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IDIADA

YOUR DEVELOPMENT PARTNER

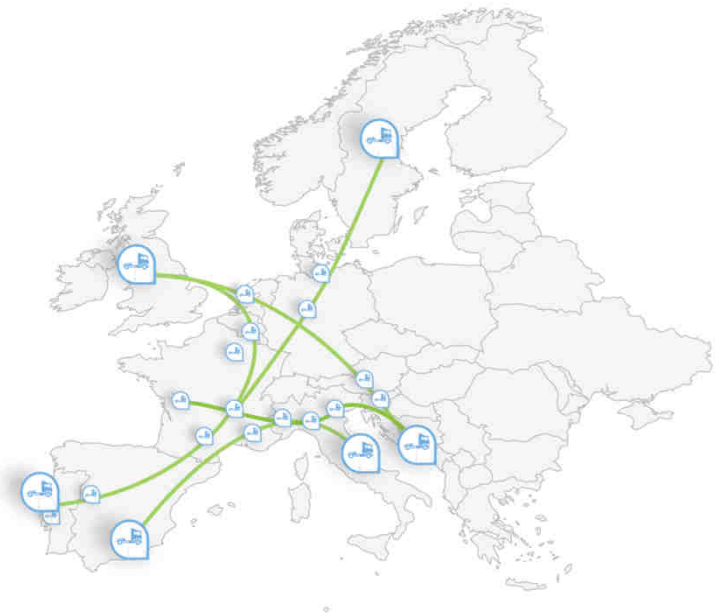


LNG Blue Corridors
IDIADA – Project coordinator

What is LNG BLUE CORRIDORS project?

Large scale project to demonstrate the LNG as a real alternative for medium and long distance transport, as complementary fuel first, and substitute of Diesel in the future

- 60 partners from 11 countries
- + 100 Heavy Duty vehicles running on LNG
- 13 new fuel stations
- Total investment: 14.33 M€
- EC funding: 7.96 M€
- 5 years



Project participants



A wide European representation



Introduction

SUPPORTED BY THE EU COMMISSION

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Fleet operators involved

37 fleets already participating





Project structure

The project is composed by 8 work packages (WP)

Each one of these working groups are in charge of developing different LNG aspects that concern the industry.

There is a total collaboration and cooperation between leaders of WP's and their activities. These groups are:

- WP1. Consortium Management (led by IDIADA)
- WP2. LNG vehicles (IVECO)
- WP3. LNG fuel logistics (Gas Natural Fenosa)
- WP4. Harmonization and Standardization (IDIADA)
- WP5. Demonstration activities (IDIADA)
- WP6. Data collection and analysis (VITO)
- WP7. Roadmap to the LNG Blue Corridors. (NGVA EUROPE)
- WP8. Dissemination and exploitation (NGVA EUROPE)

WP 2 – DEVELOPMENT OF NEW LNG VEHICLES

In charge of Euro VI trucks development. So far Iveco has developed this technology whose trucks were already put on the European roads. Volvo will launch its product shortly.



Description of the technology used in LNG stations

- Most of the project stations are equipped with 60 m³ LNG tanks.
- Most of them will be equipped with cryogenic pumps, although not all.
- The pressure at which dispenser refuel trucks is 8 bar.
- L-CNG facilities (GNL storage, served as LNG and CNG).
- Boil-off solutions. Special storage devices are being installed to prevent venting.



