

Project ideas for the 2021-2027 programming period

Deliverable no. D.3.2.1

Table of contents

Table of contents	2
Introduction	3
Project idea no. 1 – cross-border enhancement of the ports’ cyber resilience	4
Project idea no. 2 – Improvement of ports’ last mile accessibility through ICT	6
Project idea no. 3 – Digital twin application in ports.....	8

Introduction

Through the DIGSEA project, three project ideas will be developed supporting the implementation of INTERREG Italy-Croatia 2021-2027 priority no 3 *“Sustainable maritime and multimodal transport”*, SO 3.1 *“developing and enhancing sustainable, climate resilient, intelligent and intermodal national, regional and local mobility, including improved access to TEN-T and cross-border mobility”*.

The following project ideas focus on the improvement of ports’ intermodality capacities to make them greener, more ICT based, more secure and more integrated with the hinterland’s needs, and more specifically on:

1. Enhanced cyber resilience of ports
2. ICT applied to last-mile accessibility of ports
3. Digital twin for ports

Project idea no. 1 – cross-border enhancement of the ports’ cyber resilience

<p>Programme output indicator/s relevant for the project</p>	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> New or modernized intermodal connections <input checked="" type="checkbox"/> Strategies and action plans jointly developed <input type="checkbox"/> Participations in joint training schemes <input checked="" type="checkbox"/> Pilot actions developed jointly and implemented in projects
<p>Indicative actions identified by the Programme for Priority no. 3</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Setting up common analysis and data exchanges on existing connections in order to define new sustainable solutions for the access to ports and the integration of transport networks in port towns <input type="checkbox"/> Improving the environmental performance of ports by supporting suitable small-scale infrastructures and innovative equipment/ICT tools, also in order to improve boarding /disembarking procedures <input type="checkbox"/> Promoting innovative solutions for implementing the circular economy approach in the management of the ports <input type="checkbox"/> Fostering the use of alternative fuels and the diffusion of new ecological transport modes <input type="checkbox"/> Developing innovative cross-border strategies, for logistic and mobility solutions interconnecting ports with urban areas, railways, airports, inland terminals, industrial areas in order to enhance the processing of passengers and freight <input checked="" type="checkbox"/> Establishing action plans and common standards to manage physical and cybersecurity of freight and passengers’ transports also in real time through the use of ICT and web-based tools
<p>Project objective</p>	<p>The main project objective is to jointly strengthen the cross-border cybersecurity dimension of the port and maritime sector</p>
<p>Project description</p>	<p>The project would have three main Work Packages:</p> <ol style="list-style-type: none"> 1. WP1 would develop: <ol style="list-style-type: none"> a. AS-IS analysis of cyber resilience of Italian and Croatia Ports b. TO-BE action plan to strengthen cyber resilience of Italian and Croatia ports c. Output indicator → Strategies and action plans jointly developed

		<p>2. Based on the action plan developed in WP1, WP2 would implement pilot actions to concretely improve the cyber resilience of Italian and Croatian ports</p> <p style="padding-left: 40px;">a. Output indicator → Pilot actions developed jointly and implemented in projects</p> <p>3. Based on the results of WP1 and WP2, WP3 would develop:</p> <p style="padding-left: 40px;">a. A cross-border strategy for jointly improving the cyber resilience of Italian and Croatian Ports</p> <p style="padding-left: 40px;">b. PPs would sign an MoU setting a long-time cooperation framework</p> <p style="padding-left: 40px;">c. Output indicator → New or modernized intermodal connections</p>
Project	expected result	Thanks to the project activities, Italian and Croatian ports will have their cyber resilience enhanced in a coordinated and harmonised way at cross-border level.
Partnership		<ul style="list-style-type: none"> • Port authorities of Italy and Croatia • Technical universities and research centres

