**NAME OF CASE**

Multimodal Interoperability E-services for Logistics and Environment sustainability - MIELE

**KeyWords:**

Interoperability, ICT system, enhanced Port/Terminal Operations e-services, logistics services integration.

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<th>Description:</th>
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| MIELE aims at designing and developing pre-deployment pilots allowing interoperability between ICT systems (i.e. maritime single windows, port community systems) in the logistic chain. It consists of two parts:  
* assessment of interoperability obstacles and identification of solutions, followed by pre-deployment of a full scale, integrated and interoperable demonstrator,  
* the MIELE Middleware, allowing exchange of data among the 5 National Vertical Pilots in the above-mentioned Member States. |

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<th>Benefits:</th>
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| • Internal harmonisation: the reporting formalities must be requested in a harmonised and coordinated manner.  
• Advance notice: at least 24 hours prior to arriving in a port situated in a Member State.  
• Single window/only once: asap., it should be possible to fulfil the reporting formalities by sending electronic information only once via a single window linking.  
• Information protection: confidentiality must be ensured of all information exchanged. |

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<th>Starting Point/Objectives/Motivation:</th>
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| The project is shaped as a study taking the form of a pilot action, and includes the following steps:  
* mapping the needs of relevant stakeholders;  
* designing and developing the MIELE middleware;  
* developing specifications for adapting, upgrading and integrating existing ICT systems (national single windows, port single windows, port communities, private operators’ ICT systems) in order to be interoperable with the MIELE middleware;  
* demonstrating systems interoperability through the MIELE middleware;  
* designing the framework for the exploitation of the MIELE middleware and the full deployment of its services after the completion of the pilot action. |

In the current typical multimodal transport scenarios the different actors involved in the transport chain, interact using various information and communication protocols or transport logistics backend systems. Their current ICT capacity shows a great difference and a significant fragmentation, furthermore, some of them, have a low technological capacity: they don’t have IT systems/solutions or they don’t use specific tools for the communications; the exchange of information takes place only via fax, e-mail or, at least, phone call.

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**Success Factors:**

- enhanced Ship operations services: e-Navigation, e-Maintenance, e-Rules, e-Certificates,
- enhanced Port/Terminal Operations e-services: traffic management, optimisation of movements of cargo, freights and passengers,
- integration of shipping with passenger & logistics services: e-Freight, e-Travel,
- applications improving life at sea & promoting seafaring.

**Supported Strategic Targets:**

In order to facilitate maritime transport and reduce the administrative burdens for shipping companies, reporting formalities resulting from legal acts of the Union and of Member States need to be simplified and harmonised to the greatest extent possible.
The experience in other countries with single windows and interoperable systems (Korea, just to mention one) suggests a great simplification of the communication burden for the operators, a huge saving in equipment, traffic and manpower, an increase in efficiency and competitiveness, and a dramatic reduction of handling errors. The MIELE pilots within the national systems participating in the project are designed to evaluate specifications and constrains of the existing systems and to demonstrate the feasibility and the advantages of a common interoperable solution.

Relevant transport modes or supply chain elements:
- Maritime Transportation (vessel traffic management, ship documentation management, ship planning system)
- Port terminal management (berth assignment, transhipment)
- Customs operations (electronic transaction/payment, customs procedures management and monitoring, cargo declaration)
- Cargo position monitoring and tracking
- Road transportation planning and processing (based on real schedule of ship, on real time arrivals and departure information of ship).

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