



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)

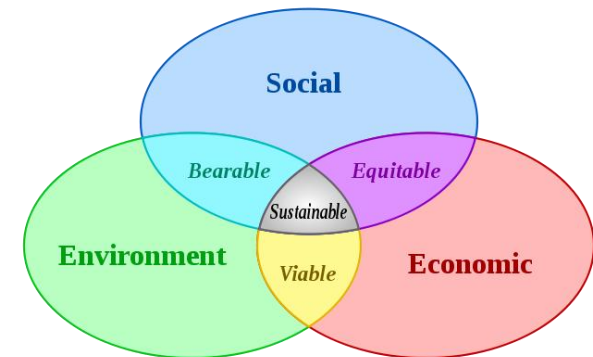


What is ports' “raison d’être”?

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 !



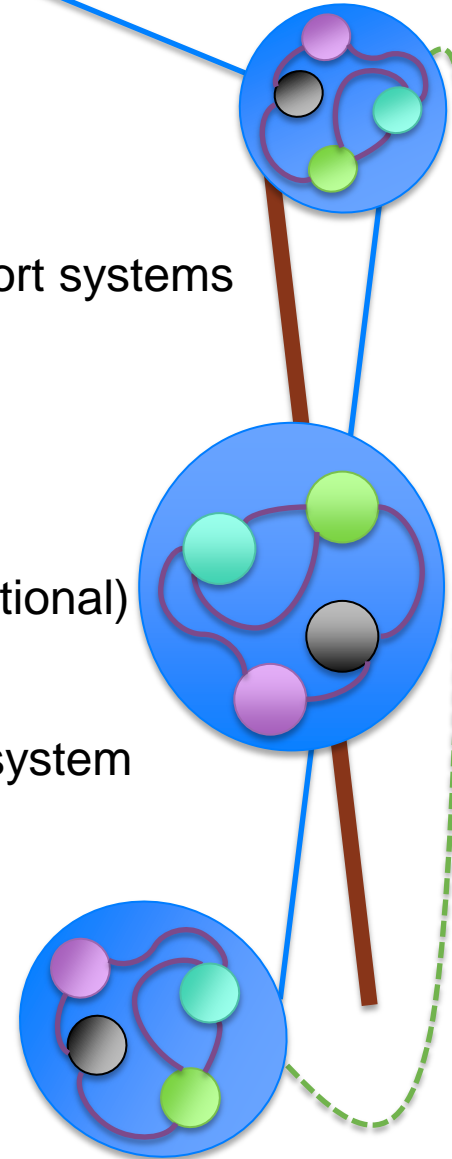
Interoperability of ports?

What kind of connexion?

What / who should be connected ?

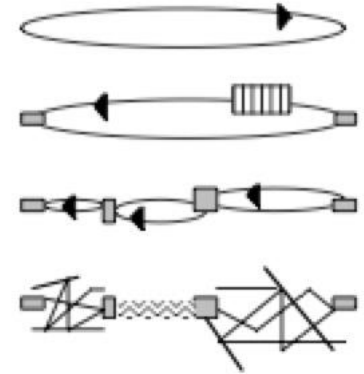
- Not only connecting ports with transport systems
 - Being an active intermodal interface in transport systems
- Connecting actors in the port community
 - Helping inter-organisational local processes
- Connecting port to other stakeholders (e.g. customs)
 - Facilitating exchanges (local, national, 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



Fabbe-Costes N. (1989)



plug-and-play

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

Definition of standards is crucial in order to achieve full interoperability and avoid local interpretation

Is there a common goal?



