incico spa
advanced integrated engineering

Company overview
2023

Incico at a glance

We are a **multidisciplinary Engineering firm** providing the following services since 1980.

Design Engineering for large and complex industrial projects & critical buildings including:

- Process Design
- Conceptual and Feasibility study
- Basic Design
- Front End Engineering Design
- Detailed Engineering
- Procurement and Delivery
- Construction Management
- Site Technical Assistance

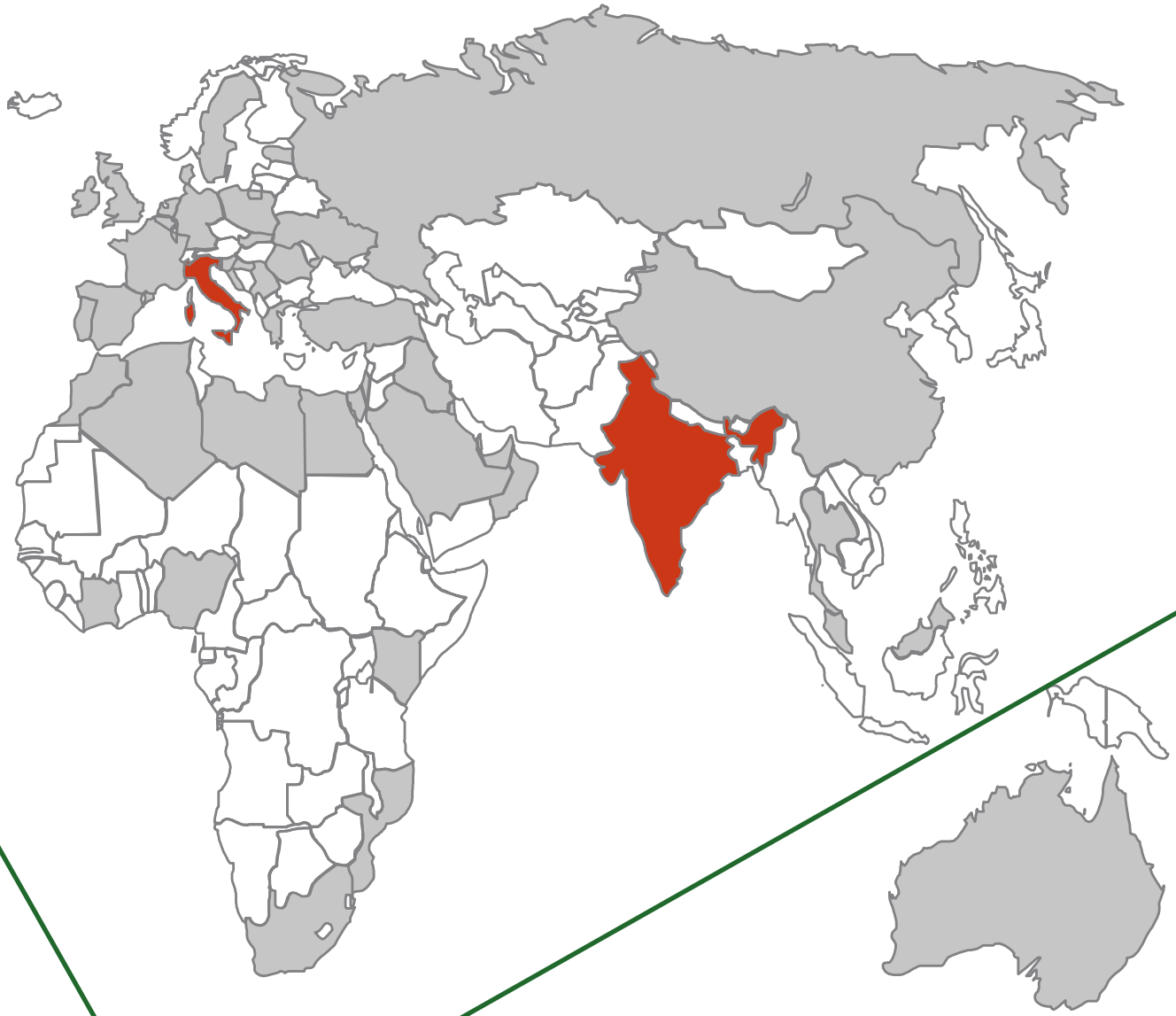
Owner’s Engineering & PMC
(Project Management consulting)

Offices and project locations

Projects delivered in 50 countries over the last four decades.

