Port IoT for Environmental Leverage

PIXEL

Acronym:	PIXEL
Call Idenitfier:	MG-7-3-2017
GA:	769355
Duration:	36 months
Start Date:	01-May-2018
Budget	4.890.222,50 €
Coordinator:	Universitat Politècnica de València

" towards
the Port
of the Future"

VISION

PIXEL is the first solution combining strong methodology and smart technology for port ecosystems enabling optimization of operations while reducing environmental impact.

- Focused on small-medium ports innovation
- Ambitious real use-cases
- Migrating from document-centric management systems to data-centric interoperable systems
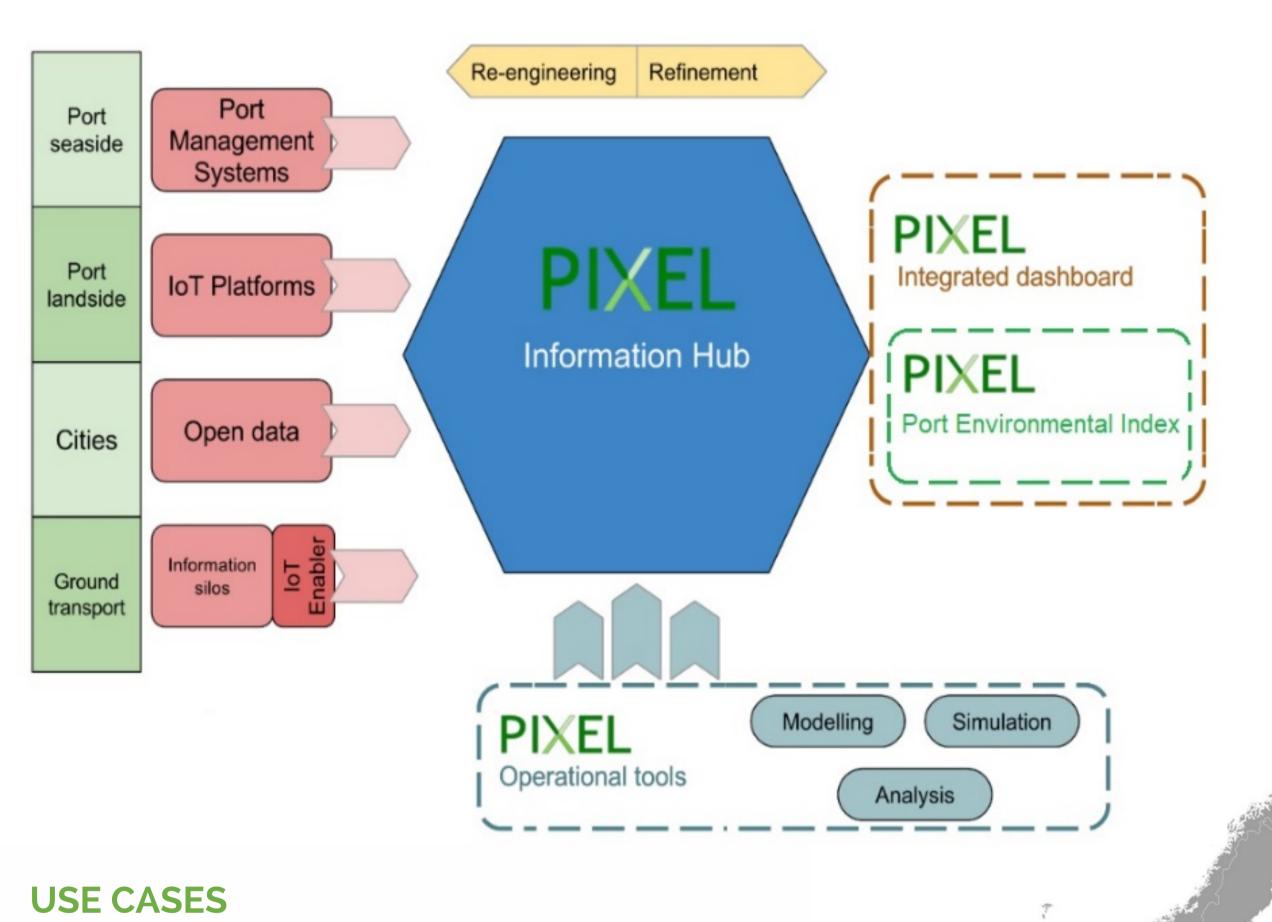- Creating a single-metric index for environmental monitoring on ports

IMPACT

- ✓ Reduction of impact on climate change and the environment of port activities
- ✓ Reduction of operational and infrastructural costs
- ✓ Improvement of logistics efficiency
- ✓ Better integration of the port in the surrounding socio-economic area, including city-port relations and the smart urban development of Port Cities
- ✓ Large scale adoption of the PIXEL solution and approach

TECHNOLOGY

PIXEL relies on an ICT system capable of gathering every useful data in ports based on IoT and techonological integration. Decision making for process optimization and environmental impact mitigation emanate from this modular schema:

- ❖ *PIXEL Information Hub:* sink where different information siloes discharge and store their real-time data
- ❖ *PIXEL Operational Tools:* Algorithms based on modelled processes are applied over the data available.
- ❖ *PIXEL Integrated Dashboard:* user-oriented tools for decision making and environmental monitoring.
- ❖ Cutting-edge privacy, authorization and security policies

USE CASES

Energy management use case - *Port of Bordeaux*
Port, as an energy integrated operator, leverages PIXEL to predict and control the energy demand.
Intermodal transport use case – *Port of Monfalcone*
Operational and planning activities harmonisation in hinterland transport. Port and multimodal nodes integration optimization.
Port-city integration use case – *Ports of Piraeus & Thesaloniki*
Data interchange among region entities. Accesibility and synchronization with mobility services between diferent ports.

PEI - Port Environmental Index

Development of a single-metric methodology to be standardized as global indicator of the impact in ports.

PARTNERS

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