

Decarbonizing transport with natural gas

# *LNG and Decarbonization Transport Sector*

9 December 2020



**Francisco P. de la Flor**

Director - International Organizations &  
Chair of Group of Experts on Gas, UNECE

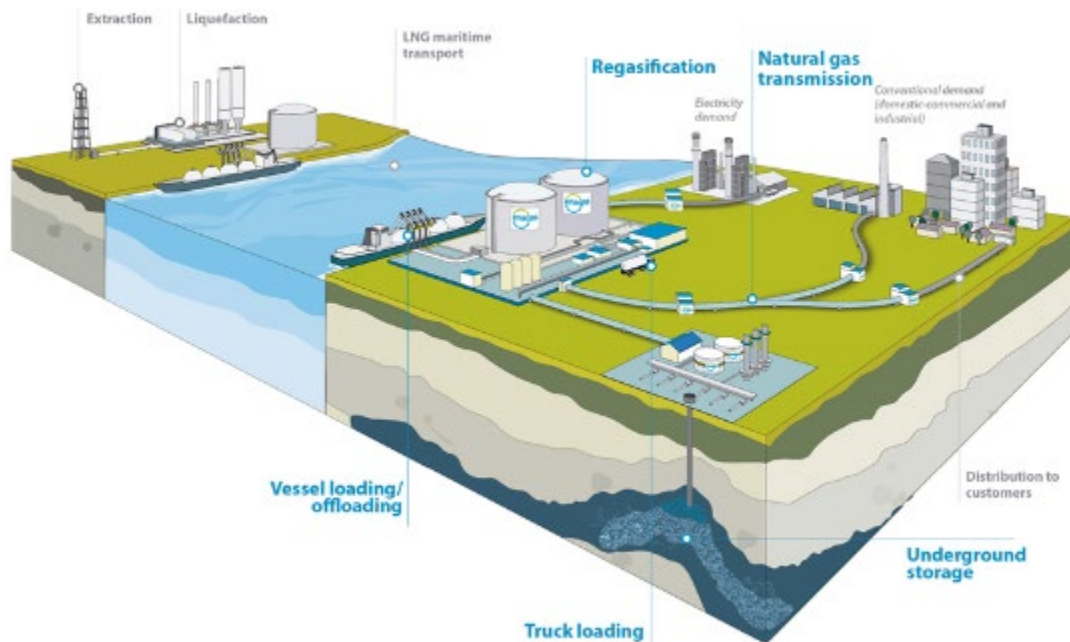


# Enagás- 50 years' experience

## A midstream company

### Leader in energy infrastructures

Our technological skills, expertise, leadership and experience in managing gas infrastructure development, operation and maintenance, combined with our sound financial structure, position us as leading international player.