Issues and challenges related to ports' interoperability

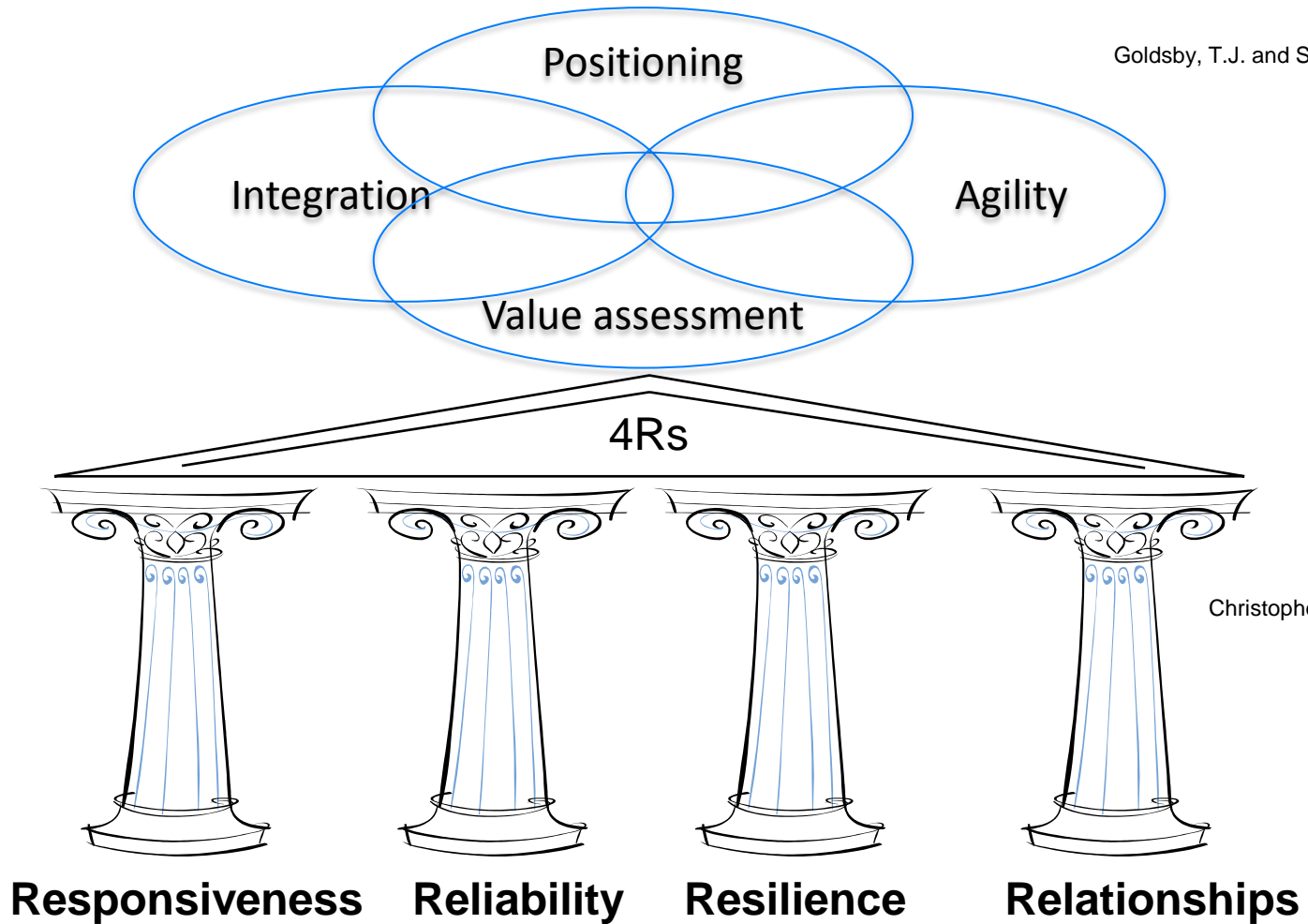
Why should ports look for ports' interoperability ?

- 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...

