



# Global Solutions

We provide integrated service solutions to support our customers in decarbonizing assets, embracing digital transformation, and enabling energy transition, all while guaranteeing operational efficiency and safety of their gas infrastructure





# Snam Global Solutions delivers value to our customers

Global Solutions leverages on 80 years of know-how and the experience of Snam as the largest gas infrastructure provider in Europe and a leader in energy transition.

Our **offering** is based on an integrated approach minimizing risks and increasing the effectiveness of managing gas infrastructures. Included is an **innovative digital offering** which provides expertise and unlocks the potential of interconnected technologies.

A new **energy transition offering** on areas like hydrogen readiness for infrastructure, LNG and low carbon mobility is aimed at supporting customers through the challenges and opportunities of decarbonization.

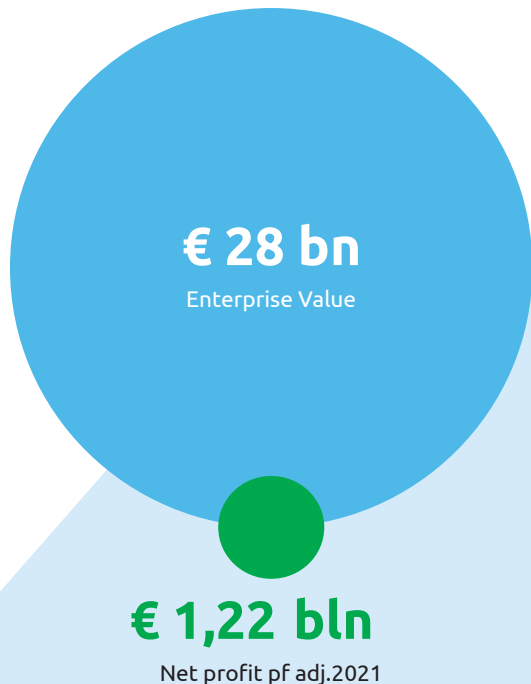
A photograph of three children running on a sandy beach towards the ocean at sunset. The sun is low on the horizon, creating a warm, golden glow. The child in the middle is holding a white model airplane high in the air. The child on the left is wearing a white t-shirt and dark shorts. The child in the middle is wearing a dark t-shirt and shorts. The child on the right is wearing a yellow t-shirt and blue shorts. The beach is covered in footprints, and the ocean waves are visible in the distance. The sky is a mix of orange, yellow, and blue.

**Snam**

energy to inspire  
the world

# Europe's largest energy infrastructure and second largest gas infrastructure in the world

## KEY FIGURES



## SHAREHOLDING STRUCTURE



\*Government fund



▼  
We have launched a diversified set of initiatives for the energy transition:

