gie

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SMALL SCALE LNG MAP 2015

EXISTING & PLANNED INFRASTRUCTURE FOR SEA-ROAD-WATERWAYS TRANSPORT

In cooperation with: NGVA europe (for sustainable mobility)

GLE IS REPRESENTING 17 MEMBERS IN 9 COUNTRIES AND 1 OBSERVER

MEMBERS

Country	Members
BELGIUM	FLUXYS
FRANCE	elengy; FOSMAX LNG; Dunkerque LNG
GREECE	DESFA
ITALY	Adriatic LNG; OLT Offshore LNG Toscana; GNL ITALIA
NETHERLANDS	Gate terminal
POLAND	GAZ-SYSTEM
PORTUGAL	REN Atlântico
SPAIN	enagas; BBG; reganosa
UNITED KINGDOM	DRAGON LNG; SOUTH HOOK; nationalgrid

OBSERVERS

Country	Observer
IRELAND	Shannon LNG

SOURCE DATABASE
Details for all installations are provided in the corresponding database published on: **www.gie.eu/maps-data**

MAP LEGEND

the indication of interconnection points is consistent with all other GIE grid maps

GIE Member Countries — Other Countries

Small Scale LNG Infrastructure

in operation — under construction — planned

- LNG import terminal offering new LNG services
- LNG liquefaction plant / liquefaction station
- LNG bunker facility for vessels / fuel loading ship (on-shore)
- LNG bunker ship (off-shore)
- LNG refuelling station for trucks / fuel loading road
- LNG satellite storages (not included in map)
- Pesse 2015 — City, Start-up date

Large Scale LNG Infrastructure (not offering new LNG services)

Other LNG Infrastructure

- LNG Import Terminal - *Operational*
- LNG Import Terminal - *Under construction*
- LNG Import Terminal - *Planned*
- LNG Export Terminal - *Operational*
- LNG Export Terminal - *Project*

- Cross-border interconnection point
- Cross-border interconnection point - *Under construction or Planned*
- Cross-border interconnection point with non-EU third country (import/project)
- Intra-country or intra balancing zone point
- Non-EU Cross-border interconnection point

Transport by pipeline
- under 24″
- 24″ to 36″
- 36″ and over
- project

Gas Reserve areas
- drilling platform

Transport by tanker
- Indicative LNG route

LNG IMPORT TERMINALS OFFERING LNG SERVICES

LNG receiving terminals, also called regasification facilities or regas facilities, receive LNG ships, store the LNG until is required, and send out natural gas into the pipeline grid. Additionally, they can offer the following LNG services:

RELOADING
Transfer of LNG from the LNG reservoirs of the terminal into a vessel

TRANSHIPMENT
Direct transfer of LNG from one vessel into another

LOADING OF BUNKERING SHIPS
LNG is loaded on bunkering ships which supply LNG-fuelled ships or LNG bunkering facilities for vessels

TRUCK LOADING
LNG is loaded on tank trucks which transport LNG in smaller quantities

RAIL LOADING
LNG is loaded on rail tanks which transport LNG in smaller quantities

LNG SMALL SCALE LIQUEFACTION PLANTS

LNG is produced in small scale liquefaction plants to respond to peak shaving demand or make available natural gas to regions where it is not economically or technically feasible to build new pipelines.

LNG BUNKERING FACILITIES FOR VESSELS

This stationary facility allows ships to bunker LNG to be used as fuel for the vessel.

LNG BUNKER SHIP

This ship supplies LNG directly to LNG-fuelled ships or to LNG bunkering facilities for vessels.

LNG REFUELLING STATIONS FOR TRUCKS

This facility allows trucks to fill LNG to be used as fuel.

LNG SATELLITE STORAGE

They enable to store LNG in small quantities in areas where there is no high pressure pipeline. LNG is delivered mainly by trucks (but also by small LNG ships) to these satellite plants where it is then stored and regasified into the natural gas distribution networks or used by an end user.