OFFICES
Italy
Ferrara (HQ)
Milano
Brindisi

India
Coimbatore



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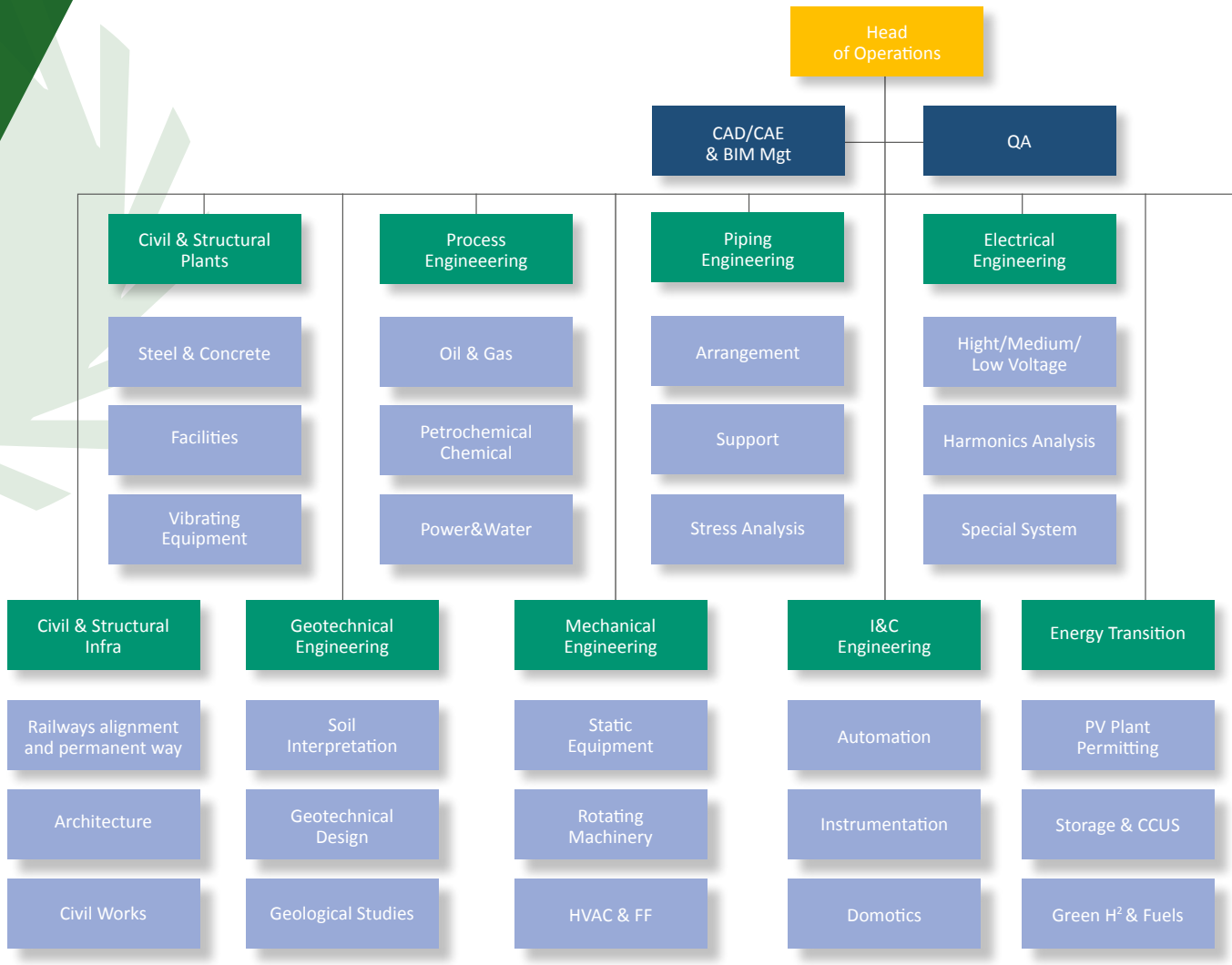
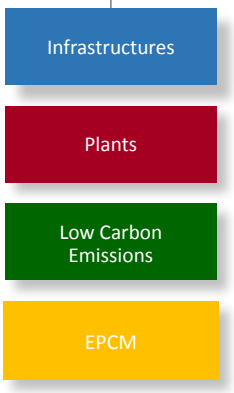
Matrix Organization Chart

