire was sent out to the Member States to assess their capacity and operational maturity. The results of the questionnaire show that the operational maturity of NBs varies significantly. Out of 16 responses related to multi-national compliance assessment activities, 13 NBs indicated that they have not yet carried out such assessments, while 3 reported practical operational challenges. The most common challenges include lack of harmonised procedures between Member States, differing national approaches, limited expertise for cross-border cases and insufficient operational experience. Several respondents also indicated that compliance assessment activities are still in an early implementation phase at national level.



Figure 3 Results for the question: “Does your National Body face challenges when carrying out compliance assessments for multi-national organisations (service or data providers operating in several Member States)?”



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These findings demonstrate that although operational experience is currently limited in many Member States, there is a clear need for a coordinated European support framework capable of improving consistency and reducing operational fragmentation still respecting the differences in technical implementation of NAPs.

Interest in participation and expected benefits

The questionnaire results overall indicated interest in cooperation, with a commitment to ENBOSS across a number of responding National Bodies. Of the 17 respondents, nine expressed support for participation either directly or under certain conditions. Seven respondents remained undecided and indicated that additional information on governance, functionalities and implementation arrangements would be needed before taking a position, and which was a direct motivation for performing this study in order to enlighten all aspects of ENBOSS: Overall, only one respondent expressed a negative view. In general, the results suggest that there is openness and need for a centralised cooperation framework, while further clarification of the ENBOSS concept and implementation model are necessary to strengthen support even further.

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Figure 4 Results for the question: “Would your National Body like to collaborate with other Member States on a centralized platform that manages multi-national self-declarations and assesses multi-national organisations?”

The preferred cooperation model among respondents is voluntary participation. All National Bodies responding to this question supported voluntary participation, while none supported mandatory participation. This indicates that ENBOSS should initially function as a flexible support framework allowing gradual onboarding according to the operational readiness and priorities of individual Member States.

Expected operational benefits and implementation challenges

The questionnaire analysis identified several important operational benefits that NBs expect from the implementation of ENBOSS. The most important motivation for participation is the reduction of administrative burden for both NBs and service or data providers. Respondents also highlighted the importance of harmonised compliance assessment outcomes across Member States and easier engagement with multinational organisations operating across several countries.

M5.10 (2025) further highlights that ENBOSS could significantly reduce duplicated compliance assessment activities, improve consistency of decisions and strengthen cooperation between National Bodies. The system would also simplify communication with multinational stakeholders by introducing a single coordinated framework for self-declarations, accompanying documentation and multinational compliance assessment procedures.

At the same time, several operational barriers and risks were identified during the feasibility assessment. Respondents expressed concerns regarding potential loss of sovereignty in decision-making, legal limitations related to cross-border cooperation, integration challenges with national systems and differences in digital maturity between Member States. Some National Bodies also highlighted limited staff capacity, insufficient technical expertise and uncertainty regarding the long-term business case for Member States with numbers of multinational stakeholders.

M5.10 additionally identifies risks related to governance, communication, consistency of assessment outcomes and long-term sustainability of the system. These findings demonstrate that operational feasibility is closely linked not only to technical implementation, but also to organisational coordination, legal harmonisation and long-term governance arrangements.

Overall operational feasibility assessment



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Overall, ENBOSS can be considered operationally feasible. The conceptual and procedural foundation already established through M5.10 and Task 6.2, combined with the clear operational need and interest confirmed by the questionnaire, provide a solid basis for further development.

Successful implementation will nonetheless depend on gradual deployment, clear governance structures and sufficient technical and organisational support, given the differing levels of maturity and readiness across Member States. In line with the preferred cooperation model identified through the questionnaire, ENBOSS should initially be implemented as a voluntary, flexible support framework, allowing progressive onboarding based on national capacities and priorities.

3. SWOT Analysis

This SWOT analysis provides a structured assessment of the ENBOSS system by examining its internal strengths and weaknesses, as well as the external opportunities and threats that may influence its successful implementation and long-term impact. The purpose of this analysis is to support informed decision-making by identifying the key factors that can enhance or hinder the system's effectiveness within the European regulatory and operational landscape.



