HYPERION SYSTEMS ENGINEERING · SINCE 1993

hyperiongroup

Hyperion Consulting

Planning, scheduling, MES, simulation and digital strategy for oil & gas, refining, petrochemicals, polymers and chemicals.



hyperion consulting

WHO WE ARE

Engineers who implement industrial IT/OT

Engineering advisory and industrial IT for the hydrocarbons and chemicals industries, with selected work in power generation and manufacturing.

500+

projects since 1993

51

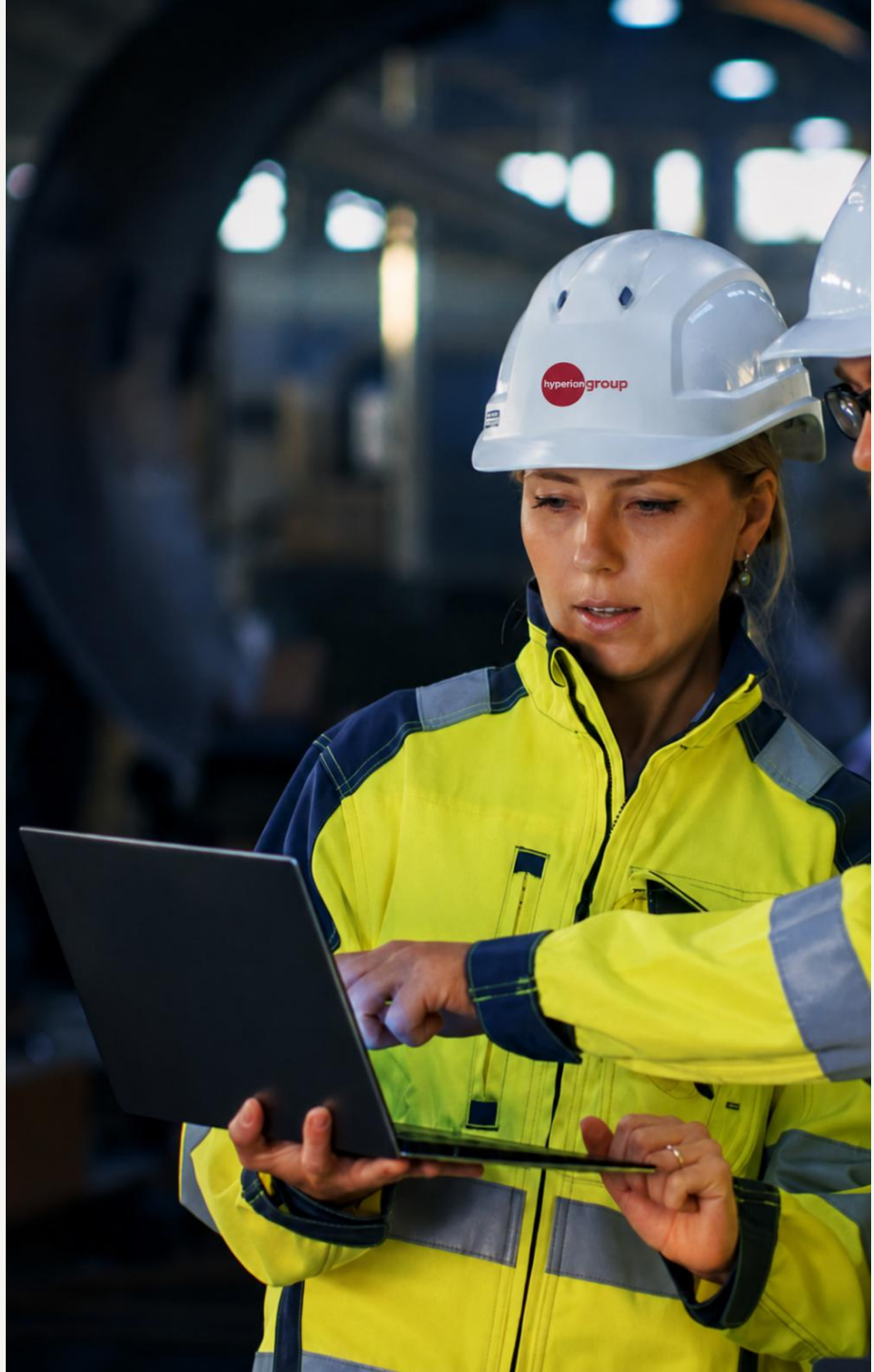
countries of operation

90%

repeat customers

ISO 9001

certified quality system



SECTORS WE SERVE

Built for the process industries



Oil, gas & LNG

Gas-plant models, terminal and LNG import scheduling



Refining

Planning, scheduling, blending, historians, process models



Petrochemicals & polymers

Batch tracking, polymer analysis, APC, AI soft sensors



Chemicals & lubricants

Supply planning and scheduling, LIMS, simulation

Also active in power generation, metals and cement

DELIVERING ENGINEERING INTELLIGENCE WORLDWIDE

Global expertise. Local impact.

500+ projects · 51 countries · 33 years · 56 staff and about 70 associate specialists

OUR MISSION

Connect expertise. Engineer intelligence. Deliver confidence.



Countries with delivered projects Historical projects

Headquarters in Nicosia; offices in Cyprus, Greece, USA and Peru · US entity about 13% of FY2025 revenue

SHARE OF PROJECT ACTIVITY BY REGION

Europe (HQ) — **35%**

HELLENiQ Energy, Motor Oil, Enerwave, ENI, Danieli; the Great Sea Interconnector

MENA — **30%**

KNPC, KPC, Borouge, ADNOC, Aramco, SABIC, Luberef

North and Latin America — **30%**

Inkia, ENGIE, Kallpa, Saavi, Valia Energía, New Fortress, Siemens Energy

APAC — **5%**

Shell SEPC, Danieli China; projects in Australia, India, Southeast Asia

INDUSTRIES WE SERVE

- **Refining, oil and gas**
- **Petrochemicals and chemicals**
- **Power generation and grids**
- **Maritime and terminals**