Project idea no. 2 – Improvement of ports’ last mile accessibility through ICT

<p>Programme output indicator/s relevant for the project</p>	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> New or modernized intermodal connections <input checked="" type="checkbox"/> Strategies and action plans jointly developed <input type="checkbox"/> Participations in joint training schemes <input checked="" type="checkbox"/> Pilot actions developed jointly and implemented in projects
<p>Indicative actions identified by the Programme for Priority no. 3</p>	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Setting up common analysis and data exchanges on existing connections in order to define new sustainable solutions for the access to ports and the integration of transport networks in port towns <input checked="" type="checkbox"/> Improving the environmental performance of ports by supporting suitable small-scale infrastructures and innovative equipment/ICT tools, also in order to improve boarding /disembarking procedures <input type="checkbox"/> Promoting innovative solutions for implementing the circular economy approach in the management of the ports <input type="checkbox"/> Fostering the use of alternative fuels and the diffusion of new ecological transport modes <input checked="" type="checkbox"/> Developing innovative cross-border strategies, for logistic and mobility solutions interconnecting ports with urban areas, railways, airports, inland terminals, industrial areas in order to enhance the processing of passengers and freight <input type="checkbox"/> Establishing action plans and common standards to manage physical and cybersecurity of freight and passengers’ transports also in real time through the use of ICT and web-based tools
<p>Project objective</p>	<p>The main project objective is to jointly improve the last mile accessibility of ports through ICT innovations</p>
<p>Project description</p>	<p>The project would have three main Work Packages:</p> <p>4. WP1 would develop:</p> <ol style="list-style-type: none"> a. AS-IS analysis of last mile accessibility of Italian and Croatia ports b. TO-BE action plan to strengthen last mile accessibility of Italian and Croatia ports through ICT c. Output indicator → Strategies and action plans jointly developed

		<p>5. Based on the action plan developed in WP1, WP2 would implement pilot actions to concretely improve the last mile accessibility of Italian and Croatian ports</p> <p>a. Output indicator → Pilot actions developed jointly and implemented in projects</p> <p>6. Based on the results of WP1 and WP2, WP3 would develop:</p> <p>a. A cross-border strategy for jointly improving the last mile accessibility of Italian and Croatian Ports through ICT</p> <p>b. PPs would sign an MoU setting a long-time cooperation framework</p> <p>c. Output indicator → New or modernized intermodal connections</p>
Project	expected result	Thanks to the project activities, Italian and Croatian ports will have their last mile accessibility enhanced in a coordinated and harmonised way at cross-border level.
Partnership		<ul style="list-style-type: none"> • Port authorities of Italy and Croatia • Technical universities and research centres

Project idea no. 3 – Digital twin application in ports

<p>Programme output indicator/s relevant for the project</p>	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> New or modernized intermodal connections <input checked="" type="checkbox"/> Strategies and action plans jointly developed <input type="checkbox"/> Participations in joint training schemes <input checked="" type="checkbox"/> Pilot actions developed jointly and implemented in projects
<p>Indicative actions identified by the Programme for Priority no. 3</p>	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Setting up common analysis and data exchanges on existing connections in order to define new sustainable solutions for the access to ports and the integration of transport networks in port towns <input checked="" type="checkbox"/> Improving the environmental performance of ports by supporting suitable small-scale infrastructures and innovative equipment/ICT tools, also in order to improve boarding /disembarking procedures <input type="checkbox"/> Promoting innovative solutions for implementing the circular economy approach in the management of the ports <input type="checkbox"/> Fostering the use of alternative fuels and the diffusion of new ecological transport modes <input checked="" type="checkbox"/> Developing innovative cross-border strategies, for logistic and mobility solutions interconnecting ports with urban areas, railways, airports, inland terminals, industrial areas in order to enhance the processing of passengers and freight <input type="checkbox"/> Establishing action plans and common standards to manage physical and cybersecurity of freight and passengers’ transports also in real time through the use of ICT and web-based tools
<p>Project objective</p>	<p>The main project objective is to jointly test the application of digital twin technologies in ports</p>
<p>Project description</p>	<p>The project would have three main Work Packages:</p> <ol style="list-style-type: none"> 7. WP1 would develop: <ol style="list-style-type: none"> a. Best practice analysis of DT experiences applied to ports at international level b. Action plan to apply DT in Italian and Croatian ports c. Output indicator → Strategies and action plans jointly developed 8. Based on the action plan developed in WP1, WP2 would implement pilot actions to test DT application in Italian and Croatian ports

		<p>a. Output indicator → Pilot actions developed jointly and implemented in projects</p> <p>9. Based on the results of WP1 and WP2, WP3 would develop:</p> <ul style="list-style-type: none"> a. A cross-border strategy for jointly applying DT innovations in Italian and Croatian Ports through ICT b. PPs would sign an MoU setting a long-time cooperation framework c. Output indicator → New or modernized intermodal connections
Project result	expected	Thanks to the project activities, Italian and Croatian ports will be able to jointly test the most recent innovation in DT technologies in a coordinated and harmonised way at cross-border level.
Partnership		<ul style="list-style-type: none"> • Port authorities of Italy and Croatia • Technical universities and research centres