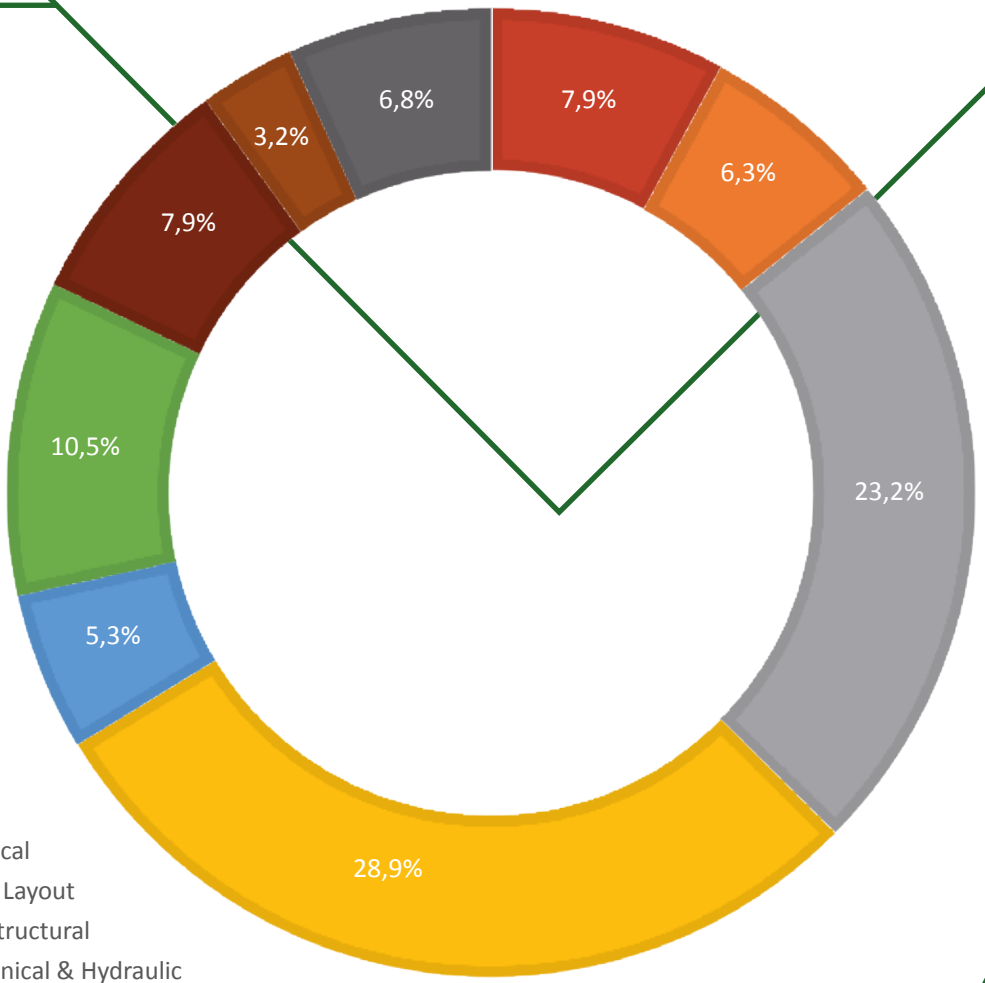


In-house Manpower

Total Engineering Man Hours
332,500

Number of Staff
190





Design Softwares I

HYSYS
Process simulation software

SMART PLAT & AVEVA
P & Id intelligenti

CAESAR II
Stress analysis of piping system

PUMA 5
Piping classes, MTOs, MR

PV ELITE
Tanks and vessel design

NELPROF
Valves Sizing and Selection

Design Softwares II

ETAP
Electrical systems studies

ROBOT - STAAD.Pro - SAP2000
Structural finite elements
analysis static and dynamic design

PLAXIS 3d
Geotechnical fea design

TEKLA
Steel structures detailing

REVIT
Facilities BIM 5D modeling

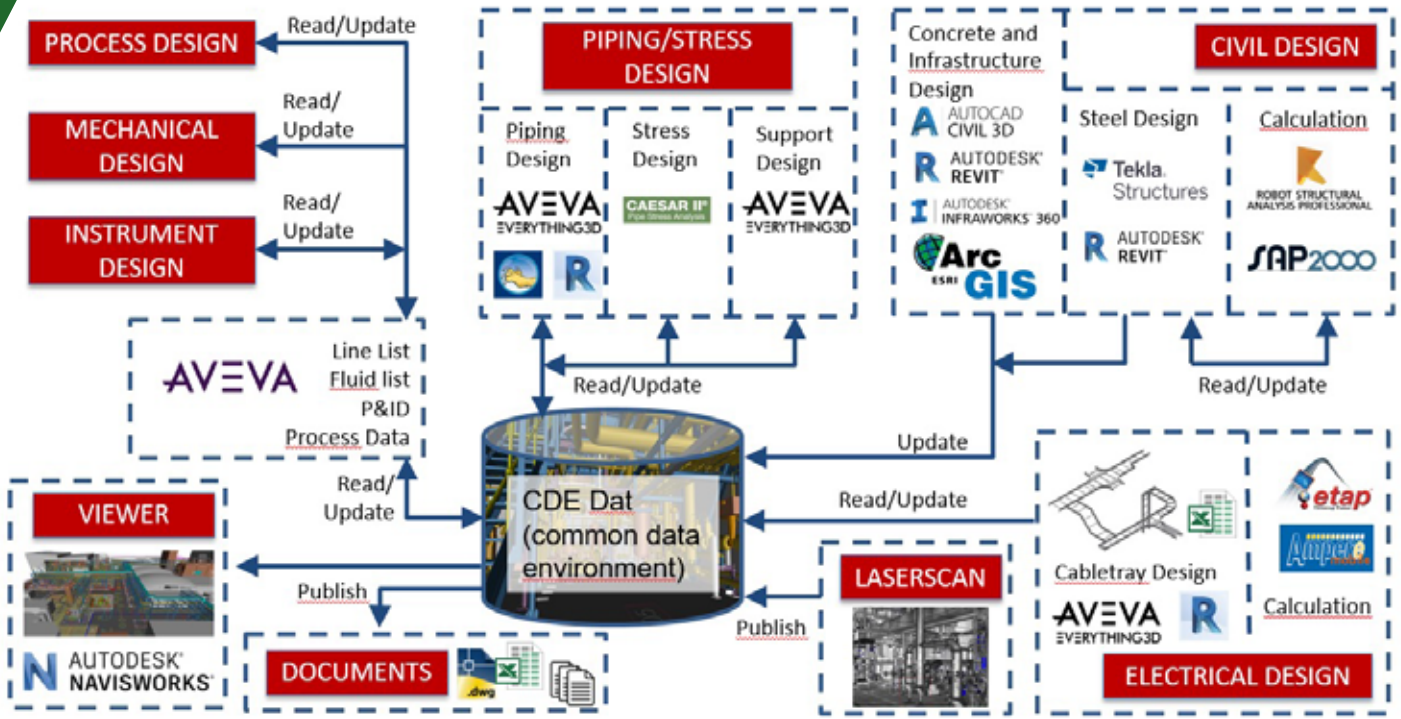
CIVIL 3D
Linear infrastructures design

Advanced 3D model

AVEVA E3D and PDMS

INTERGRAPH SP3D

Integrated Design Process



Quality Certifications

Business Areas

Infrastructures

- Railways & Subways
- Roads & Bridges
- Harbours & Maritime Works
- HVDC Stations & OHT Lines
- Airports & Facilities