European Union-accredited  
**independent TSO**

**Top natural gas transmission company** in Spain

**Technical Manager**  
of Spain's Gas System



> 11,000 km of pipelines +  
19 compressor stations



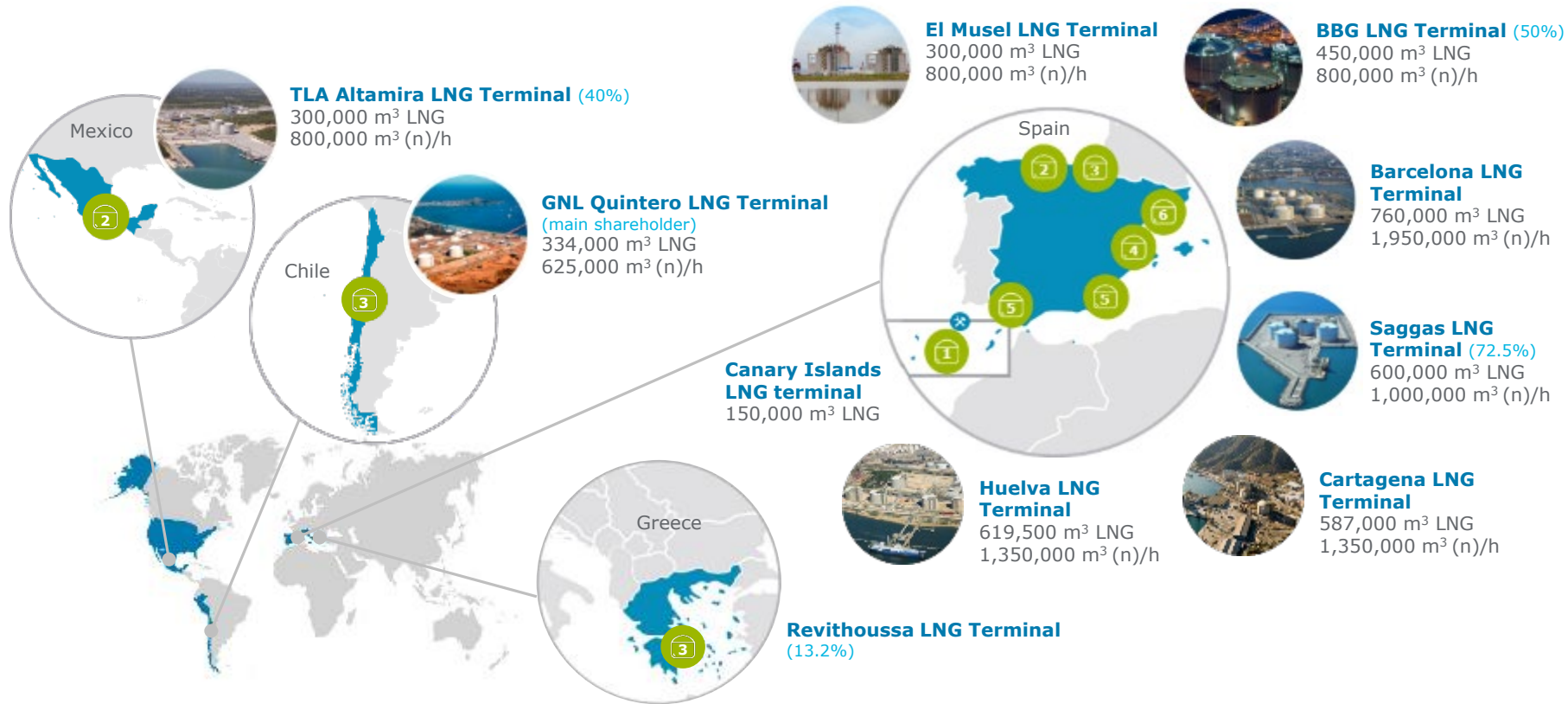
4 LNG terminals + main  
shareholder in other 2