Strengths

Figure 5 SWOT Analysis (Generated by AI)

The ENBOSS system demonstrates strong potential to transform compliance processes at the EU level by introducing a unified and **harmonised framework form for multinational compliance assessment**. Its most significant strength lies in replacing fragmented national procedures with a single, coordinated compliance process, ensuring **consistent** outcomes across Member States and reducing regulatory discrepancies.

Operationally, ENBOSS **improves efficiency** by allowing one-time submission of self-declarations and eliminating duplicate assessments, supported by automation and centralised workflows. The platform also enhances **transparency** and traceability through structured data management, audit trails, and standardised reporting.

In addition, ENBOSS strengthens **collaboration** among National Bodies, enabling knowledge sharing and coordinated decision-making. Its scalable and modular architecture, aligned with EU digitalisation goals, positions it as a long-term strategic solution that can evolve beyond its initial scope.



Weaknesses

Despite its advantages, ENBOSS faces some internal limitations that could affect implementation and effectiveness. A key weakness is the **complexity of governance**, as the system requires coordinated decision-making across multiple countries with differing administrative and regulatory practices.

The system also demands upfront investment and **organisational effort**, including technical integration with National Access Points (NAPs), process alignment, and staff training. Additionally, **uneven readiness** among Member States, in terms of technical capability and resources, may lead to delays or inconsistent adoption.

Legal and operational complexities – particularly related to GDPR compliance and cross-border data sharing – further complicate implementation. Finally, the system's effectiveness is highly dependent on broad participation, meaning that **partial engagement** can significantly reduce its overall value.

Opportunities

ENBOSS offers considerable opportunities to become a **cornerstone** of EU-wide digital compliance management. Its ability to standardise processes and centralise data provides a strong foundation for establishing harmonised best practices across Europe.

The system can evolve beyond its initial scope by supporting additional regulatory domains, advanced analytics, and AI-driven validation tools, thereby increasing its **strategic relevance**. Centralised data also enables data-driven policymaking and improved regulatory oversight, strengthening decision-making at both national and EU levels.

ENBOSS further promotes **cross-border cooperation** and knowledge transfer, helping less mature National Bodies benefit from shared expertise. Over time, it can deliver **cost efficiencies**, improve compliance rates, and potentially attract EU funding and institutional support aligned with digital transformation goals.

Threats

The success of ENBOSS is influenced by several external risks. One of the most critical is **partial adoption**, where limited participation by Member States could undermine harmonisation and maintain fragmentation.

Legal and regulatory differences across countries remain a persistent threat, as they may limit the ability to achieve full consistency in compliance assessments. Additionally, the system relies on ongoing political, financial, and institutional commitment, making it vulnerable to changes in priorities or funding availability.

From a technical perspective, **cybersecurity risks and data protection** concerns are significant due to the centralised handling of sensitive information. Resistance to change among stakeholders and challenges in integrating with existing national systems may further delay adoption or reduce effectiveness.

Conclusion SWOT

ENBOSS represents a forward-looking initiative with the potential to become a cornerstone of harmonised digital compliance across the European Union. The analysis demonstrates that its core strengths – particularly in efficiency, transparency, and cross-border coordination – directly address long-standing challenges related to fragmented national processes and inconsistent regulatory outcomes.

While the system introduces complexity in governance, implementation, and legal alignment, these challenges are manageable through structured cooperation with NAPCORE, clear frameworks, and



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phased adoption. Importantly, many of the identified weaknesses are not inherent limitations, but rather transitional factors typical of large-scale EU integration initiatives.

The opportunities associated with ENBOSS significantly outweigh its risks. By enabling data-driven decision-making, stronger institutional collaboration, and scalable digital infrastructure, the system can evolve well beyond its initial scope and deliver lasting value to both Member States and stakeholders. With growing emphasis on EU digitalisation and interoperability, ENBOSS is well positioned to benefit from continued strategic alignment and support.

Ultimately, ENBOSS has the potential to shift compliance from a fragmented, resource-intensive process to a streamlined, harmonised, and future-ready European framework. With sustained commitment, inclusive participation, and effective governance, it can become a model example of successful cross-border digital cooperation, strengthening both regulatory efficiency and the broader EU single market.



