



# Innovative solutions to adapt our LNG terminals to market evolution.

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About **Enagás** and  
market evolution

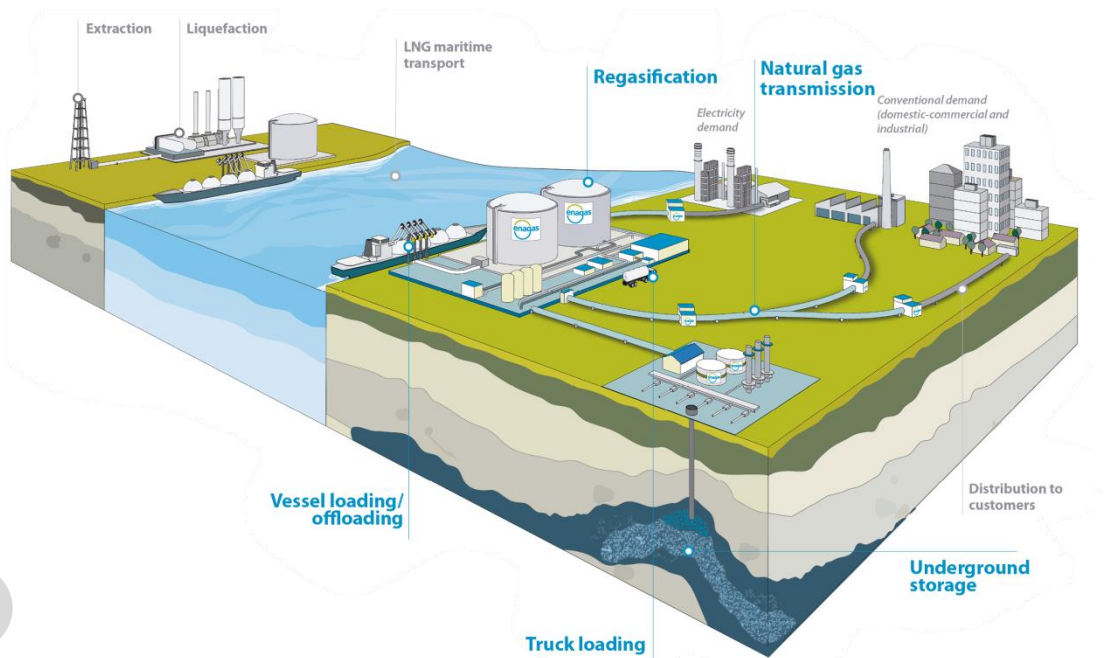
Adapting our  
infrastructures

# 45 years' experience

## A midstream company

### Leader in natural gas and LNG infrastructures

Major International player as a result of our technological expertise, gas infrastructure construction skills, highly effective operations and maintenance programs and sound financial structure.

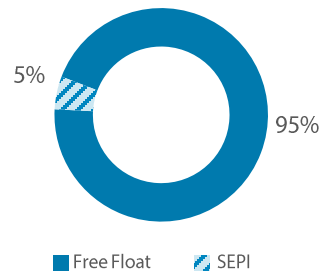


European Union-accredited  
**independent TSO**

**Top natural gas transmission company**  
in Spain

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

### Ownership structure



# Enagás **across the world**

## Mexico

TLA Altamira LNG Terminal  
Soto La Marina Compressor Station  
Morelos Pipeline

## Peru

Transportadora de Gas del Perú (TgP)  
Compañía Operadora de Gas del Amazonas (Coga)  
South Peru Gas Pipeline

