CORE LNGas hive

Coordination:

Mercedes de Juan
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Background

2014 CEF Transport Calls

CEF FUNDING

- €26.4 billion
- 2014 Call
- €11.93 billion
- 2014 Call
- €8 billion

STRUCTURE

<table>
<thead>
<tr>
<th>ANUAL</th>
<th></th>
<th>930 M€</th>
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</thead>
<tbody>
<tr>
<td>Core Network projects</td>
<td>FFCC</td>
<td>6.000 M€</td>
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<tr>
<td>Innovation</td>
<td>Safety and Security</td>
<td>160 M€</td>
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<tr>
<td>Freight Services</td>
<td></td>
<td>90 M€</td>
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<td>Rail freight noise</td>
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<td>Telematics applications</td>
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<td>Core Network Nodes</td>
<td>Logistics platforms</td>
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<td>Core Network</td>
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<td>FFCC</td>
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<tr>
<td>Motorways of the Sea</td>
<td>Core Network Nodes</td>
<td>250 M€</td>
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<td>Logistics platforms</td>
<td>Logistics platforms</td>
<td>500 M€</td>
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<td>SESAR</td>
<td>RIS</td>
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<tr>
<td>FEDER</td>
<td>Algunas Prioridades</td>
<td>4.000 M€</td>
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CORE LNGas hive was granted with the 100% of the requested funds

http://www.corelngashive.eu/
Objectives of the action

DEVELOPMENT OF LNG BUNKERING IN SPAIN AND PORTUGAL

REGULATION AND NORMATIVE DEVELOPMENT
To make a proposal of the National Policy Framework, in view of fulfilling the requirements of the Directive 2014/94/EU

INFRASTRUCTURE DEVELOPMENT
To define a roadmap and an investment plan to scale up the results of the Action

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Goals

- Breaking the egg-chicken dilemma, adapting the existing infrastructure (marginal investments) for the supply of LNG bunker and small scale services.

- Boosting the development of the normative needed around LNG bunker to adequately attend the demand.

- Developing a safety, robust and secure logistic chain.

- Enabling the Iberian Peninsula to offer holistic solutions to the new requirements of the shipping sector.

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Key Aspects

**COORDINATOR**

**LEADERSHIP**

**PARTNERS**

42

- 8 Public Partners
- 13 Port Authorities
- 21 Industrial Partners (NG operators, ship owners, external services)

**TIMETABLE OF THE ACTION**

2014-2020

**NUMBER OF PROJECTS**

25

**TOTAL BUDGET**

33.3 M€

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Partners

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Stakeholders

http://www.corelngashive.eu/
Stakeholders

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Scope

- Proposal of the National Policy Frameworks
- Studies of demand and development of the logistic chain
- Safety, environmental and technical standards
- Social acceptance of LNG
- Training needs
- Adaptation of LNG Terminals to offer small-scale services and LNG bunker
- Developments on LNG logistic chain
- Use of LNG in maritime sector and port environment

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REGULATION, NORMATIVE, MARKET
TRANSVERSAL STUDIES

NATIONAL POLICY FRAMEWORK
- National Objectives
  - Incentives
  - Measures to promote demand
  - Observatory

TECHNICAL, SAFETY ENVIRONMENTAL SPECIFICATIONS
- Bunker infrastructures
  - Use of LNG in port environment

LNG ADVANCE TRAINING REQUIREMENTS
- Training needs
- Training centers
- Accreditation processes

LNG SOCIAL ACCEPTANCE
- Improve social perception
- Advantages of the product
- Smooth landing of LNG

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To foresee LNG demand along the Iberian façades of the corridors

To define the most suitable logistic solution depending on distance and demand

To analyze different business models

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CARTAGENA: dedicated LNG mooring jetty for small scale services

Adaptation for LNG bunkering/small scale services in REGASIFICATION PLANT OF SAGUNTO

BARCELONA: dedicated LNG flexible hoses for bunkering

Adaptation for LNG small scale services in big scale jetty in BILBAO LNG TERMINAL

Engineering for new dedicated LNG jetty in MUGARDOS LNG TERMINAL

Adaptation for LNG mixed bunker/big/small scale services in existing jetty

Multimodal LNG bunker berth in PORT OF HUELVA

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INFRASTRUCTURE, EQUIPMENTS

BUNKERING BARGES AND MULTIMODAL LOGISTIC

BARGE RETROFIT for LNG bunkering in the Cantabrian coast

EPT2: Multimodal transport for LNG logistics supply chain (rail/road/train)

EPM2: Barge retrofit for LNG bunkering within the port

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INFRASTRUCTURE, EQUIPMENTS
LNG UTILIZATION IN PORTS

New tugboat powered by LNG in Bilbao port

Retrofit study of a rescue boat powered to LNG

LNG Powered electricity generator mobile unit for Offshore Power Supply

Straddle carrier retrofit in Barcelona port

Design of a tugboat powered by LNG in Barcelona port

Retrofit study of a port locomotive powered by LNG in Tarragona port

Construction of a LNG/CNG mixed station for vehicles and small boats in Valencia port

Design of a tugboat powered by LNG in Valencia port
Thank you

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