



# Corporate Profile

Gas Terminals of Tomorrow



# Agenda



## WHO WE ARE

- Company Structure
- Locations



## WHAT WE DO

- Core Competences
- How we work
- In-house Disciplines



## PRODUCT LINES

- Terminals for LNG
- Terminals for PG
- Logistics & Storages for Green Energy (NH<sub>3</sub>/H<sub>2</sub>)
- Logistic Solutions for CO<sub>2</sub>



## WHAT WE DID

- Selected References
  - LNG
  - Petrochemicals
- Project Highlights



## SUMMARY

- Highlight Figures
- Added Value to You
- Contact Information

# TGE

Gas Engineering

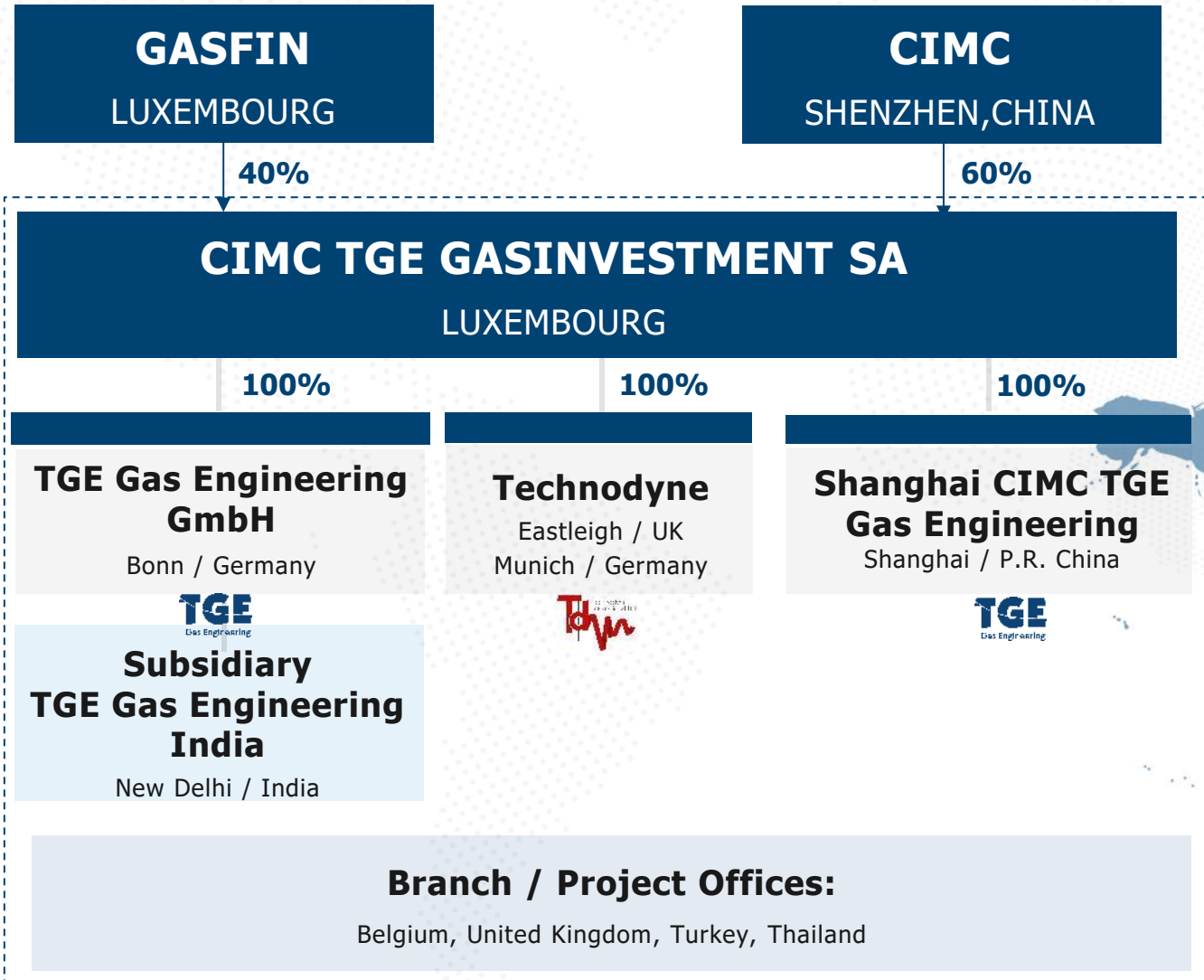
RHEINAUEN CARRÉ

TGE

Member of  
The Gas Engineering Guild  
gasin  
AIRING  
gas solutions  
LMA  
The Quality Benchmark  
3 Steps  
ORBIT  
IT-SOLUTIONS  
NEXTID  
The Quality Benchmark  
3 Steps

## WHO WE ARE

# Company Structure



## CIMC (SZ000039, HK 02039)

- China International Marine Containers (Group) Co., Ltd.
- Established in Shenzhen in 1980, listed in Shenzhen and Hong Kong.
- With a global workforce of over 60,000 employees and annual sales over 100 billion yuan.
- China's leading manufacturer of LNG, LEG, LPG and cryogenic gas storage and transportation equipment.