4. Resource Availability

This chapter assesses the availability of resources required for the implementation and operation of the European National Body Support System (ENBOSS). The assessment is based on the questionnaire results collected from National Bodies and EU Member States, the operational and technical concepts developed within M5.10, and discussions carried out within WG6 and Task 6.2 activities in NAPCORE.

The analysis focuses on the availability of human, technical, organisational and financial resources necessary for establishing a harmonised multi-national compliance assessment framework and supporting its long-term operation across participating EU Member States.

Existing capacities and resource needs identified through the questionnaire

The questionnaire results indicate that resource availability represents one of the key challenges for the future implementation of ENBOSS among EU Member States. Several National Bodies identified limited operational capacities, insufficient expertise for cross-border compliance assessment activities and lack of practical experience with multinational cases as important constraints.

The strongest resource needs identified through the questionnaire relate to technical integration and operational support. All respondents answering this question identified the need for technical integration support, including APIs and guidance related to the Reference Architecture. In addition, 8 respondents identified the need for financial support and additional resources, while 7 respondents highlighted the importance of legal templates and cooperation agreements as well as training and capacity-building activities for staff involved in compliance assessment procedures.



Figure 6 Results for the question: “What support would your National Body need to join ENBOSS?”

The questionnaire also showed that readiness and available capacities differ significantly between EU Member States. Some National Bodies already possess experience with digital self-declarations, validator tools and harmonised compliance assessment activities, while others are still in the early stages of establishing operational procedures and governance structures.

In addition, several respondents stated that they are currently unable to fully assess future resource requirements because further clarification is still needed regarding ENBOSS functionalities, governance arrangements and implementation scope. These findings indicate that future implementation will require a flexible approach adapted to the different operational maturity levels and resource capacities of participating EU Member States.

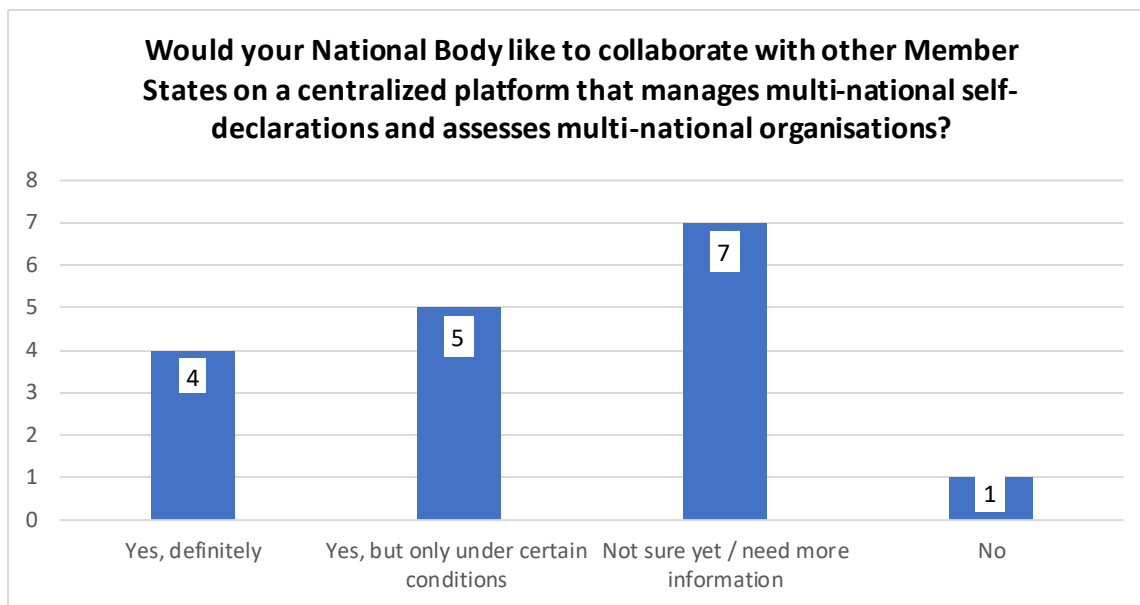


Figure 7 Results for the question: "Would your National Body like to collaborate with other Member States on a centralized platform that manages multi-national self-declarations and assesses multi-national organisations?"