Low Carbon Emission

- Renewable Energies
- Waste to Heat
- Water & Fuel Gas Treatment
- Nuclear SMR
- Green H_2, Blue H_2
- Carbon Capture & Storage

Plants

- Oil & Gas
- Biopolymers & Biorefineries
- Thermal & Combined
- Cycle Power
- Cogeneration & Trigeneration
- Chemical & Petrochemical
- Food & Agro-industrial
- Pharmaceutical

EPCM

- Industrial Revamping
- Repowering
- Pilot Plants
- Live upgrade for Critical Facilities
- Brownfield & Greenfield Projects

Our clients


lyondellbasell
enel
SOGIN
GRUPPO HERA
Hitachi Zosen INOVA
T.EN TECHNIP ENERGIES
Cargill
ANSALDO ENERGIA
Maire Tecnimont
EDISON EDF GROUP
DOW
/FER/
Hitachi Energy
RFI
euroAPI
solar IT ENERGIE RINNOVABILI
a2a
snam
PEG
Acciaierie d'Italia
ENDURA
Alkeemia

Reference Booklet

Collection of several Projects completed for the concerned Business Units

Phase	Duration	MHRs
FEL1-Propose	Dec2019 - Mar2020	5,000
FEL2-Feasibility	Jun2020 - Apr2021	10,000
FEL3-Advanced basic	Dec2021 - on going	75,000

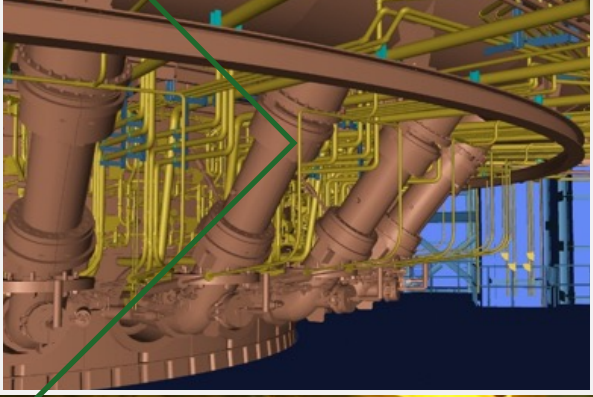
SF5 - Catalyst support Plant debottlenecking

CLIENT: Lyondellbasell - Tecnimont
ENDUSER: Lyondellbasell
LOCATION: Ferrara, Italy

Description
SF5 plant produces supports suitable for the production of Ziegler-Natta type catalysts for the polymerization of alpha-olefins. The purpose of the Project is to debottleneck the existing SF5 Plant to achieve 1,750 t/y production capacity, retaining flexibility for remaining debottleneck steps (2,200 t/y and 2,500 t/y) as future Projects.

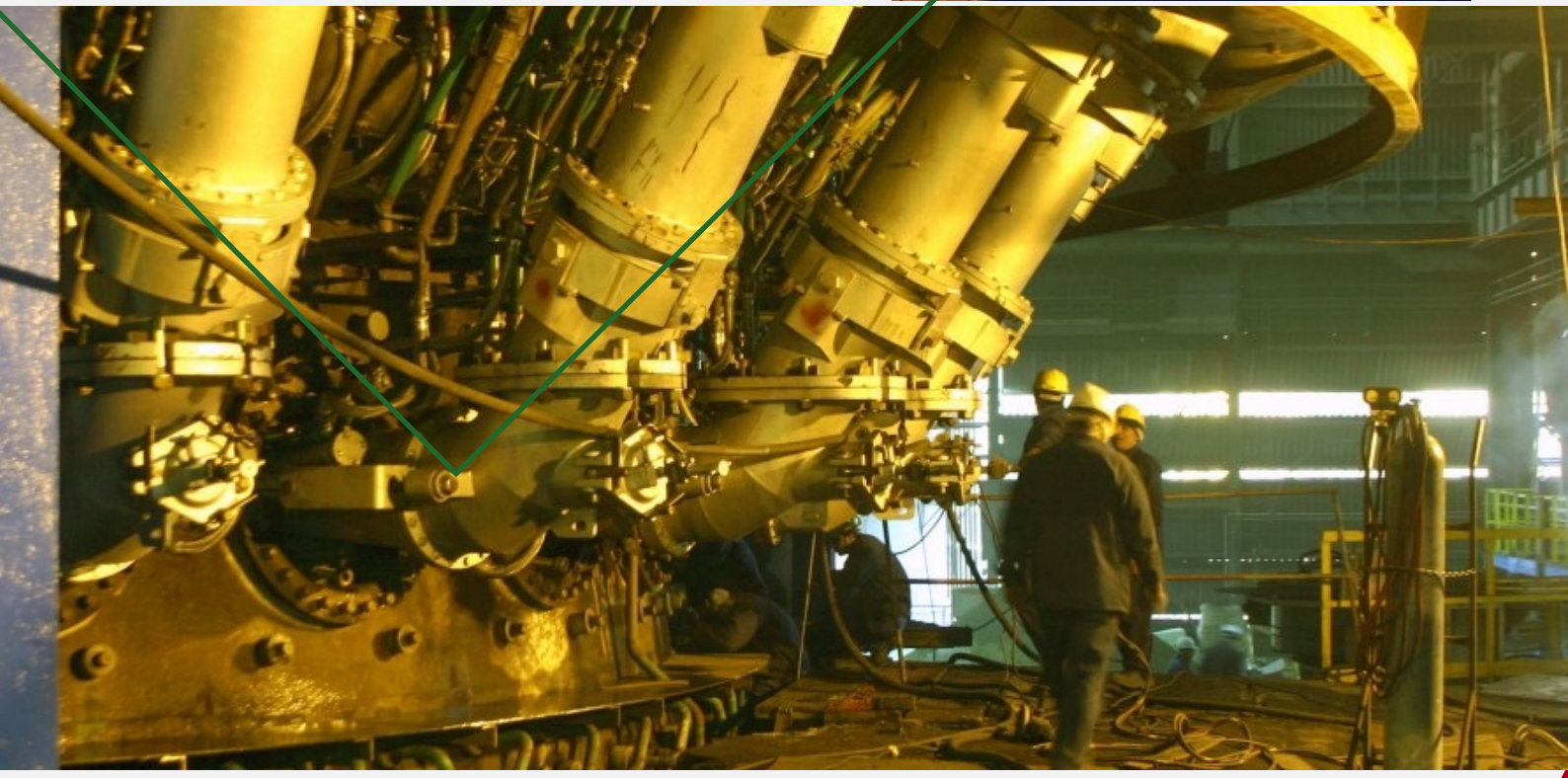
Disciplines involved:
- Project Management
- Process
- Mechanical
- Piping & Layout
- 3D Modeling
- Geotechnical
- Civil & Structural
- Architectural & MEP
- Electrical
- Instrumentation & Control
- Fire Fighting