## Chile

GNL Quintero LNG Terminal

## Spain

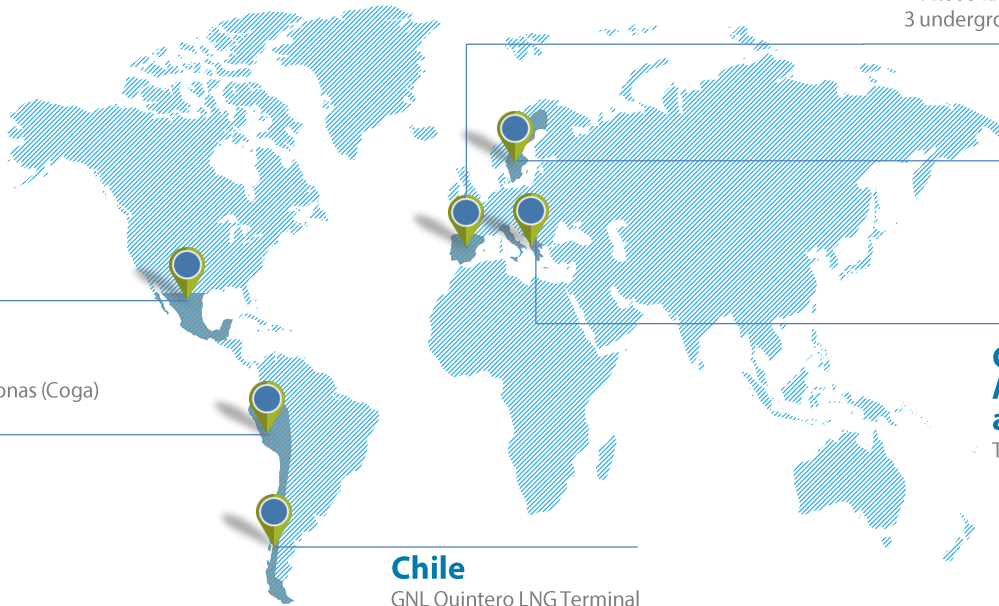
6 LNG terminals (+2 in development)  
~11.000 km high pressure pipelines  
3 underground storage facilities

## Sweden

Swedegas

## Greece, Albania and Italy

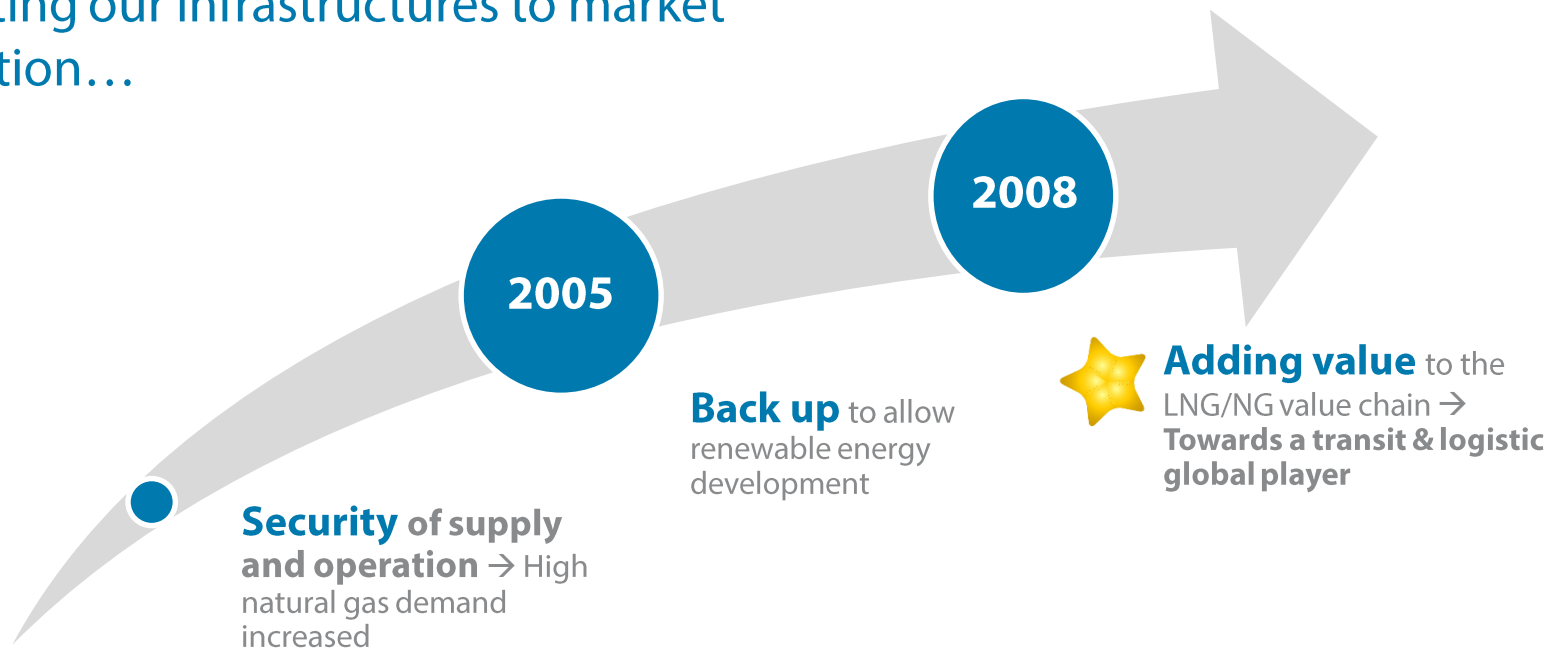
Trans Adriatic Pipeline (TAP)





# A worldwide reference with almost 50 years' experience

Adapting our infrastructures to market evolution...



