SMART IN MED

Marseille Fos
Le port euroméditerranéen

Four ambitions

Improve economic and environmental performance of port & logistics ecosystem

Create new value and employment sources

Enhance relationships and interactions between the port and the territory

Promote and differentiate Marseille Fos

MARSEILLE FOS
le French smartport .in med

Intelligent & efficient logistic

Industrial & energy excellence to improve environmental efficiency

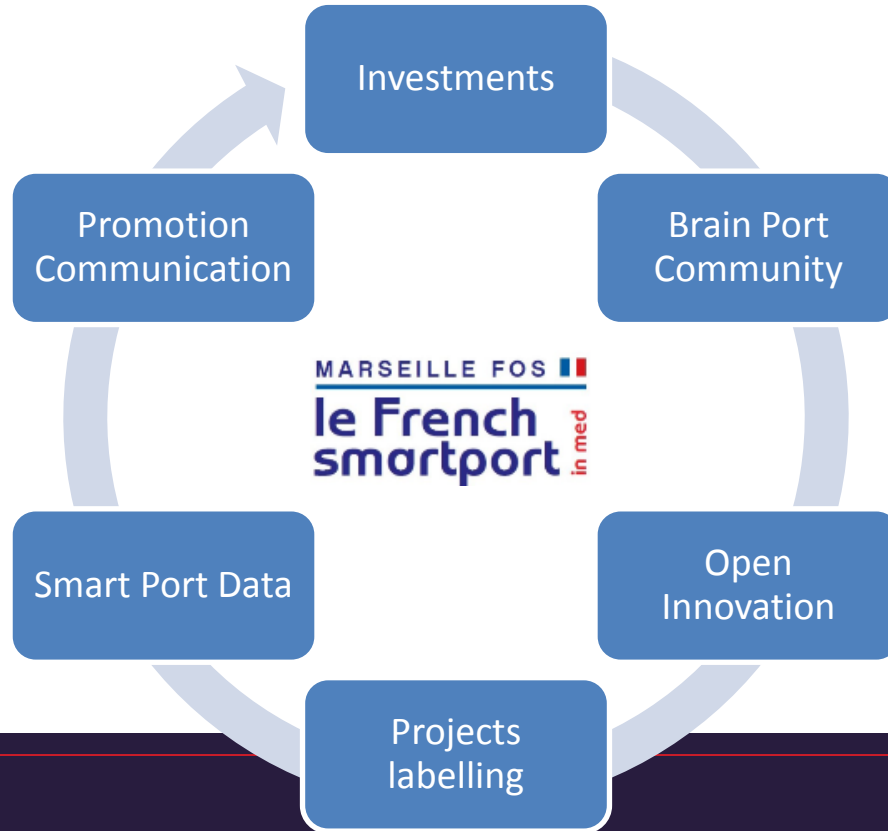**Best-in-class digital offer**
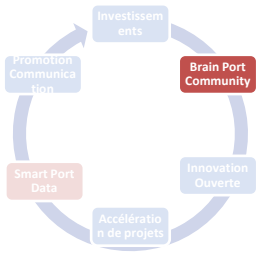
A green port