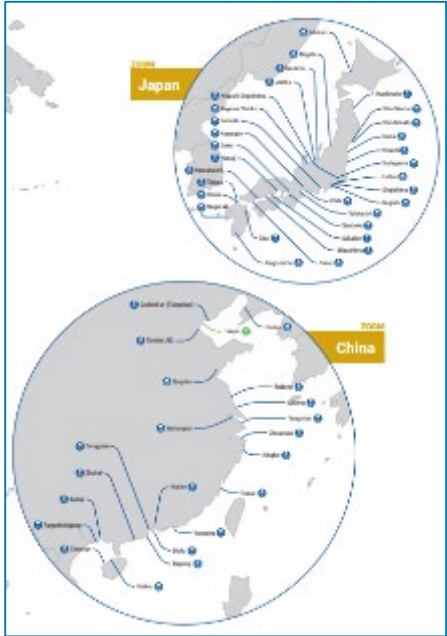
3 underground gas storages

# Enagás- LNG

## One of the companies with the most LNG terminals in the world



# World LNG Map & Panorama

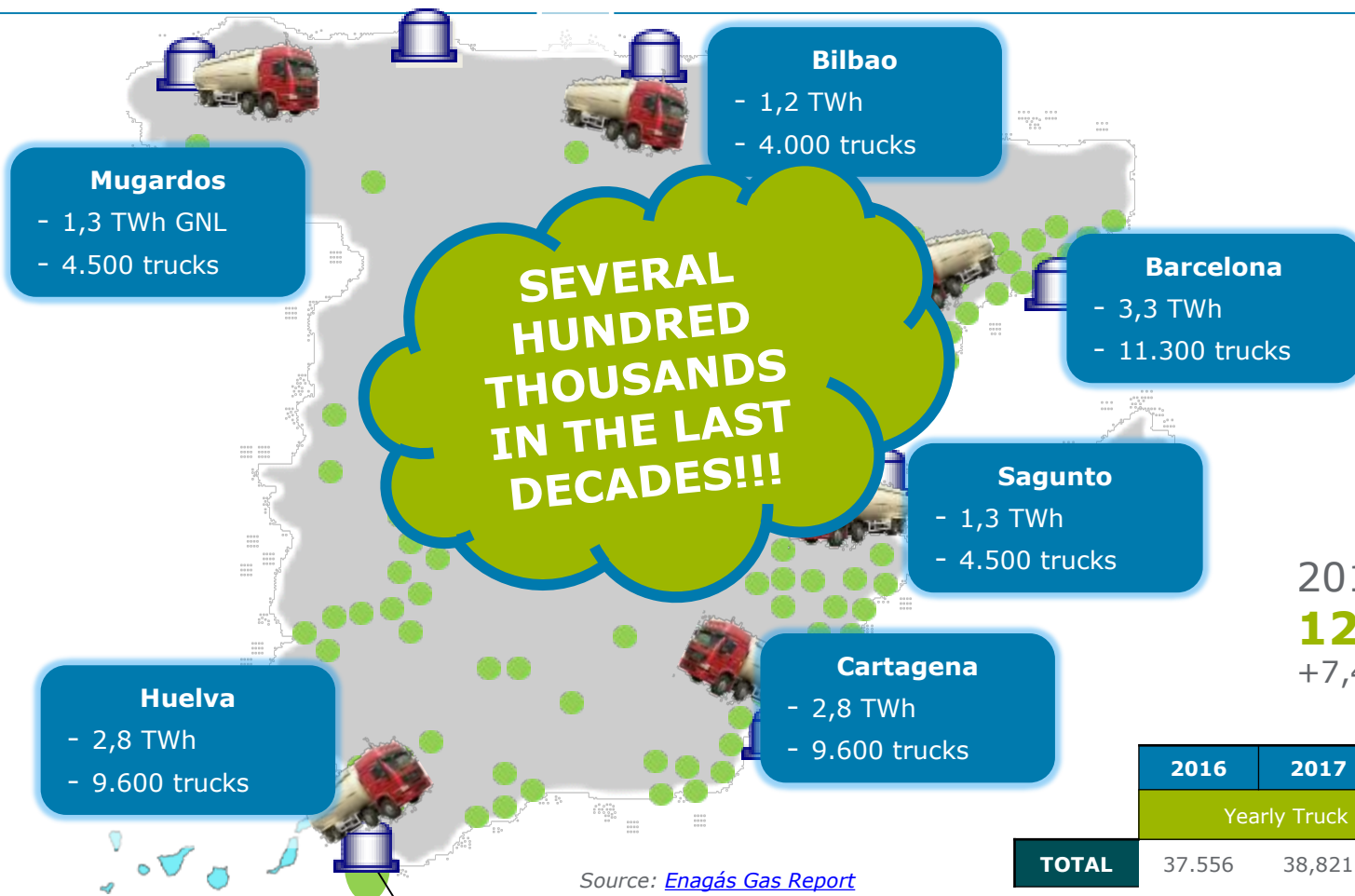




# Spain - Truck Loading Facilities



# Spain - Truck Loading Capacities



Source: [Enagás Gas Report](#)