LNG Satellite Storages

There are more than 1000 LNG satellite storages all over Europe. Many of these facilities are private (e.g. for industrial use). Others are operated by local gas distribution companies or communities. Public sources to identify the location or operator are very limited. Therefore, the LNG satellite storages are not shown on this map. The ones which are public available are included in the corresponding database to this map.

polaris — scale = 1 : 8.000.000 — Version: May 2015

Zeebrugge — BELGIUM — FLUXYS — Start-up: 1987

ADDITIONAL SERVICES	STATUS	MIN. SHIP SIZE	CAPACITY (LNG)
RELOADING	YES by 2015	7.000 m^3 LNG 2.000 m^3 LNG	5.000 m^3/h
TRANSHIPMENT	YES	2.000 m^3 LNG	14.000 m^3/h
BUNKERSHIP LOADING	YES by 2015	7.000 m^3 LNG 2.000 m^3 LNG	5.000 m^3/h
TRUCK LOADING	YES		75 m^3/h
RAIL LOADING	NO		

Fos Tonkin — FRANCE — elengy — Start-up: 1972

ADDITIONAL SERVICES	STATUS	MIN. SHIP SIZE	CAPACITY (LNG)
RELOADING	YES	5.000 m^3 LNG	1.000 m^3/h
TRANSHIPMENT	NO		
BUNKERSHIP LOADING	YES	5.000 m^3 LNG	1.000 m^3/h
TRUCK LOADING	YES future		1 x 100 m^3/h 3 x 100 m^3/h
RAIL LOADING	NO		

Montoir de Bretagne — FRANCE — elengy — Start-up: 1980

ADDITIONAL SERVICES	STATUS	MIN. SHIP SIZE	CAPACITY (LNG)
RELOADING	YES	20.000 m^3 LNG	4.000 m^3/h
TRANSHIPMENT	YES future	20.000 m^3 LNG	5.000 m^3/h 14.000 m^3/h
BUNKERSHIP LOADING	YES future	20.000 m^3 LNG 5.000 m^3 LNG	4.000 m^3/h
TRUCK LOADING	YES future		1 x 100 m^3/h 3 x 100 m^3/h
RAIL LOADING	NO		

Fos Cavaou — FRANCE — FOSMAX LNG — Start-up: 2010

ADDITIONAL SERVICES	STATUS	MIN. SHIP SIZE	CAPACITY (LNG)
RELOADING	YES	15.000 m^3 LNG	4.000 m^3/h
TRANSHIPMENT	NO	under study	under study
BUNKERSHIP LOADING	YES future	15.000 m^3 LNG 5.000 m^3 LNG	4.000 m^3/h
TRUCK LOADING	YES		through Fos Tonkin
RAIL LOADING	NO		

Dunkerque LNG — FRANCE — Dunkerque LNG — Start-up: 2015

ADDITIONAL SERVICES	STATUS	MIN. SHIP SIZE	CAPACITY (LNG)
RELOADING	YES	20.000 m^3 LNG	4.500 m^3/h
TRANSHIPMENT	NO		
BUNKERSHIP LOADING		under study	
TRUCK LOADING		under study	
RAIL LOADING	NO		

Revithoussa — GREECE — DESFA — Start-up: 2000

ADDITIONAL SERVICES	STATUS	MIN. SHIP SIZE	CAPACITY (LNG)
RELOADING	by 2016	under study	
TRANSHIPMENT	NO		
BUNKERSHIP LOADING	by 2020	under study	
TRUCK LOADING	by 2017		1 x 100 m^3/h
RAIL LOADING	NO		

Panigaglia — ITALY — GNL ITALIA — Start-up: 1971

ADDITIONAL SERVICES	STATUS	MIN. SHIP SIZE	CAPACITY (LNG)
RELOADING	NO		
TRANSHIPMENT	NO		
BUNKERSHIP LOADING		internal discussion started	
TRUCK LOADING		internal discussion started	
RAIL LOADING	NO		

Porto Levante — ITALY — Adriatic LNG — Start-up: 2009

ADDITIONAL SERVICES	STATUS	MIN. SHIP SIZE	CAPACITY (LNG)
RELOADING	NO		
TRANSHIPMENT	NO		
BUNKERSHIP LOADING	NO		
TRUCK LOADING	NO		
RAIL LOADING	NO		

LNG Toscana (FSRU) — ITALY — OLT Offshore LNG Toscana — Start-up: 2013

ADDITIONAL SERVICES	STATUS	MIN. SHIP SIZE	CAPACITY (LNG)
RELOADING	NO	study could be scheduled subject to market demand	
TRANSHIPMENT	NO		
BUNKERSHIP LOADING	NO	under study	
TRUCK LOADING	NO		
RAIL LOADING	NO		

