



Desfa

IENE

INNOVATION IN ENERGY

8th March 2025

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Agenda

- 1 Desfa at a glance
- 2 Activities
- 3 Our Innovation Lab
- 4 What is Next

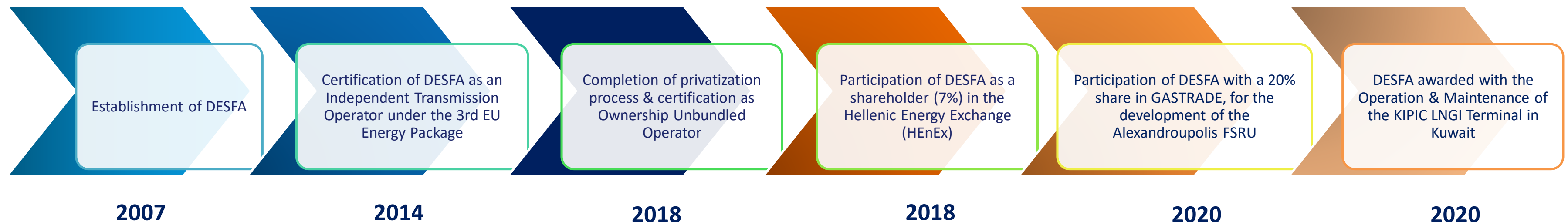
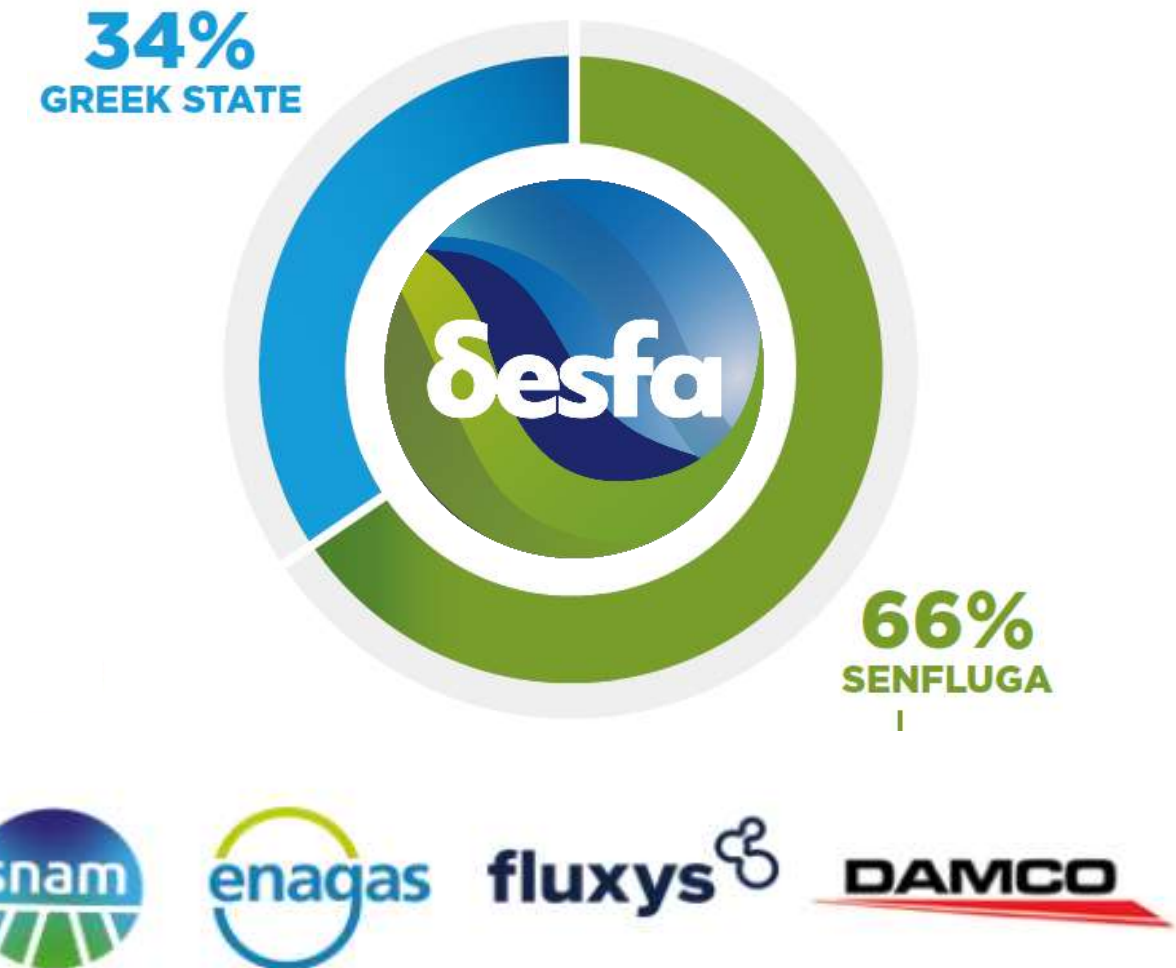