- A global leader in LNG, LEG and LPG storage and process engineering.



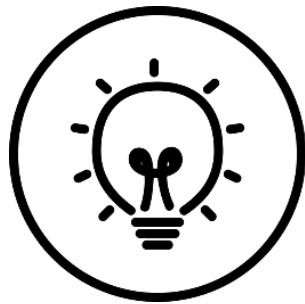
## Gasfin

- A project developer specialized in coordinating investments for gas suppliers, operators and end-users.

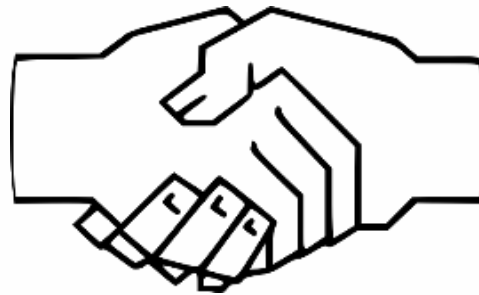
## WHAT WE DO



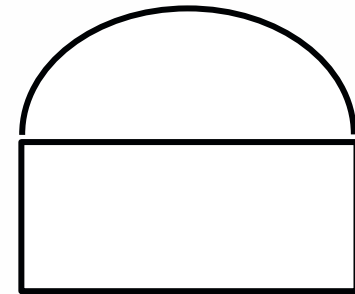
# Core Competence



**From creating the idea -**



**- to the concept design  
& feasibility study -**



**- bringing the project to life with  
permitting engineering,  
EPCC contracting and  
innovative operation training**

# Services and Product Line



Tailored contract moduls as clients' demands

- Technical and Commercial Feasibility Studies
- Conceptual Design
- Environmental Impact Assessment (EIA) and HAZOP
- Capital Cost (CAPEX) and Operating Cost (OPEX) Estimator
- Capital Investment and Project Financing Services
- Basic Engineering / Front End Engineering Design (FEED)
- Detailed Engineering
- Procurement
- Construction & Supervision Services
- Pre-Commissioning and Commissioning
- Start-Up / Shut Down
- Operation and Maintenance Services
- Life-Cycle Engineering Studies and Plant Life-Cycle Optimization