# Spain - Truck Loadin Destinations



**1.344** destinations:

**362** destinations  
from Barcelona LNG

**397** destinations  
from Cartagena LNG

**289** destinations  
from Huelva LNG

**225** destinations  
from Sagunto LNG

**148** destinos planta  
Mugardos

**157** destinations  
from BBG LNG

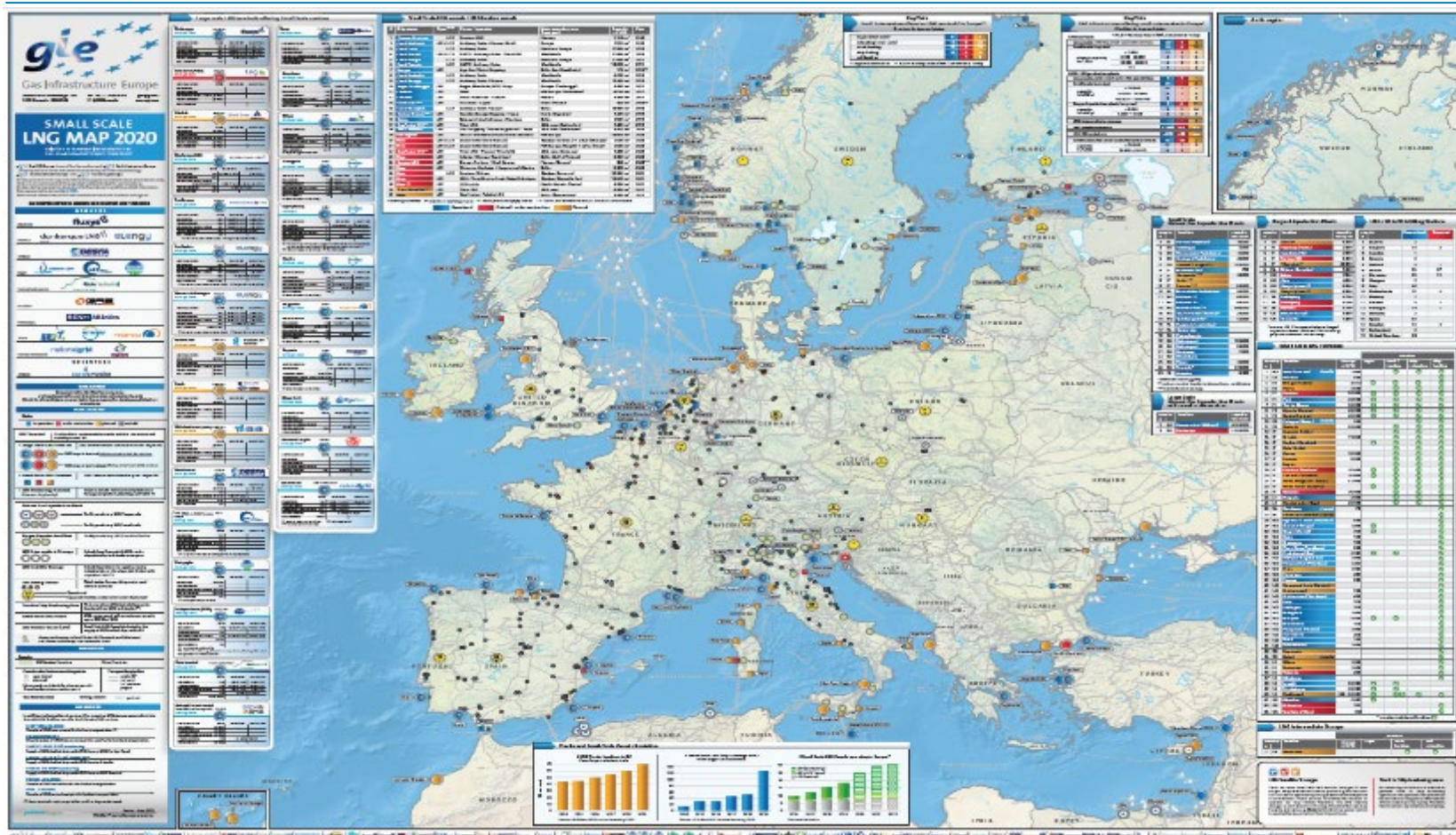
Increase of **179** satellite  
destinations 2019 vs 2018