Erdemir Blast Furnace 2



CLIENT: Paul Wurth - Italy
ENDUSER: ERDEMIR GROUP
LOCATION: Eregli, Turkey

Duration
Start: June 2019
End: January 2020



Description
The Blast Furnace 2 has a heart diameter of 10 meters, 24 tuyeres and two tapholes; it will produce 5,000 tons/day of hot metal from an inner volume of 2,188 cubic meters. The new furnace will replace an older production unit.

Disciplines involved:
- Piping & Layout
- Civil & Structural
- Stress & Support

Scope of Work:
- Detailed Engineering, 3D model
- 15,000 Engineering man hours
- 1,500 Piping Lines and 3700 ISOs
- 2,800 Support Drawings
- 5,000 ton of steel Structures

Köln-Niehl Unit 3 Power Plant

CLIENT: Alstom (Switzerland) Ltd
ENDUSER: Rhein Energie
LOCATION: Köln, Germany

Duration
Start: July 2013
End: December 2014

Description
Combined Cycle Power Plant 450 MW - KA26-1 SS
(1 Single Shaft Gas & Steam Turbine) with District Heating
Modularized units.

- See water intake 2,000 m³
- Reinf. Concrete 10,000 m³
- Steel Structures 2,000 tons

Disciplines involved:
- Civil and Steel Structures
- Building Permit team

Scope of Work:
- Permitting
- Detailed Engineering, 3D model
- 32,000 Engineering man hours
- Follow up of static approval processes by local authorities

Hydrogen Generation by Steam Reforming

CLIENT: Confidential
ENDUSER: Confidential
LOCATION: Mendoza at YPF site, Argentina

Duration
Start: Confidential
End: Confidential

Description
The steam reforming modular units for Hydrogen production has been implemented based on Haldor Topsoe Technology, prefabricated in Ravenna by ITP Group and then shipped and installed in Mendoza at YPF site. The Plant consists of 14 Prefabricated Modules fully designed by Incico using advanced 3d PDMS model and prefabricated by ITP Ravenna.
The Plant Capacity is 6,000 Nm^3/h.
The unit includes feed vaporization and desulphurization section, reformer and shift reactor, heat recovery and steam generation and PSA hydrogen purification.

Disciplines involved:
- Piping & Layout
- Civil & Structural
- Stress & Support

Scope of Work:
- Detailed Engineering, 3D model
- 14,000 Engineering man hours

Photovoltaic Plants

CLIENT: Solar-IT, Envidev
ENDUSER: Enfinity
LS British Petroleum - METKA EGN
LOCATION: North-East Italy

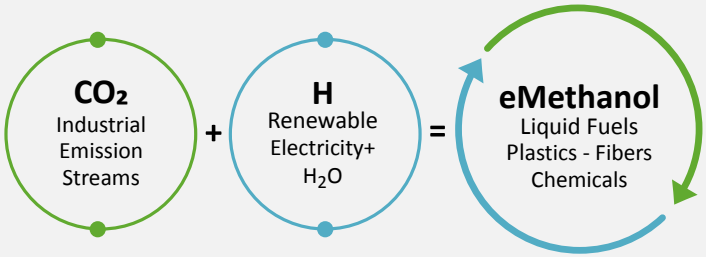
Duration
2020-2021

Description
Basic Design for Permitting purpose for Photovoltaic and Agrovoltaic Plants for a total capacity of 172.5 MW
Enfinity
Plants capacity (MW): 7 + 19 + 10 + 29 + 30 + 5
LSPB
Plants capacity (MW): 10 + 24 + 16
Metka EGN
Plant capacity (MW): 22.5.

