

# Products and Journey across the Fluxys Group



Transmission, LNG and Storage





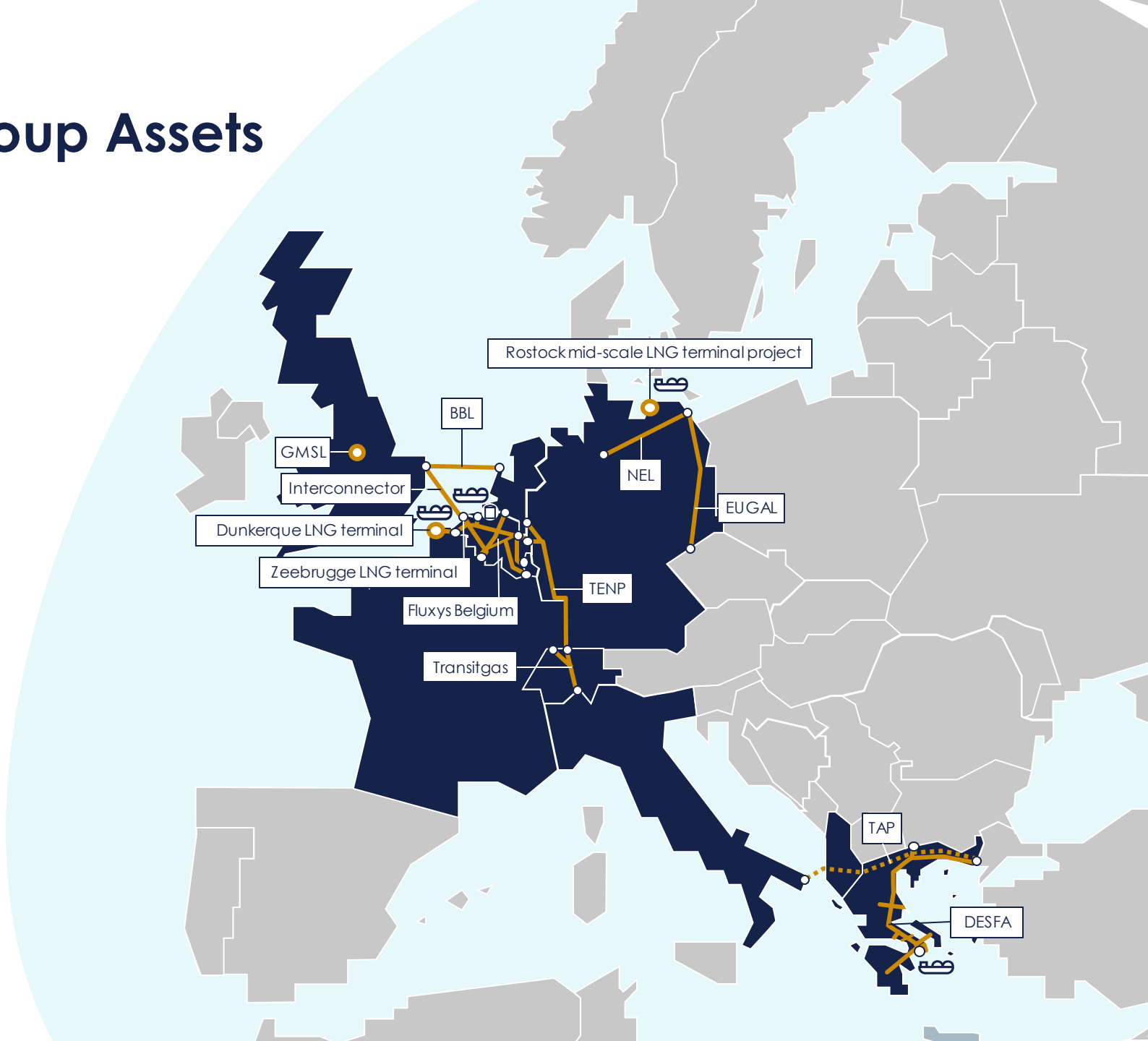
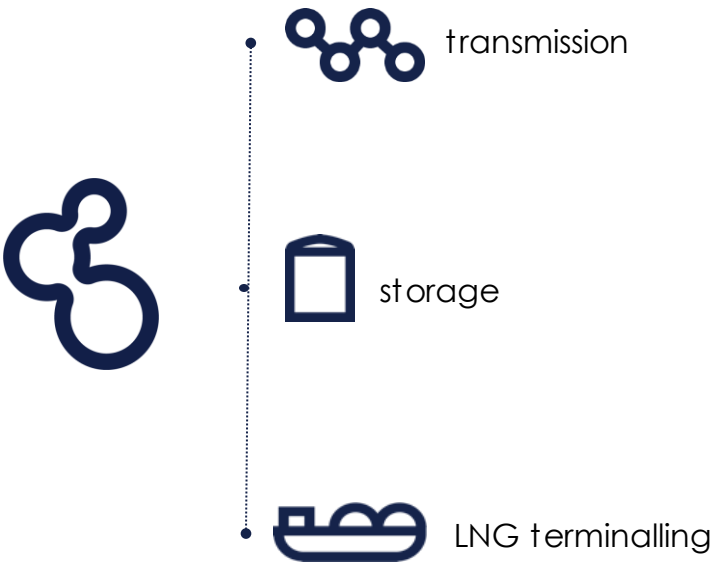
shaping together  
a bright energy  
future

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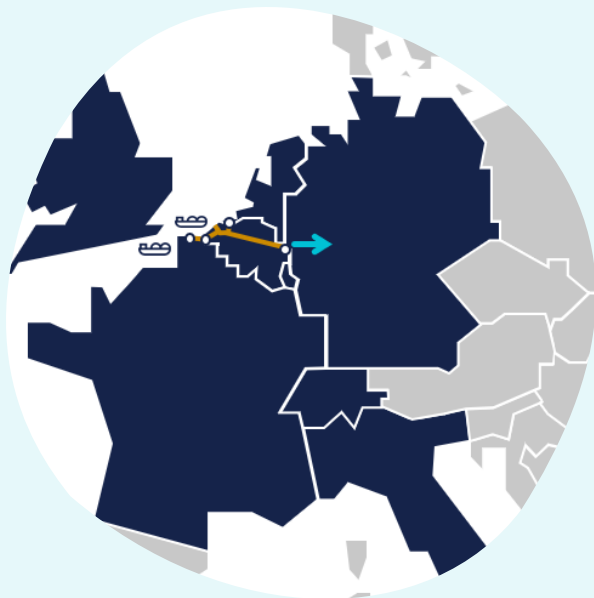
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# Overview of Fluxys Group Assets



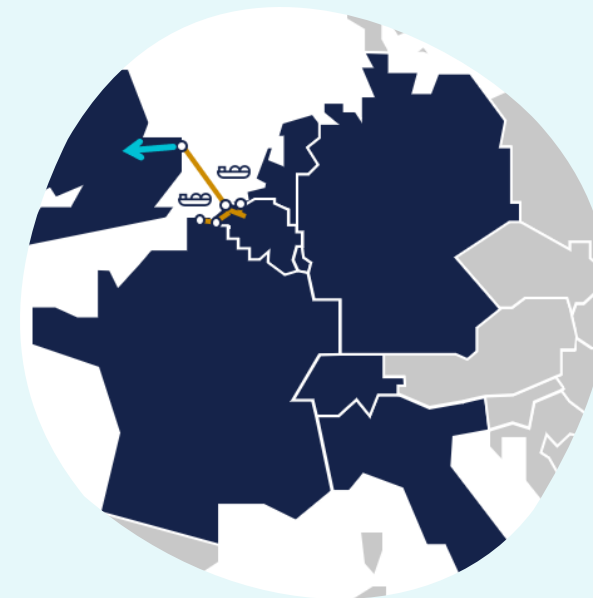
# Solutions provided by the Fluxys Group



LNG to Germany via Dunkerque LNG or Zeebrugge LNG



LNG to Italy via Dunkerque LNG or Zeebrugge LNG



LNG to UK via Dunkerque LNG or Zeebrugge LNG

- Bring LNG into our LNG terminals, and
  - access Continental Europe through the Fluxys Belgium, Fluxys TENP and FluxSwiss capacity
  - access the NBP and UK market through the Interconnector pipeline