ENI LNG Station in Pontedera



Dourogas LNG Station in Carregado



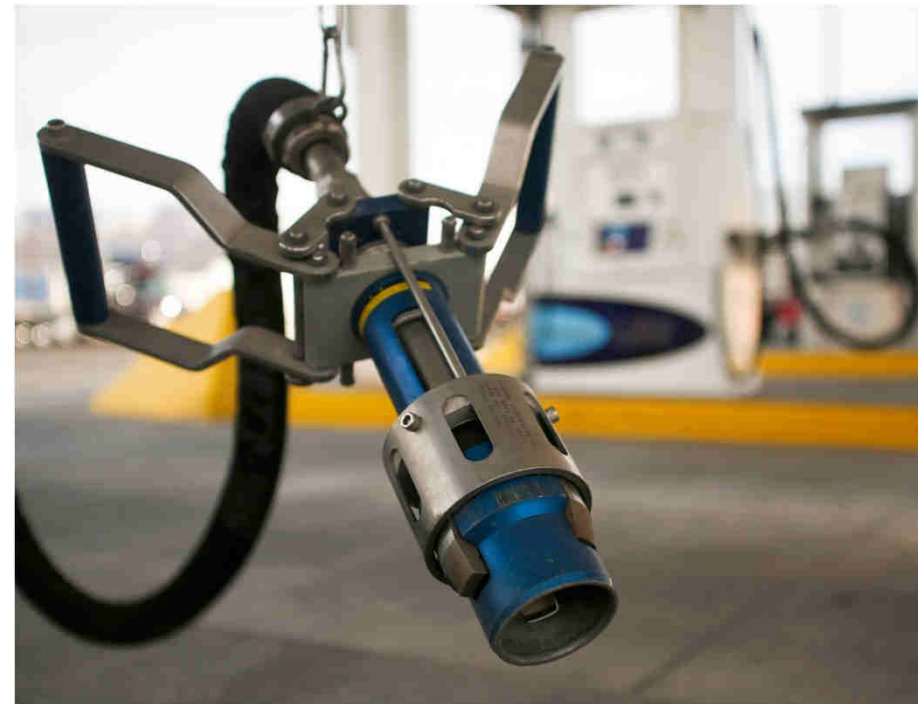
GALP LNG Station in Matosinhos

Harmonization & Standarization

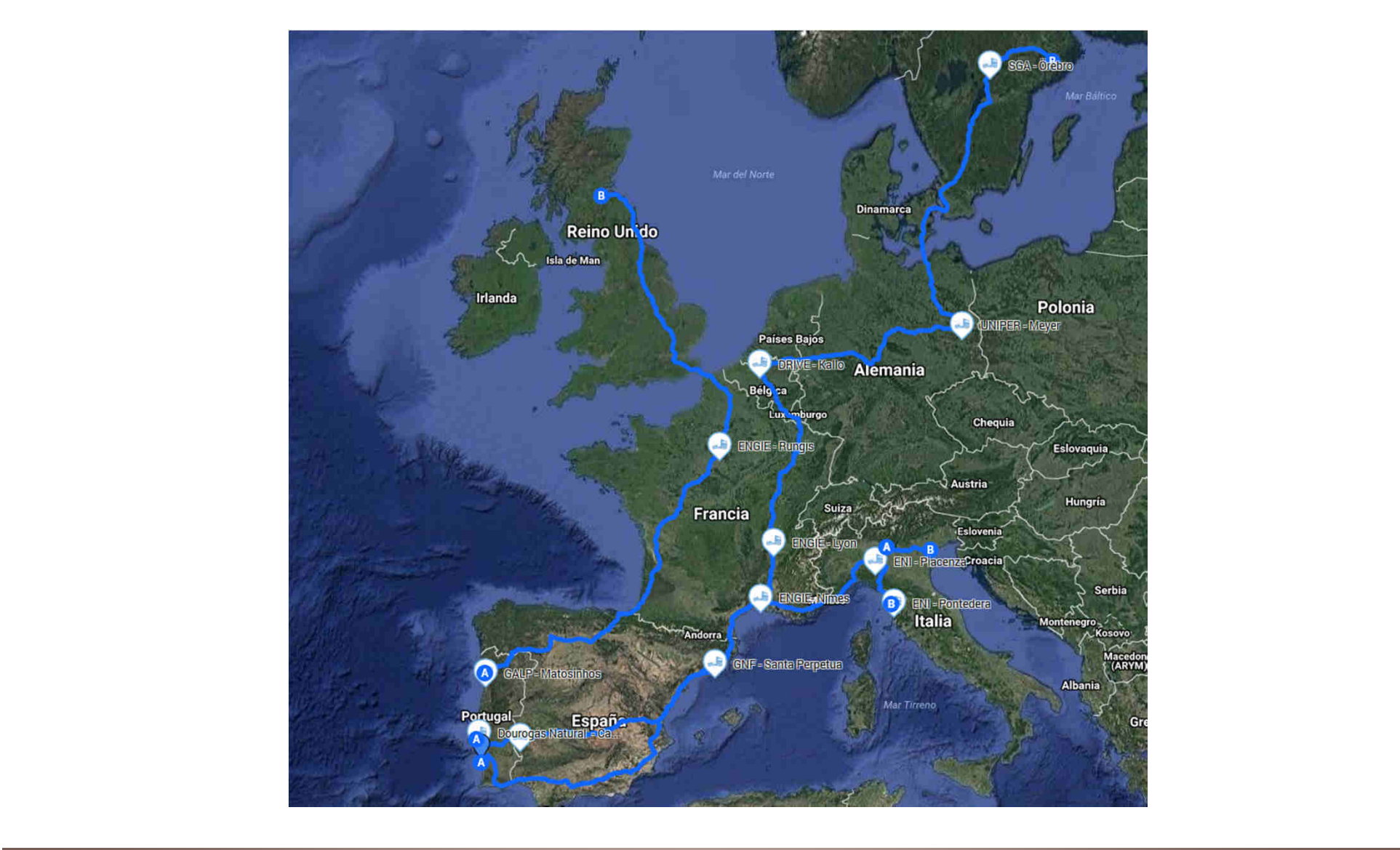
This group is in charge of the harmonization of all items between stations and vehicles such as: type of nozzle, receptacles, refueling pressure and temperature, payment methods, quality of the fuel delivered, safety distance, protocol when refuelling, refulation when building stations, etc.

