

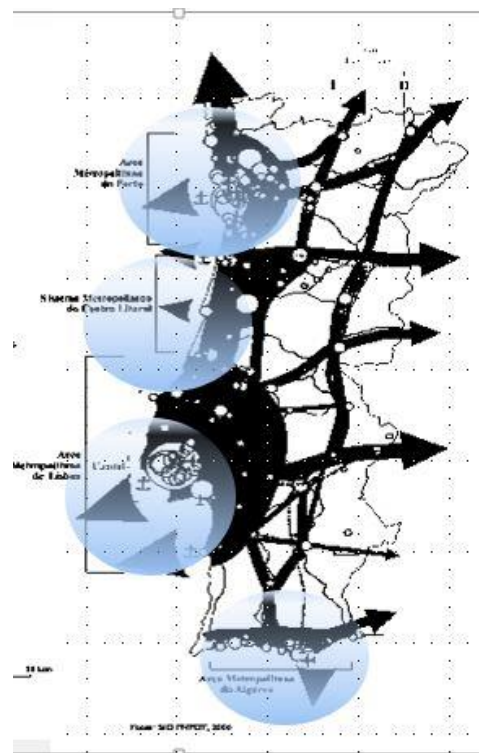
Jean Monnet Network Conference Energy and Transportation
in the Atlantic Basin

The Greening of Maritime Transportation, Energy
and Climate Adaptation Infrastructures:
Role of Coastal Cities and Ports

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Europe 2020 Strategy (Smart, Sustainable, and Inclusive Growth)

Competitiveness and innovation of the Port-Cities by addressing:

- The low-carbon strategies, including energy and sustainable mobility
- The climate change adaptation strategies and risk management
- Marine Strategy Framework Directive (MSFD) and the efficient use of resources, including natural resources of the deep seabed and subsoil
- Policy for the Smart Cities reflecting their maritime nature including ports

FRAMEWORK

The European Alternative Fuels Strategy



What are the main policy drivers?

- Reduce the EU transport systems oil dependence in order to diversify and secure energy supply
- Reduce EU GHG emissions in line with the 20-20-20 Climate and Energy Package and the 2011 White Paper on Transport
- Improve the air quality in urban areas in order to meet EU air quality obligations
- Enhance the competitiveness of the European industry, boost innovation and generate economic growth

What are the most important aims?

- Establish a coherent policy framework that meets the long-term energy needs of all transport modes by building on a comprehensive mix of alternative fuels
- Support the market development of alternative fuels in a technologically neutral way by removing technical and regulatory barriers
- Guide technological development and private investments in the deployment of alternative fuel vehicles, vessels and infrastructure and give confidence to consumers

FRAMEWORK

European Directive 2014/94/EU

Timeline:

- 24 January 2013: Adoption by the Commission
- 22 October 2014: Adoption by European Parliament and Council
- 28 October 2014: Publication in Official Journal
- 18 November 2014: Entry into force
- 18 November 2016: Transposition by Member States
- 18 November 2016: Notification of National Policy Frameworks (NFPs)

"This Directive sets out minimum requirements on alternative fuels infrastructure build up, to be implemented through Member States national policy frameworks, including common technical specifications for recharging points for electric vehicles and refueling points for natural gas (LNG and CNG) and hydrogen, and user information requirements."

- Targets to be set by MS in the NPFs (flexibility)
- Obligation of means: EC assessment and recommendations
- Obligation of results: minimum infrastructure



FRAMEWORK

The Directive on the Deployment of Alternative Fuels Infrastructure:



Alternative Fuels	Coverage	Timings
Electricity in urban/suburban and other densely populated areas	Appropriate number of publically accessible points	By end 2020
CNG in urban/suburban and other densely populated areas	Appropriate number of points	By end 2020
CNG along the TEN-T core network	Appropriate number of points	By end 2025
Electricity at shore-side	Ports of TEN-T core network and other ports	By end 2025
Hydrogen in the Member-States who choose to develop it	Appropriate number of points	By end 2025
LNG at maritime ports	Ports of the TEN-T core network	By end 2025
LNG at inland ports	Ports of the TEN-T core network	By end 2030
LNG for heavy duty vehicles	Appropriate number of points along the TEN-T core network	By end 2025

(TEN-T: Trans-European Transport Network)

FRAMEWORK

European Directive 2014/94/EU



"LNG is an attractive fuel alternative for vessels to meet the requirements for decreasing the Sulphur content in marine fuels in the Sox Emission Control Areas which affect half of the ships sailing in European short sea shipping, as provided for by Directive 2012/33/EU of the European Parliament and of the Council.

A core network of refueling points for LNG at maritime and inland ports should be available at least by the end of 2025 and 2030, respectively.

Refueling points for LNG include, *inter alia*, LNG terminals, tanks, mobile containers, bunker vessels and barges. The initial focus on the core network should not rule out the possibility of LNG also being made available in the longer term at ports outside the core network, in particular those ports that are important for vessels not engaged in transport operations. The decision on the location of the LNG refueling points at ports should be based on a cost benefit analysis including an examination of the environmental benefits. Applicable safety-related provisions should also be taken into account. The deployment of LNG infrastructure provided for in this Directive should not hamper the development of other potentially upcoming energy-efficient alternative fuels."

FRAMEWORK

European Directive 2014/94/EU

National Policy Frameworks

The Directive requires Member States to adopt National Policy Frameworks (NPF) and notify them to the Commission two years after the entry into force of the Directive.

The NPFs should include inter alia:

- An assessment of the state and future development of the alternative fuels market in the transport sector
- National targets, objectives, and supporting measures for the deployment of alternative fuels, including a minimum level of infrastructure to be put in place



ANTEICIPATED EFFECTS

	Port	City	Port-city
Economic	Port volumes	Value added, diversification	Smart port growth strategies Maritime clusters
Transportation	Freight	Passengers	Disintegration or smart co-existence of freight and passenger traffic
Labour	Efficiency	Employment	High value added port-related employment
Environment	Limit impacts	Quality of life	Green growth
Land use	Cargo handling, industry	Urban waterfront as opportunities for housing	Mixed development, with role for port functions
Structural logic	Closed industrial cluster	Open network with pure agglomeration effects	Mix

- Source: THE COMPETITIVENESS OF GLOBAL PORT-CITIES: SYNTHESIS REPORT (OCDE)

ANTECIPATED EFFECTS

On competitiveness and innovation of the Port-Cities, through:

- Adequate Port-City interface
- Functional composition of the port and the city
- Ensure the balance between building a development model based on existing strength factors and the acquisition of new assets and capabilities
- Complementarity of policies:
 - Promotion of maritime links/routes
 - Effectiveness of port operations
 - Hinterland penetration
 - Local increased mobilization and willingness, including the address of safety and awareness issues
 - Environmental impact mitigation (great combined effect by addressing pressure over urban air and water quality)

ANTEICIPATED EFFECTS

Port-Cities are unique in the way they concentrate a significant number of specialized human resources, the scientific and technological research centers,, the equipment and infrastructure necessary to project the blue economy , and respond to their major societal challenges in a smart and sustainable fashion.



Source:
Screenshot Beautiful afternoon at the Port of Emerald City
(i.imgur.com)