Terminals For LNG



Terminals for Petrochemicals



Logistics & Storages for Green Energy NH3/H2



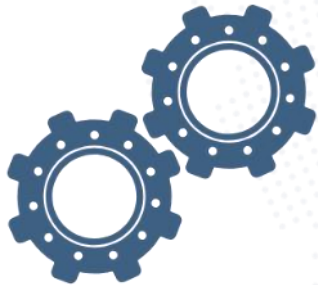
Logistic Solutions for CO2



# How We Work

WE POSITION OURSELVES AS  
**YOUR CONTRACTING SOLUTION PROVIDER FOR A  
LIFECYCLE PROFESSIONAL INVESTMENT!**

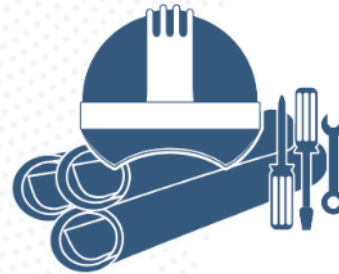
WE ARE PROVIDING SOME/ALL OF THE FOLLOWING SERVICES:



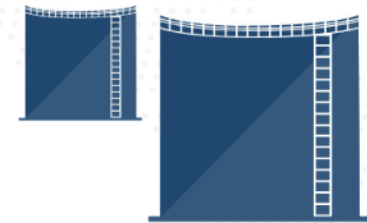
**ENGINEERING**



**PROCUREMENT**



**PROJECT EXECUTION  
MANAGEMENT**



**START-UP / SHUT-DOWN  
COMMISSIONING**

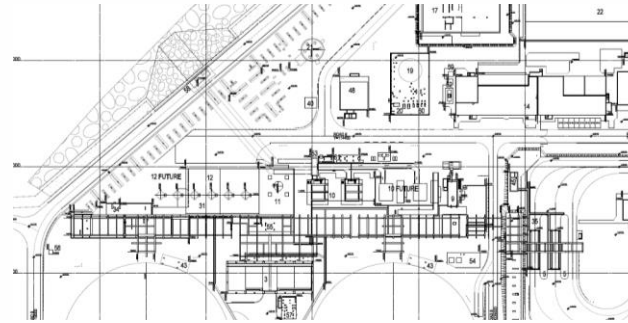
**INNOVATION OPERATION  
ADVISE**

# Core Competence - In-House Dicipines

We position ourselves as your contracting solution provider for professional investment in the **whole LIFECYCLE**



**Contracting**



**Engineering**



**In-House European Tank Design**



**Procurement**



**Project Management (EPCC)**



**Construction Management**



Product Line with  
what we did

**Terminals for  
LNG**



# Terminals for LNG



## LNG Tanks & Terminals

- Import / export terminals
- Tank Sizes up to 260,000 m<sup>3</sup>
- All relevant infrastructure like ship loading / unloading, truck & container loading / unloading and BOG handling.



## Satellite LNG storage and regasification to Power Plants

- Stand-alone regasification solutions
- Dedicated to an adjacent gas power plant in remote areas
- Fast-track and cost-effective delivery



## ssLNG Bunkering, Virtual LNG Pipelines & other Applications

- Small-mid scale LNG plant solutions with a high level of standardization
- Fast-track and cost-effective delivery
- Suitable for remote locations

# Gaz Systems LNG Terminal Extension, Swinoujscie, Poland

## LNG Terminal Extension including 1 x 180,000 m<sup>3</sup> Tank



### CONTRACT DATA

Location:	Swinoujscie, Poland
Owner:	Gaz Systems / Polskie LNG SA
Contractor:	Consortium TGE / PORR
Year of Completion:	2024
Contract Scope:	Terminal, Land Area, Tank EPC

### TERMINAL & STORAGE TANK DATA

Storage Capacity:	1 x 180,000 m <sup>3</sup>
Tank Type:	Full Containment
Design Code:	EN 14620

### TGE SCOPE OF WORK

EPC of the third tank project as part of the Expansion project of the LNG Terminal in an integrated consortium:

- Basic and Detail Design LNG storage tank, pumps, interconnecting piping and Boil off gas treatment
- Procurement of all equipment incl all mechanical equipment, electrical + instrumentation, safety
- Procurement of all material incl. special cryogenic material
- Construction of the storage tank within battery limits
- Installation of all equipment incl. in-tank pumps and BOG compressors
- All site supervision, construction, commissioning and start-up activities