- Snam4Mobility
- BU Hydrogen
- Snam4Environment
- Snam4Efficiency



2040  
Carbon neutrality reached

## IN THE EU, WE MANAGE:



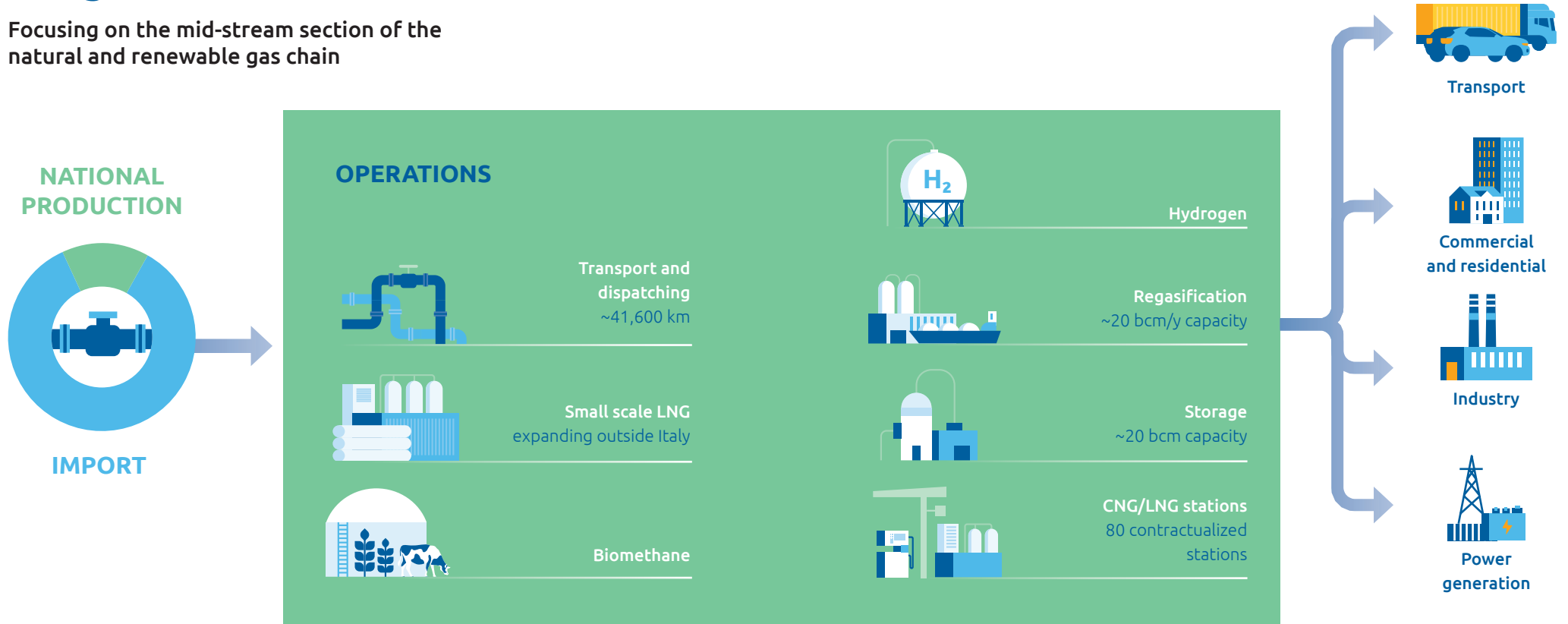
20%  
of total pipeline and storage



10%  
of regasification capacity

# A thought leader of the integrated value chain

Focusing on the mid-stream section of the natural and renewable gas chain



# Our offering



# The Global Solutions value proposition

Covering the whole gas value chain with a unique end-to-end approach

## ADVISORY & TRAINING



### Managing the challenges rising from market development and the energy transition

- Capacity building
- Access code support and tariffs set up
- Commercial set up
- Consultancy on H<sub>2</sub> readiness, biomethane plants and fuelling stations for CNG

## TECHNICAL SERVICES AND DIGITAL TRANSFORMATION



### Tailored process building and design to achieve reliability, operational improvement and cost efficiency

- Assessment and gap analysis
- O&M reengineering for optimization
- Engineering services
- Hybrid cloud transformation and software applications
- Digital journey (e.g. smart infrastructures, AI & IoT for gas infrastructures and processes)

## ASSET DESIGN AND MANAGEMENT



### Actionable knowledge and a solid partner from engineering to operation of the assets of complex transport, storage and regasification infrastructures

- BOOT
- EPC(M)
- Full O&M execution and services on complex infrastructures
- Project management

Long term reliability



Results

Cost effectiveness

# Our offering covers each lifecycle phase of your gas pipelines, boosting station and regasification plants

## DESIGN

### PROJECT MANAGEMENT

- Permitting support
- Works monitoring
- Contract management

### ENGINEERING FEED

- Optimal pipeline path & design
- Digital surface model
- Digital terrain model
- Laser imaging detection & ranging
- Support for engineering

### DETAILED ENGINEERING

- Welding technologies & check
- Trencher machines
- Micro tunneling
- Horizontal directional drilling

## RUN & MAINTAIN

### ASSET INTEGRITY

- Cathodic protection
- In line inspection
- Leak detection
- Pipeline inspection management
- Hydrogeological monitoring