Independence (FSRU) — LITHUANIA — KN LNG Terminal — Start-up: 2014

ADDITIONAL SERVICES	STATUS	MIN. SHIP SIZE	CAPACITY (LNG)
RELOADING	by 2015	*5.000 m^3 LNG	**9.000 m^3/h
TRANSHIPMENT	NO		
BUNKERSHIP LOADING	by 2017	concept design phase	
TRUCK LOADING	by 2017	concept design phase	
RAIL LOADING	NO		

(*) less size is possible with additional agreement (**) not less than 100

Gate terminal — THE NETHERLANDS — Gate terminal — Start-up: 2011

ADDITIONAL SERVICES	STATUS	MIN. SHIP SIZE	CAPACITY (LNG)
RELOADING	YES by 2016	5.000 m^3 LNG 500 m^3 LNG	3.000 m^3/h 3.500 m^3/h
TRANSHIPMENT	by 2015	5.000 m^3 LNG	10.000 m^3/h
BUNKERSHIP LOADING	YES by 2016	5.000 m^3 LNG 500 m^3 LNG	3.000 m^3/h 3.500 m^3/h
TRUCK LOADING	YES future		1 x 100 m^3/h second one under study
RAIL LOADING	NO		under study

Świnoujście — POLAND — Polskie LNG / GAZ-SYSTEM — Start-up: -

ADDITIONAL SERVICES	STATUS	MIN. SHIP SIZE	CAPACITY (LNG)
RELOADING	by 2020		
TRANSHIPMENT		under study	
BUNKERSHIP LOADING		under study	
TRUCK LOADING			2 x 90 m^3/h (+1)x 90 m^3/h
RAIL LOADING		under study	

Sines — PORTUGAL — REN Atlântico — Start-up: 2004

ADDITIONAL SERVICES	STATUS	MIN. SHIP SIZE	CAPACITY (LNG)
RELOADING	YES*	45.000 m^3 LNG	1.500 m^3/h
TRANSHIPMENT	NO		
BUNKERSHIP LOADING	NO		
TRUCK LOADING	YES*		2 x 50 m^3/h 1 x 75 m^3/h
RAIL LOADING	NO		

(*) cooldown and gas-up operations available

Barcelona — SPAIN — enagas — Start-up: 1969

ADDITIONAL SERVICES	STATUS	MIN. SHIP SIZE	CAPACITY (LNG)
RELOADING	YES	2.000 m^3 LNG	3.500 m^3/h
TRANSHIPMENT	NO		
BUNKERSHIP LOADING		under construction	
TRUCK LOADING	YES		3 x 91 m^3/h
RAIL LOADING	NO		

Huelva — SPAIN — enagas — Start-up: 1988

ADDITIONAL SERVICES	STATUS	MIN. SHIP SIZE	CAPACITY (LNG)
RELOADING	YES future	7.500 m^3 LNG smaller vessels under study	3.700 m^3/h
TRANSHIPMENT	NO		
BUNKERSHIP LOADING		under study	
TRUCK LOADING	YES		3 x 91 m^3/h
RAIL LOADING	NO		

Cartagena — SPAIN — enagas — Start-up: 1989

ADDITIONAL SERVICES	STATUS	MIN. SHIP SIZE	CAPACITY (LNG)
RELOADING	YES future	7.500 m^3 LNG smaller vessels under study	3.500 m^3/h
TRANSHIPMENT	YES	7.500 m^3 LNG	1.800 m^3/h
BUNKERSHIP LOADING		under study	
TRUCK LOADING	YES		3 x 91 m^3/h
RAIL LOADING		under study	

Bilbao — SPAIN — BBG — Start-up: 2003

ADDITIONAL SERVICES	STATUS	MIN. SHIP SIZE	CAPACITY (LNG)
RELOADING	YES	65.000 m^3 LNG	3.000 m^3/h
TRANSHIPMENT	NO		
BUNKERSHIP LOADING	NO		
TRUCK LOADING	YES		2 x 27 m^3/h
RAIL LOADING	NO		

