

## ROADMAP

Title of the initiative: **Actions for the establishment of EU e-maritime systems and services**  
Type of initiative (CWP/Catalogue/Comitology): CWP  
Lead DG/contact person/details: MOVE  
Expected date of adoption of the initiative (month/year): March 2011  
Date of modification:  
Version No:

### Initial IA screening & planning of further work

#### A. Context and problem definition

**(i) What is the political context of the initiative? (ii) How does this initiative relate to past and possible future initiatives, and to other EU policies?**

(i) Maritime transport is the prominent mode of transport for goods traded between EU and third-countries, and also plays an important role for intra-EU trade.<sup>1</sup> "e-maritime" signifies electronic communications between the different actors involved in maritime transport, including public authorities and the interfaces with other modes of transport. Replacing paper-based information exchange by electronic communication is part of the broader digital agenda, and has the potential of significantly improving maritime transport performance and improving transparency and trust between all parties involved, whilst reducing the administrative burden. It goes without saying that key issues include appropriate data protection, information use, human element, change management, legacy etc.

(ii) An initiative for the deployment of e-maritime systems was announced in the Mid-term Review of the White paper on Transport Policy<sup>2</sup>. It has since featured in Commission communications on the European Agenda for Freight Logistics<sup>3</sup>, the European maritime transport space without barriers,<sup>4</sup> and on the EU Maritime Transport Strategy 2018.<sup>5</sup> Under the 7<sup>th</sup> Research Framework Programme, the MarNIS project has laid the ground for improved deployment of e-maritime. Other projects contributing to eMaritime include e-Freight, EFFORTS, FLAGSHIP, FREIGHTWISE, SHORTSEA-XML, SKEMA, SMART-CM and others.

**What are the main problems identified?**

The many different actors involved in maritime transport, in particular shipping companies, freight forwarders, port authorities, transport infrastructure operators, customs, immigration, and security officers, use a broad variety of information and communication technology (hereafter: ICT) systems. Communication and data exchange between them is often cumbersome, and still involves a lot of manual work and paper. It is, for example, estimated that half of the EU port authorities have no adequate communication systems for efficient electronic exchange of information. In addition, existing systems will need to be updated to cope with their users' needs and technological evolution.

An EU maritime transport information system that works optimally across services and across borders within Europe does not exist. National or regional policies and projects produce systems limited in scope and interoperability. Those who have the information will not share it without a clear legal mandate. That mandate will not be made available until it is known why, when and by whom information is required. There is information kept in separate databases, which, if it could be shared, could realise further benefits for administrative and commercial purposes and for informed decision making in support of the relevant EU policies..

Market forces have failed to bring about agreement on a common vision for the use and the harmonised development of advanced information systems for maritime transport. Previous consultations carried out by the Commission and research projects have identified the following detailed list of problems, which can be sub-divided in "absence of standards/interoperability" and

<sup>1</sup> It carries 40% of internal market freight flows and 90% of EU external trade.

<sup>2</sup> COM (2006)314.

<sup>3</sup> COM (2007) 606.

<sup>4</sup> COM (2009) 10.

<sup>5</sup> COM (2009) 8.

"structural barriers":