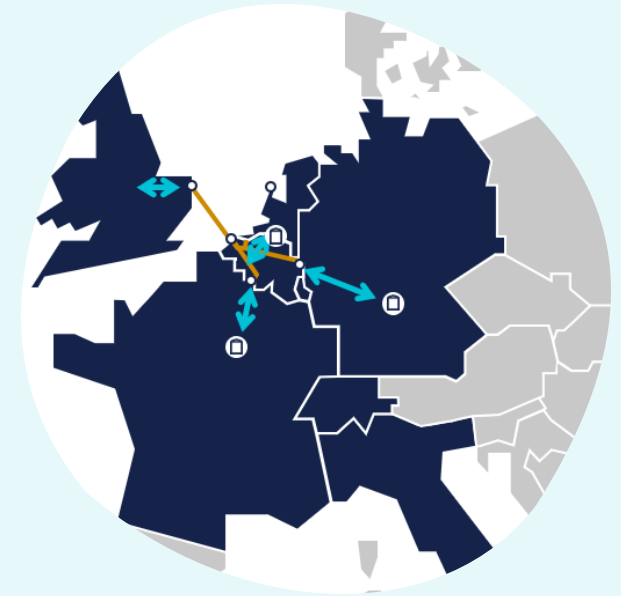




**Russian gas to EU and UK**



**UK and Norwegian gas to EU**

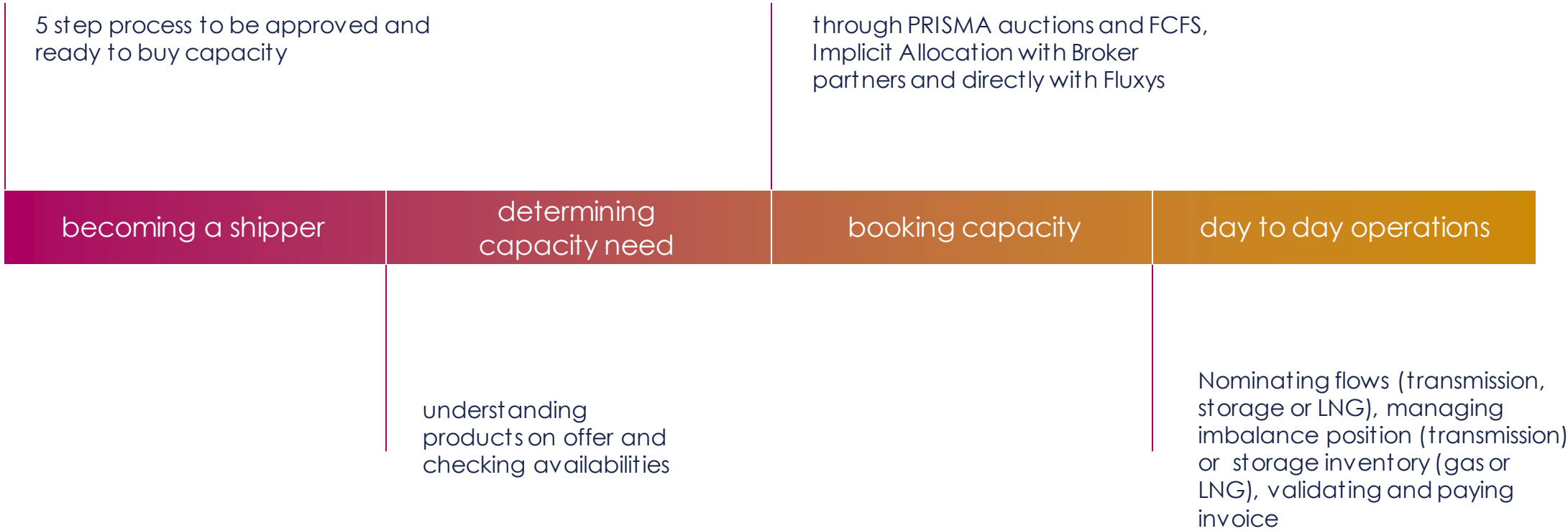


**Continental Storage to UK**

- Supply Continental Europe and the UK through the Fluxys Group capacity
- Access Continental Storage to meet UK market needs through the Interconnector pipeline and Fluxys Group assets



# The shipper journey across the Fluxys Group



# 5 steps to become a shipper



Follow this 5 step process to become a shipper with any entity of the Fluxys Group:

1. Contact us/register on PRISMA/with Partners<sup>1</sup>
2. provide company and financial info<sup>2</sup>
3. accept contractual terms
4. meet credit requirements
5. approved as a shipper<sup>3</sup>

<sup>1</sup> Balancing Partners for Fluxys BE, Fluxys TENP and Fluxys DE, Implicit Allocation Partners for IUK

<sup>2</sup> Provide signed Confidentiality Agreement for Dunkerque LNG

<sup>3</sup> Accepted on PRISMA if applicable, fully signed contract, shipper code issued, technical readiness completed





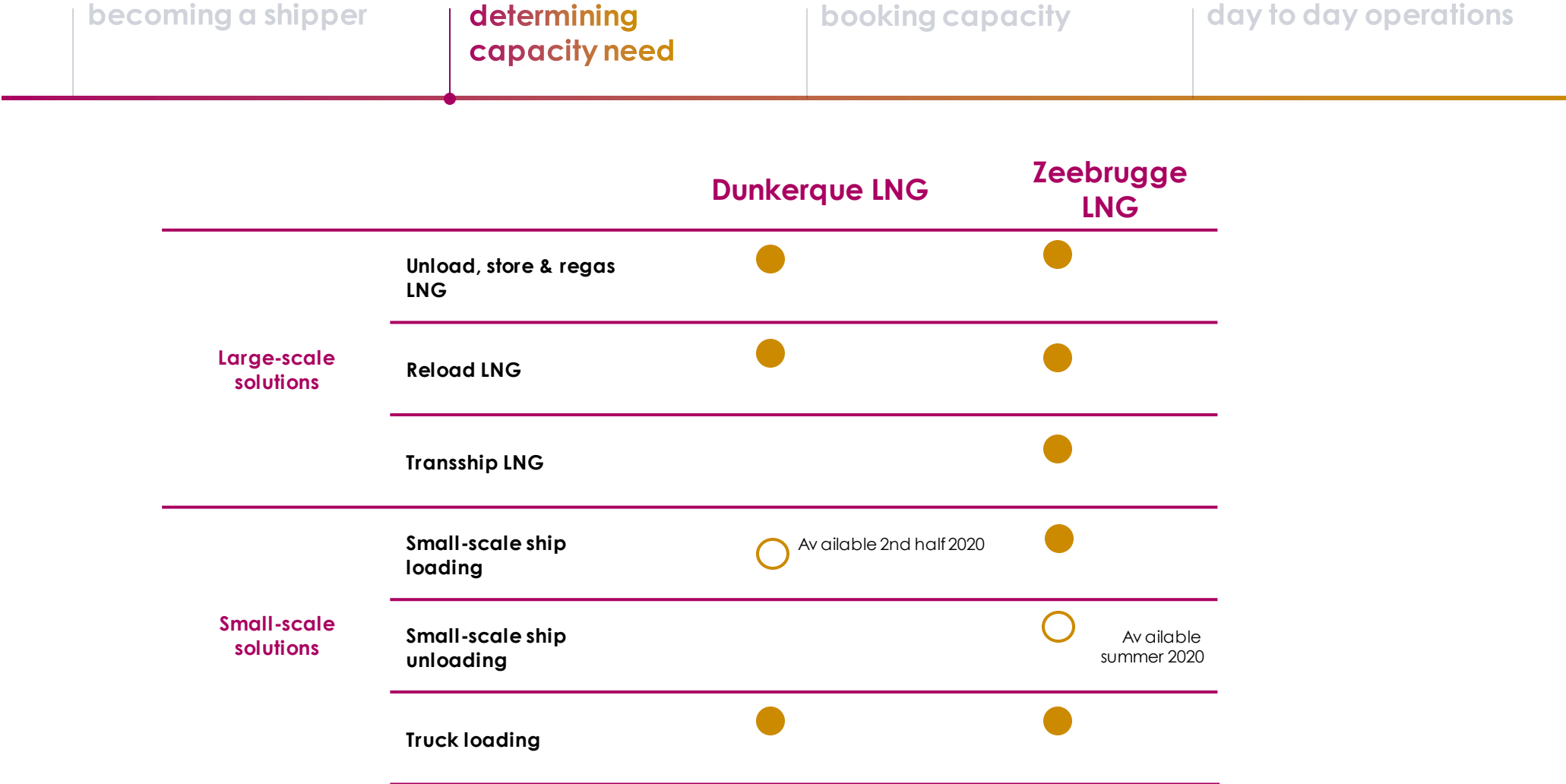
# Understand the products on offer across the Group: Transmission