Sagunto — SPAIN — saggas — Start-up: 2006

ADDITIONAL SERVICES	STATUS	MIN. SHIP SIZE	CAPACITY (LNG)
RELOADING	YES future	30.000 m^3 LNG smaller vessels under study	3.000 m^3/h
TRANSHIPMENT	NO		
BUNKERSHIP LOADING	future	under study	
TRUCK LOADING	YES		2 x 70 m^3/h
RAIL LOADING	NO		

Mugardos — SPAIN — reganosa — Start-up: 2007

ADDITIONAL SERVICES	STATUS	MIN. SHIP SIZE	CAPACITY (LNG)
RELOADING	YES by 2017	7.500 m^3 LNG 1.500 m^3 LNG	2.000 m^3/h
TRANSHIPMENT		under study	
BUNKERSHIP LOADING	YES	7.500 m^3 LNG	2.000 m^3/h
TRUCK LOADING	YES		2 x 75 m^3/h
RAIL LOADING	NO		

Gijón (Musel) — SPAIN — enagas — Start-up: *

ADDITIONAL SERVICES	STATUS	MIN. SHIP SIZE	CAPACITY (LNG)
RELOADING	YES	65.000 m^3 LNG	6.000 m^3/h
TRANSHIPMENT	NO	under study	
BUNKERSHIP LOADING	NO	under study	
TRUCK LOADING	YES		3 x 91 m^3/h
RAIL LOADING	NO		

(*) The start-up of El Musel LNG plant is conditioned to authorisation by the Government

Isle of Grain — UNITED KINGDOM — nationalgrid — Start-up: 2005

ADDITIONAL SERVICES	STATUS	MIN. SHIP SIZE	CAPACITY (LNG)
RELOADING	YES by 2017	60.000 m^3 LNG 2.000 m^3 LNG	ship dep. ship dep.
TRANSHIPMENT	by 2015	60.000 m^3 LNG	ship dep.
BUNKERSHIP LOADING	by 2017	2.000 m^3 LNG	
TRUCK LOADING	by 2015		2 x 80 m^3
RAIL LOADING	*NO		

(*) rail connection available

Milford Haven — UNITED KINGDOM — DRAGON LNG / SOUTH HOOK — Start-up: 2009

ADDITIONAL SERVICES	STATUS	MIN. SHIP SIZE	CAPACITY (LNG)
RELOADING	NO		
TRANSHIPMENT	NO		
BUNKERSHIP LOADING	NO		
TRUCK LOADING	NO		
RAIL LOADING	NO		