# REN Atlântico LNG Terminal Phase I + II, Sines, Portugal

## LNG Terminal Extension including 1 x 150,000 m<sup>3</sup> Tank



### CONTRACT DATA

Location: Sines, Portugal  
Owner: Transgas Atlantico (REN)  
Contractor: Projesines: Joint Venture Somague /TGE  
Year of Completion: 2003 (Phase I), 2012 (Phase II)  
Contract Scope: EPC of Tank with Jetty Topside and Terminal Process Plant

### TERMINAL & STORAGE TANK DATA

Storage Capacity: 2 x 120,000 (I) + 1 x 150,000 m<sup>3</sup> (II)  
Terminal Capacity: 5.2 MTTPA (I), 7.8 MTTPA (II)  
Tank Type: Full Containment  
Design Code: BS 7777, EN 1473 (facilities) and EN 14620 (Tank)

### TGE SCOPE OF WORK

Full EPC in Joint Venture with Local Civil Partner Somague

- Basic Engineering
- Hazop and QRA
- Operator Training
- Supervision of construction, pre-commissioning, commissioning
- Detail Engineering
- Storage Tank Detail Design
- Procurement / Delivery of main equipment

# Guangdong Huizhou LNG Terminal, Guangdong, P.R. China

## LNG Terminal including 3 x 200,000m<sup>3</sup> Tanks



### CONTRACT DATA

Location:	Huizhou, Guangdong Province, P.R. China
Owner:	Guangdong Huizhou LNG Co., Ltd.
Contractor:	TGE / CET Consortium
Year of Completion:	2024
Contract Scope:	Tank EPC

### TERMINAL & STORAGE TANK DATA

Storage Capacity:	3 x 200,000m <sup>3</sup>
Terminal Capacity:	10 MTPA
Tank Type:	Concrete / Steel Full Containment
Design Code:	EN14620 / API620
China Design Institute	CIME Enric Engineering Technology Company Limited (CET renamed from YPDI)

### TGE SCOPE OF WORK

- Basic and detail engineering
- Procurement and delivery
- Construction
- Commissioning

### PROJECT DESCRIPTION / HIGHLIGHTS

- Whole LNG Terminal including 3 x 160,000m<sup>3</sup> tanks with turnover capacity 10MTPA.

# ENN LNG Bunkering Terminal Phase I+II, Zhoushan, P.R. China



## LNG Terminal Phase I&II including 4 x 160,000m<sup>3</sup> Tanks



### CONTRACT DATA

Location: Zhoushan, Zhejiang Province, P.R. China  
Owner: ENN (Zhoushan) LNG Co., Ltd  
Contractor: TGE / CET Consortium  
Year of Completion: Phase I 2018, Phase II 2021  
Contract Scope: Tank EPC

### TERMINAL & STORAGE TANK DATA

Storage Capacity: 2 x 160,000m<sup>3</sup> + 2 x 160,000m<sup>3</sup>  
Terminal Capacity: 3 MTPA (Phase I), 6 MTPA (Phase II)  
Tank Type: Concrete / Steel Full Containment  
Design Code: EN14620 / EN1473  
China Design Institute: Nanjing Yangzi Petrochemical Design & Engineering Co. Ltd. (YPDI renamed to CET)

### TGE SCOPE OF WORK

- Basic and detail engineering
- Procurement and delivery
- Construction
- Commissioning

### PROJECT DESCRIPTION / HIGHLIGHTS

- The whole LNG Terminal including Phase I: 2 x 160,000m<sup>3</sup> tanks and Phase II: 2 x 160,000m<sup>3</sup> LNG tanks. TGE/CET Consortium responsible for the LNG tanks EPC and associated site interface facilities.