It makes sure that there is not any incompatibilities in the current and future LNG market. Members of this group are involved as well in CEN/ISO technical groups in order to be aware of the state-of-the-art concerning LNG.

Periodical documentation has to be prepared and delivered to the European Comission.



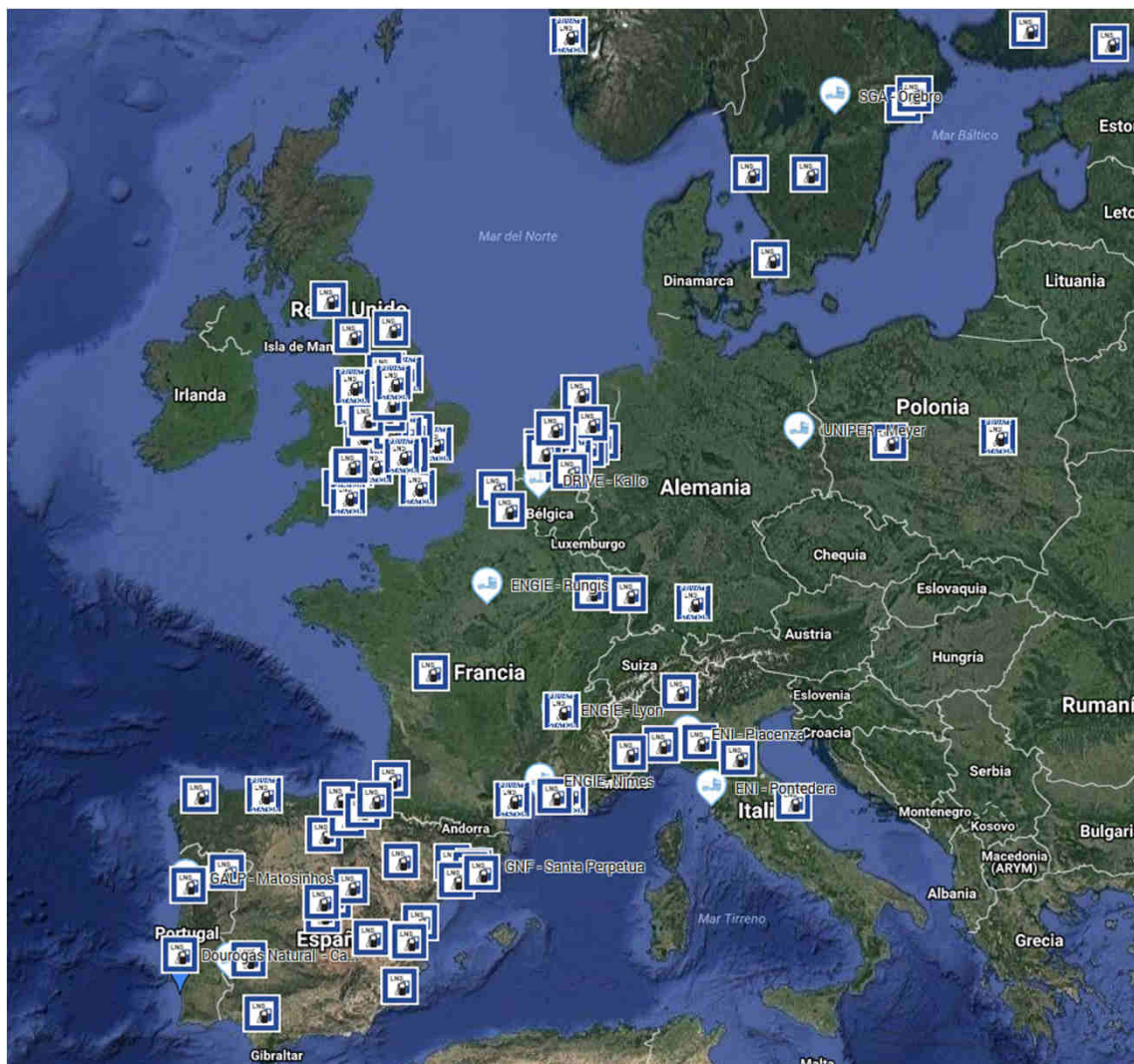
Demonstration activities



- 12 LNG stations are already up and running
- The German stations is in operation since February 2017

	Participant	Corridor	Country	City	Status
1	DOUROGAS	Atl-Blue	Portugal	Elvas	OPEN
2	DRIVE	WeBlue	Belgium	Antwerp	OPEN
3	ENI	MedBlue	Italy	Piacenza	OPEN
4	ENI	MedBlue	Italy	Pontedera	OPEN
5	GALP	AtlBLUE	Portugal	Sines	2017
6	UNIPER	WeBlue	Germany	Berlin	OPEN
7	GALP	SoNorBLUE + MedBlue	Portugal	Matosinhos	OPEN
8	GNF	MedBlue	Spain	Barcelona	OPEN
9	GNVERT	SoNorBlue	France	Paris	OPEN
10	GNVERT	MedBlue	France	Nimes	OPEN
11	GNVERT	ATL-BLUE	France	Lyon	OPEN
12	DOUROGAS	SoNorBlue - ATLBlue	Portugal	Carregado	OPEN
13	SGA	SoNorBlue	Sweden	Orebrö	OPEN

Current LNG infrastructure



- Around 90 LNG stations already refueling trucks
- LNG market is on the rise following the EC Directive Alternative Fuels Infrastructure
- First public stations built in markets like Germany, Poland, Finland.