Technical and organisational resources

M5.10 already established an important basis for the future technical implementation of ENBOSS. The proposed system foresees the use of harmonised workflows, digital self-declarations, automated completeness checks, reporting functionalities and interoperability with National Access Points.

The feasibility analysis identified several key technical components required for implementation such as:

- secure operational infrastructure
- interoperability interfaces developed in future (as shown in figure 2 of this document)
- document management and workflow systems
- authentication and access control mechanisms
- communication and reporting functionalities
- semi-automated tools supporting compliance assessment activities.

Discussions within WG5 additionally highlighted the need for further research regarding validator tools and digital self-declaration functionalities. It was noted that some EU Member States, including Germany, Belgium and France, already have partial solutions for uploading digital self-declarations, while other countries are still at an early stage of development.

In the initial phase of Task 6.2, additional analysis of M5.10 was carried out on a module-by-module basis in order to identify operational gaps and propose possible improvements to the ENBOSS concept and implementation approach.

From an organisational perspective, implementation of ENBOSS will require coordinated involvement of National Bodies, technical experts, legal experts and operational support staff from participating EU Member States. Long-term operation of the system will also depend on clearly defined governance structures, coordination mechanisms and continuous stakeholder communication.

Financial and capacity considerations

The questionnaire results confirm that financial support and capacity building are considered essential for the successful implementation of ENBOSS across EU Member States, particularly with regard to technical integration, operational deployment, staff training and long-term maintenance. Additional challenges identified during WG6 discussions include limited availability of specialised expertise and a



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lack of harmonised operational procedures, both of which point to the need for gradual onboarding and continuous support tailored to national capacities.

Overall, the required resource categories for ENBOSS implementation are already identifiable, and part of the necessary operational and technical foundation has already been prepared within NAPCORE through existing workflows, templates and semi-automated support tools. Further investment and coordination will nonetheless be needed – particularly in technical interoperability, governance, legal support and long-term operational funding – to ensure sustainable deployment and operation across participating National Bodies.

5. General support for National Bodies

Besides the operational workflow functionalities foreseen within ENBOSS, Task 6.2 also identified the need for a dedicated support environment for NBs focused on practical implementation, knowledge exchange and operational guidance. During the preparation of the system concept and discussions within WG6, it became clear that many challenges faced by NBs are not purely technical, but operational, organisational and understanding of regulatory requirements. For this reason, the support layer was intentionally separated from the ENBOSS workflow platform itself.

To address these needs, the NAPCORE Support Centre was established through the joint work of Tasks T6.2 – Operational Support to National Bodies and T8.2 – NAP Support Center in this phase of NAPCORE. The Support Centre is available to all project partners through the common NAPCORE project environment and serves as a central point for practical guidance, knowledge sharing and access to relevant project resources.

Within the NAPCORE Support Centre, a dedicated National Bodies section already provides the material needed by National Bodies to carry out compliance assessments of data and service providers within their respective EU Member States. This includes practical guidance, harmonised self-declaration and compliance assessment forms, supporting documents, templates, the National Body Reference Architecture and other relevant NAPCORE outputs. By bringing these resources together in one common location, the Support Centre facilitates day-to-day compliance assessment activities and supports more consistent application of NAPCORE recommendations across Member States.

The structure was intentionally designed to combine static guidance content with collaborative and interactive elements. In practice, NBs often require quick clarification of operational questions, interpretation support, examples from other Member States or practical recommendations based on real implementation experience. For that reason, the platform foresees not only document repositories, but also sections focused on discussions, experience exchange, “Tips and Tricks”, stakeholder engagement, common implementation mistakes and practical operational recommendations.

A major advantage of this approach is its flexibility and long-term maintainability. The environment can be continuously updated as Delegated Regulations evolve, new operational practices emerge and additional NAPCORE outputs become available. This is especially important considering the significant differences in maturity, organisational structures and operational capacities across EU Member States.

The NAPCORE Support Centre therefore complements ENBOSS: while ENBOSS is designed to coordinate multi-national self-declaration and compliance assessment workflows, the Support Centre provides the knowledge, guidance and practical support required by National Bodies for national compliance assessment activities and for the gradual harmonisation of practices across Europe.



6. Cost Analysis

The ENBOSS system will cover the full process cycle, as described in the Annex of this document. The system is expected to serve approximately 30 National Bodies and 200 multinational stakeholders, representing a moderate-scale European digital service.