# Shenzhen LNG Peak Shaving Terminal, Guangdong, P.R. China



## LNG Peak Shaving Terminal including 1 x 80,000m<sup>3</sup> Tank



### CONTRACT DATA

Location: Shenzhen, Guangdong Province, P.R. China  
Owner: Shenzhen Gas Corporation Ltd.  
Contractor: TGE / CET Consortium  
Year of Completion: 2017  
Contract Scope: EPCC (Jetty Topside + Process Plant + Tank)

### TERMINAL & STORAGE TANK DATA

Storage Capacity: 1 x 80,000 m<sup>3</sup>  
Terminal Capacity: 0.8 MTPA  
Tank Type: Concrete / Steel Full Containment  
Design Code: EN14620 / NFPA 59A / EN 1473  
China Design Institute: Nanjing Yangzi Petrochemical Design & Engineering Co., Ltd. (YPDI renamed to CET)

### TGE SCOPE OF WORK

- Project Management / EPC Consortium Leader
- Basic and detail engineering
- Procurement and delivery
- Construction
- Commissioning

# Guangdong DPLNG Terminal, Guangdong Shenzhen, P.R, China

## LNG Terminal including 1 x 160,000m<sup>3</sup> Tank



### CONTRACT DATA

Location:	Shenzhen, Guangdong Province, P.R. China
Owner:	Guangdong Dapeng LNG Co. Ltd.
Contractor:	TGE / SNEC Consortium
Year of Completion:	2015
Contract Scope:	Tank EPC

### TERMINAL & STORAGE TANK DATA

Storage Capacity:	1 x 160,000m <sup>3</sup>
Terminal Capacity:	7 MTPA
Tank Type:	Concrete / Steel Full Containment
Design Code:	EN14620 / EN 1473

### TGE SCOPE OF WORK

- Basic and detail engineering
- Procurement and delivery
- Construction
- Commissioning

### PROJECT DESCRIPTION / HIGHLIGHTS

The whole LNG terminal including 4 x 160,000 m<sup>3</sup> LNG tanks with 7 MTPA capacity. TGE/SNEC consortium acted as the EPC contractor for Tank#4, responsible for the facilities associated with the interface between Tank#4 and the previous phase. The expansion was carried out under the condition that the continued safe operation of the existing LNG Terminal.

# CNOOC Ningbo LNG Terminal, Zhejiang Province, P.R. China

## LNG Terminal including 3 x 160,000m<sup>3</sup> Tanks



### CONTRACT DATA

Location:	Ningbo, Zhejiang Province, P.R. China
Owner:	CNOOC Ningbo LNG Co., Ltd.
Contractor:	TGE / CHENGDA Consortium
Year of Completion:	2012
Contract Scope:	Tank EPC

### TERMINAL & STORAGE TANK DATA

Storage Capacity:	3 x 160,000m <sup>3</sup>
Terminal Capacity:	3 MTPA
Tank Type:	Concrete / Steel Full Containment
Design Code:	EN 14620 / EN 1473

### TGE SCOPE OF WORK

- Authority Engineering
- Basic and detail engineering
- Commissioning
- Procurement Offshore
- Mechanical Completion
- Construction, Installation,
- Start-up
- Performance Guarantee Testing, Technical support during run test

### PROJECT DESCRIPTION / HIGHLIGHTS

- TGE/CHENGDA Consortium is responsible for the three tanks and associated process facilities interfacing with the terminal.