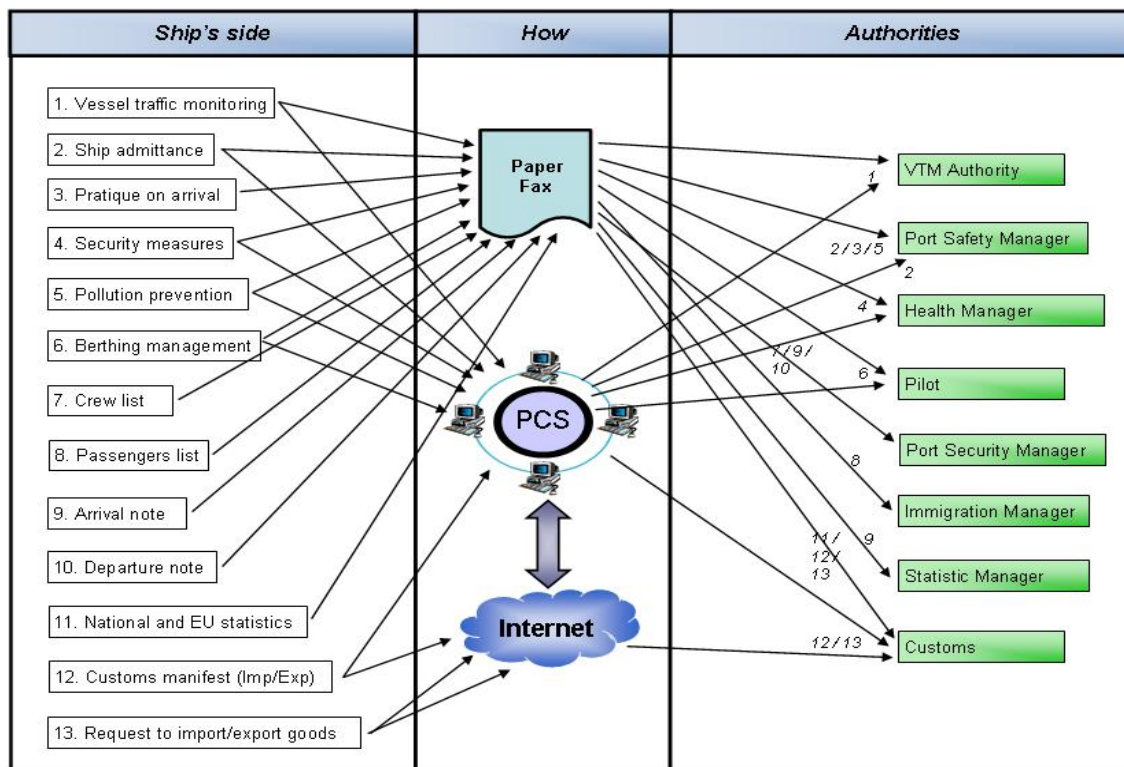
Absence of standards/interoperability

- Administrative procedures (port authorities; customs; immigration; security) are often still manual and paper-based. Where carried out electronically, systems and processes are not harmonised. This in turn negatively affects safety, security and performance
- Several ICT systems co-exist today. This prevents economies of scale and renders market entry of new electronic services based on a common standard more difficult. As a result, the costs for e-maritime services remain high and little innovation and competitive pressure exists. This has serious implications for SMEs wishing to use e-maritime services.

Structural barriers

- Existing practices and local regulations do not allow the deployment of new, more efficient methods of working. Changes are needed not only at the regulatory level, but in terms of strategies and mind set.
- The market for maritime transport services remains heterogeneous and fragmented. Historically, it relies on many intermediaries to carry out tasks; in addition, some shipping companies appear to overlook the proper integration of shipping services in "door to door" logistic chains.
- Port and ship security and safety increasingly require integrated surveillance, monitoring and control systems, incorporating adequate 'intelligence' for proactive, remedial and cross-border operations.
- EU seafaring and maritime professions experience a serious shortage of qualified people. Young people do not go to the sea as they used to. Exacerbating this problem is a lack of continuing professional education offered to mariners in a flexible manner at sea and ashore, and the lack of necessary infrastructure to achieve this.

To illustrate the problem of the complexity of the reporting needs, the following figure represents a typical situation of a European port regarding exchange of information and documents between ships (master or agent) and port authorities. The MarNIS project (financed under the 7<sup>th</sup> Research Framework Programme) identified up to 180 different data elements to be reported by the master/agent before entry/exit a port. It is still the case that common information has to be re-submitted by the ship master at the next port because the competent authorities at different EU states do not share data.



### Who is affected?

All maritime transport stakeholders including: maritime administrations, port authorities, seafarers, ship-owners, cargo-owners, ship-managers, ship-agents, shipbuilding, equipment manufacturers, harbour-masters, charterers, crew-relatives, port terminals, classification societies, port-state, flag-state, coast-state, freight forwarders, passengers, environmental/safety/security agencies, maritime education, training and research organisations.

### (i) Is EU action justified on grounds of subsidiarity? (ii) Why can the objectives of the proposed action not be achieved sufficiently by Member States (necessity test)? (iii) As a result of this, can objectives be better achieved by action by the EU (test of EU Value Added)?

(i) Maritime transport is a highly globalised sector. Rule-making takes place mainly at the international level (International Maritime Organisation) and at regional level (for example EU). Relatively few maritime operations take place within only one Member State.

(ii) National or sub-national regulation is likely to result in fragmented, non-interoperable transport solutions. Today, some Member States have implemented in major ports insular systems permitting electronic exchange systems, which are not interoperable. Substantial results can only be achieved by co-ordination of the Member States and the industry in a framework addressing pan-European needs.