WHAT HAPPENED AND WHAT IS HAPPENING NOW

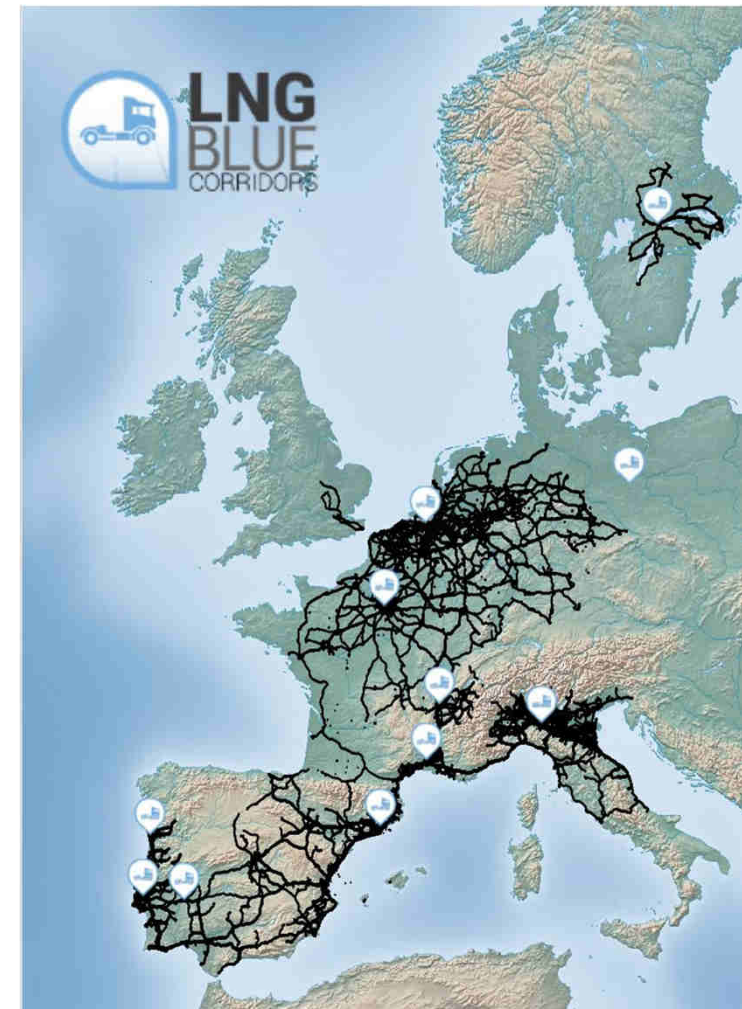
- Markets smoothly connected:

PORTUGAL – SPAIN – FRANCE - ITALY
BELGIUM, THE NETHERLANDS, GERMANY