A positive energy port

An innovative and job-creating port

Marseille Fos
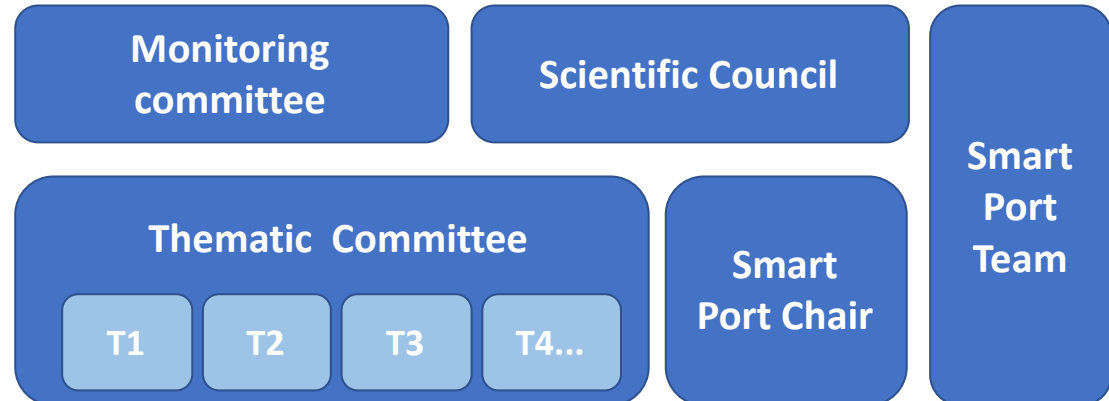Le port euroméditerranéen

Le French Smart Port in Med: 6 topics

Les objectifs
Partnership agreement focused on projects

The Brain Port Community brings together the academic community of the Aix-Marseille metropolitan area to work on mid and long term issues faced by economic partners :
- Research and development issues
- Training issues

Monitoring committee	Scientific Council	Smart Port Team
Thematic Committee T1 T2 T3 T4...	Smart Port Chair	

BRAIN PORT COMMUNITY

11 academic institutions
AMU
CEA
Centrale Marseille
CNRS
École des Mines de St Etienne (Gardanne)
École Nationale Supérieure Marine Marchande
ENSPM
GPMM
ISTELI
Kedge Business School
IEP

6 Clusters
Atmo SUD
Capénergies
Novachim
PIICTO
Pôle Mer
UMF

7 Smart Port Partners
- CMA-CGM
- EDF
- Interxion
- GPMM
- La Méridionale
- Naval Group
- Les terrasses du port

5 Public partners
- Regional Council
- Departmental Council
- Aix-Marseille Provence Metropolis
- City of Marseille
- Euroméditerranée

Potential partners
- ABB
- Air Liquide
- Arcelor-Mittal
- Cisco
- Engie
- Gemalto
- GRT Gaz
- MGI
- Orange
- Schneider Electrics
- Siemens
- Seayard
- Société des Eaux de Marseille
- ST Microelectronics - NXP
- Total
- Traxens

Les objectifs

Adding value by using information flows to drive and optimize physical and economic flows
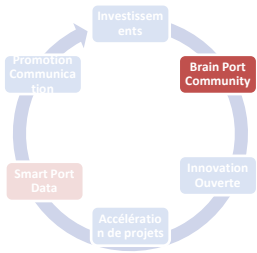
Monitor through augmented infrastructure network

- Sensors and automation

Analyze and predict in complex systems

- Big data, Econometrics, AI, Optimization methods

**Add value to the economy and the territory**

- Logistics

- Smart energy systems

- Environment

- Urban planning

- Training and employment

Space related know-how

- Georeferencing
- Detection

- Automation, MEMS
- Advanced Manufacturing

- Hardened electronics
- Security, Reliability

- High data rate communication

- Dynamic optimization

- Energy efficiency

25/03/2019

Les objectifs

7 thematic fields
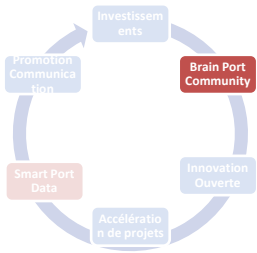
Automatized systems and sensors
> AMU : IM2NP, CINaM, IUSTI, LMA
> Centrale Marseille, Mines Gardanne, CEA

Big Data, AI, IT
> AMU : LIS, AMSE, LEST, MMSH, CLEO
> Mines Gardanne, CEA

Logistics and Shipping
> AMU : CRET-LOG, I2M , CDMT
> KEDGE, IEP, Mines Gardanne

Energy Transition
> AMU : IM2NP, MADIREL, IUSTI, BIP, LAMES, AMSE, LPS, LIEU
> Centrale Marseille, Mines, CEA

Environment
> AMU : M2P2, CEREGE, MOI, LCE, LIEU, AMSE, IMBE, LPED
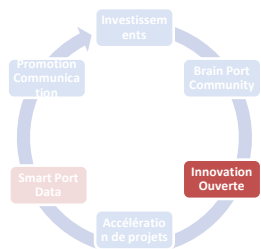> Centrale Marseille, CEA