DESFA at a glance

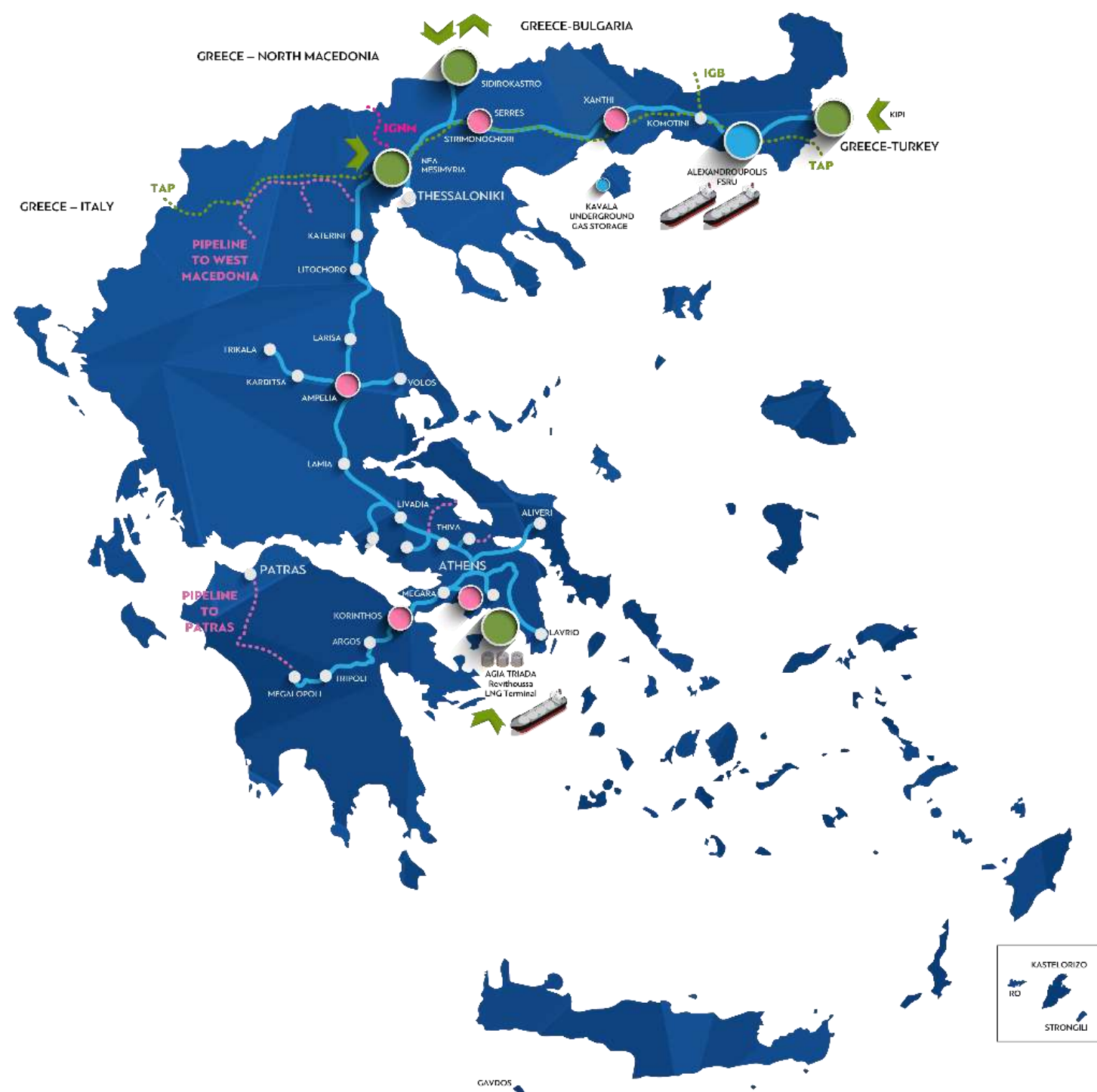


- ✓ Established in **March 2007**, DESFA owns & operates the **Greek Natural Gas System (NNGS)**, which consists of the **National Natural Gas Transmission System** & the **LNG Terminal in the islet of Revithoussa**.
- ✓ DESFA has been certified as an **Ownership Unbundled Operator** under the **3rd EU Energy Package**, following the completion of a privatization process on **December 20th of 2018**.
- ✓ DESFA operates, maintains & develops the Greek Natural Gas System in a safe, reliable and economically efficient way, offering:
 - **Regulated Third Party Access services** in a transparent, non-discriminatory way
 - **A range of non-regulated services** to a number of national & international clients

Shareholders Structure



Managing a high-quality network & state-of-the-art LNG facilities



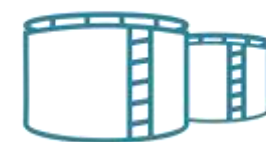
1,466 km

High Pressure
Pipelines



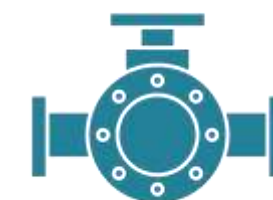
6

Operation &
Maintenance
Centers



1

LNG Storage &
Regasification Terminal Station in
Revithoussa



25

Exit Points to
Distribution
Systems



4

Interconnection
Points



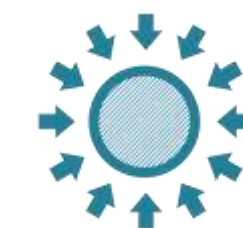
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Dispatch
Centers