			IUK	Fluxys BE	Fluxys DE	Fluxys TENP	FluxSwiss
	Entry/Exit	Firm under all circumstances	●	●	-	● (FZK)	● (entry+exit)
<b>Firm</b>	Optimised	Firm products optimised for dedicated routes	-	● (OCUC, wheeling, Zeeplatform)	● (DZK)	● (DZK)	-
	Conditional	Firm except under certain circumstances	● (Conditional Firm)	● (Backhaul)	-	● (bFZK)	● (Product with waive days)
<b>Interruptible</b>	Entry/Exit	Could be interrupted due to physical limits	●	●	● (uFZK)	● (uFZK)	● (entry+exit)



# Understand the products on offer across the Group: LNG



# Understand the products on offer across the Group: Storage



## Loenhout Storage

Yearly Products	SBU - Standard Bundled Unit volume + injection + send-out (in pre-defined quantity)	●
	Additional Yearly Product* volume, injection, send-out	●
Short-term products*	Volume rights	●
	Injection rights	●
	Send-out rights	●

\* If capacity remains available after the sale of SBUs



# Book capacity



- Range of booking methods
  - PRISMA\* auction & FCFS; Implicit Allocation with Broker partners for IUK
  - buy directly from FluxSwiss, Dunkerque LNG and Zeebrugge LNG
  - storage products available through FCFS, auctions and subscription windows from Fluxys Belgium
- Standard transmission products available across the Fluxys Group
  - Gas year, Quarter, Month, Day-Ahead, Within-Day
- Non-standard transmission products available
  - from IUK, FluxSwiss and from Fluxys BE in the Zeebrugge area
- LNG terminalling available: regulated (Zeebrugge) and exempted (Dunkerque)

\* PRISMA is the Central European Capacity Platform for booking capacity. If PRISMA is unavailable then overnomination is the back-up procedure used across the Fluxys Group to allow Shippers to book transmission capacity



# Using capacity

becoming a shipper

determining  
capacity need

booking capacity

day to day operations

- Monitor your capacity portfolio and nominate flows
  - using standard Fluxys-designed Electronic Data Platform across the Group
  - available for transmission, storage and LNG terminalling services
- Manage your imbalance position or your storage inventory
  - daily balancing with within-day tolerances for Fluxys BE, Fluxys TENP and Fluxys DE
  - In=out on an hourly basis for IUK and FluxSwiss
  - Manage your LNG inventory at Zeebrugge LNG or Dunkerque LNG and your gas-in-store at Loenhout
- Validate and pay your invoice
  - capacity charges plus commodity/variable charges where applicable
- Find all the Terms and Conditions on our website (for regulated services)

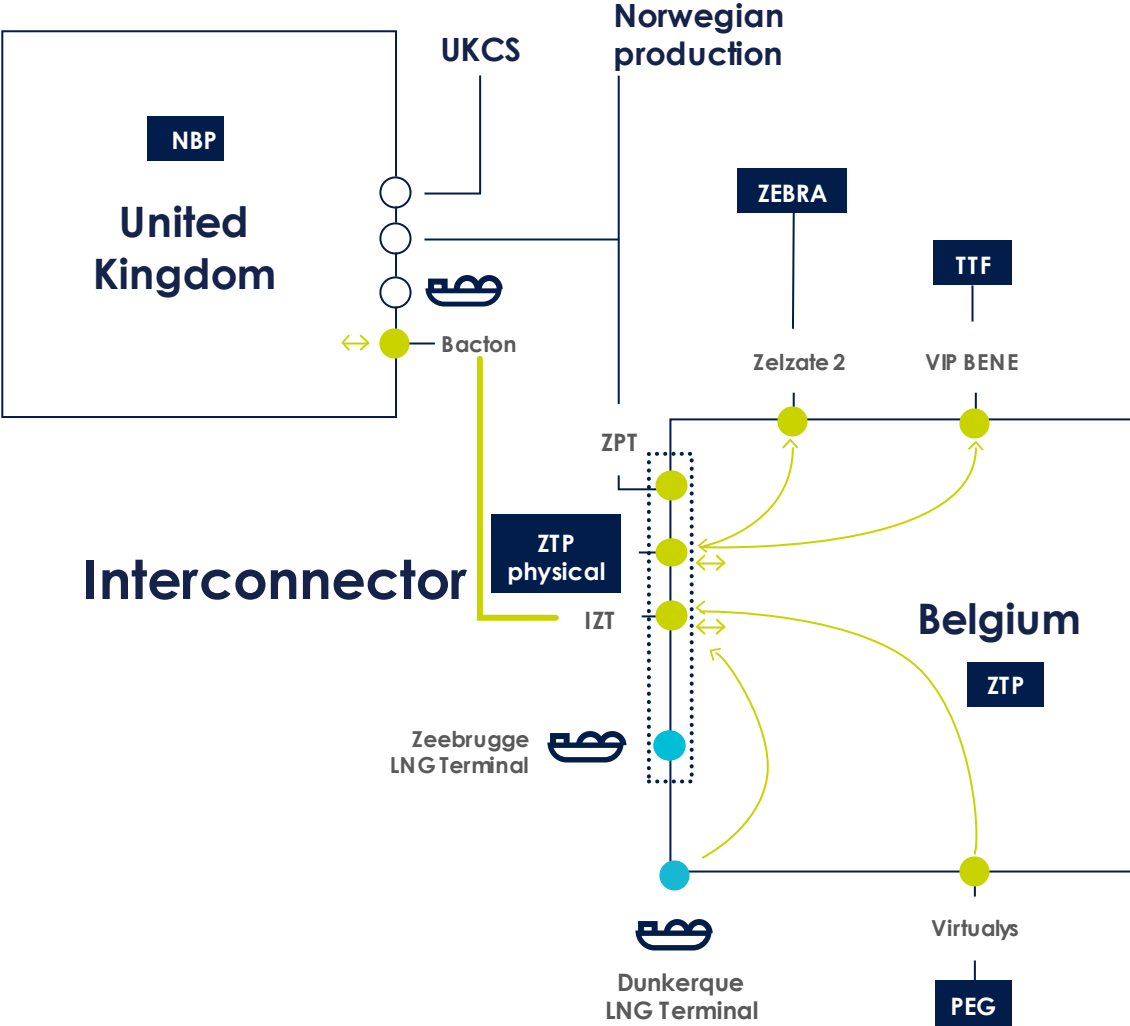
**Our Key Account  
Managers are  
available to  
support you at any  
stage**



# Interconnector UK: connecting UK to Continental Europe

## what we offer / who are we

- Physical connection between NBP and ZTPP/ZTP.**  
 Allowing UK to access continental storage and connecting Zeebrugge LNG and Dunkerque LNG to the NBP via Fluxys Belgium
- Bi-directional pipeline** between Bacton (UK) and Zeebrugge (Belgium) allows transit UK- BE of 20bcm/y or BE-UK of 25bcm/y
- Capable of changing physical flow direction several times within each day in function of market signals
- Sign up to be ready to buy capacity on the primary or secondary market (alongside 27 shippers)