# Guanghui LNG Terminal, Shan Shan, Xinjian, P.R. China

## LNG Terminal including 1 x 30,000m<sup>3</sup> Tank



### CONTRACT DATA

Location:	Shan Shan, Xinjiang, P. R. China
Owner:	Guanghui Industry & Commerce Group Co., Ltd.
Contractor:	TGE
Year of Completion:	2003
Contract Scope:	Tank EP+CS

### TERMINAL & STORAGE TANK DATA

Storage Capacity:	1 x 30,000m <sup>3</sup>
Terminal Capacity:	0.4 MTPA
Liq. Plant Capacity:	15 x 105 Nm <sup>3</sup> /day
Tank Type:	Single Containment
Design Code:	API 620

### TGE SCOPE OF WORK

- Front end / Basic design
- Detail design of tanks and DCS/ ES system
- Construction supervision
- Detail engineering supervision
- Procurement and delivery
- Commissioning

Product Line with  
what we did

**Terminals for  
Petrochemicals**





# Terminals for Petrochemicals



## Cryogenic storage for import, export, buffer or distribution

- Propylene / Ethylene
- Ethane / Butane
- LPG / Propane
- Ammonia / Butadiene



## ECTs, Spheres & Bullet tanks

- Earth covered tanks for pressurized liquefied gases
- Horizontal bullet tanks and spheres for pressurized or semi-pressurized storage of liquefied gases

# INEOS Olefins Belgium Ethane Terminal, Belgium, Europe



## Ethane Terminal including 1 x 197,000 m<sup>3</sup> Storage Tank



### CONTRACT DATA

Location:	Antwerp, Belgium
Owner:	Ineos Olefins Belgium N.V.
Contractor:	TGE
Year of Completion:	2023
Contract Scope:	EPC

### TERMINAL & STORAGE TANK DATA

Storage Capacity:	1 x 197,000m <sup>3</sup>
Tank Type:	Concrete / Steel Full Containment
Design Code:	API 620

### TGE SCOPE OF WORK

- FEED
- Basic and Detail Engineering
- Procurement and Delivery
- Construction
- Commissioning

### PROJECT DESCRIPTION / HIGHLIGHTS

The Antwerp, Belgium ethane cracking integrated project with an annual output of 1.45 million tons undertakes the construction of 1x197,000m<sup>3</sup> ethane storage tank and includes project design, procurement, construction and commissioning.



# Singpu Ethylene Terminal Taixing, P.R. China

## Ethylene Terminal including 1 x 30,000 m<sup>3</sup> Tank



### CONTRACT DATA

Location:	Taixing, China
Owner:	Singpu Chemical Industries Co. Ltd.
Contractor:	TGE
Year of Completion:	2013
Contract Scope:	EP+CS

### STORAGE TANK DATA

Storage Capacity:	30,000 m <sup>3</sup>
Tank Type:	Single Containment
Design Code:	API 620

### TGE SCOPE OF WORK

- Extended Basic Design for entire Plant
- Delivery of 5% Ni- Steel plates
- Delivery of Tank Safety Valves
- Construction and start-up Supervision
- Detail Engineering for Tank
- Delivery of BOG Compressors
- Delivery of Tank Instrumentation Package
- Supervision of construction, pre-commissioning, commissioning, performance tests

Product Line with  
what we did

**Logistics &  
Storages for  
Green Energy  
NH<sub>3</sub> / H<sub>2</sub>**



# ETI BAKIR A.S. Ammonial Terminal, Samsun, Turkey

## Anhydrous Ammonia Terminal including 1 x 15,000 MT Storage Tank



### CONTRACT DATA

Location:	Samsun, Turkey
Owner:	Eti Bakir A.S.
Contractor:	TGE
Year of Completion:	2024
Contract Scope:	EPC

### STORAGE TANK DATA

Storage Capacity:	15,000 MT
Tank Type:	Steel Steel Full Containment
Design Code:	API 620

### TGE SCOPE OF WORK

Engineering, Procurement and Erection of Ammonia Terminal consisting of Storage Tank, Utilities including Cooling Water, Glycol Water Systems, all Piping and Piping Elements, Instrumentation, Control System, Power Systems including Transformers, MCC, VFD's and all related cabling works within Battery Limit.