# New market scenario



**New Regulatory Framework under development**

**Active role** of Enagás in the regulatory framework definition

**Opportunity to offer new services in our infrastructures**

**Available capacity** at LNG Terminals, UGS and Transmission network

**Well-To-Wheel: Increase in the global efficiency of the value chain**

**Market evolution: Shippers looking for new business models**

**Enagás works together with shippers on a Proposal on new services** that meets our customers' needs.

**LNG Oversupply in the mid term**  
→ Decrease of prices

# The **Flexible LNG Terminal** concept

■ Traditional services

■ Small scale

■ Large scale



# Index

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# Large Scale Logistic Services

## Infrastructures adaptation for Large Scale logistic services.

- Minimum send out reduction  $\approx 0$ .
- Increase reloading rate.

## Commercial development of Spanish infrastructures.

- Offer LNG Storage in dedicated infrastructures (whole terminal or LNG tanks), based on Section 60.6 of Act 18/2014.
  - ✓ El Musel marketing, based on Section 60.6 of Act 18/2014.
- Commercial efforts to increase Spanish Gas System use.

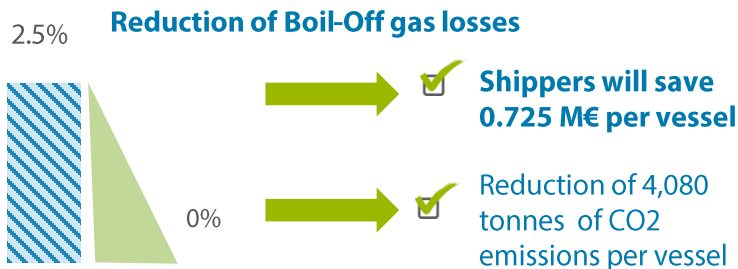
## New regulated services & products proposal for Large Scale.

- Adapt services & products to Shippers' needs.
- New proposal presented to the Ministry.

# Adaptation for Large Scale logistic services

## 1-Enagas guarantees Shippers' losses on reloading services to zero

- Reduction Shippers' losses on reloading services to zero

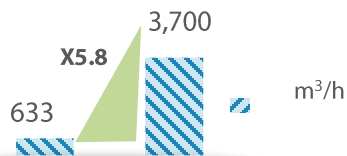


## 2-Reloading rates increase

- Reducing **shipping costs**.
- Allows Enagás to reduce the reloading time by more than 50%.
- Allows Enagás to increase the flexibility. More unloading and reloading slots can be offer.

### Improvement of the reloading rate at LNG Terminals

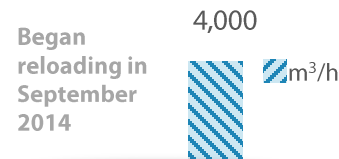
#### Reloading rate at Huelva LNG Terminal



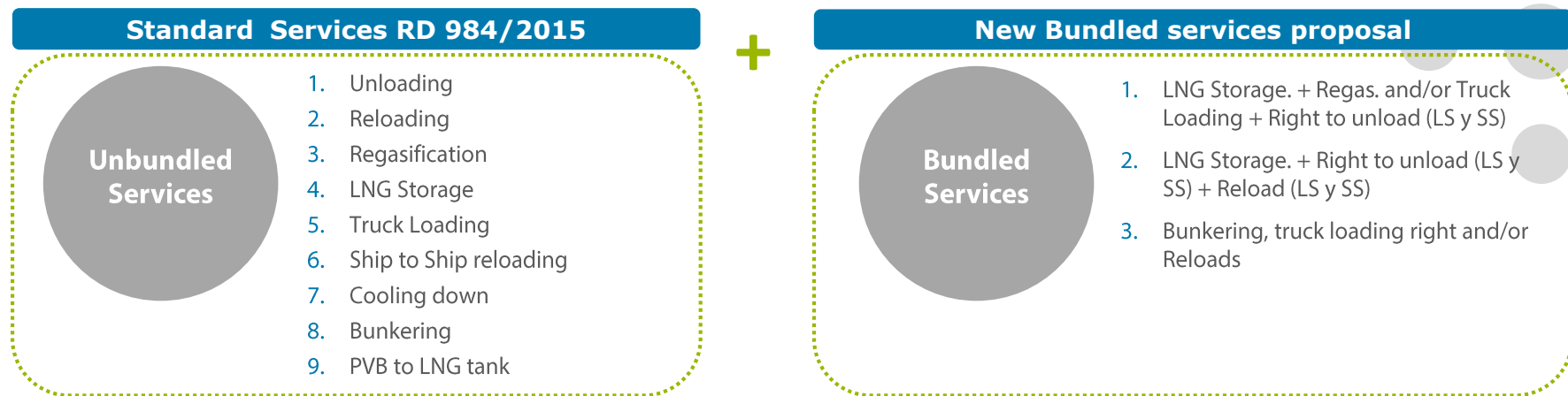
#### Reloading rate at Cartagena LNG Terminal