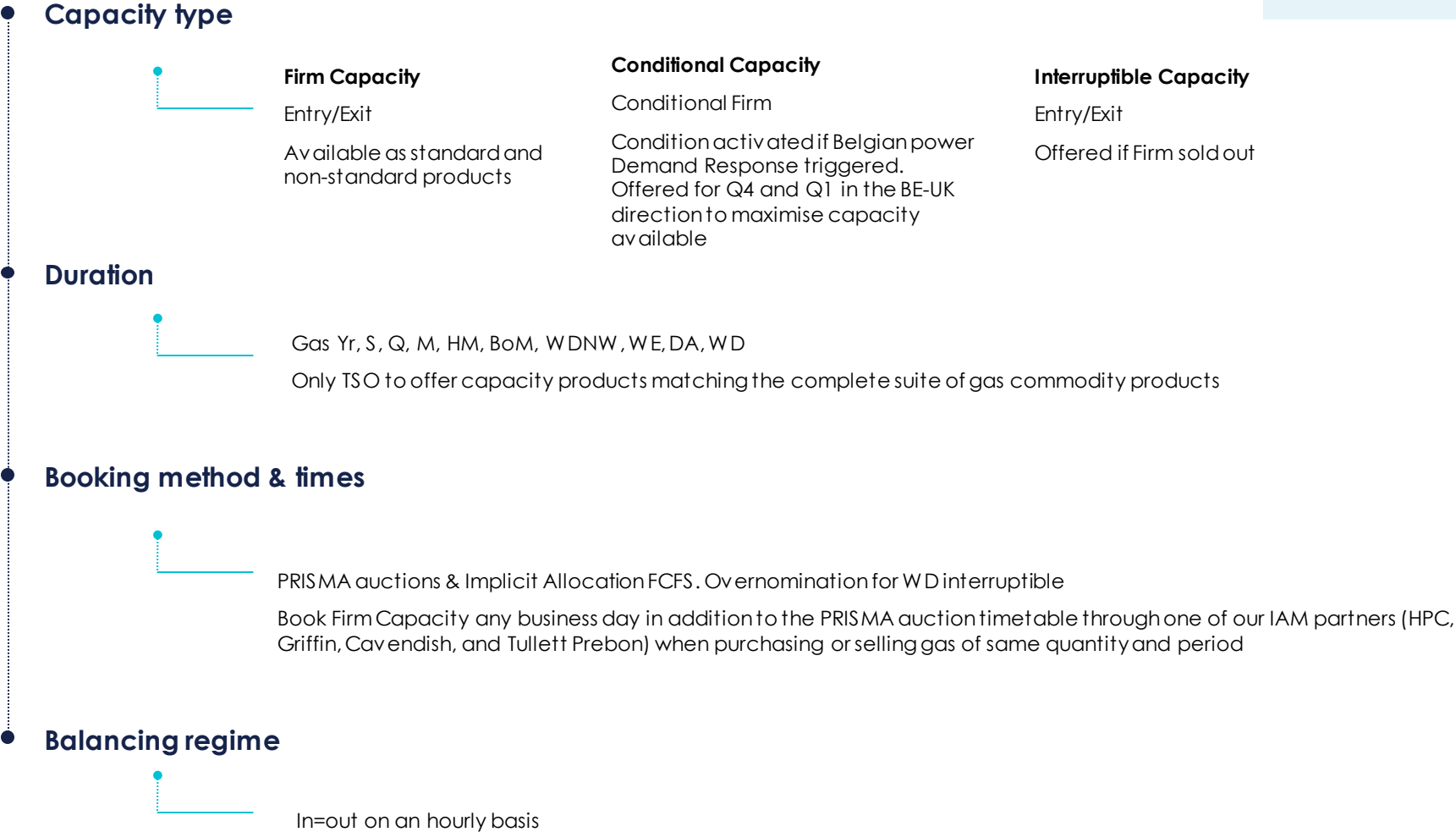
# Interconnector UK: determining capacity need

**Key contacts:**

[sarah.cooper@interconnector.com](mailto:sarah.cooper@interconnector.com)

[charlotte.williams@interconnector.com](mailto:charlotte.williams@interconnector.com)

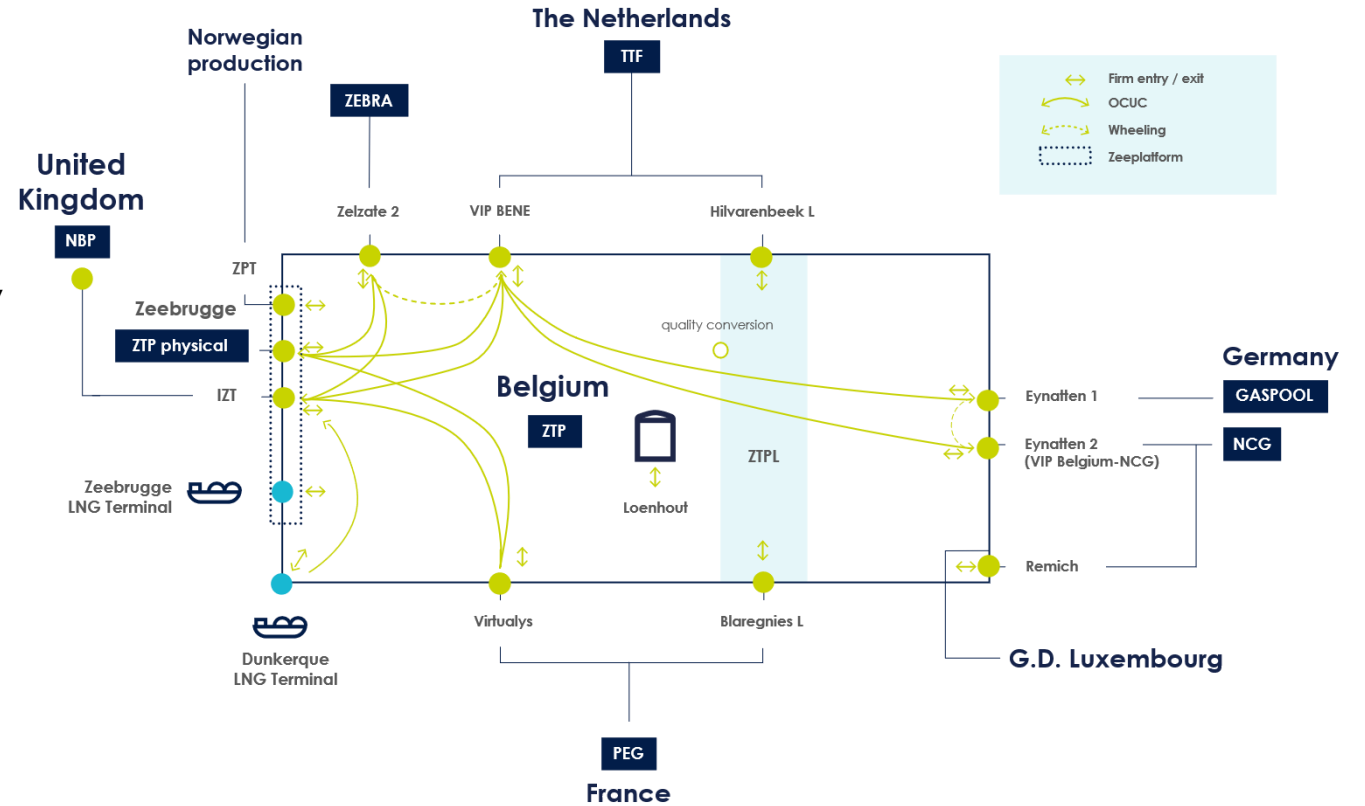
Based in London



# Fluxys Belgium: crossroads for cross-border flows

## what we offer / who are we

- **Transit to/from UK, France, Germany, Netherlands, LNG and Norwegian import**, access storage, trade at ZTPP or ZTP, supply customers in Belgium and Luxembourg
- **121 bcm/y entry capacity, 80 bcm/y exit capacity** connecting Europe as well as 17 bcm/y Belgian market
  - 50% public distribution, 25% power generation, 25% industrial customers
  - made up of 12 bcm/y H gas and 5 bcm/y of L gas
- Also Zeebrugge LNG, direct access from Dunkerque LNG, and Loenhout underground storage
- Sign up to be ready to buy capacity on the primary or secondary market (alongside 100+ shippers)