Increase of destinations outside  
Spain: **102** in 2019 and 90 in 2018

- ✓ Portugal
- ✓ France
- ✓ Italy
- ✓ Switzerland
- ✓ Andorra
- ✓ N. Macedonia



# GLE- Small Scale LNG Map 2020





# Road Mobility

GNL stations in Spain

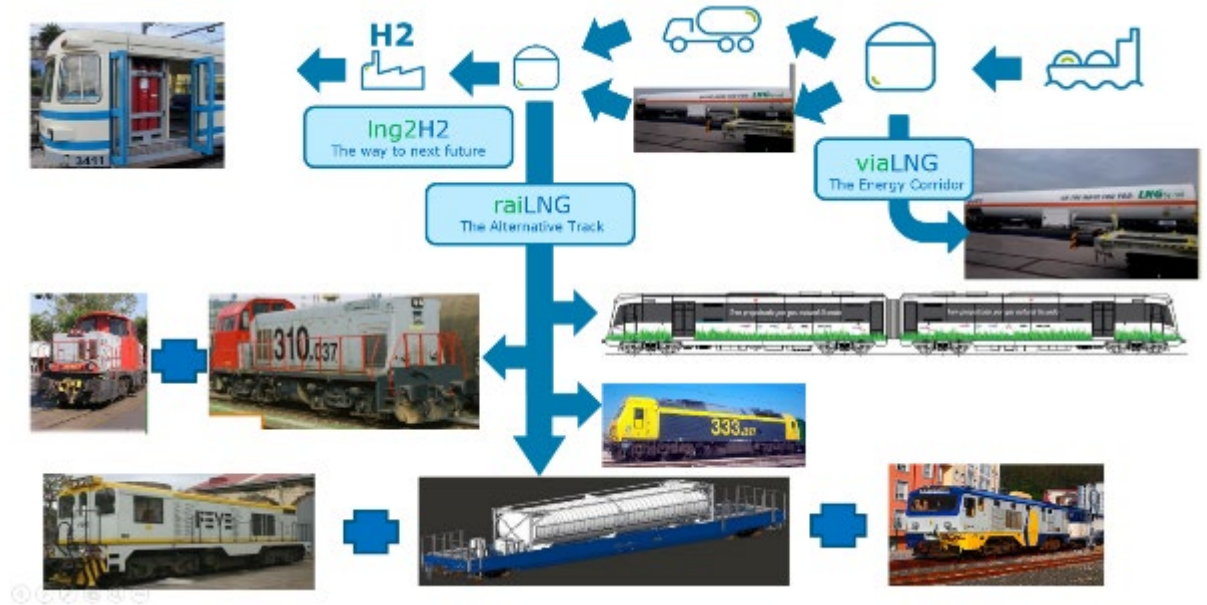


Source: [Gasnan](#)