Urban planning and Humanities
> AMU : MMSH, ALLSH, IUAR
> KEDGE, IEP

Business transformation and employment dynamics
> AMU : LEST, AMSE, Gift Shipping activities
> KEDGE,

MARSEILLE FOS
le French
smartport
in med

THE **CHALLENGES**

Go to → **www.lefrenchsmartportinmed.com**

How to inform users better about and around the port →

CMA CGM — How to optimize terminal's get out container operations by means of data available? →

eDF — How to use renewable energy for connecting ships to the electric grid →

NAVAL GROUP — How to establish port cybermapping →

Morseille Fos — How to calculate the environmental footprint of a freight shipping route under an offset system →

La Méridionale — How to interface a carrier's run management system with the RFID tag displayed on the trailer and its location on the dock →

interxion — How to provide battery capacity alerts at low cost →

Investissements
Promotion Communication
Brain Port Community
Innovation Ouverte
Smart Port Data
Accélération de projets
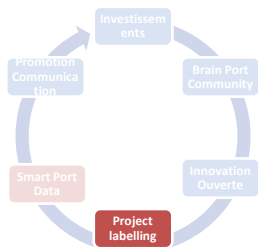
6
Topics

11
Labeled projects

+50
Active partners

Artificial Intelligence for ports

Port Smart Grid

Environmental performance index

BLOCKCHAIN

Electric pilot boats

1st pilot boat about to be implemented by the pilots of Marseille-Fos

Port Cyber Security

Cross disciplinary degree

Maritime and port activities
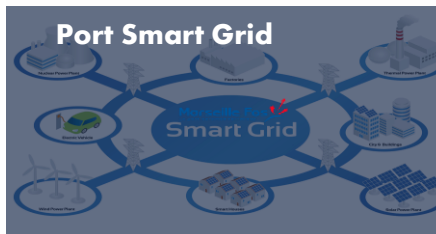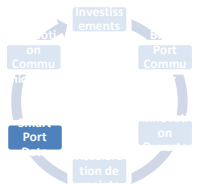
Fuel the engine
Transform data into territorial assets

Actions

- ✓ Synchronize development efforts
- ✓ Platform sharing
- ✓ Data valorization

Results

- ✓ Gather data around use cases
- ✓ New services (dashboard, predictive indicators...)
- ✓ Hackathon and Open Innovation challenge resource

Contributors

- ✓ Aix-MArseille Metropolis, CCIMP, GPMM, AMU
- ✓ Regional Council, City of Marseille, MGI
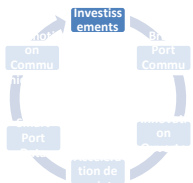- ✓ Public et private producers

Port of Shanghaï
31/05 & 23/06/2018

27/06/2018,
MEDPorts Association

13/07 & 27,28/09/2018,
Port of Hambourg

Developing infrastructures

+30 M€ invested in Smart programs in the past 5 years

MASTER PLAN 2014-2018	M€
Innovex Phase 1	3
Data center connections	2,3
Shore to ship connection – CMN	1,7
Port Community System	3
GNV Station for trucks	2,4
Logistics and modal shift	13,6
Railway and combined transport	7,2
Total	**33,2**

Smart programs planned in 2019-2013 Masterplan

MASTER PLAN 2019-2023
Innovex Phase 2
Shore to ship connection Corsica & International
Shore to ship connection – Ship repair
Sensor nerwork / smart grid
Renewable energy development
Railway Terminal Marseille
Railway Terminal Fos
Railway highway
Steam network

Thank you for your attention!

By

MEDPorts Association

General Presentation

Port Authority of Algeciras Bay ©

Mediterranean Ports Challenges & Opportunities

- Integration of both banks to facilitate international trade, sustainability, safety and security, among other factors, in the Region.

- Implementation of the Neighbourhood Policy of the EU.

- New patterns of the World Maritime Transport: Enlargement of the Panama Canal, doubling of the Suez Canal, increasing size of the fleet.

- Climate change impact and mitigation. The need to cooperate to protect the common Environment.