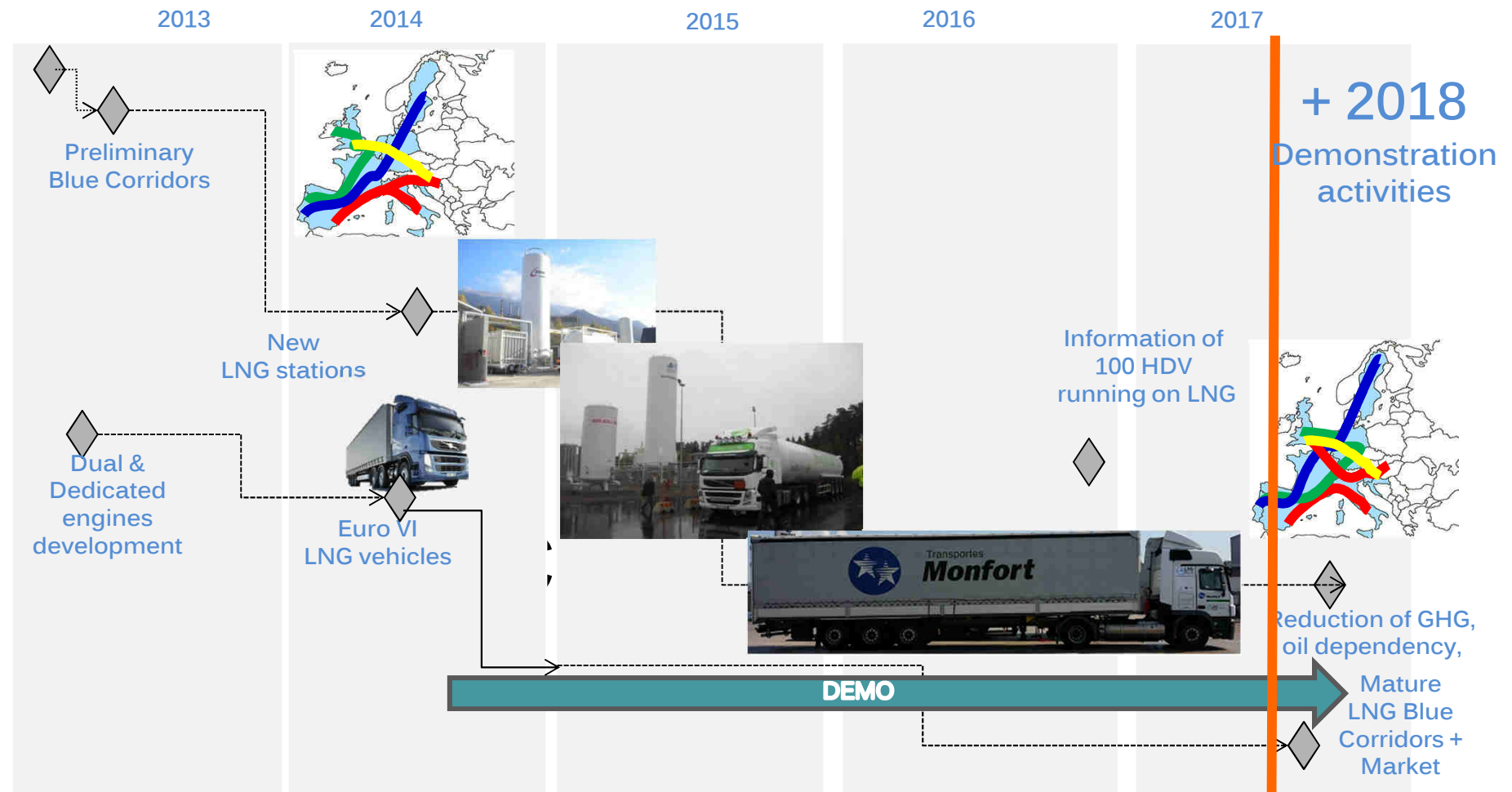
The current situation is even better than looks like in this picture. There are some trucks where the on-board device must be still installed. There are 142 trucks.