### PROJECT DESCRIPTION / HIGHLIGHTS

Our Client Eti Bakir is importing anhydrous ammonia at cold conditions (appr. -33°C) to their fertilizer production complex in Samsun city via sea transportation. At this point, they need to store cold ammonia safely and to feed necessary amount of ammonia to the downstream fertilizer plants. Our project will provide to Eti Bakir mentioned capability with the most efficient and safe manner.



# Logistics & Storages for Green Energy (NH<sub>3</sub>/H<sub>2</sub>)



## Green Ammonia Storage – the future energy carrier

- Ammonia infrastructure concepts
- Tank concepts for the storage of more than 100,000 m<sup>3</sup>
- Multiproduct Storage Terminals
- Plant conversion and upgrade engineering services



## Hydrogen Logistics

- Integration of H<sub>2</sub> production on EPCM basis
- H<sub>2</sub> distribution and compression systems
- Consultancy for H<sub>2</sub> solutions



Product Line

**Logistic  
Solutions for  
CO2**

# Logistic Solutions for CO2



## Carbon Capture Technology

- Efficiently capture CO2 emissions from industrial processes and defining the most efficient process routes



## CO2 Logistics

- Liquefy, store, handle and transfer CO2 as pressurized liquid gas for your project needs



## Sustainable Consulting Services

- Expert guidance on developing and implementing sustainable practices



## Educational Workshops and Trainings

- Empower your team with knowledge on CO2 reduction and sustainability

## WHAT WE DID



# Selected LNG Project Project Highlights



## LNG Extension Poland

- EPC contract
- 1 x 180,000 m<sup>3</sup> tank
- Full containment tank
- Terminal expansion project



## LNG Terminal Mugardos

- EPC contract
- 2 x 150,000 m<sup>3</sup> tanks
- Full containment tanks
- 4.8 MTPA terminal capacity



## LNG Terminal Zhoushan

- EPC contract
- 4 x 160,000 m<sup>3</sup> tanks
- Full containment tanks
- 6 MTPA terminal capacity



## LNG Terminal Guangdong Province

- EPC contract
- 3 x 200,000 m<sup>3</sup> LNG tanks
- Full containment (concrete / steel)
- 10 MTPA terminal capacity

Europa

China



# Selected Petrochemical Project Highlights



## Ammonia Terminal Izmit

- EP+CS contract
- 1 x 25,000 mt tank
- Full containment tank (steel/steel)
- Ship loading / unloading system



## Ethane Terminal Grangemouth

- EPC contract
- 1 x 60,000 m<sup>3</sup> tank
- Full containment tank
- Ship loading / unloading system



## Ethane Terminal Antwerp

- EPC contract
- 1 x 197,000 m<sup>3</sup> tank
- Full containment tank
- Largest Ethane tank in Europe



## Ethane / Propane Terminal Taixing

- EP+CS contract
- 5 x 120,000 m<sup>3</sup> tanks
- Full containment tanks (steel/concrete)
- Ship unloading / loading system
- Propane / ethane liquefaction systems

Europe

China



## Summary



# Highlight Figures



## Installed Tank Sizes for

- Ethylene 80,000 m<sup>3</sup>
- Propylene 80,000 m<sup>3</sup>
- LPG 120,000 m<sup>3</sup>
- Ethane 197,000 m<sup>3</sup> (under construction)
- Ammonia 25,000 mt
- LNG 200,000 m<sup>3</sup>



## Additional Features

- Own tank design
- Own certified inspection team
- References for all relevant design codes
- Working expertise in 22 countries around the world



## Working Expertise

- 199 tanks installed
- 96 earth covered tanks
- 86 facilities around the globe
- more than 8.4 Mio m<sup>3</sup> storage capacity built or under construction