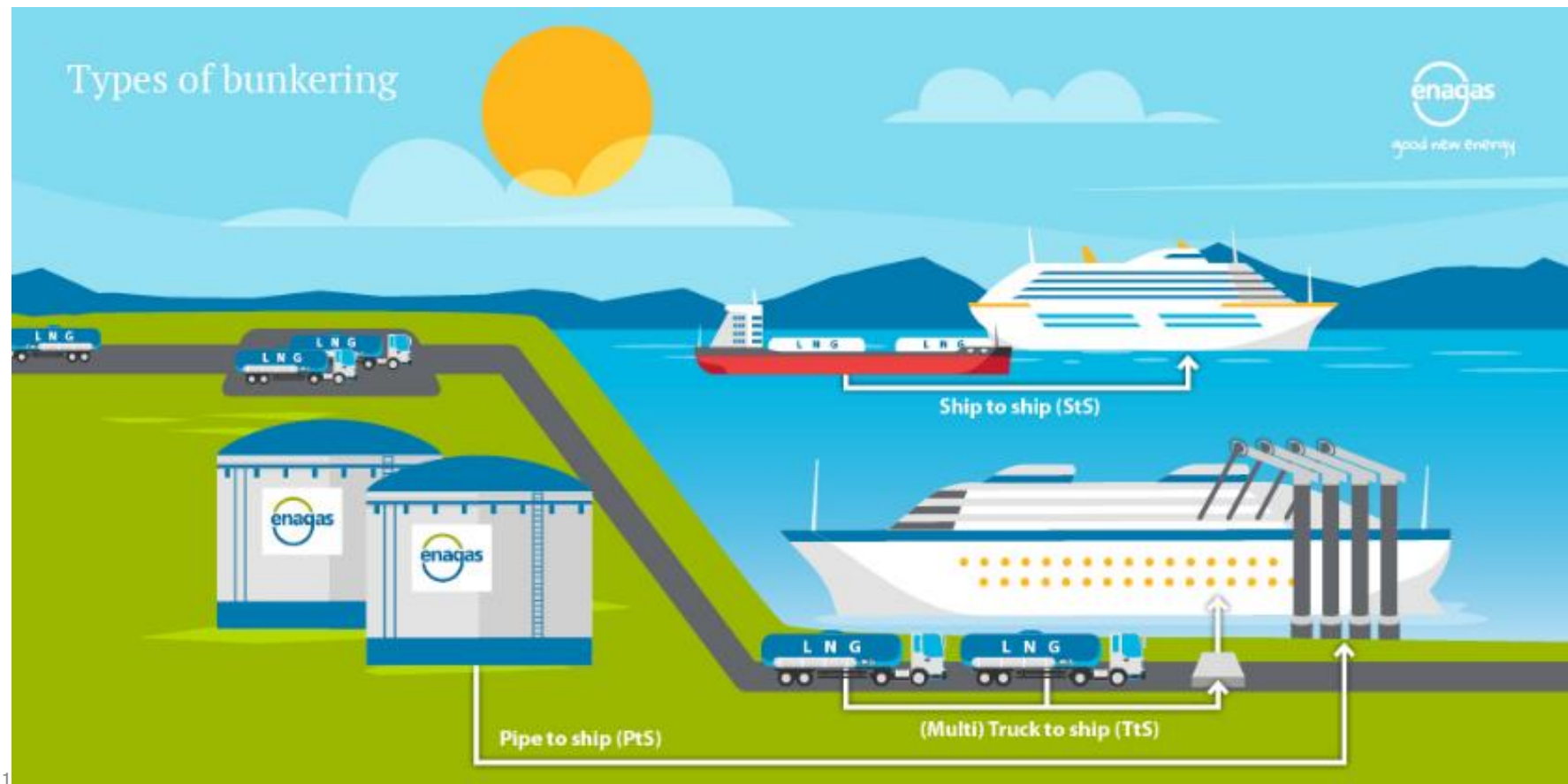
**Enagás** promotes  
**LNG for rail**  
**mobility**

**Key solution for long distances:**  
**Costs, Emissions and**  
**Versatility**

## Roadmap Renfe-Enagás-ADIF



# Maritime Mobility – Bunkering Options



# Maritime Mobility – Bunkering Operations – All Kind of Ships





# Maritime Mobility – The Options

---

Fuel cells

Electricity

Green H<sub>2</sub>

Green  
Amonia

Energy  
efficiency

Bio & Synth  
fuels

Nuclear



Green  
Methanol

GNL + CCS

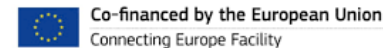
Sail

# Multimodality



# CORE LNGas hive project followed by LNGhive2

CORE LNGas hive started in 2014, as a challenge in innovation for the implementation of **viability and regulatory studies and pilot projects to boost LNG as fuel**. It is led by Puertos del Estado and coordinated by Enagás.



## Main goals



To boost **LNG as a sustainable maritime fuel** to reduce emissions



To solve the dilemma offer - **demand in the port level**



Development of the **National Policy Framework regarding EU Directive 2014/94**, maritime

**49 Partners**

**21** Public  
13 Port Authorities  
**28** Industrial

**Total Budget:**

**300 M€**

**Total Funding**

**62 M€**

**42**

**Developments**

**Timetable of  
the action**

**2014-2022**

**89**

**Stakeholders**

Thank you for  
your attention