- **Water and environment**
- **Metals, cement, pharma, F&B**

WHAT WE DO

Four practice areas

01

Planning, scheduling & blending

LP planning models, refinery and terminal scheduling, blend optimisation

02

MES, historians & LIMS

Plant data, batch tracking, production records, laboratory systems

03

Modelling, simulation & APC

Process models, control and optimisation, energy recovery studies

04

Strategy, FEED & specialist teams

IT/OT blueprints, programme offices, embedded engineering teams

Delivered on AspenTech and Thermo Fisher Scientific platforms, plus our own HYPPOS-AI

PRACTICE 01

Planning, scheduling & blending

What we deliver

- Refinery and Petrochemicals LP planning models
- Refinery, terminal and plant scheduling
- Gasoline and product blending
- Planning model audits and recalibration
- Resident onsite support and training

Platforms

Aspen PIMS / Unified PIMS | Aspen Unified Scheduling | Aspen MBO | Aspen Supply Planner | Aspen Plant Scheduler



Selected references

2014–27	KNPC 3 refineries, onsite applications support
2025–26	KNPC Al-Zour Refinery Scheduling
2025–26	KPC country-wide Global LP model
2016–20	ADNOC 3 Refineries Scheduling,
2018–23	LUBEREF base oil scheduling

Also: HELLENiQ ENERGY, Croda Chemicals, OMNIA Chemicals, Repsol, SATORP

PRACTICE 02

MES, historians & LIMS

What we deliver

- Plant data historians, graphics and dashboards
- Polymer batch tracking and online analysis
- Emissions and energy calculations
- LIMS upgrades and instrument integration
- Upgrades, migrations and architecture audits

Platforms

Aspen InfoPlus.21 | aspenONE Process Explorer | Aspen Production Record Manager | Aspen Production Execution Mgt. | Aspen Inmation | Thermo SampleManager



Selected references

2003–26	Borouge 4 Batch Tracking & OLPA
2012–24	KNPC Refinery Historians Admin/Support
2017–18	SABIC Saudi Kayan, Batch Tracking, 4 plants
2019–26	Enerwave, 2 power plants
2016–26	Cyprus Water Dev. Dept LIMS