- Innovation and digitalization to create a common network of smart ports

- New global policies: e.g. Belt and Road Initiative

Short story

- 1998 creation of the Intermed association

- 2016, first MEDports Forum

- 2017, MEDports workshop

- 2018, MEDports Forum II

- 2018, on the 27 of June, creation of the MEDports Association

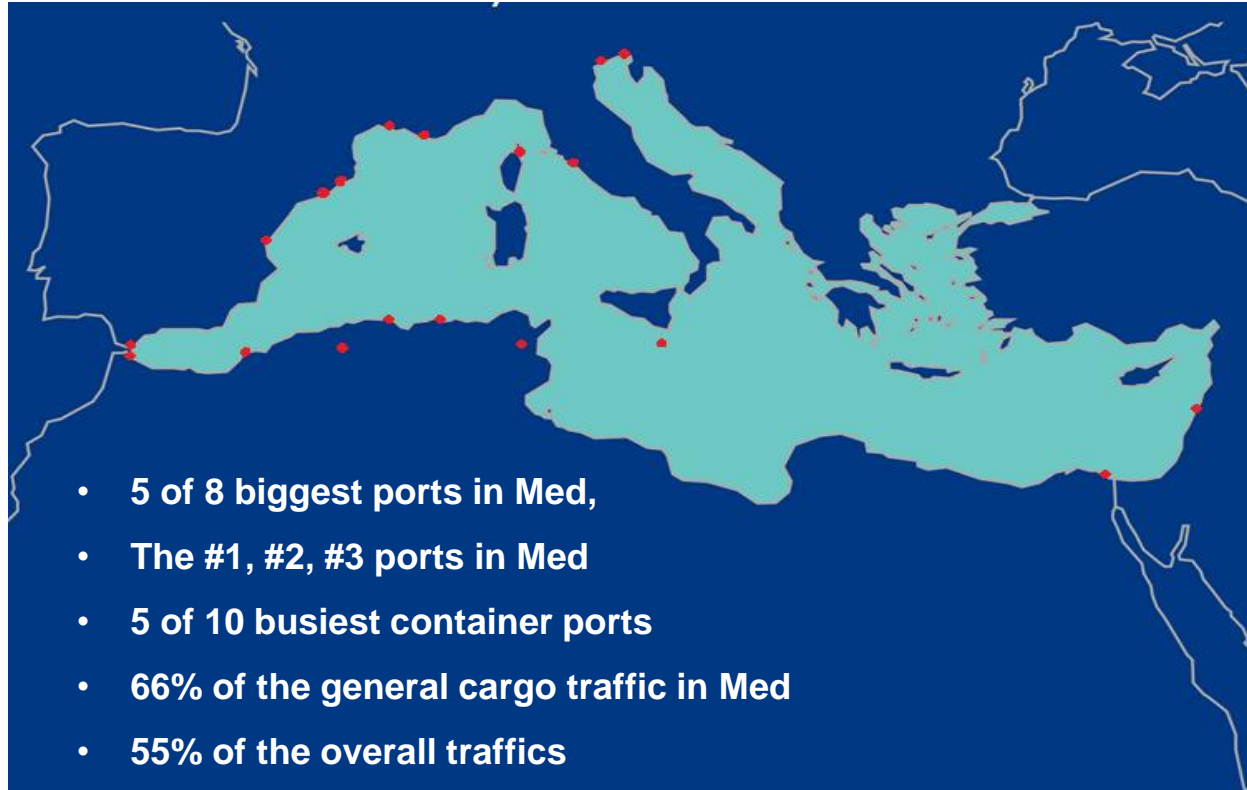## History of the MEDPorts Association

- The MEDports Association is a **nonprofit association** under the **French law**, located in **Marseille**.

- The Association is **established by the port authorities** (or assimilated) around **the Mediterranean Sea**.

- MPA was created on last **June 27th 2018** and was officially launched with the **adhesion of 20 port authorities and national port associations**.