In France there are 18 trucks, few of them are depicted on the map. They will be very shortly.

In Germany there are 20 trucks that are being monitored whose routes will be depicted soon



PROJECT PHASES



DATA COLLECTION & ANALYSIS



Home About the project Communication Downloads Partners Fleet operator section Contact us Project intranet My LNG BC

Vehicle data

Please use the filters below to query the vehicles dataset.

Truck type
IVECO Stralis Euro V

Start date *
2014 Jun 3

End date *
2016 Jun 6

Trucks
- 5247-HVR

Submit

Parameter	Logging start date	Logging end date	Value
Distance	2014-12-11	2016-03-24	153544.7 km
Average fuel consumption	2014-12-11	2016-03-24	28.08 kg/100km
Average ambient temperature (weighted by distance)	2014-12-11	2016-03-24	19.7 °C
(weighted by distance)	2014-12-11	2016-03-24	1243 RPM
Temperature (weighted by distance)	2014-12-11	2016-03-24	87 °C
Pressure	2014-12-11	2016-03-24	93.1 °C
	2014-12-11	2016-03-24	3 %
	2014-12-11	2016-03-24	28.4 %
	2014-12-11	2016-03-24	51.4 km/h



RESULTS OF THE DEMONSTRATION

Interesting data have been gathered so far:

- More than 5,3 T of LNG sold at 12 LNG BC stations
- More than 44k fillings
→ roughly 116kg/filling
- More than 19 Million km driven.



Mono Fuel LNG trucks

Consumption data:

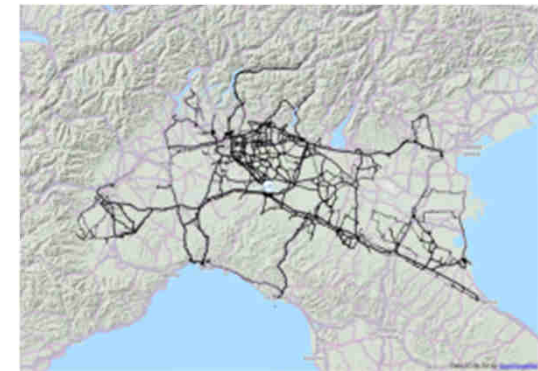
- Average



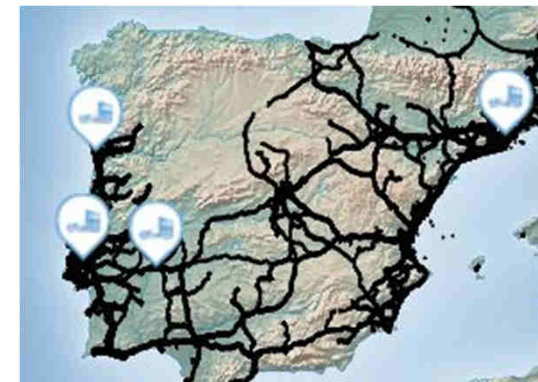
- Belgium



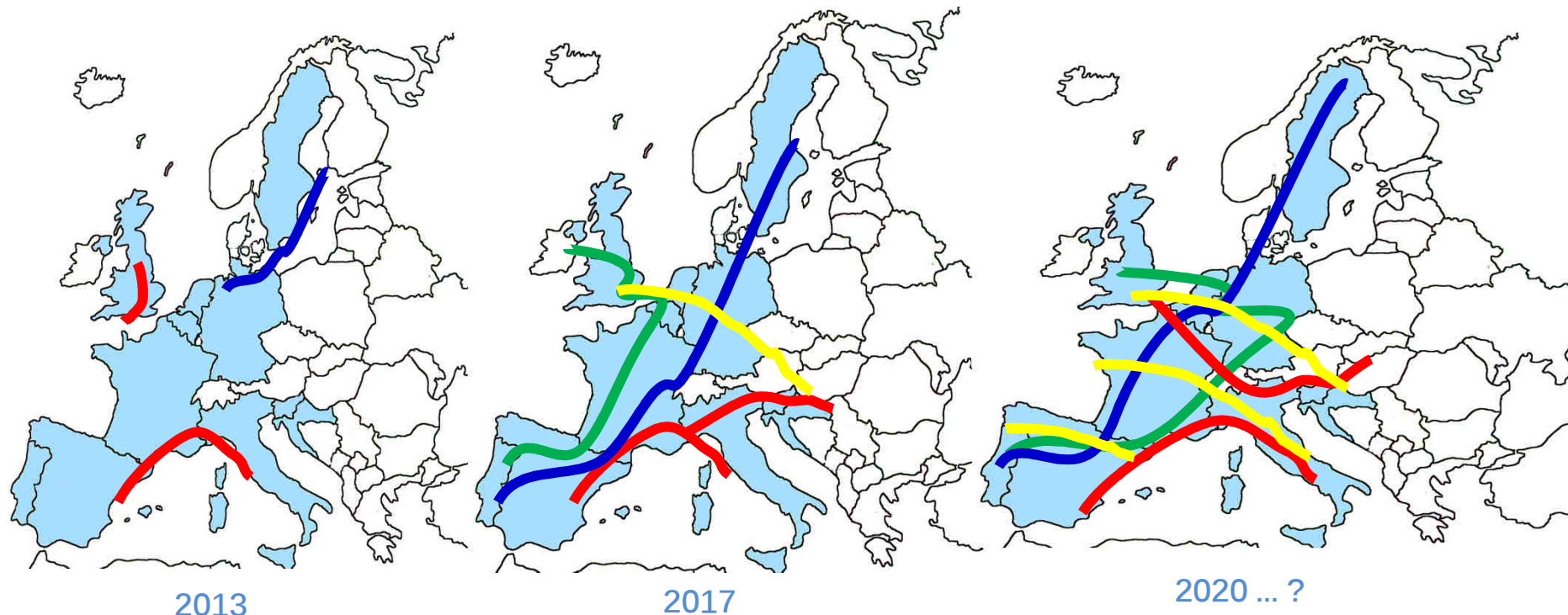
- Italy



- Spain & Portugal



ROADMAP TO LNG BLUE CORRIDORS



2013

2017

2020 ... ?

US

400 stations

+ 3,000 vehicles

China

3,500 stations

+ 100,000 vehicles

WP8 – DISSEMINATION & EXPLOITATION

- Website & LinkedIn & Twitter
 - Project information
 - Contact form
 - LNG stations map
 - Vehicles information
 - Project news (deliverables)
 - **Internal use for the partners**
 - Blog
 - Information Database
 - Demonstration results



www.lngbc.eu