Disciplines involved:

- Geotechnical
- Environmental
- Civil & Structural
- Electrical
- Acoustic
- Connection to the Grid
- Project Management
- Permitting follow-up

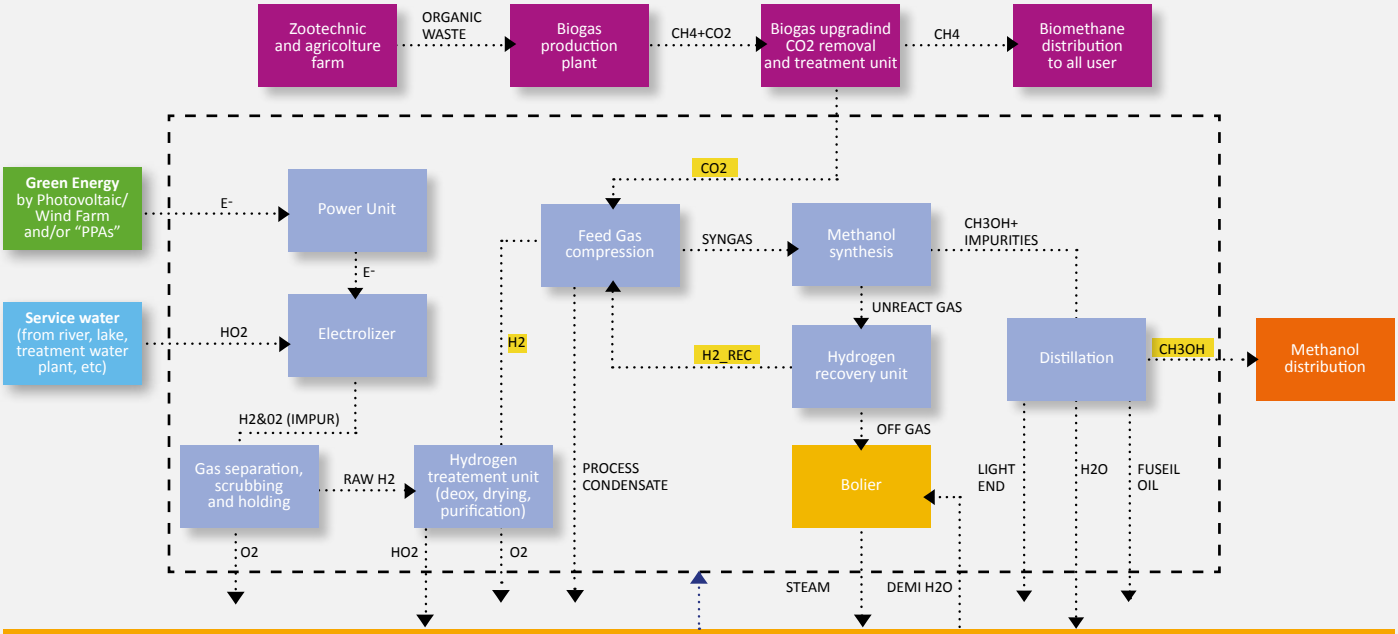
Green-Methanol Concept



CLIENT: Confidential
ENDUSER: Confidential
LOCATION: Confidential

Duration
Start: TDB
End: TDB

SIMPLIFIED BLOCK SCHEME



Description

The project will establish the preliminary process design content and related cost estimation for a Green Methanol plant. This plant consist of: a Green hydrogen production by electrolizer fed by renewable energy (photovoltaic farm), a plant to separate CO^2 from a Biogas plant (Biogas plant already exists) and a Methanol synthesis plant and all utilities required. The capacity of the plant is accordance to CO^2 daily flow rate.

Disciplines involved:

- Process
- Piping and Layout
- Mechanical
- Electrical and Instrumentation

Scope of Work:

- Preliminary Design Package
- Cost estimation +/- 30%

S. Agata Biomass Power Plant

CLIENT: Tozzi Sud SpA
ENDUSER: AGRITRE srl
LOCATION: S. Agata di Puglia (FG, Italy)

Duration
Start: November 2014
End: August 2015

Description
The 25MW Biomass Power Plant is composed by a Heat Recovery Boiler of 80 MWt capacity fueled with stubble, with relevant flue gas treatment. The turbine nominal capacity is 31.5 MVA.