Also: Danieli meltshop & casting MES (Serbia), Lafarge historian roll-out

PRACTICE 03 · SINCE 1997

Modelling, simulation & APC

What we deliver

- Steady-state and dynamic process models
- Model recalibration and LP vectors for planning
- APC and RTO modifications
- Energy recovery and optimisation studies
- Operator training simulators and courses

Platforms

Aspen HYSYS | Aspen RefSYS | Aspen Plus | AVEVA and CORYS simulators



Selected references

2006–09	MPDS Digital Twin, Shell East. Petrochemicals
2016–21	APC ENI Versalis cracker, Italy
2013–24	KNPC refinery HYSYS models
2019	KNPC Clean Fuels unit models
2024	KNPC process modelling training
2020	Process Modelling Courses, Cyprus U of Technology

Also: simulation and training for Petro Rabigh, Saudi Aramco, Slavneft, Linde

PRACTICE 04

Strategy, FEED & specialist teams

What we deliver

- IT/OT FEED for new plants and expansions
- As-is / to-be gap analysis and roadmap
- Programme office set-up and running
- Corporate planning process design
- Embedded engineering and software teams

Disciplines

Process engineering | Industrial IT/OT | Automation (Siemens PCS 7) | Software development



Selected references

2013–15	Borouge 3 FEED and PMO
2015–16	ADNOC Sour Gas (Al Hosn) IT/OT FEED
2019–20	Borouge 4 IT/OT FEED
2025–26	KPC corporate planning
2022–26	HELLENiQ ENERGY supply chain
2022–26	Danieli Automation teams

Also: Refinery due diligence study (2017), Refinery planning model audit (2018)

HYPPOS-AI: the digital brain of the smart factory

Manufacturers know what enters and leaves their plants but often lack a clear view of what happens in between. HYPPOS-AI uses existing plant data to build a live digital twin that tracks material and predicts product quality in real time, without new hardware.

Real-time material tracking

Follows every kilogram from reactor to silo, with full digital ancestry.

Living digital twin

A continuous model of process state and material flow as production happens.

AI virtual laboratory

Soft sensors predict MFR and XS every 2–5 minutes, without waiting on the lab.

HELLENiQ Energy, Greece · 220 ktpa polypropylene plant

US$400K+
margin uplift per year

±5%
MFR prediction vs lab

20%
less off-spec product

25%
shorter grade transitions

10.5 kt
CO_2 reduction per year

Licence renewed three years running (2024–2026).
Results presented by HELLENiQ Energy at SusChemE-SUSTENS2, Athens.

Borouge, Abu Dhabi · the polymer heritage

14
polymer lines with batch and material tracking

US$4.77M
documented savings from the foundational OLPA deployment

Source:
Borouge 2019 Sustainability Report. INNOVATE (2026–28) now extends this accuracy across grades and quality properties and takes the integrated platform to TRL 9.

hyperiongroup

HYPPOS

HSTS: the operating system for maritime terminal operations

Terminals lose money to demurrage because nobody owns the operational data between terminal and vessel. HSTS connects both sides of the port call, from nomination to departure.

Product 1 · Terminal Platform

End-to-end shipment control: scheduling, tank allocation, vessel activity logging, certification and a tamper-evident audit trail.

Product 2 · Vessel App

One-tap, offline-first event logging on the bridge, with AI prediction, shared timestamps and emissions-reporting support.

Designed from a production deployment at a major Gulf petroleum terminal operator and shaped by early market feedback

25–30%	40%	100%	3+ yrs
demurrage reduction	operational time saved	shipments tracked	live in production

A second demand driver in Europe. EU MRV (since 2018), the EU ETS for shipping (phased in 2024–26) and FuelEU Maritime (from 2025) make verified voyage and port-call data a compliance requirement for vessels calling at EU ports.

Proof of concept. A bespoke implementation running in a production environment for 3+ years, which with early market feedback shaped the product specification.