55

Metering &
Regulating Stations



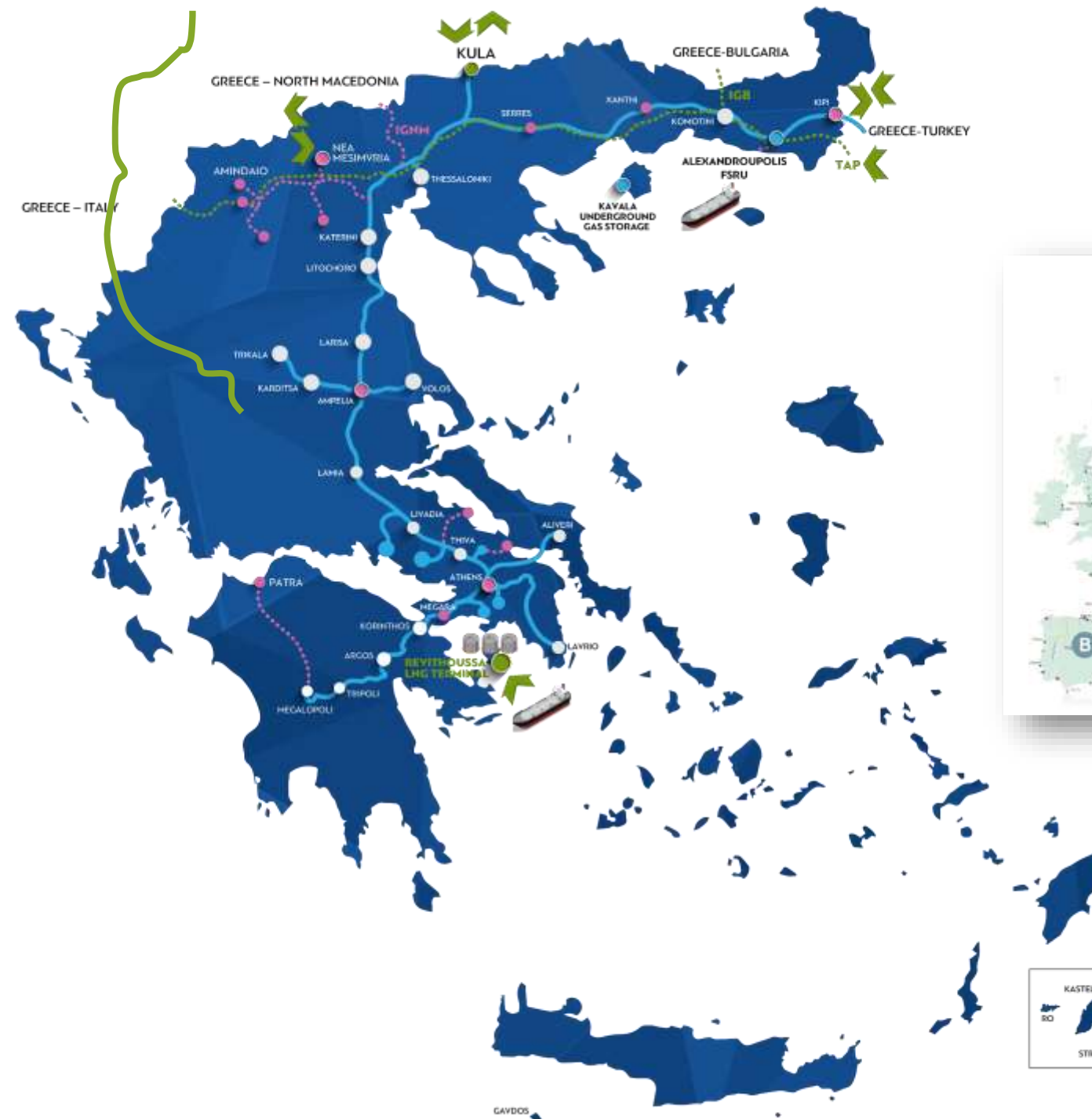
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Compression
Station

Forming a key part of “Corridor E: East & SE Europe” of the European Hydrogen Backbone



- The “**Dedicated H2 Pipeline**”, project submitted by DESFA within the framework of the **6th PCI’s list** of the **European Commission** successfully passed the technical evaluation, which make it **eligible for inclusion in the relevant preliminary list**.
- With a budget of **€1 billion**, the project concerns the construction of a new **540 km long pipeline exclusively for the transport of pure hydrogen**.
- Key part of “**Corridor E**” that will leverage vast land availability and high-capacity factors for solar and wind, connecting high hydrogen supply potential regions with off takers in Central Europe and Southern Germany, where demand is expected to be significant by 2030.
- The pipeline will start from the **South part of Greece**, serving the major supply points in **Athens** and **Corinth**, and will reach the **interconnection point of the NNGS with Bulgaria** in the area of **Sidirokastro**.