# Fluxys Belgium: determining capacity need

**Key contacts:**  
[Info.transport@fluxys.com](mailto:Info.transport@fluxys.com)  
 Based in Brussels



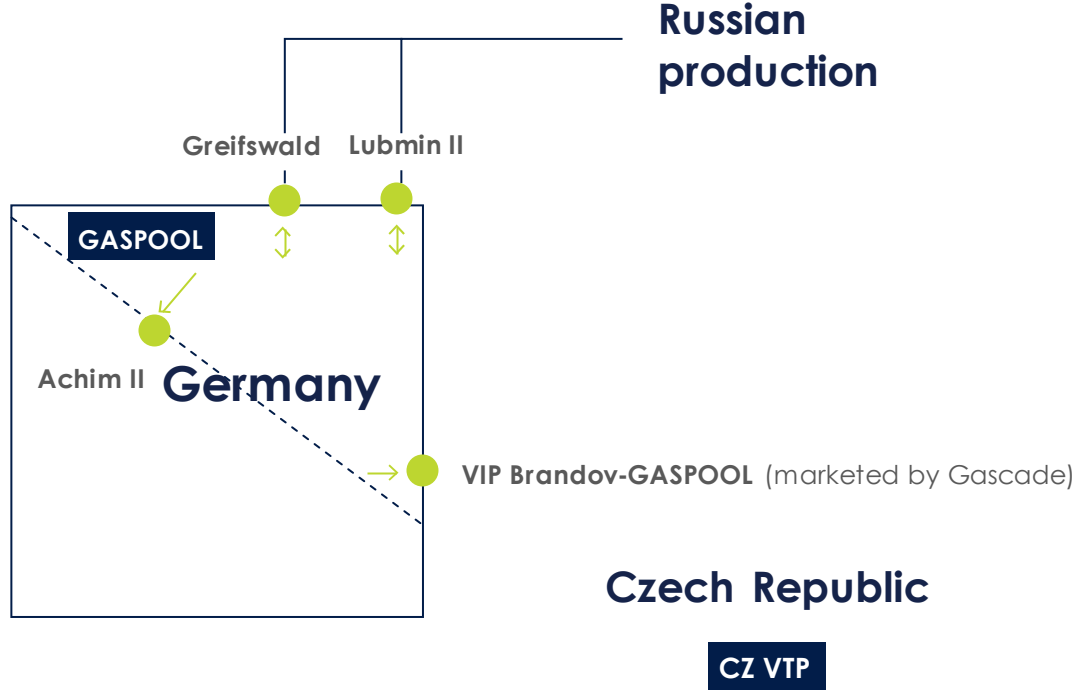
<p>● <b>Capacity type</b></p>	<p><b>Firm Capacity</b>                  Entry/Exit                  Book any entry point or any exit point independently. Firm access to or from ZTP VTP. Use Cross-border delivery service to flow directly from Dunkerque LNG to ZTP</p>	<p><b>Optimised Capacity</b>                  Shorthaul (OCUC), Wheeling, Zeeplatform                  Cheap Firm point to point balanced flow. Convert Firm Entry and Exit Capacity within 15 days of purchase via PRISMA for OCUC or Wheeling. Sign up for Zeeplatform access for a monthly fee to enable unlimited Wheeling in the Zeebrugge area</p>	<p><b>Conditional Capacity</b>                  Backhaul                  Usable as long as there is sufficient forward flow at the interconnection point</p>	<p><b>Interruptible Capacity</b>                  Entry/Exit                  Offered if Firm sold out</p>
<p>● <b>Duration</b></p>	<p>GY, Q, M, DA, WD                  Plus non-standard durations for Zeebrugge area points (except IZT and Dunkerque LNG)</p>			
<p>● <b>Booking method &amp; times</b></p>	<p>PRISMA auctions, PRISMA FCFS and overnomination for WD interruptible                  Capacity offered according to PRISMA auction timetable. Points in the Zeebrugge area offered FCFS on PRISMA as well as Domestic Exit Points</p>			
<p>● <b>Balancing regime</b></p>	<p>Daily balancing with within-day market tolerances (managed by Balansys from 1st June 2020)</p>			



# Fluxys Deutschland: connecting Russian gas with Germany and beyond

## what we offer / who are we

- **Transporting Russian production to Germany and beyond**, esp. to Czech Republic, access storage, trade at GASPOOL and transfer between GASPOOL & NCG
- **NEL pipeline** (approx. 440km) connects to Rheden storage, GASPOOL and other internal connection points (e.g. Achim II)
- **EUGAL pipeline** connects to GASPOOL and internal German connection points, but also to Czech Republic (EUGAL Line 1 Lubmin II-Deutschneudorf approx 480km and EUGAL Line 2 Lubmin II-Weisslack approx 329km)
- Sign up to be ready to buy capacity on the primary or secondary market



# Fluxys Deutschland: determining capacity need

**Key contacts:**

[friedrich.rosenstock@fluxys.com](mailto:friedrich.rosenstock@fluxys.com)

Based in Düsseldorf



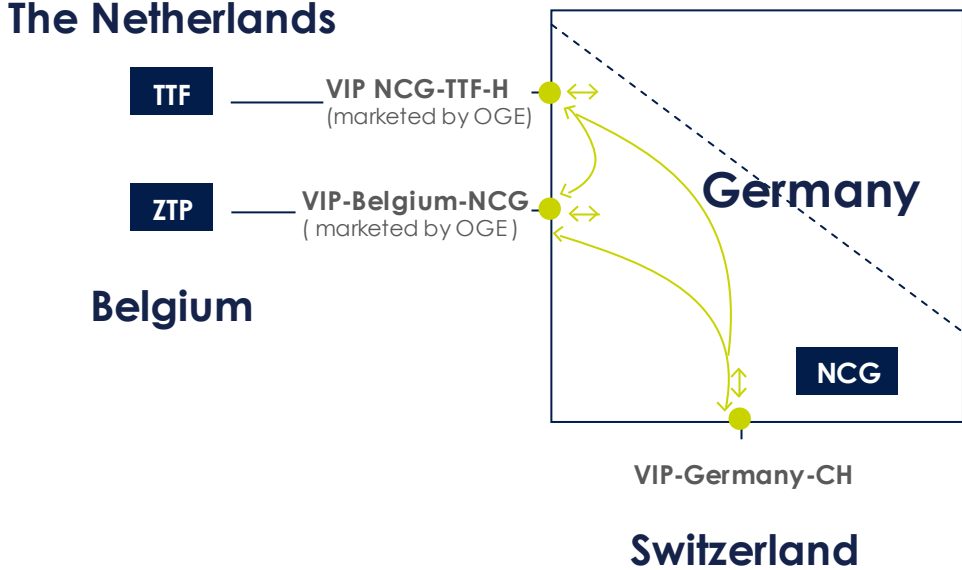
- **Capacity type**
  - Optimised Capacity**  
DZK  
Firm for the balanced part of entry and exit nominations. Any additional unbalanced part of nominations has interruptible access to or from the GASPOOL VTP
  - Interruptible Capacity**  
uFZK Entry/Exit  
All runtimes offered
- **Duration**  
GY, Q, M, DA, WD
- **Booking method & times**  
PRISMA auctions and overnomination for WD interruptible  
Capacity offered according to PRISMA auction timetable
- **Balancing regime**  
Daily balancing with hourly tolerance per Shipper managed by GASPOOL  
Shipper needs to have a balancing group with GASPOOL to be able to book capacity from Fluxys Deutschland



# Fluxys TENP: connecting European Hubs

## what we offer / who are we

- **Connecting the German NCG with Belgium, Netherlands, Switzerland and onward to Italy.** Enabling access to full NCG market area with possibilities for supplying customers & storage
- **TENP pipeline system** of 1010km, entry and exit at Belgium, Dutch and Swiss borders allow North-South or South-North flow through NCG market area
- Sign up to buy capacity on the primary or secondary market (alongside 90+ shippers)