(iii) The EU Value Added would comprise two aspects:

- Establishment of common standards and/or rules for interoperability and compatibility of existing systems.
- Support the removal of structural constraints and the establishment of the necessary conditions for the development of interoperable information systems for maritime transport.

These changes need to be coordinated and aligned along with infrastructure and technological developments as well as socioeconomic developments. It is therefore at EU level that a framework permitting to connect and complement existing systems and promote their use by more companies, in particular SMEs, should be created.

## **B. Objectives of EU initiative**

### What are the main policy objectives?

The EU e-Maritime aims to promote coherent, transparent, efficient and simplified solutions based on advanced information technologies. This would allow reaching the following three policy objectives:

- **Improving the safety and security of maritime transport services and assets and environmental protection:** Port and ship security and safety increasingly require integrated surveillance, monitoring and control systems, incorporating adequate 'intelligence' for proactive, remedial and cross-border operations.
- **Increasing the competitiveness of the EU maritime transport and logistics industry:** Improved utilisation of advanced ICT will lead to innovation regarding the quality of shipping services and will facilitate reduction of operational costs and increased competitiveness of the sector. At the same time, the performance of the whole EU transport system can be improved by better integrating waterborne transport into efficient door-to-door transport services in Europe and beyond.
- **Reinforcing the human factor:** EU seafaring and maritime professions experience a serious shortage of qualified people. Young people do not go to the sea as they used to. An important factor is the lack of continuing professional education offered to the mariners in a flexible manner at sea and ashore, as well as difficult reconciliation of family life and working life. E-maritime solutions can support competence development (improved long-distance training) and improve welfare for seafarers (access to long-distance health services; connectivity with families; ...).

### Do the objectives imply developing EU policy in new areas or in areas of strategic importance?

No.

## **C. Options**

**What are the policy options? What legislative or 'soft law' instruments could be considered? Would any legislative initiatives go beyond routine up-date of existing legislation?**

The policy options and strategies that the Commission could follow include:

1. Option A, the business as usual or "Do Nothing scenario", would mean inaction by the EU.
2. Option B, soft measures, would mean encouraging the exchange of best practices and information among the sector stakeholders, with the aim to promote voluntary actions. Information can be provided either by the EU itself or by industry bodies or other entities. The rationale behind the option is based on an approach more oriented towards the creation of players able to make informed decisions rather than a coercive intervention by the EU. In order to have effective information campaigns, it is vital that the right message reaches the target audience.
3. Option C, regulatory standardisation of data exchange, envisages the introduction of a regulation laying down the framework for the deployment of the e-Maritime Initiative. Subsequent delegated acts would establish detailed technical specifications, similar to existing legislation for inland waterway transport and road transport.
4. Option D, as a combination of option B, which includes support actions for knowledge and consensus building, with option C, would comprise mandatory deployment of the e-maritime services.. This could be flanked with support schemes to boost research and development of e-maritime applications, or support to the development of terrestrial broadband communication links or any technology for broadband communication suitable for short sea shipping.

**Does the action proposed in the options cut across several policy areas or impact on action taken/planned by other Commission departments?**

e-Maritime would be facilitated by the implementation of other EU maritime transport related policies and in particular the third maritime safety package, the e-Customs, EUROSUR and the related EU integrated maritime surveillance developments; in addition, it will provide new tools to achieve EU environmental priorities. Finally, in the context of the Lisbon Strategy, e-Maritime is closely related to the European e-business initiative and policies inspired by electronic means of communication. Other involved Commission departments: DG MARE; DG ENV; DG COMP; DG INFSO; DG MARKT; DG RTD.

**Explain how the options respect the proportionality principle**

The EU actions will be limited to support the establishment of the necessary conditions and framework needed to facilitate and guide future developments that will ensure interoperable systems. The EU actions will include coordination of pilot projects and supports for knowledge and consensus building for the appraisal and the vision of the way maritime transport will operate in the near future in view of the evolution of the information and communication technologies. An eMaritime strategy framework should set:

- q definitions and minimum requirements related to the best use of relevant information
- q general rules seeking the active encouragement of best ICT practices throughout the industry
- q key application domains and measures for achieving specific objectives including regulatory proposals and enabling supports for further developments will be addressed conceptually
- q a structure to engage the key stakeholders to drive the e-Maritime development programme

The various forms of intervention for achieving specific objectives in their areas of applications will be discussed at a later stage. Taking into account the principle of proportionality, the agreed approach will leave the greatest freedom to the member states to design their strategies and implementation plans.