#### Reloading rate at Barcelona LNG Terminal



# New regulated services & products proposal for Large Scale



## Bundled products: characteristics

<b>Priority</b>	<ul style="list-style-type: none"><li>• <b>Priority for services for the Spanish Gas System, other services.</b></li><li>• <b>Priority for Bundled service over unbundled.</b></li></ul>
<b>Prices</b>	<ul style="list-style-type: none"><li>• <b>LT price (<math>\geq 1</math> year)</b> cheaper than ST.</li><li>• <b>Bundled prices</b> cheaper than unbundled prices.</li></ul>
<b>Allocation mechanism</b>	<ul style="list-style-type: none"><li>• Base on Market standards.</li><li>• <b>LNG Auctions</b> coordinated with transport system.</li></ul>
<b>Capacity to offer</b>	<ul style="list-style-type: none"><li>• <b>Defined by CNMC the percentage</b> of long term/short term.</li></ul>
<b>Secondary Market</b>	<ul style="list-style-type: none"><li>• <b>Possibility to offer the capacity</b> to the secondary market.</li></ul>

# Commercial development for Spanish infrastructures.

## LNG dedicated storage negotiated service

LNG Infrastructures (whole terminal or LNG tanks) could be used to carry out LNG Logistical services for external use and under special conditions, **according to Section 60.6 Act 18/2014.**

## El Musel marketing, based on Section 60.6 of Act 18/2014.

Enagás is working in **the possibility to negotiate the access conditions**, including tariffs, for LNG logistic services for **El Musel**.





# Small Scale Logistic Services

## New infrastructures for Small Scale logistical services.

- Berths suitable for Small Scale.
- Train loading study.

## New services & products proposal for Small Scale.

- Adapt services & products to Shippers' needs.
- New proposal presented to the Ministry.

## Creating new demand for natural gas.

- Natural gas use for Bunkering
- Natural gas use for vehicles & Trains.
- Natural gas use for airport environment.

## CORE LNGas HIVE Project.

- Main activities:
  - Regulation and normative development.
  - Infrastructure development.