# Fluxys TENP: determining capacity need

**Key contacts:**

[gregory.duvivier@fluxys.com](mailto:gregory.duvivier@fluxys.com)

[alexandra.moussa@fluxys.com](mailto:alexandra.moussa@fluxys.com)

[alessandro.brunoni@fluxys.com](mailto:alessandro.brunoni@fluxys.com)

Based in Düsseldorf



● **Capacity type**



**Firm Capacity**  
 FZK Entry/Exit  
 Book any entry point or any exit point independently. Firm access to or from NCG VTP

**Optimised Capacity**  
 DZK  
 Firm for the balanced part of entry and exit nominations. Any additional unbalanced part of nominations has interruptible access to or from the NCG VTP

**Conditional Capacity**  
 bFZK  
 Firm with access to or from NCG VTP subject to conditions based on temperature and flow

**Interruptible Capacity**  
 uFZK Entry/Exit  
 Offered if FZK sold out for Yr, Q, M and WD products. Offered on DA basis every day

● **Duration**



GY, Q, M, DA, WD

● **Booking method & times**



PRISMA auctions and overnomination for WD interruptible  
 Capacity offered according to PRISMA auction timetable

● **Balancing regime**



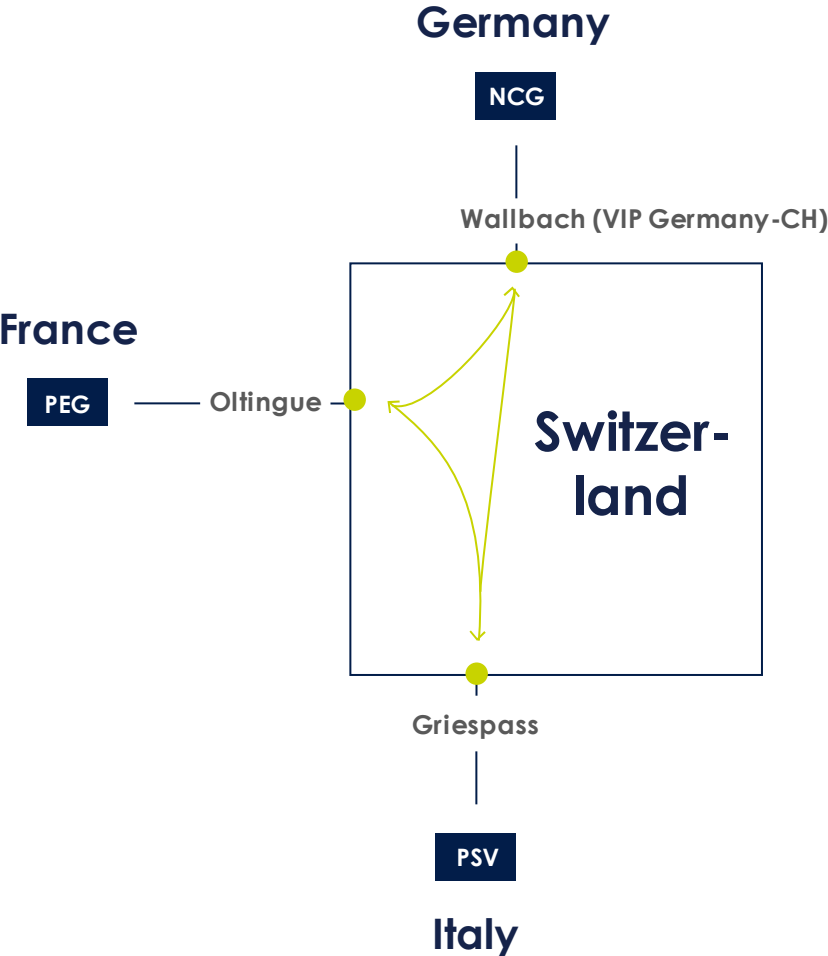
Daily balancing with hourly tolerance per Shipper managed by NCG  
 Shipper needs to have a balancing group with NCG to be able to book capacity from Fluxys TENP



# FluxSwiss: connecting the German, French & Italian markets

## what we offer / who are we

- **Transit to/from France, Germany and Italy**
- **Transitgas pipeline** allows flow North-South and South-North
- Sign up to be ready to buy capacity on the primary or secondary market (alongside ~70 shippers)



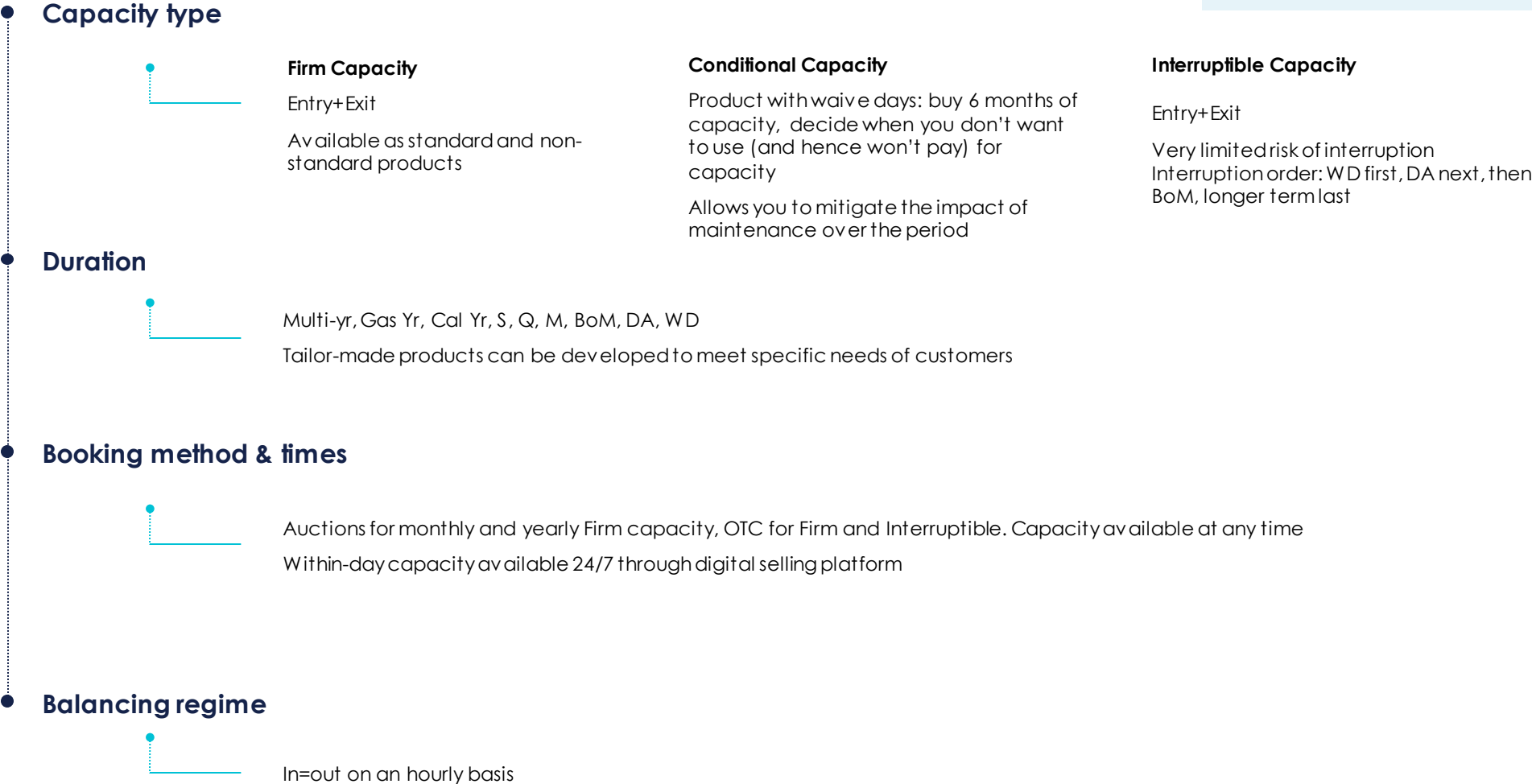
# FluxSwiss: determining capacity need

**Key contacts:**

[luca.fomiatti@fluxswiss.com](mailto:luca.fomiatti@fluxswiss.com)