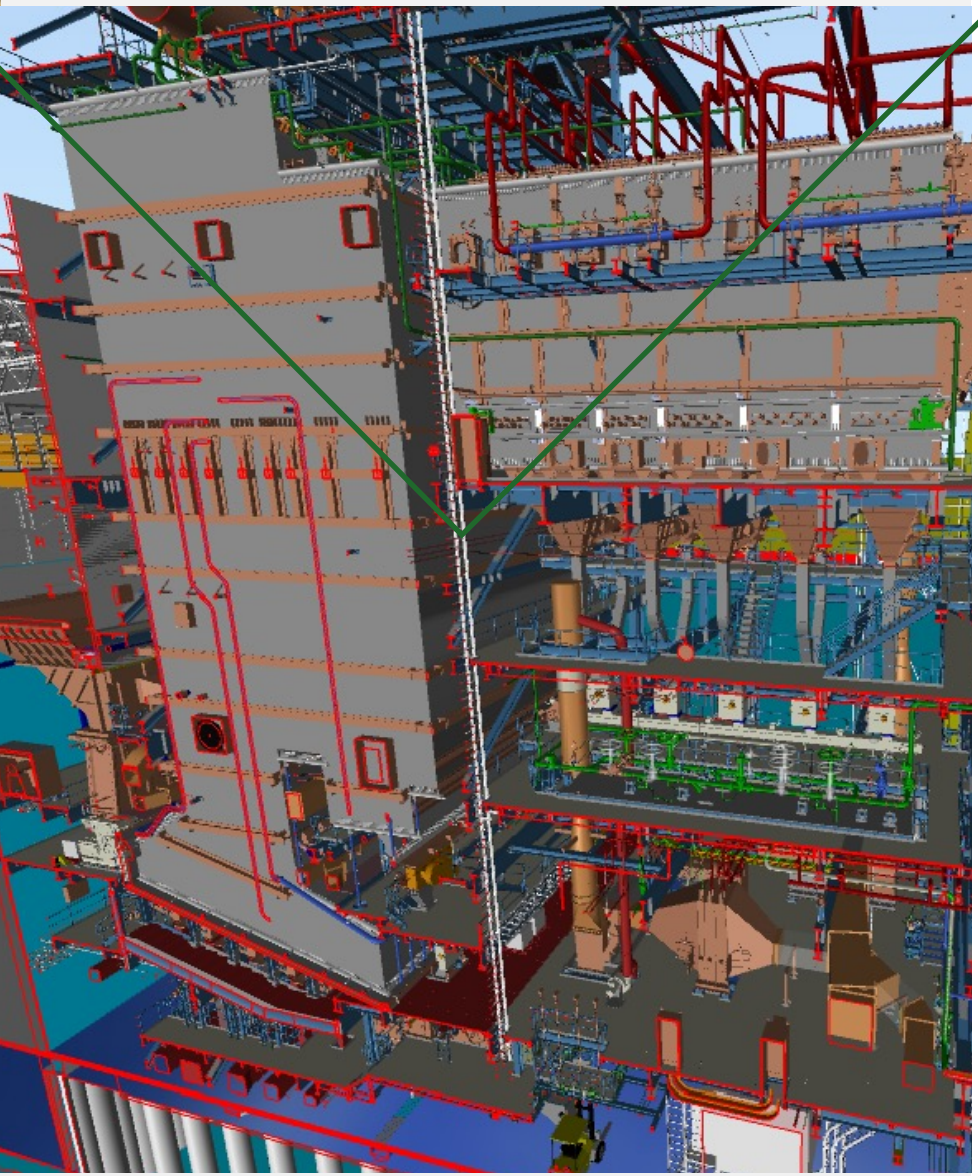
Disciplines involved:
- Piping & Layout
- Stress & Support
- Electrical
- Instrumentation

Scope of Work:
- Detailed and Construction Engineering
- 3D modelling
- 16,000 Engineering man hours

Rockingham Plant

CLIENT: Hitachi Zosen Inova
ENDUSER: Suez Consortium
LOCATION: Rockingham, Australia

Duration
Start: February 2020
End: on going



Description
The Waste to Energy Plant is green field facility.
The new facility will treat approximately 300 ktons per year of residual waste from municipal, commercial and industrial sources and up to 30 ktons per year of biosolids.
The EfW facility will generate approximately 29MW of reliable renewable energy, enough to power over 36,000 homes.

Disciplines involved:
- Piping & Layout
- Civil

Scope of Work:
- 3D model of steel structure and piping layout
- 2,000 3D modelling man hours (on going)

Fine Chemical Demonstration Plant

CLIENT: Confidential
ENDUSER: Confidential
LOCATION: Ravenna, Italy

Duration
Start: November 2021
End: construction on going

Description
Synthesis and purification of a fine chemical, based on an innovative technology.

EPC scope of Work / main plant characteristics:

- Detailed engineering - 9,000 engineering man hours
- Procurement
- Construction, Pre-commissioning and assistance to start-up
- 101 equipment, including 2 reactors and 4 distillation columns
- 410 piping lines distributed over 8 piping classes
- 68 control loops and 20 safety devices
- 277 transmitters
- 968 I/O signals
- Contract Value: 4 millions Euro (excluding equipment)

Disciplines involved:

- Process and Mechanical
- Piping and PDMS 3D Modelling
- Civil Works and Steel Structures
- Electrical & Instrumentation

PHA Production Plant

CLIENT: Bio-on SpA
ENDUSER: Bio-on Plants srl
LOCATION: Castel San Pietro Terme (BO, Italy)

Duration
Start: June 2017
End: July 2019

Description
The Plant is the first PHA Production plant in the world, a totally biodegradable bio-plastic obtained from sugar by-product through an innovative technology. The capacity of the Plant is for 1,000 tons per year expandable to 2,000 tons.

Disciplines involved:
- Piping & Layout
- Process
- Mechanical
- Electrical
- Instrumentation
- Civil & Structural
- FF and HSE

Scope of EPCM:
- PDP review
- Basic and Detailed Engineering
- 3D Model
- Engineering man hours: 47,000
- Site man hours: 21,000

Data Center ML

CLIENT: Equinix Italia
ENDUSER: Equinix Italia
LOCATION: Milano, Italy

Duration
Start: March 2018
End: June 2020

Description
Building services and civil work performed in living environment:

- Preparation of work procedures & risk analysis
- Building extension with new white space (400m^2)
- New GE Chimney installation
- Control Room refurbishment
- GE SPOF removal
- AHU's replacement
- PDUs replacement
- Cables replacement

Disciplines involved:

- MEP
- Fire Fighting
- Civil & Structural
- BMS

Idrogenation unit #3 - Castelmassa Plant

CLIENT: Cargill srl
ENDUSER: Cargill srl
LOCATION: Castelmassa (RO, Italy)

Duration
Start: Confidential
End: Confidential

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Via Terranuova, 28
44100 FERRARA