# CORE LNGas HIVE Project



Coordinator



Leadership



42 Partners

8 Public Partners

13 Port Authorities

21 Industrial Partners

2015-2020

Time frame

25

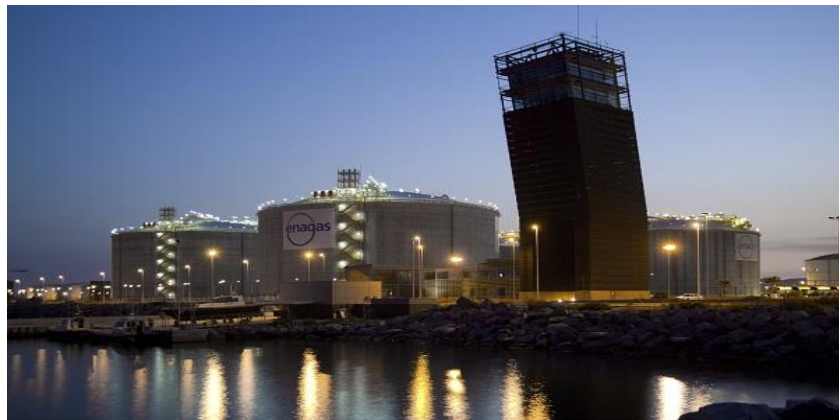
Number of projects

€33.3M

Total budget



## Barcelona



### Actual infrastructure:

- 6 tanks
- Storage: 760,000 m<sup>3</sup>
- 2 large scale jetties

★ **The terminal is able to provide bunkering services under request.**

### Projects:

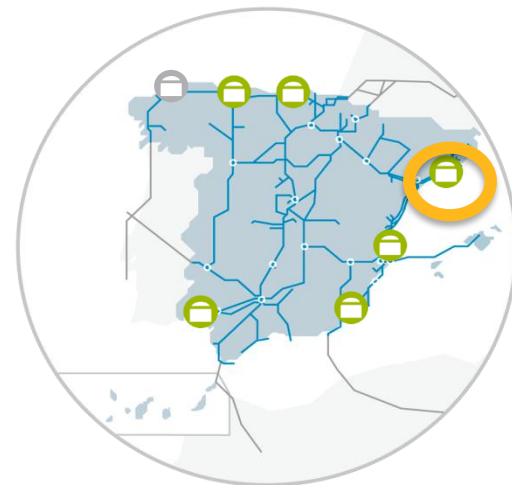
#### Small scale projects for plants:

- Adaptation for one of two existing LNG jetty for bunkering and small scale services.

- ★ **Additional projects** (by other partners) :
- **1 bunker barge**

Date:  
Q3 2017

Date:  
Q3 2018



## Cartagena



### Actual infrastructure:

- 5 tanks
- Storage: 587,000 m<sup>3</sup>
- 2 large scale jetties

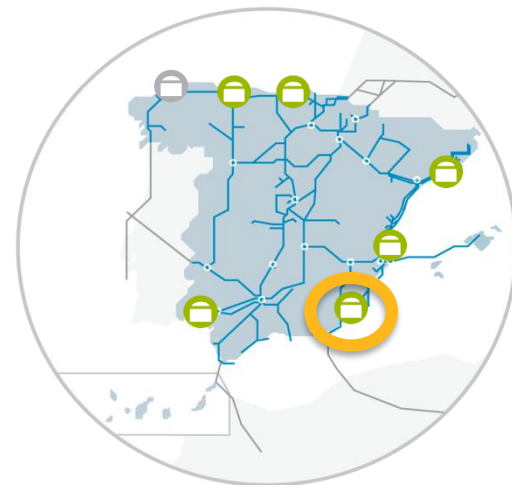
★ **The terminal is able to provide bunkering services under request.**

### Projects:

#### Small scale projects for plants:

- Adaptation for one of two existing LNG jetty for bunkering and small scale services.

Date:  
Q3 2017



## Huelva



### Actual infrastructure:

- 5 tanks
- Storage: 619,500 m<sup>3</sup>
- 1 large scale jetty

★ **The terminal is able to provide bunkering services under request.**

### Projects:

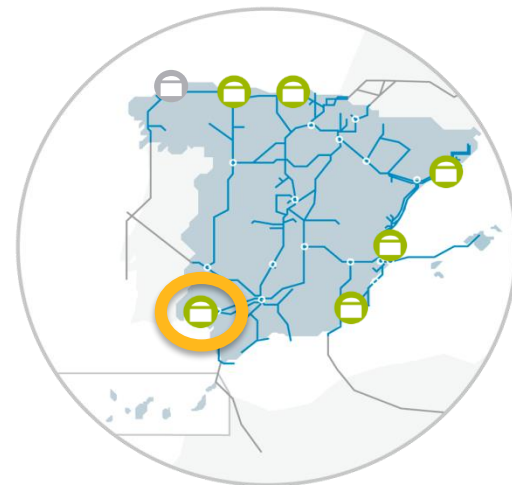
Small scale projects for plants :

★ **Feasibility study for a multimodal bunker berth in Port of Huelva**

- Adaptation to offer big/small scale/bunker services in an existing jetty (by Enagas)

Date:  
Q3 2018

Date:  
Q3 2018



## Sagunto



### Actual infrastructure:

- 4 tanks
- Storage: 600,000 m<sup>3</sup>
- 1 large scale jetty

### Projects:

#### Small scale projects for plants:

- Feasibility study to adapt for a LNG jetty for small scale services.

Date:  
Q3 2017

## Bilbao



### Actual infrastructure:

- 3 tanks
- Storage: 450,000 m<sup>3</sup>
- 1 large scale jetty

### Projects:

#### Small scale projects for plants:

- Adaptation to offer big/small scale/bunker services in an existing jetty

Date:  
Q3 2017

#### Additional projects (by other partners):

- 1 bunker barge

Date:  
Q3 2017



...To conclude

**“We continuously improve our facilities to operate them in a more and more efficient, and to adapt our services & products to Shippers’ needs”**



# Thank you very much