**H2 Dedicated
Pipeline**

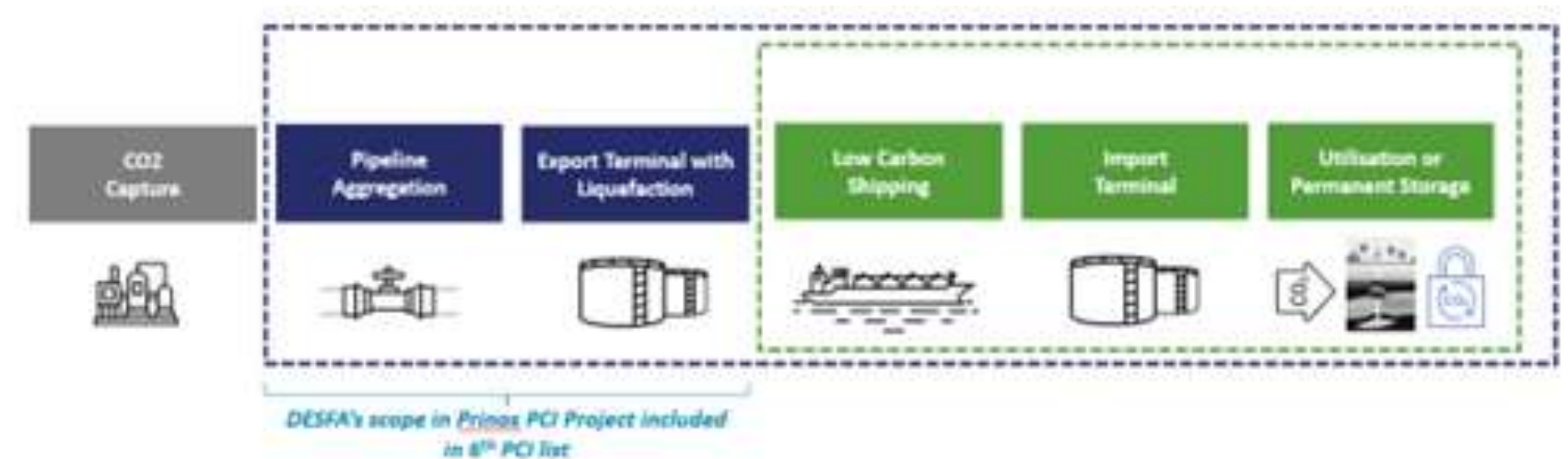
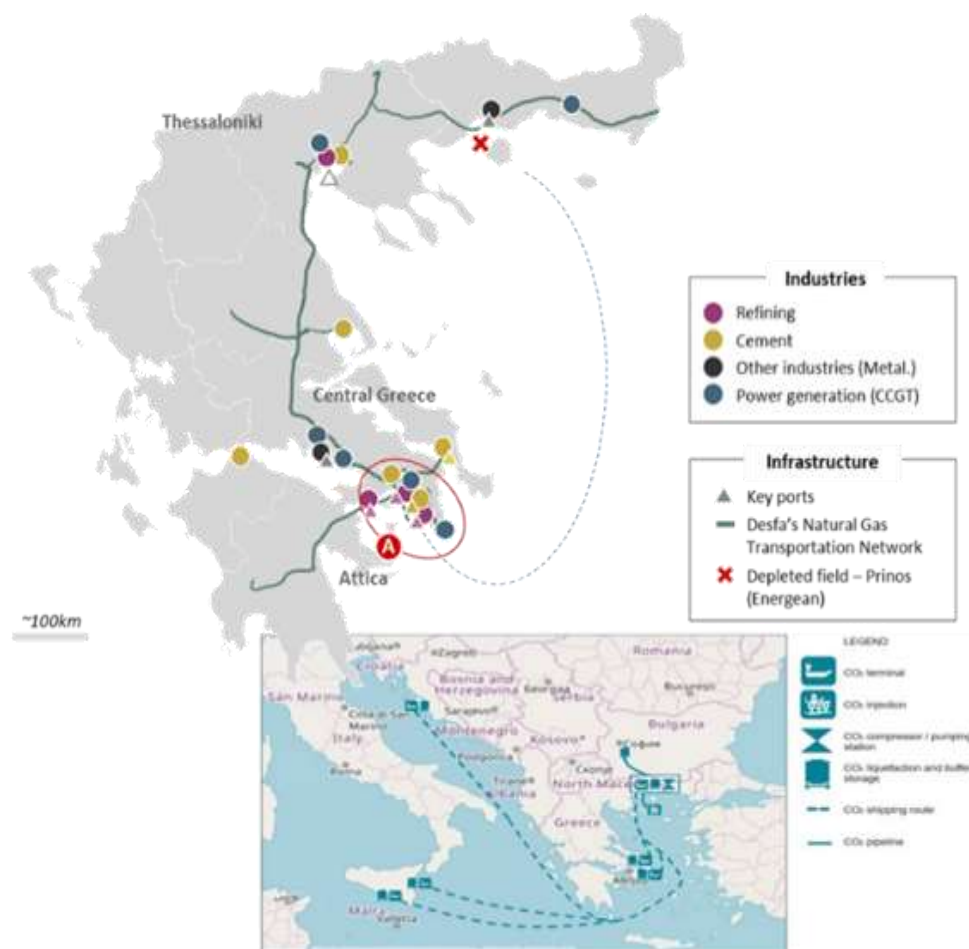
**Timeline:
2029**

