

# PIXEL Ports Value Proposition Survey

Thank you for contributing to this European initiative with your feedback. With it we want to understand the four dimensions of our value proposition. You can evaluate these at each tab by using numbers 1 to 5 (min=1-5=max) and you can comment those evaluations if you like. Please start by filling-in your identification. Thanks in advance for this helpful contribution.

Contact Person:

Port Authority:

## Tasks

**Environmental Performance**

Evaluate the environmental performance potential by using the PIXEL platform, answering a few questions

**Technical Performance**

Evaluate the platform functionality of the PIXEL platform by answering a few questions

**Innovative Features**

Evaluate our main innovations, with numbers min=1-3=max: the innovations can be advancing SotA technology, in the assembly of the technology, or in the (re)focus of the technology

For any question please contact the innovation manager of PIXEL at joao (dot) pitacosta (at) xlab (dot) si

# Environmental Performance

PIXEL is making available a Port Environmental Index (PEI) consisting of a global indicator of the environmental impact of ports, allowing them to have a real-time measure of their environmental footprint,

to plan actions to reduce it to desired levels, and to use this evidence for decision making and promotion through a "green image". Please provide your feedback over some of its features.

Environmental Performance			Want to use	Will implement it	Will pay for it
ID	Value	Description	This is important to us and we want to use it (min=1-5=max)	We have the infrastructure and/or know-how (min=1-5=max)	We have budget for installation and license (min=1-5=max)
EVP1	easy to use and integrate	Is easy to integrate with existing data collection infrastructure (and PCS) and includes a IoT baseline common to most small and medium ports			
EVP2	comprehensive	Allows the ports how to reduce their operations' impact to the environment in a comprehensive manner and enables them to improve the indicators			
EVP3	easy to understand	Allows for a clear output based on a single and simple to understand quantitative evaluation			
EVP4	sensibility and specificity	The measurement is meaningful and representative of the port activity			
EVP5	fair to all sizes of ports	Its fair for small and medium ports and large ports, being independent of size and coherent measurement of environmental impact [1]			
EVP6	can monitor progress	Can be used to promote a green image of the port by allowing for the evaluation of own environmental performance progress over time (comparison with itself over time).			
EVP7	can monitor positioning	Can be used to promote a green image of the port by permitting the comparison of the port's environmental performance with an average baseline [1], accessing 5 different areas of environmental impact (including emissions, noise pollution, light pollution)			

[1] Environmental impacts of ports will be normalized in terms of ports' different sizes and functions.

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# Technical Performance

The Port Environmental Index (PEI) will be accessible to its users through a user interface showcasing the various aspects of the environmental impact in near real time,

allowing the user to setup alerts and explore models, and from where the insights over the collected data can be addressed. Please provide your feedback over some of its features.

Technical Performance			Want to use	Will implement it	Will pay for it
ID	Value	Description	This is important to us and we want to use it (min=1-5=max)	We have the infrastructure and/or know-how (min=1-5=max)	We have budget for installation and license (min=1-5=max)
TVP1	Usability & Compatibility	Easy to use and compatible with port information systems, based on industry standard equipment whilst remaining vendor-independent			
TVP2	Env Models	Gives access to environmental models allowing to explore different scenarios			
TVP3	Energy Models	Gives access to energy balance models, where demand prediction can be accessed			
TVP4	Interoperability	Allows for the secure interoperability of heterogeneous data sources, with multiple data sources in a single screen			
TVP5	Operational Tools	Allows to add new models to perform new simulations or predictions			
TVP6	User Managmt	Allows for different permission levels of data management for different users at the port			
TVP7	Workflows	Allows for customizable KPIs, alerts, trends, and workflows			
TVP8	Applicability	Applicable to a variety of data-driven port issues and types, scalable			

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# Innovative Features

Due to PIXEL's modular nature, it is making available several product features that can be chosen in the appropriate configuration adopted by the port and according to their needs/priorities.

Your early evaluation will help us to better understand the most useful of these to be available. Please provide your feedback over some of its features.

ID	Asset	Type	Description	Product Usability	Want to use	Will implement it	Will pay for it
				This is important to us and we want to use it (min=1-5=max)	We have the infrastructure and/or know-how (min=1-5=max)	We have budget for installation and license (min=1-5=max)	
P01	Port Environmental Index (PEI)	consultancy	A global indicator with input from the IoT infrastructure, including data gathering and data quality assurance, normalization, weighting and aggregation of data, and available through an intuitive dashboard, tested and validated in real environments, which includes full documentation and APIs to monitor and access the data acquired.				
P02	Port Activity Scenario	service	Allows predictions on maritime operations from ships in the port. Also identifies the inputs and outputs of each model to allow modelling and simulation considering the impact of the results of one model on another.				
P03	Energy Demand Model	service	Computational models of energy consumption, based on the operations at the port				
P04	Energy Production Model	service	Computational models of energy production in the port of Bordeaux using photovoltaic systems. New productive uses of over-produced energy can be developed.				
P05	Hintermodal Transport Model	service	Model composed of 2 sub-models, one related to the multimodal transport for slabs and one for the management of the parking area outside the port in order to avoid congestions and facilitate selection of transport mode between the port and other transportation nodes				
P06	Environmental Pollution Models		Models allowing for estimation of air and noise pollution produced by the ports' operations over defined periods of time.				
P07	Traffic Predictive Algorithms	service	Algorithms that allow for predictions on traffic congestions and flow related to the port.				
P08	Port Operations Predictive Algorithms	service	AIS-based algorithms that allow predictions on maritime operations from ships in the port, and also operation detection (classification) algorithms (for bunkering or birthing)				

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