[raoul.raffagli@fluxswiss.com](mailto:raoul.raffagli@fluxswiss.com)

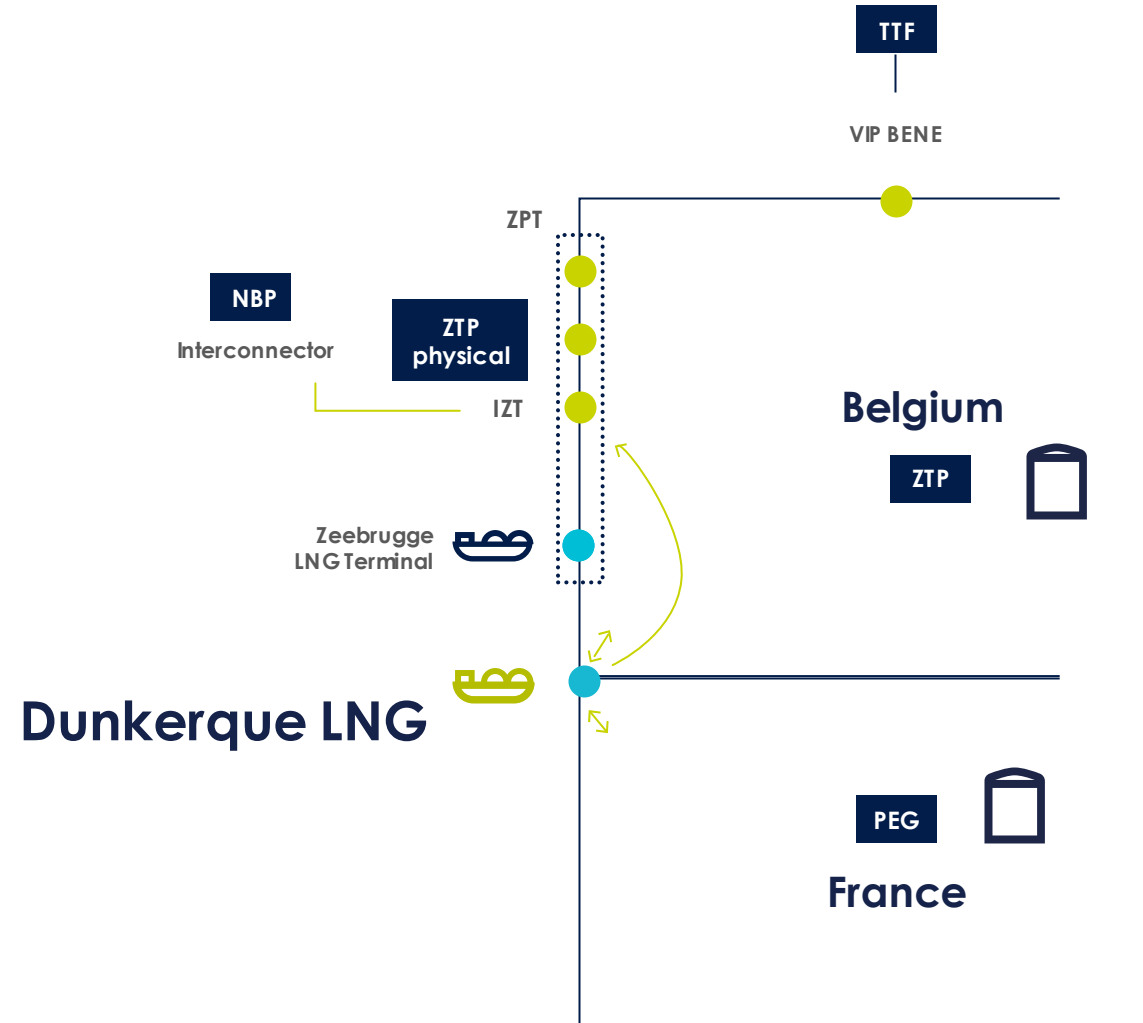
Based in Paradiso, Switzerland



# Dunkerque LNG: Access gas and LNG markets in NW Europe

## what we offer / who are we

- **Direct access to France and Belgium**
- Ability to unload LNG carriers with capacities between **5.000 and 267.000 m<sup>3</sup>**
- Deep water port and **570,000 m<sup>3</sup> storage (excl min inventory)**
- Sign up to our contractual framework for free to buy capacity on the primary or secondary market





# Dunkerque LNG: determining capacity need

**Key contacts:**

[commercial@dunkerquelng.com](mailto:commercial@dunkerquelng.com)

Based in Paris



● **Large-scale solutions**



**Unload, Store & Regas**

Berthing, storage and send out rights with inventory and send out managed entirely by the shipper up to the limit of the rights allocated. Additional storage and regas available as add-ons

Ship unloading rate 14,000m3/h

**Reload LNG**

Additional berthing rights to reload large-scale ships.

Reloading rate 8,800m3/h

● **Small-scale solutions**



**Small-scale ship unloading**

Available as from second half of 2020

**Truck loading**

3000 slots per year. Each loading slot provides max. flexibility (40m3 loading time within a 90 minutes time window), scheduling via online platform

● **Booking method**



Open Season for long-term capacity, FCFS for short-term capacity

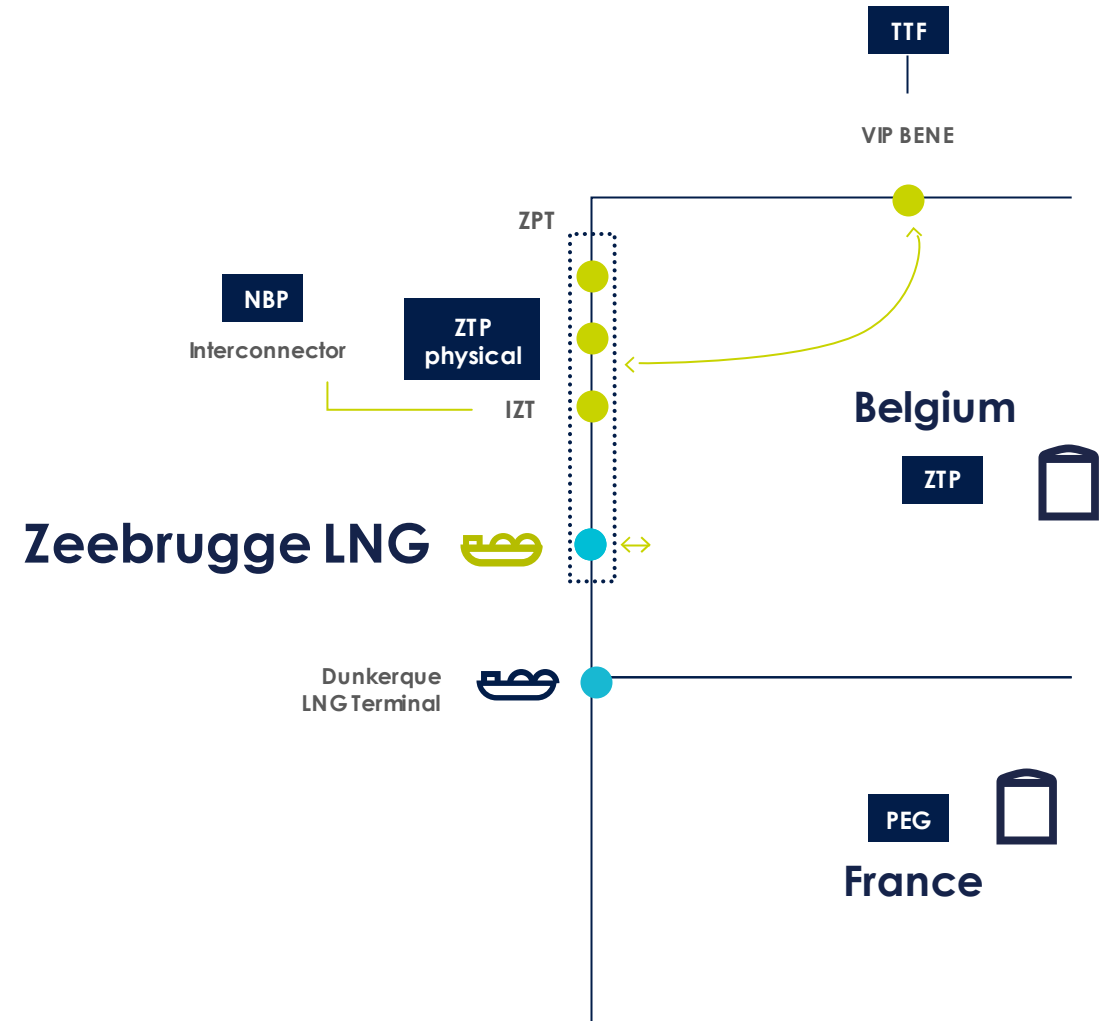
Spot slots and UIOLI slots published on Fluxys.com. Subscribe to alerts announcing unloading opportunities