Next step. Complete HSTS product development and test in real environments. Pilot discussions are under way in Italy and Cyprus.

hyperiongroup

CUSTOMERS

Who we work with

Refining

- KNPC
- KIPIC
- KPC
- ADNOC Refining
- HELLENiQ ENERGY
- SATORP
- Repsol

Petrochemicals & polymers

- Borouge
- SABIC Saudi Kayan
- ENI Versalis
- Petro Rabigh

Chemicals & lubricants

- Croda
- OMNIA Chemicals
- LUBEREF
- ILBOC
- Linde
- Metafrax

Partners & EPCs

- AspenTech
- Honeywell
- Schneider Electric
- Maire Tecnimont
- Daelim
- Danieli

200+ customers in 51 countries since 1993

CASE STUDY · POLYMERS · AL RUWAIS, UAE

Borouge: four expansions, one partner

2003	Borouge 1 batch tracking, as AspenTech subcontractor
2009	Borouge 2 upgrade, as turn-key prime contractor
2013	Borouge 3 IT/OT strategy and FEED study
2015	Borouge 3 PMO handed over after IT programme delivery
2016	Borouge 3 batch tracking with online polymer analysis
2019–20	Borouge 4 IT/OT FEED, completed during the pandemic
2023–26	Borouge 4 PE and XLPE lines, via Maire Tecnimont



23 yrs

of continuous work

14

polymer lines with batch tracking

CASE STUDY · REFINING · KUWAIT

KNPC and KPC

2006	First KNPC project: planning, scheduling and blending
2012	Resident onsite support for plant historians
2014	Supply chain support at MAA, MAB and SHU refineries
2018	Renewed by tender; models for the Clean Fuels Project
2022	Third consecutive tender won, running to 2027
2025–26	KNPC Al-Zour: first Aspen Unified Scheduling in Kuwait
2025–26	KPC: country-wide planning model and HQ processes



20 yrs

working with KNPC

3

consecutive tenders won

CASE STUDY · PETROCHEMICALS · ITALY

ENI Versalis: control and energy on a cracker

2016	APC and RTO changes for heavy gasoline handling
2016	APC for combustion control optimisation
2017	Control changes for quench water and emissions projects
2019	Energy recovery from cryogenic propylene and middle oil
2019	Dilution steam, soda column and carbon black optimisation
2021	Cracking furnace revamp and shutdown services



15

orders from one customer

6 yrs

of repeat work, 2016–21

MORE REFERENCES

Selected projects

Customer	Country	Project	Year
HELLENiQ ENERGY	Greece	Scheduling support, supply chain PMC	2021–26
ADNOC Refining	UAE	Scheduling and blending, 3 refineries	2016–20
LUBEREF	Saudi Arabia	Base oil scheduling, two releases	2018–23
Croda	UK, Singapore	Production scheduling and roll-out	2020–24
OMNIA Chemicals	South Africa	Supply planning model	2025
Repsol	Spain	Planning and integration	2020
Danieli Systec	Serbia	Meltshop and casting MES	2025
KPMG	India	Refinery planning audit	2018

Croda, OMNIA and Repsol delivered with DeLevant; ADNOC Refining with Honeywell

CUSTOMER VOICES

In their words

“For over 10 years, our Manufacturing Optimization Group at KNPC has been successfully cooperating with Hyperion Systems Engineering …”

Fahad Salem Saad Albathani
Senior Engineer, Technology Support, KNPC

“… resources combining software development capabilities with process industry knowledge … we’re working as a unique distributed team.”

Andrea Merluzzi
VP Digital Solutions, Danieli Automation

“… ensure the proper and seamless functioning of our MES applications … and their integration with other plant critical systems.”

Pericles Tsoutsanis
IT Director, Elpedison (now Enerwave)