MEDport Association's Members

There are **22 Members of 10 Mediterranean countries, 5 North bank, 5 South bank**
(Slovenia, Italy, Malta, France, Spain, Morocco, Argelia, Tunisia, Egypt, Lebanon)

- Algeciras
- Arzew
- Barcelona
- Bastia
- Bejaia
- Beirut
- Cartagena
- Civitavecchia
- Damietta
- Luka Koper
- Malta Freeport

- Marseille Fos
- Office de la Marine Marchande et des Ports
- Ports de Catalonia
- Puertos del Estado
- Serport
- Skikda
- Tanger Med
- Tarragona
- Toulon
- Valencia
- Venice

MEDPORTS Representativeness

- 5 of 8 biggest ports in Med,
- The #1, #2, #3 ports in Med
- 5 of 10 busiest container ports
- 66% of the general cargo traffic in Med
- 55% of the overall traffics

MED ports ASSOCIATION

Objectives of the Association

- **To improve the efficiency**, **the competitiveness** and **the world visibility of the Med ports** by facilitating joint action and communication as deemed appropriate, exchange of best practices among member ports by strengthening training, shared knowledge and port expertise.

- **To facilitate the creation of new maritime trade links between the Med ports** by enhancing the exchange of data and by collaborating in the implementation of sustainable, secure and efficient transport corridors.

- **To promote and support the Med ports interests as a regional stakeholder** before international organizations and institutions

- **To examine issues relating to port activities** and/or port and maritime sector in the context of international treaties and regulations by **focusing on the impacts on the Mediterranean sea**.

- **To keep its Members informed** and to **seek common positions** every time it will be deemed possible.

- **To achieve a well-balanced Association**, functioning with ports of different sizes, from different regions around the Mediterranean area.

MEDports Technical bodies

- Sustainability.

- Employment, Training and Maritime Expertise.

- Safety and Security.

- Statistics and Market Analysis.

- Relations with International Institutions.

- Smart Ports.

Identification of the 12 key aspects for the Committee's members

1. Digital platforms to connect to all port actors: e.g. Port Community System – exchange experience
2. Sharing experience on tracking systems for the end customer on the whole supply chain (starting with Photo/Video-Gate systems) for passengers and cargo, to make the supply chain more transparent
3. Mobile apps to optimize port management – benchmark and best practices
4. Data security: encryption, blockchain, …
5. Extension of data transmission from one port to other ports: passengers, cargo, dangerous goods… (especially connect ports within one same country / and also Europe with non-Europe)
6. Create a Port Living lab, with start-ups and universities who could test to solve our problems in a real environment (through contests for example).
7. Efficient energy management, for example with port smartgrids and alternative fuels (LNG, electric, …)
8. Use data systems to make rail transport more efficient (linked to points 1-3 and 6 and 11)
9. Social responsibility / interface port-city
10. Internet of Things – identify current and future IoT technologies and their use in ports.
11. Prediction software fed with real events (weather conditions, number of available pilots …) and interconnected between ports, to simulate the whole logistic chain in the Med (+hinterland?).
12. Labelling « smart MEDport projects ».

Some priority actions

SMART PORTS

- **Single window**

- **State of the art of apps and technologies in the MEDports**

Identification of the 12 key aspects for the Committee's members

1. Digital platforms to connect to all port actors: e.g. Port Community System – exchange experience
2. Sharing experience on tracking systems for the end customer on the whole supply chain (starting with Photo/Video-Gate systems) for passengers and cargo, to make the supply chain more transparent
3. Mobile apps to optimize port management – benchmark and best practices
4. Data security: encryption, blockchain, …
5. Extension of data transmission from one port to other ports: passengers, cargo, dangerous goods… (especially connect ports within one same country / and also Europe with non-Europe)
6. Create a Port Living lab, with start-ups and universities who could test to solve our problems in a real environment (through contests for example).
7. Efficient energy management, for example with port smartgrids and alternative fuels (LNG, electric, …)
8. Use data systems to make rail transport more efficient (linked to points 1-3 and 6 and 11)
9. Social responsibility / interface port-city
10. Internet of Things – identify current and future IoT technologies and their use in ports.
11. Prediction software fed with real events (weather conditions, number of available pilots …) and interconnected between ports, to simulate the whole logistic chain in the Med (+hinterland?).
12. Labelling « smart MEDport projects ».

MERCI POUR VOTRE ATTENTION

Marseille Fos
Le port euroméditerranéen