Enjeux de l’interopérabilité des ports vus comme des interfaces de connexion et de création de valeur

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Issues related to interoperability of ports, seen as interfaces offering connection and value creation

Agenda of my presentation

- Some words to introduce myself
- What is ports’ “raison d’être”?  
- Interoperability of ports?  
- Issues and challenges related to ports’ interoperability
Some words to introduce myself

- Civil engineer graduated from Ecole Nationale des Ponts et Chaussées
- PhD in transport economy and logistics management from Aix-Marseille University – CIFRE at Marseille-Fos Port Authority
- Full professor in logistics, supply chain management, strategy and information systems at Aix-Marseille University
- Head of CRET-LOG research center in Aix-en-Provence
- Former experiences in port management and studies:
  - Administrator of IMTM (Institut Méditerranéen des Transports Maritimes)
  - Vice-president of the national PREDIT 4 Research Program
  - Member of the Development council of GPMM
- Today, member of the Metropolitan Smart Port initiative (Marseille Area)
What is ports’ “raison d’être”? 

An interface between “worlds”
Value creation by:

- Connecting land and sea thanks to relevant infrastructures
- Offering efficient services to companies
  - Needing to transport goods or persons
  - Operating ships, trucks or others transport means
  - Looking for space to settle logistics activities…
- Being integrated in transport systems and supply chains
- Offering smooth physical, informational and financial flows
- Ensuring security for every asset and person
- Preventing from environmental damage
- Contributing to local and national development
- Improving knowledge and intelligence

Value assessment is needed!
Interoperability of ports?

What kind of connexion?
What / who should be connected?

- Not only connecting ports with transport systems
  - Being an active intermodal interface in transport systems
- Connecting actors in the port community
  - Helping inter-organisational local processes
- Connecting port to other stakeholders (e.g. customs)
  - Facilitating exchanges (local, national, international)
- Establishing connections among ports
  - Improving the overall connectivity of the port system
- Without forgetting citizens!

Making them operating together

Thinking about interoperability layers

- A geographical logic – territorial anchoring
- A technical and physical transport inter-modality
- A multimodal gateway logic
- An inter-organisational logistics and SCM approach
- A multi-services supplying offer
- Looking for a smart network connectivity

Seaport ➔ Hub port ➔ Logistics port ➔ Network port ➔ Smart port

plug-and-play

Fabbe-Costes N. (1989)
Interoperability framework?

- Interlinking infrastructures (connecting)
- Improving process compatibility (switching)
- ICT Interconnection (workflowing)
- Sharing data and knowledge (networking)

NEED TO DEFINE

- Criteria that support a technical interoperability
- Common interface specifications
- Common business procedures and languages

TAKE INTO CONSIDERATION

- Costs, technical complexity and processing times
- Protection against undue risks resulting from the participation of other parties
Issues and challenges related to ports’ interoperability
Why should ports look for ports’ interoperability?

- Harsh competition between ports: do we need so many ports?
  - How to survive and develop?
  - How to differentiate?
  - How to attract customers? Activities?
  - How to conquer other ports?
- The need for cooperation
  - Improving integration in networks
    - Locally, regionally, internationally
  - Looking for win-win situations
  - Improving the overall efficiency of network…
Looking for ports success

- Positioning
- Integration
- Value assessment
- Agility

4Rs

- Responsiveness
- Reliability
- Resilience
- Relationships

Goldsby, T.J. and Stank, T.P. (2000)

Christopher, M. (2013)
A multilevel strategic analysis

Adapted from Fabbe-Costes, Roussat and Colin (2011)
Who can think about interconnected networks?


http://news.xinhuanet.com/english/2016-06/24/c_135464233.htm

Carte du futur réseau ferroviaire ERTMS de l’Union européenne © EC
From physical to smart networks!

- Physical networks need land-based infrastructure
  - Impossible without states implication (investments)
- International corridors structuring the international landscape
  - Resulting from political logics
- Managerial networks emerge from commercial relationships
  - Dominated by worldwide multinational companies
    - Industrials, retailers, TPLs, etc.
    - Intertwined networks !!
- Smart networks rely on digital technologies
  - Can emerge from community of practices, networks of individuals, social interactions
Could ports’ interoperability help ports to change?

- From a *standardized* port: a technical “piece” of the transport worldwide network

- To an interoperable port: a “hyper-lieu” (Lussault, 2017) that offers new opportunities
  - Intensity of a dense and diverse space
  - Hyperspatiality
  - Hyperscalarity
  - Experiential dimension
  - Affinity
Ready to answer questions now or later

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