Quotes from customer letters; ellipses mark shortened passages

WHY HYPERION

What customers get

Process engineers

Chemical and process engineers with plant experience

AspenTech depth

Two decades of planning, scheduling, MES and simulation

Resident teams

Engineers onsite at customer plants, backed remotely

Lasting relationships

Borouge since 2003, KNPC since 2006, 90% repeat

FEED to support

Strategy, delivery and multi-year support, one team

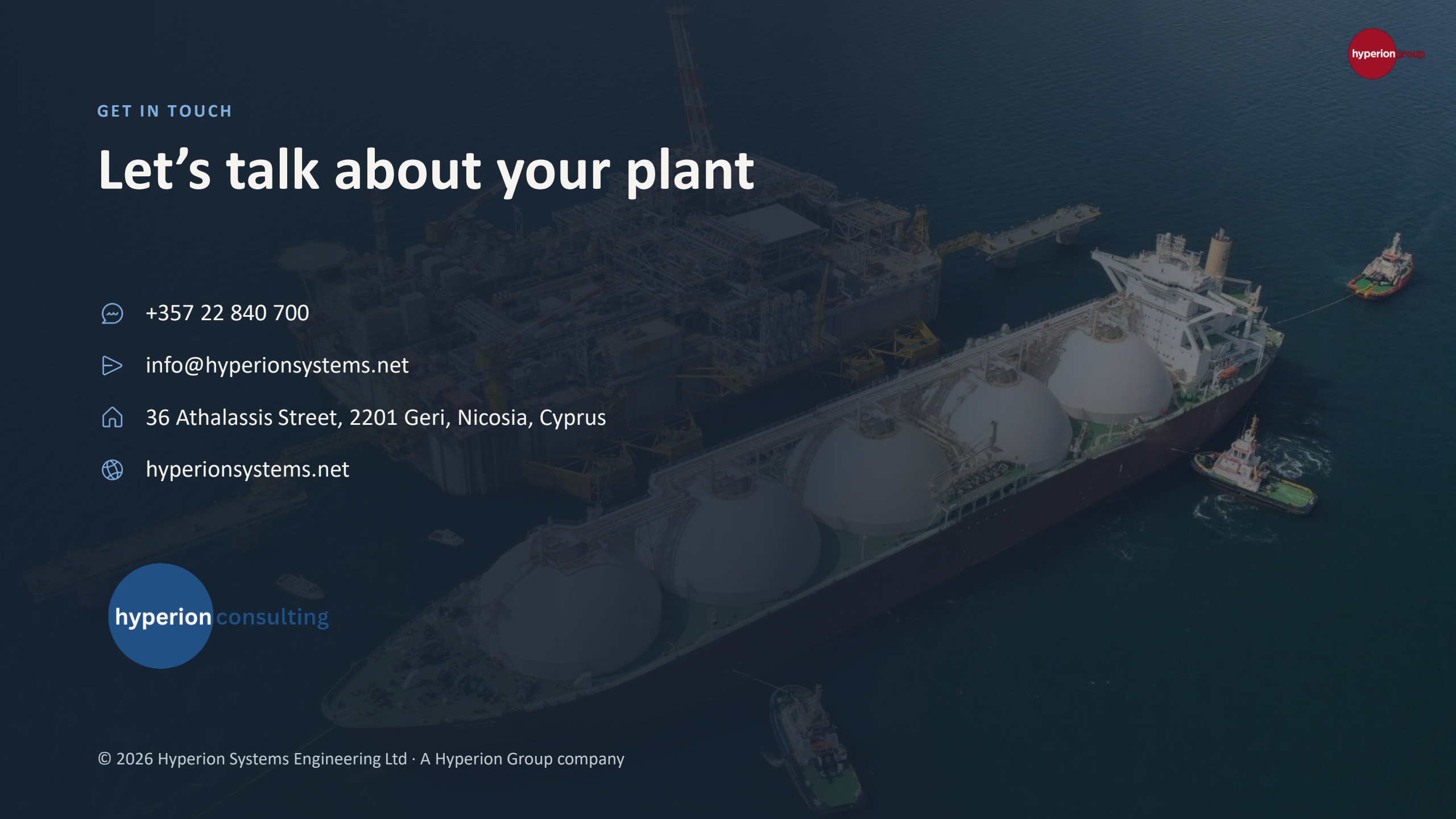
Competitive delivery

Experienced teams based in Cyprus and Greece

Strategic partners: AspenTech · Thermo Fisher Scientific

GET IN TOUCH

Let’s talk about your plant



+357 22 840 700

info@hyperionsystems.net

36 Athalassis Street, 2201 Geri, Nicosia, Cyprus

hyperionsystems.net

hyperion consulting

© 2026 Hyperion Systems Engineering Ltd · A Hyperion Group company