# Zeebrugge LNG: Access gas and LNG markets in NW Europe

## what we offer / who are we

- Gateway to European gas markets
- competitive tariffs and small-scale services
- Ability to unload LNG carriers with capacities between 1.000 and 267.000 m<sup>3</sup>
- Simultaneous unloading possible at two jetties
- Sign up to our contractual framework for free to buy capacity on the primary or secondary market



# Zeebrugge LNG: determining capacity need

## Key contacts:

[Info.LNG@fluxys.com](mailto:Info.LNG@fluxys.com)

Based in Brussels



## Large-scale solutions



### Unload, Store & Regas

Standard bundle: berth, store and send out 140,000m<sup>3</sup> of LNG over 10 days. Additional storage and regas available as add-ons

Ship unloading rate 12,000m<sup>3</sup>/h

### Reload LNG

Additional berthing rights to reload large-scale ships. Reloading rate 6,000m<sup>3</sup>/h for ships of 30,000m<sup>3</sup> or larger.

### Transship LNG

Two ships simultaneously berthed at the jetties. Transshipment rate 10,000 m<sup>3</sup>/h

## Small-scale solutions



### Small-scale ship loading

Additional berthing rights for reloading small-scale ships. Attractive <15,600m<sup>3</sup>. Reloading rate 1,500m<sup>3</sup>/h for ships under 30,000m<sup>3</sup>

### Small-scale ship unloading

Available Summer 2020 pending market consultation outcome

### Truck loading

8000 slots per year, 1.5 hr slot provides flexibility (40m<sup>3</sup> loading time approx. 45 mins), scheduling via online platform

## Booking method



Subscription window for long-term capacity, FCFS for short-term capacity

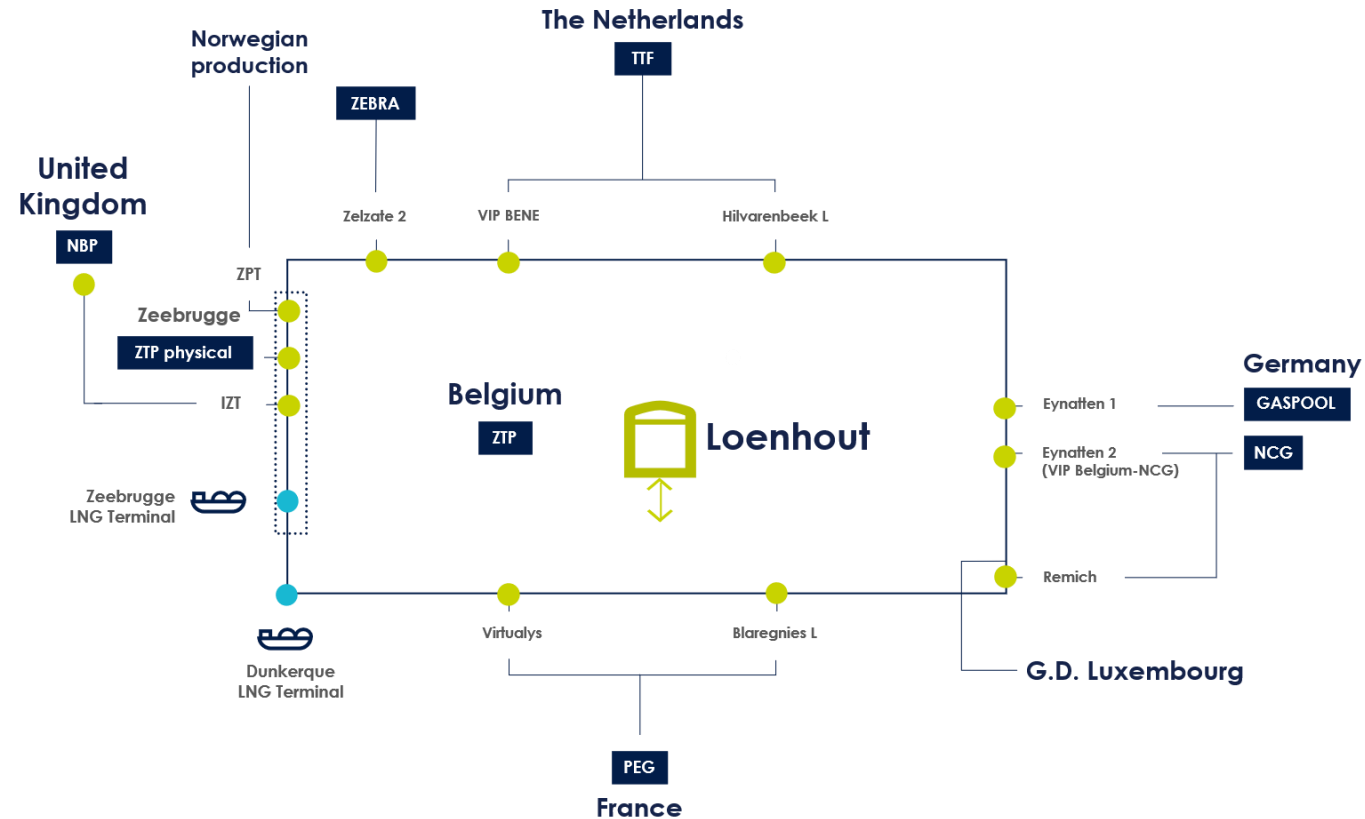
Spot slots and UIOLI slots published on Fluxys.com and the Dunkerque LNG EBB. Subscribe to alerts announcing unloading opportunities



# Loenhout Storage: flexible storage options

## what we offer / who are we

- Use our different storage services to **increase your flexibility within the Belgian market and in Europe**
- Underground storage with max physical volume of 9TWh (=770Mm<sup>3</sup>); max injection capacity: 325k m<sup>3</sup>/h and max send out capacity: 625k m<sup>3</sup>/h
- Unique location close to major hubs provides flexibility for Belgium and European markets



# Loenhout Storage : determining capacity need

**Key contacts:**

[Info.storage@fluxys.com](mailto:Info.storage@fluxys.com)

Based in Brussels



● **Storage solutions**



**SBU (Standard Bundled Unit)**

Yearly product for 1-10 years, starting 15 April each year

Fixed bundle:

- Volume: 27,12 MWh
- Injection: 0,013 MWh/h
- Send-out: 0,025 MWh/h
- Speed 73/119 days

**Additional Yearly Product**

Yearly product for 1 year starting 15 April

Offered after SBU sales if capacity left

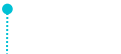
Bundle of volume, injection and send-out can be designed by Fluxys or desired profile can be requested by Shipper

**Short-term Product**

Within-year product of any duration, offered after 15 April if capacity left

Shipper can request bundle of volume, injection and send-out or buy additional products to modify yearly products already held

● **Booking method**



Auction or Subscription Window for SBU and Additional Yearly Product

FCFS for Short-term Product



# Notes

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Fluxys  
Avenue des Arts, 31  
1040 Brussels - Belgium

[fluxys.com](http://fluxys.com)



shaping together  
a bright energy  
future