Estimated Development Costs

The estimated one-time investment for the design, development, and deployment of the ENBOSS System is between EUR 80,000 and 150,000.

This estimate includes the implementation of a fully functional ENBOSS platform that aligns with established NAPCORE workflows. It comprises the costs related to the following items:

- system design and architecture
- development of user interfaces tailored to providers, National Bodies, and administrators,
- implementation of the backend workflow engine supporting the lifecycle of self-declarations, validation processes with feedback loops, coordination of compliance assessments across multiple National Bodies, and reporting and follow-up functionalities.

The estimated investment also covers the implementation of secure data and document management with versioning and traceability, automation features such as completeness checks, status tracking and notifications, as well as role-based access control mechanisms ensuring GDPR-compliant data handling. In addition, basic interoperability capabilities are included to allow future integration with National Access Points, together with testing, deployment, and initial system setup.

The relatively moderate cost level is justified by several factors: the system builds on harmonised NAPCORE processes and templates, which reduces design complexity; it focuses on essential functionalities only, in line with an MVP approach that limits integration requirements at this stage; it relies on standard web technologies and a cost-efficient, centralised architecture suited to the moderate scale of the expected user base; and a phased development approach allows more advanced functionalities to be added later without increasing the initial investment.

Operational Costs (Annual)

The annual hosting and infrastructure cost is estimated between EUR 5,000 and 15,000. This includes cloud-based hosting of the application and database, secure storage of documents, system availability, backup and recovery mechanisms, and baseline cybersecurity measures such as encryption and controlled access.

Annual maintenance and support costs are estimated between EUR 10,000 and 30,000. These cover technical maintenance and system updates, ongoing security management and alignment with EU data protection requirements, functional updates in response to regulatory or operational changes, user support for National Bodies and providers, and overall system administration.

Total Cost of Ownership

The total cost of ownership consists of an initial development cost of EUR 80,000 to 150,000 and annual operational costs ranging between EUR 15,000 and 45,000. Based on these estimates, the indicative total cost over a three-year period is between EUR 125,000 and 285,000.

This investment is expected to generate significant savings by reducing duplication of compliance work across Member States. The initial development effort corresponds to only 45–80 staff hours per National Body – a relatively small one-time investment compared to current recurring workloads. Even conservative efficiency gains of 50–100 hours saved per year per National Body would translate into

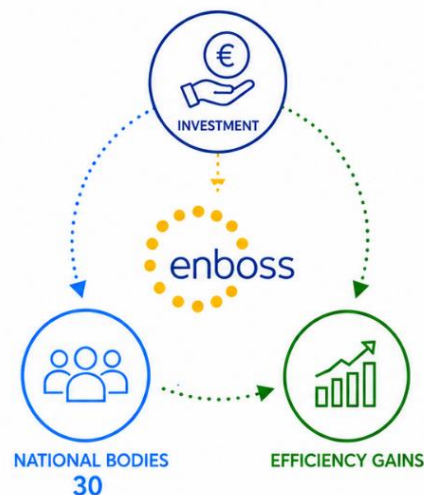


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measurable annual savings at EU level, suggesting that the initial investment could be recovered within approximately one to two years of operation. Beyond direct financial benefits, ENBOSS is expected to further improve efficiency through streamlined workflows, better resource allocation and enhanced coordination among National Bodies.

ENBOSS cost estimate for **30** National Bodies and **200** multinational stakeholders.

COST ELEMENT	ESTIMATED AMOUNT
 Development costs (one-time investment)	EUR 80,000 – 150,000
 Annual operational costs (hosting, maintenance & support)	EUR 15,000 – 45,000
 3-year total cost of ownership	EUR 125,000 – 285,000





Investment is expected to be recovered within **1–2 years** through **improved efficiency** of National Bodies.



Figure 8 Estimated Costs for ENBOSS System (Generated by AI)

7. Feasibility conclusions

This report confirms that ENBOSS represents a realistic and strategically relevant approach for supporting multi-national compliance assessment activities across Europe. The analysis carried out through M5.10, the WG6 questionnaire and Task 6.2 activities confirm both a clear operational need and growing interest among National Bodies, while important technical and organisational foundations – including a modular workflow, harmonised templates, digital self-declaration concepts and NB Reference Architecture activities – have already been established within NAPCORE.