## **D. Initial assessment of impacts**

**What are the significant impacts likely to result from each policy option (cf. list of impacts in the Impact Assessment Guidelines pages 32-37), even if these impacts would materialise only after subsequent Commission initiatives?**

The EU e-Maritime strategic objectives are to make maritime transport safer, more secure, more environmentally friendly and more competitive by improving knowledge, facilitating business networking and dealing with externalities.

The aim at this stage is to define the necessary conditions that will enable interoperability between maritime transport information systems for seamless and effortless interchange of information. At this stage, there are no development costs involved. The costs for some studies, consensus building, monitoring and coordinating demonstration and evaluation of pilot projects are covered by the existing funding instruments.

At a second stage, maybe starting from 2012, separate impact assessments will examine benefits, risks, costs and losses in specific areas of application. However, a preliminary assessment of the options B, C and D mentioned above indicate different levels but realisable benefits in specific operational areas, including:

1. Accelerated development and take up across Member States of initiatives aiming to support maritime transport policies built upon SafeSeaNet, e-customs, e-navigation, and the e-freight.
2. Speeding up of administrative procedures, improving compliance management and reducing administrative costs; administrative procedures can be simplified through a single gateway, which distributes the information to those concerned on time and reliably.
3. Facilitate maritime transport operators in establishing competitive networks that can satisfy co-modality objectives particularly improved utilisation of resources, improved operational efficiencies and improved quality of services including environmental performance.
4. Improved working conditions for seafarers (better communications will facilitate e-training, infotainment, communication with shore and family); life long carrier development eLearning tools.

The costs associated with option D will be comparable to the costs of option A. In the "Do Nothing scenario" organisations have, in any case, to bear costs to upgrade or maintain their existing Information and Communication Systems (ICS). In addition due to the short lifetime of modern ICS, many of the existing systems need to be totally replaced. The EU eMaritime standards and guidelines will support the optimisation of future investments in ICS to the necessary needs of their users.

**Could the options have impacts on the EU-Budget (above 5 Mio €) and/or should the IA also serve as the ex-ante evaluation, required by the Financial Regulation?**

No.

**Could the options have significant impacts on (i) simplification, (ii) administrative burden or on (iii) relations with third countries?**

Yes. In this respect e-Maritime is an action which will reinforce the "European Maritime Transport Space without barriers initiatives" adopted in 2009 aiming to reduce bureaucracy. Pre-consultations indicated among the first priorities the simplification of administrative procedures and reduced the time spend in fulfilling reporting formalities. The Standard Cost Model may be used to calculate the associated benefits related to reducing administrative burdens.

Appropriate action may be taken in view of international standardisation.

### **E. Planning of further impact assessment work**

**When will the impact assessment work start?**

The IA started in January 2010.

**(i) What information and data are already available? (ii) Will this impact assessment build on already existing impact assessment work or evaluations carried out? (iii) What further information needs to be gathered? (iv) How will this be done (e.g. internally or by an external contractor) and by when?**

**(v) What type and level of analysis will be carried out (cf. principle of proportionate analysis)?**

EU projects have collected a considerable amount of information relevant to the EU e-Maritime.

A scoping study has been done by the FP7 project SKEMA (<http://www.eskema.eu/>). In addition, an external IA study started January 2010 to be concluded in June 2010. The aim is to assist the Commission in obtaining a better understanding of the impact of the e-Maritime on the demand and supply of maritime and inter-modal transport services; we want to obtain reliable estimates of potential economic benefits (for the transport sector, the shippers and the final consumer), improvements in security and safety (societal benefits) and environmental improvement of maritime transport services.

<b>Which stakeholders &amp; experts have been/will be consulted, how and at what stage?</b>
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Many industry stakeholders and some Member States received preliminary information in the framework of the events organised by the MarNIS project in 2008. The SKEMA project organised two public events, one in Dublin in January 2009 and one in Riga in June 2009, where the EU eMaritime was a key issue of the agenda. Pre-consultation surveys and specific workshops took place at these events.

A public consultation is open online for the period: 28/04/2010 - 27/06/2010. Two public conferences are scheduled for June 2010 and early 2011. A number of consultations with specific stakeholders and associations are frequently taking place since early 2009.