CE 1131

CERESTAR SpA – Castelmassa
POLYOLS PLANT EXPANSION

IMPIANTO DI IDROGENAZIONE LINEA 3
"INSIEME"

N. di Fabbrica: 03CER20 / CT- CE01

NORME di riferimento:	VSR – PED 97/23/CE ANSI B 31.3	ANNO DI COSTRUZ.:	2005
PRESSIONE min. / max. ammissibile (PS):	0 / 50 barg	CAT. PED / MODULO:	IV / G
TEMPERATURA min. / max. ammissibile (TS):	- 5 / 195 °C	FLUIDI:	Vedi NOTA

NOTA: Per caratterizzazione fluidi ed ulteriori dati, vedere "Elenco componenti categorizzato" (Allegato 1 al Fascicolo tecnico n. 03CER30M-MA541)

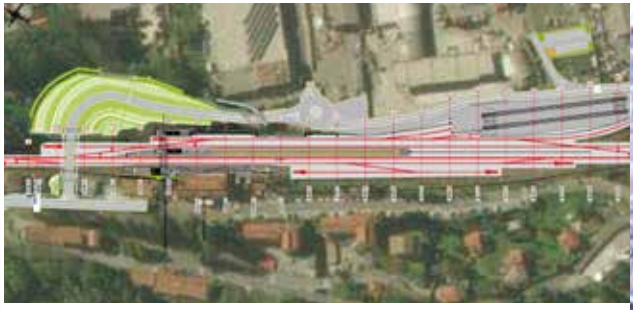
Description
Incico SpA was contracted by CARGILL for the full EPCM services required for the Polyols Plant Expansion at Castelmassa (RO), Italy. Within the said Project, the Hydrogenation Unit has been expanded with the installation of the Reactor #3 with relevant BOP installations. Incico was responsible for the multidisciplinary design, for the building extension, the preparation of equipment Technical Spec. and MR, the supervision of the piping, electrical and I&C installation as well as the HSE Detailed Design. For the given unit, Incico covered the Manufacturer role for the complete system, implementing the PED dossier providing CE certification of the Assembly.

Disciplines involved:
- Piping & Layout
- Civil & Structural
- Stress & Support
- Electrical and I&C
- HSE and FF

Scope of Work:
- Basic & Detailed Engineering, 3D Model, EPCM
- 13,000 Engineering man hours

Castelnuovo Garfagnana Rail station

PRG adaptation and connected works to the reactivation of the freight yard



CLIENT: RFI Rete Ferroviaria Italiana
CONTRACTOR: Cemes SpA
LOCATION: Castelnuovo di Garfagnana, Italy

Duration
2020-2021

Description
The project developed at construction level concerns the interventions foreseen for the reorganization of the Castelnuovo di Garfagnana station on the Lucca-Aulla line:

- adjustment of the station plan
- raising the sidewalk on the trainline
- side pedestrian underpass
- structural, civil and plant engineering works of the goods yard
- pedestrian connection to the new railway overpass

Value of the work
2,640.392 euro, including:

- cat.SOA OG3 1,759,921 euro
- cat.SOA OS1 250,000 euro
- cat.SOA OS21 500,000 euro

Progetto BIM oriented

SA.CO.I.3 HVDC Project

CLIENT: ABB Power Grids Sweden AB
ENDUSER: Terna, EDF SEI
LOCATION: Suvereto, Codrongianos, Italy and Lucciana, Corsica

Duration
Start: March 2020
End: October 2020

Description
The electricity interconnection Sardinia-Corsica-Italy (SA.CO.I.3) is an HVDC interconnection project that will replace the existing link (SA.CO.I.2) between the Italian mainland and the islands of Corsica and Sardinia. The new tri-terminal HVDC link includes three new converter stations with rates of 2x2,000MW in the Italian stations and 2x75MW in Corsica.

Disciplines involved:
- Structural and Foundations
- Architectural
- Geotechnical
- Mechanical & HVAC Systems
- Electrical Building Services
- Fire detection and lightning protection
- Drainage and landscaping

Scope of Work:
- Localization services
- Tender phase project, BIM Model
- 10,000 Engineering man hours

Progetto BIM oriented

Legtaifiya & Golf Course Doha

Red line Metro Stations

CLIENT: TCS JV
ENDUSER: Qatar Rail
LOCATION: Doha, Qatar

Duration
Start: September 2016
End: December 2017

Description
The Project was executed in full BIM environment to cover the MEP design at detailed level, for two Metro stations of the new Qatar Rail metro - Red line.

Disciplines involved:
- CAD/CAE Manageneent
- Mechanical and HVAC
- Electrical & Building Services

Scope of Work:
- MEP Detailed Design

Job value:
- Mechanical Installation €4,100,000.00
- Electrical Installation €4,500,000,00

Progetto BIM oriented

Mose Project

On behalf of the company Technital SpA, of the Consorzio Venezia Nuova, Incico executed the Detailed Design of the electrical, instrumentation and control systems of the Mose system, as well as the civil works below sea level of the technological buildings of the Straits of Lido, Malamocco and Chioggia for a total amount of over 160 million Euro of plants and over 90 million Euro of civil works.

The design was developed between 2004 and 2010 for an engineering effort exceeding 88,000 hours.

Via Terranuova, 28
44121 Ferrara - Italy

Via Zandonai, 4
44124 Ferrara - Italy

Piazza Don Mapelli, 60
20099 Sesto San Giovanni (MI) - Italy

Via Dalmazia 21 / C
72100 Brindisi - Italy

www.incico.com

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