### ASSET ENHANCEMENT

- H2 readiness

### OPERATION & MAINTENANCE

- Digital asset model
- Workforce management
- Cartographic system
- FSE mobile tools
- Smart gas integrated platform

### GAS MANAGEMENT

- Gas forecasting model
- Smart metering & protocols
- Software application
- Smart infrastructures
- Enhancement Scada automation
- IT tools and platform for commercial activities

## FIX & UPGRADE

- O&M FULL EXECUTION
- UPGRADE ENGINEERING DESIGN
- UPGRADE MANAGEMENT (EPCM)
- UPGRADE EPC



# Our services help the underground gas storage operators to reach the best performances from the beginning of the lifecycle

## DESIGN

### ENGINEERING & DESIGN PROJECT MANAGEMENT

- Field Selection and appraisal program
- Field evaluation for UGS feasibility
- New smart gas design
- Monitoring plan design

### CONSTRUCTION & COMMISSIONING PROJECT MANAGEMENT

- Micro seismic network deployment
- Compression station EPC(M) (through selected partners)

## RUN & MAINTAIN

### ASSET INTEGRITY

- Well integrity assessment & recommendation
- Integrated UGS assessment & recommendation
- UGS risk analysis and environmental impact evaluation

### ASSET ENHANCEMENT

- Overpressure project design
- Existing UGS assessment for performance enhancement of topside infrastructures
- Existing UGS assessment for performance enhancement of reservoir and well

### OPERATION & MAINTENANCE

- O&M field operation management and execution
- Digital asset model
- Workforce management
- Cartographic system
- FSE mobile tools
- Smart gas integrated platform

## FIX & UPGRADE

### TROUBLESHOOTING ON ALL UGS INFRASTRUCTURE UPGRADE SERVICES

# The digital offering

Unlock the high potential to improve asset integrity and reliability, to optimize and prioritize maintenance

## Smart Gas

Full deployment of integrated tool to design, build and maintain assets. Improved maintenance and scheduling practices (from days to minutes). Network, stations, storage sites and GNL terminals involved.

## Demand Forecast 4.0

New demand model based on AI and machine learning, improving physical and commercial balancing. Prediction accuracy already improved by ~40% reducing the average error (<3%).

## Real time 24x7 leak detection and georeferencing

Pressure Intelligent Monitoring System able to monitor any losses on the network in real time, providing the cartography and geographic coordinates of the point where the break occurred.

## Smart PE

Enhanced real-time 24x7 data acquisition on cathodic protection against corrosion (new devices & tools).

## MAIN SERVICES

### Onfield detection of asset fugitive emissions (LDAR)

Reducing fugitive emissions related to all those gas leaks due to all components that do not have a perfect seal.

### Advanced asset monitoring by drones and satellites

Development of pipeline monitoring technologies for enhanced detection of interference & land monitoring.

Hybrid inspection model through satellites, drones and operators.

### New commercial systems (JARVIS)

Integrated suite of services to favour operations on the commercial platform and integration among EU gas markets.

### Analytics 4 Maintenance

Applying cognitive computing to maintenance (un)structured data for:

- Better understanding of failure causes
- Analysis and monitoring of assets key performance indicators
- Assets data elaboration to support new models for maintenance policies

# The energy transition offering

Your partner of choice to support you in developing:

## Hydrogen value chain

Focus on new H<sub>2</sub> Technologies  
Consultancy and technical advisor  
on hydrogen: hydrogen readiness  
infrastructure, roadmap definition,  
future trends, and evaluations