## Tank Types / Tank Sizes

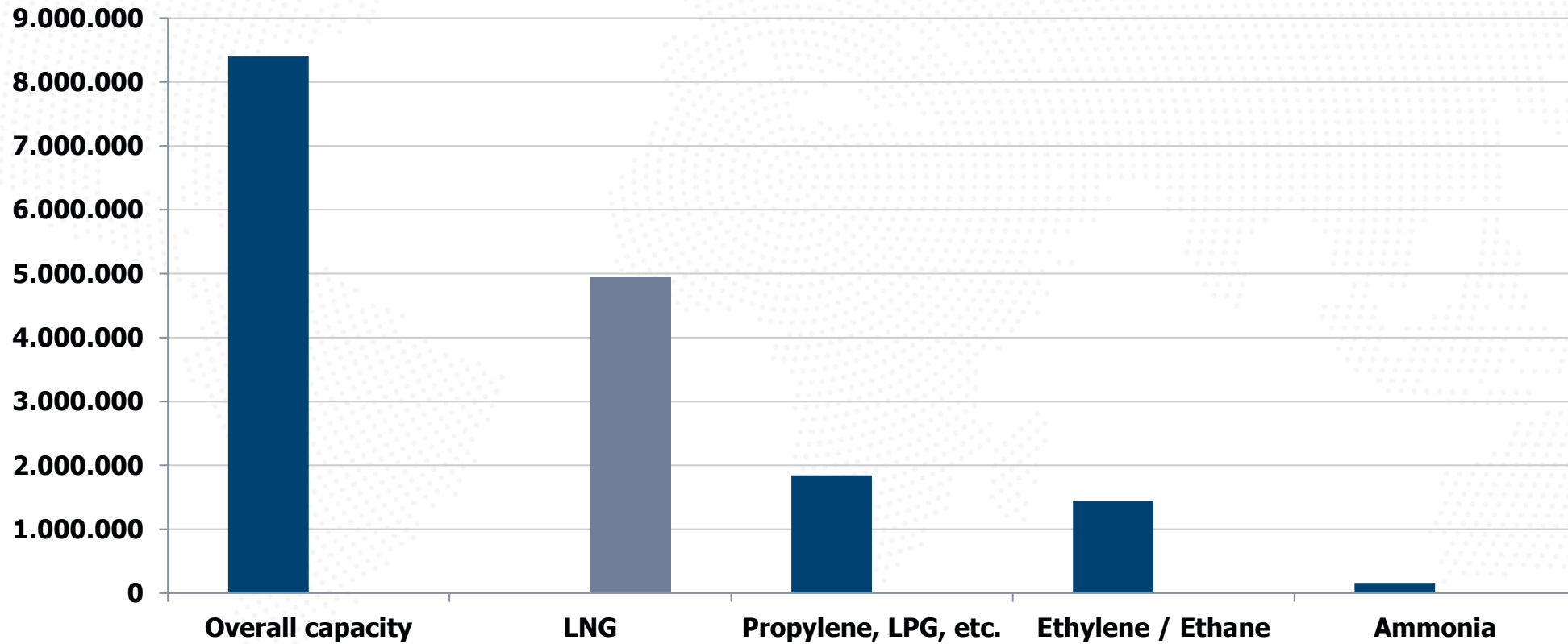
- Cryogenic storage for import, export, buffer or distribution
- Earth covered tanks (ECT)
- Horizontal bullet tanks and spheres
- Built 1,200 - 200,000 m<sup>3</sup>
- Designed 1,200 – 250,000 m<sup>3</sup>



# Highlight Figures



**LIQUEFIED GAS STORAGE  
CAPACITY INSTALLED (m<sup>3</sup>)  
Status January 2025**





# Added Value to You



## 44 Years Business Experience

- From initial concept / feasibility study to turn-key lump-sum execution of complete projects as main contractor

## Strong References

- For all relevant design codes
- All tank sizes and terminal concepts

## Located in Europe and Asia

- With our offices we are always near to the customer and the projects
- Embedded in a group with strong partners and shareholders

## Ready for the Future

- We provide innovative and reliable design, made for the future

# Gas Terminals of Tomorrow



## Contact us

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