KEY DATA

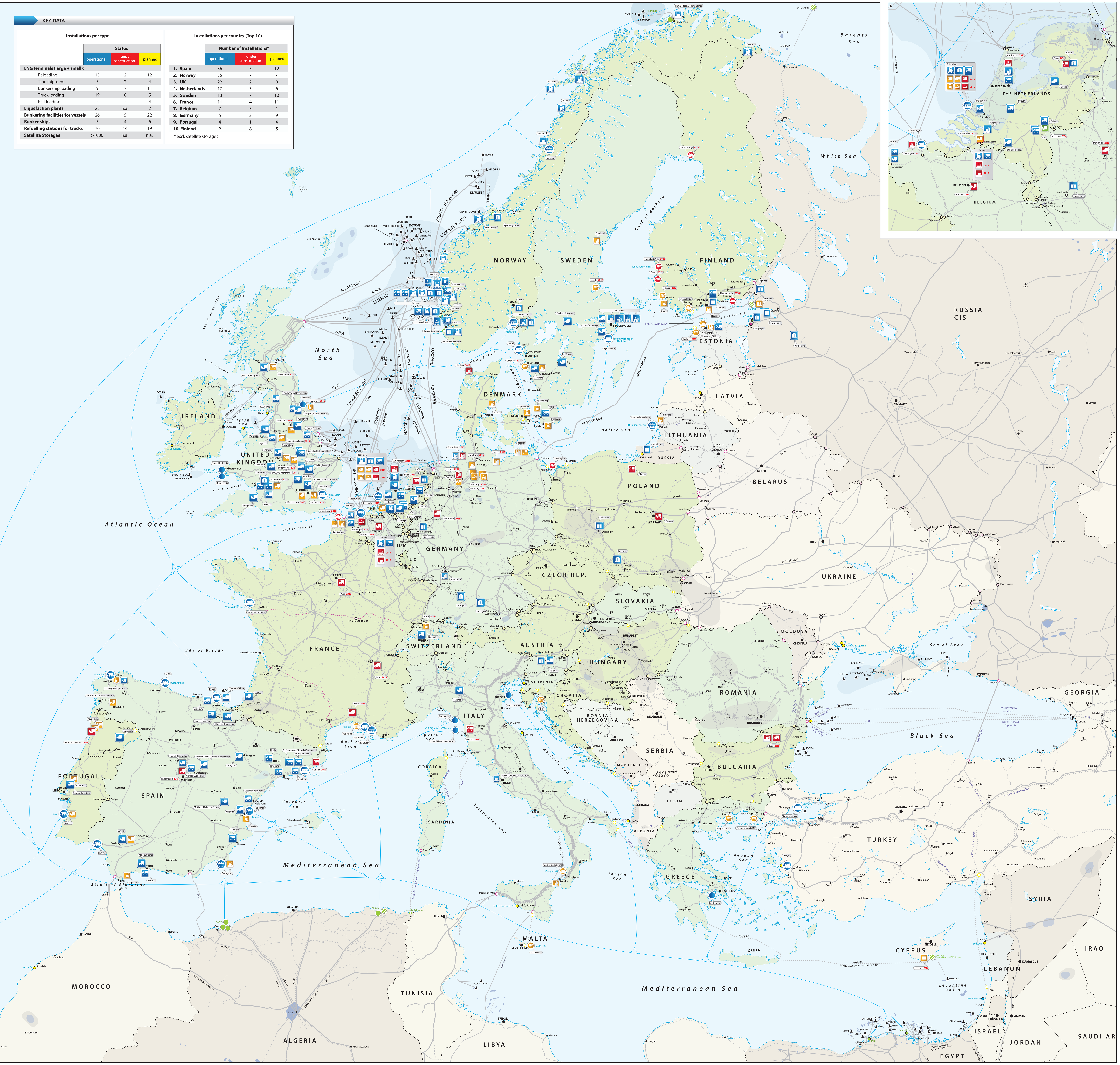
Installations per type

	Status: operational	under construction	planned
LNG terminals (large + small):			
Reloading	15	2	12
Transhipment	3	2	4
Bunkership loading	9	7	11
Truck loading	19	8	5
Rail loading	-	-	4
Liquefaction plants	22	n.a.	2
Bunkering facilities for vessels	26	5	22
Bunker ships	5	4	6
Refuelling stations for trucks	70	14	19
Satellite Storages	>1000	n.a.	n.a.

Installations per country (Top 10)

	Number of Installations*: operational	under construction	planned
1. Spain	36	3	12
2. Norway	35	-	-
3. UK	22	2	9
4. Netherlands	17	5	6
5. Sweden	13	-	10
6. France	11	4	11
7. Belgium	7	5	1
8. Germany	5	3	9
9. Portugal	4	1	4
10. Finland	2	8	5

* excl. satellite storages



gie · Adriatic LNG · astora · BBG · BULGARTRANSGAZ · centrica storage · creos · DESFA · DRAGON LNG · Dunkerque LNG · EDF · EDISON · elengy · enagas · ENERGINET.DK · energystock · e.on · eustream · FLUXYS · FLUXYS · FOSMAX LNG · GAS CONNECT AUSTRIA · gaslink · GASSCO · gasunie · Gasum · Gate terminal · GAZPROM · GAZ-SYSTEM · GNL ITALIA · GRTgaz · Interconnector · MMBF · nafta · NAM · nationalgrid · nationalgrid (Grain LNG) · NETGAS · OLT · OMV · ontras · Open Grid Europe · Plinacro · Plinovodi · FGSZ · PSP · RAG.ENERGY.STORAGE · reganosa · REN Armazenagem · REN Atlântico · REN Gasodutos · RWE · RWE · SNAM RETE GAS · SOUTH HOOK · STOGIT · storengy · storengy · swedegas · SWISSGAS · TAG · TAQA ENERGY B.V. · TIGF · TRANSGAZ · VNG Gasspeicher · bdew (observer) · INES (observer) · observer · Shannon LNG (observer)