Successful implementation will depend on several preconditions, particularly governance arrangements, legal coordination, interoperability with national systems and data protection requirements. Given the varying levels of operational readiness across Member States, the preferred cooperation model – voluntary participation supported by clear coordination mechanisms – indicates that ENBOSS should initially be positioned as a cooperative support framework rather than a mandatory centralised system.

As confirmed by the SWOT analysis, the long-term opportunities associated with ENBOSS significantly outweigh the identified risks, and the remaining governance, maturity and legal challenges are considered manageable through phased implementation and continuous stakeholder engagement. Overall, ENBOSS is operationally, technically and strategically feasible under current conditions, representing a realistic next step towards a more harmonised and sustainable European approach to multi-national compliance assessment under the ITS Delegated Regulations.

8. Recommendations and next steps

The feasibility assessment confirms that ENBOSS should continue to be developed gradually through a phased and flexible implementation approach, building on the clear operational need and positive interest expressed by National Bodies for stronger European coordination.

Future activities should prioritise establishing clear governance structures, legal frameworks and interoperability mechanisms – including GDPR compliance, cross-border cooperation agreements and alignment with the NB Reference Architecture – alongside continued technical integration support, semi-automated tools and capacity-building for participating National Bodies. Within WG6 and Task 6.2, this includes further development of digital self-declaration functionalities, APIs, harmonised workflows, training activities and exchange of operational experience between Member States.

Given the varying maturity levels and resource capacities across Member States, ENBOSS should initially operate as a voluntary and cooperative support framework, allowing gradual onboarding according to national priorities. The next phase of development should therefore focus on transforming the existing conceptual and procedural foundation established through M5.10 into a practical operational support framework that strengthens cooperation, reduces administrative burden and improves harmonisation across Europe.

Annex

Justification

The introduction of ENBOSS would significantly reduce the compliance burden currently observed under the fragmented implementation of multiple ITS Delegated Regulations. Today, with an **estimated 400–800 stakeholders**—noting that this figure is indicative as **no official consolidated statistics exist at EU level**—generating roughly **1,500–3,000 self-declarations**, each data provider must submit separate declarations across multiple National Access Points (NAPs), often duplicating effort due to differing national implementations, formats, and metadata requirements. Focusing specifically on **multinational service providers**, these actors by definition operate in **a minimum of 2 countries**, with coverage extending up to **approximately 44 countries for pan-European digital platforms**, and an estimated **average operational footprint of around 8–12 countries** within this subset. ENBOSS would streamline this landscape by acting as a **centralised brokerage and harmonisation layer**, enabling a “declare once, reuse everywhere” approach. In practice, this would allow a single, standardized self-declaration to be **validated once and reused across multiple countries**, reducing duplication by an estimated **40–70%**, particularly for multinational and digital actors, while also improving consistency through common templates and automated validation mechanisms.

For example, If Flixbus is operating in 35 Countries in Europe it has to provide SD document for two data types according to MMTIS:

- 1 for Static Data (NeTEx standard)
- 1 for Dynamic Data (SIRI standard)

Therefore, it should provide 35x2 SD documents = 70 SD document compared to 2 if using ENBOSS system.

Key public transport operators are listed in this table:

Rank	Provider	MMTIS-relevant classification	European footprint
1	FlixBus	Public transport operator – road passenger transport service data provider	35 countries
2	Transdev	Public transport operator – multimodal passenger transport service provider	19 countries
3	Keolis	Public transport operator – multimodal passenger transport service provider	13 countries
4	Arriva	Public transport operator – road and rail passenger transport services	11 countries
5	RATP Dev	Public transport operator – urban multimodal passenger transport services	12 countries
6	National Express	Public transport operator – road passenger transport services	7 countries
7	Deutsche Bahn	Railway undertaking – rail passenger transport services	7 countries
8	SNCF	Railway undertaking – rail passenger transport services	6 countries
9	ÖBB	Railway undertaking – cross-border rail passenger transport services	5 countries
10	Trenitalia	Railway undertaking – rail passenger transport services	5 countries