Apollo CO2 – The 1st CCS Hub Project in Greece



- **ApolloCO2** refers to DESFA's part in the **Prinos CCS PCI Project** (13.11 Prinos – Offshore storage at Prinos field for emissions from EL, by pipeline and from BG, HR, CY, EL, IT and SI by ship) and covers the midstream part of the value chain. More specifically, the project includes the pipeline transportation, liquefaction and permanent storage of the captured CO2 by hard-to-abate emitters. DESFA's contribution to the project includes the construction of a dedicated CO2 pipeline connecting emitters from the region of Attica.

- This pipeline will aggregate the volumes in a liquefaction terminal in Revythoussa, where the CO2 will be liquefied, leveraging the availability of cold energy from the LNG and temporarily stored in a dedicated facility, until its loading to CO2 carriers that will transport it via sea to Prinos or any other Mediterranean Storage facilities.
- The project promotes the development of CCS hubs and it is fully aligned with EU's Industrial Carbon Management Strategy that sets the ambition of a single CCS market.





Initiatives already implemented or planned

Innovation initiatives are always pursued, particularly in collaboration with distinguished Universities

Partnerships with Universities and Research Centers

- H₂ injection simulation in Gas Networks
- Incident investigation with Finite element analysis
- Gas Forecast Systems, two(2) AI Systems using Neural Networks
- Earth Observation Surface Motion Mapping for Desfa Pipeline via Insar
- Smart Contracts



Ongoing discussions with Companies & Accelerators

- Sophisticated inspection methods of underground networks
- Route development optioneering with AI-powered tech
- On-going discussions with Accelerators and Incubators of the Greek Ecosystem



Desfa Innovation Lab



A cross-function working group created with the aim to support the adoption of innovative practices and tools within the company, managing Desfa innovative projects portfolio's

WORKING GROUP MEMBERS

- Technical
 - Engineering
 - ICT
 - Operations
- Innovation Ambassadors**
- One per Division

Desfa+ INNOVATION CENTER was launched in 2023

Go Live

- Call launched
- Innovation portal

Q2 2023, invited startups attended the Pitch days event

Road to....

- Processes design
- Organizational model design
- Definition of legal framework
- Engagement with other business functions

Today

- PoC development
- Enhance collaborations
- Internal innovation

PoCs results & next calls

Main results



- PoC focused on the analysis through AI platform of:
 - **AI Technical Documents**, to extract and analyze information from vast and scanned documentation
 - **AI Contract management**, to search, retrieve, update, and analyze contract information, providing insights to optimize terms and mitigate risks
- Completed **two Proof of Concepts** (PoCs) demonstrating significant potential for AI in document management

Main results



- The **PoC is currently under development**; the objective is to identify the use of PPE (Personal Protective Equipment) in LNG Facility, Revithoussa and measure floor occupancy in DESFA headquarters using vision sensors and AI technology.
- **Inspections and preliminary analysis** were conducted to understand the designated area and related risks
- Initial results are expected by the **end of May**

The 2nd Call process topics proposal is based on the evidences emerged from different sources, such as: **events; Internal survey; Innovation ambassador feedback; business function needs**

- Environmental management applications
- Gas Grid evolution
- Digital Wellbeing and Onboarding

Launching on 12.05.25

DESFA Technical Training and R&D Center

One-stop-shop for Green Gases Training

One Mission:

to serve the skilling, reskilling and upskilling needs of a green gas economy



Main Responsibilities

Based on its own robust training practice and drawing on its 30 years of experience and operational excellence, Desfa pioneers in technical Operation & Maintenance training in gas sector.

The Training Center provides continuing vocational services complementing, updating and upgrading knowledge, skills and competencies of Desfa's workforce but also third parties' personnel.

- Located in Nea Messimvria, Thessaloniki
- Strategically placed at the epicenter of southeastern European gas markets
- First in-house Training Center in the Balkan area.
- Designed to accommodate Transmission and Distribution System Operators in Greece and abroad.

**Thank
You**