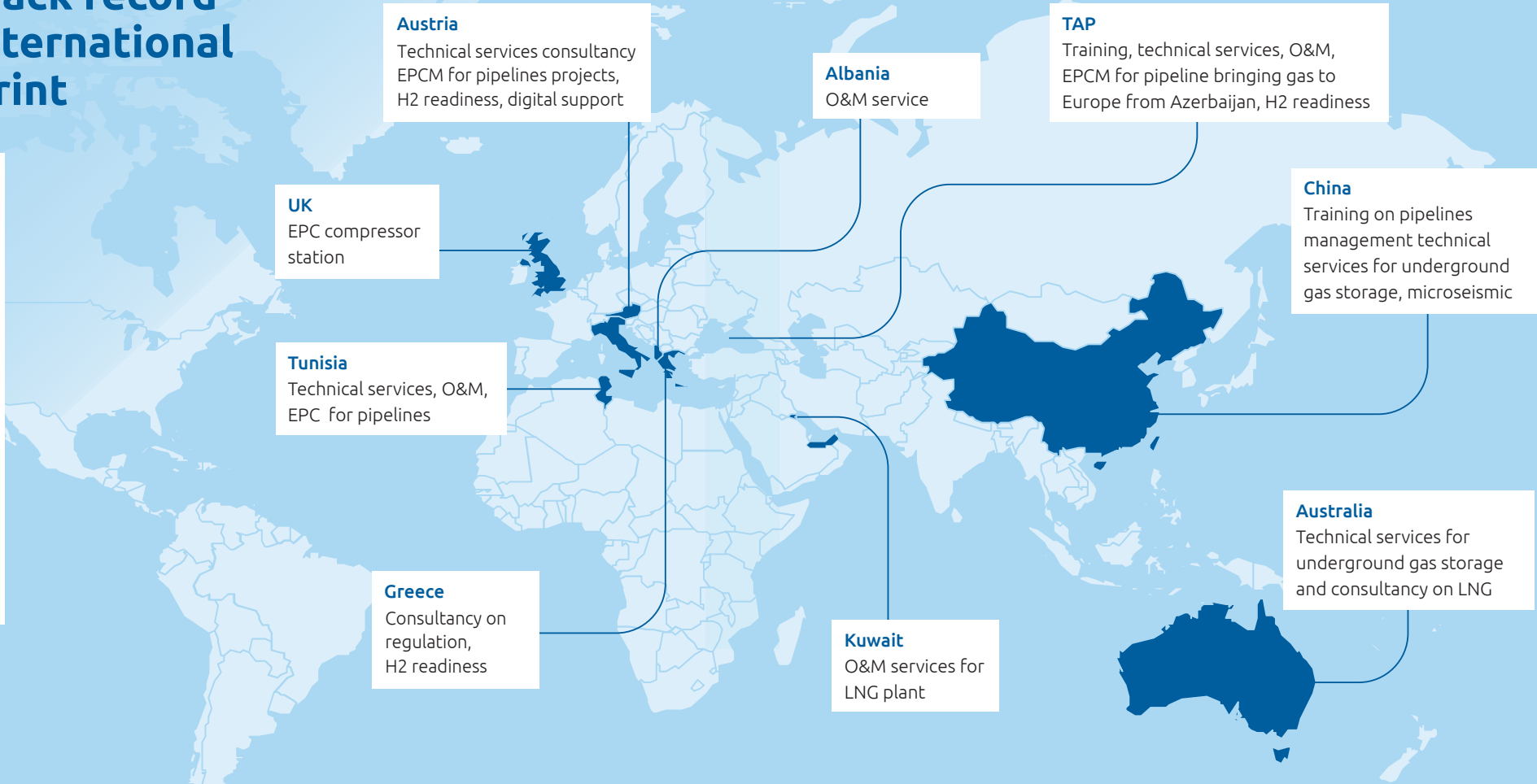
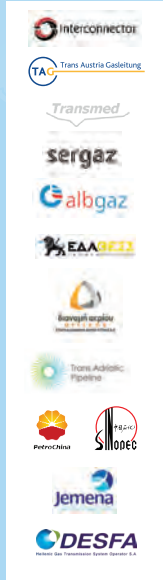
### Biomethane production plants

- Development, engineering and construction (EPC) of biogas and biomethane plants
- Consultancy and technical advisor on biomethane value chain

### Sustainable "smart green" mobility network

- Expanding the NG/BioNG refilling stations network (CNG and bio-CNG, LNG and bio-LNG)
- Starting developing the H<sub>2</sub> mobility
- MaaS business model

# Our track record and international footprint





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