Coopetition

A paradoxical choice

Looking for ports success

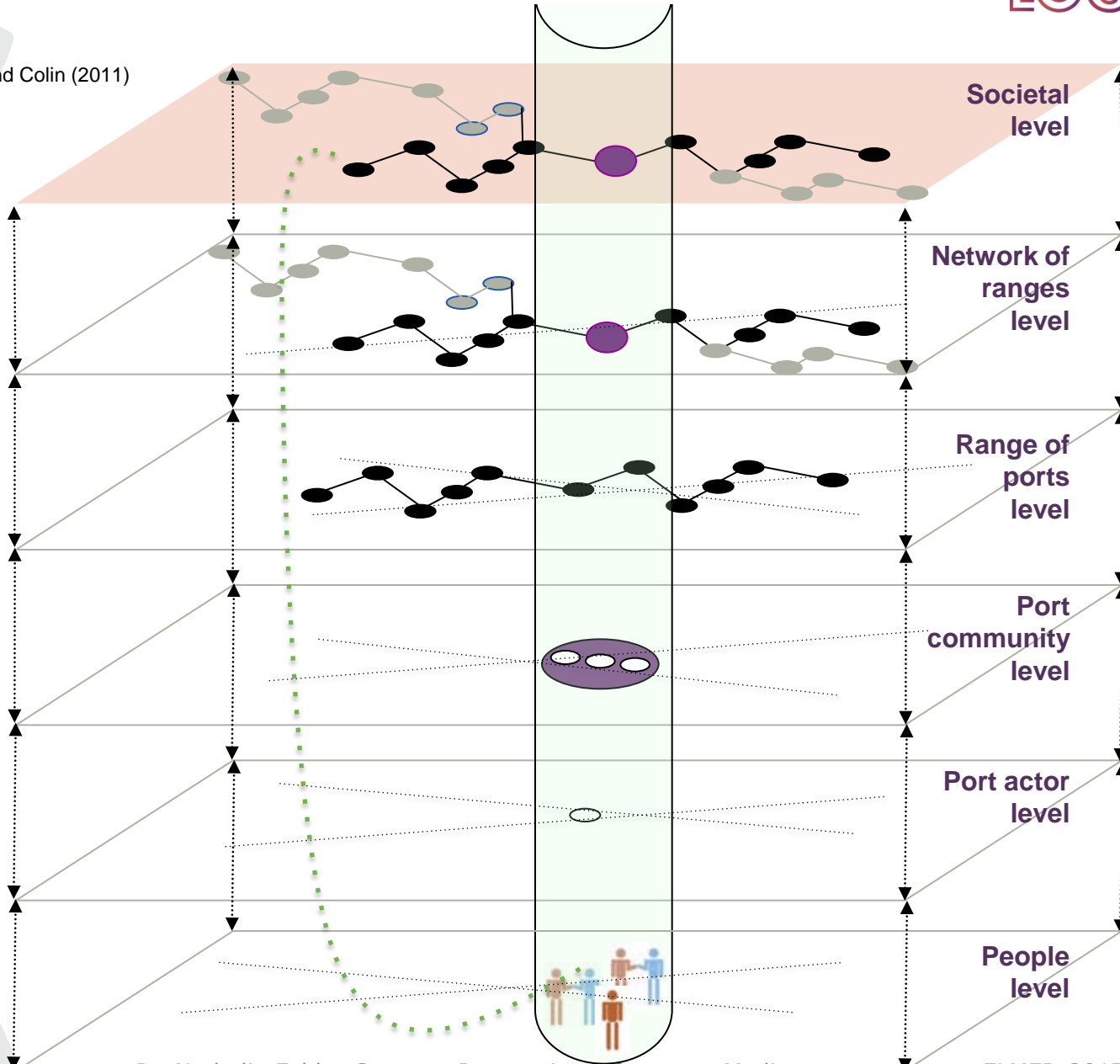


Goldsby, T.J. and Stank, T.P. (2000)

Christopher, M. (2013)



Adapted from
Fabbe-Costes, Roussat and Colin (2011)



Who can think about interconnected networks?

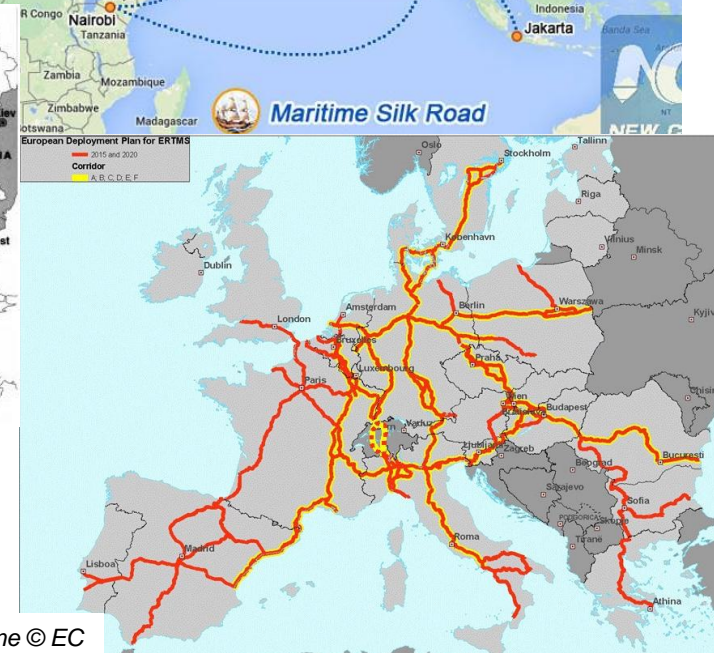
https://ec.europa.eu/transport/themes/infrastructure/north-sea-mediterranean_en

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



North Sea-Mediterranean Corridor

Top-down or bottom up?



Map ancient Roman roads

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



Vue aérienne de Tokyo © Getty /
Photography by ZhangXun



Ready to answer questions now or later

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