# incide engineering

**AVIATION PROJECTS** 





# industrial civil design

# INCIDE ENGINEERING A MULTIDISCIPLINARY ENGINEERING DESIGN FIRM

Incide Engineering was founded in 1998, and in over twenty years of growth the company has transformed itself from a family reality to an organized structure of over 60 people, with a multisectoral and multidisciplinary offer, maintaining the care and attention to the customer typical of a "craft" company. An international culture has led Incide to face foreign markets, and today the company offers direct assistance to its customers with offices located in different countries. A professional approach to the market and customer satisfaction are the leading principles of corporate policies, which are applied in our daily work methods. The training of personnel and the use of new design methodologies are aimed at professional services up to date and in step with the market and the need for product innovation.

# Project capabilities in the Aviation Sector

Incide Engineering has built an important reputation across the nation for devising innovative, cost-effective solutions for aviation design.











#### **AERONAUTICAL INDUSTRIES**

Incide is partner for the most known private aeronautical companies, such as Leonardo Group companies including Leonardo Elicotteri, Leonardo Velivoli e Aerostrutture, Superjet International (Sukhoi), in the development of industrial aeronautical facilities, and cooperating with Airway Companies, for designing their Technical Support Facilities.

Incide Engineering provides a full range of services:

Site Master Plan - Production and logistics building design - Long Span Structural Design - Architectural Design - Mechanical & Electrical Systems Design -Construction Management - Consultancy Services.

#### **FACILITIES FOR AERONAUTICAL COMPANIES**

We have designed a series of infrastructures for industries operating in the aeronautical sector, including:

Aeronautical industry plants – Flight lines and Assembly line for helicopters and airplanes - Maintenance Hangars - Painting hangars - Engine Test Hangars - Fuel Test Hangars - Gyroscopic Pads - Helicopter landing Pads - Pilot Training Centers.





We provide full spectrum of engineering services for airport terminals, hangars, parking structures and cargo facilities. Our services include feasibility studies, design, peer review, construction administration, computer analysis, wind analysis, seismic design, value engineering and quality control, building-envelope investigation and analysis, rehabilitation recommendation and design, retrofits and renovations.

#### **AIRPORT DESIGN**

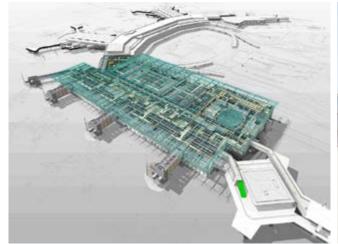
We apply high level strategic thinking to develop a master plan/concept design and planning strategy for terminals, airside planning and commercial development. We are able to communicate with airport operational management/ stakeholders to develop their programs and lead "in house" teams in client organisations.

We offer a full range of airport sector services, including: Airport master planning - Airport layout plan development - Airport feasibility and final studies -Aviation system development - Airspace and obstruction minimise the footprint and optimise available areas. We analyses - Cost estimations - Airport development / Redevelopment planning and future proofing.

#### AIRPORT FACILITIES DESIGN

We have experience in the design of different types of buildings annexed to airports: Runways, taxiways and aprons - Terminal buildings - Control towers - Cargo terminal buildings - Maintenance hangars - Live animal terminal buildings - Engine test pads - Fuel reservoirs.

Conceptual analysis of terminal functions to resolve the key issues of aircraft access, baggage handling/conveyor routing, number of floor levels, segregation areas and boarding/ arrival zones. We develop terminal planning strategy to integrate of commercial area planning and operational requirements.





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# A world wide company

+250 **Projects** 

+30 **Countries** 

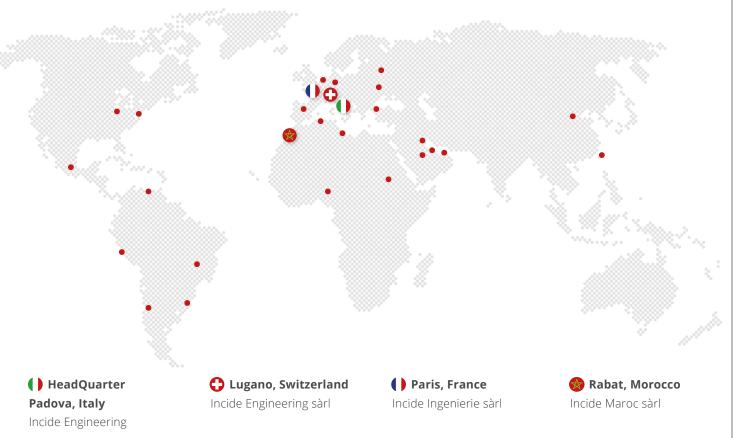
+60

**Branches** 

**Employed** 

The competence, the language skills of the personnel and an up to date communication system, allow Incide Engineering to work in close connection with its customers around the world.

Knowledge of the most important names and international codes, give to Incide Engineering, the capability to compare utility with the global market of engineer services.



## Full-services capabilities

Incide Engineering offers a full range of integrated engineering, architectural design and consulting services to support its Customers in the development of complex projects.

The integrated services offered by the company, start from the preliminary and conceptual design phases up to the definition of the specifications, the implementation, optimization and validation of the detail design. Our approach to "building solutions" is to work both on buildings and on creating mutidisciplinary solutions for our clients.

Using the most advanced softwares the company develops the engineering and architecture design with BIM models, giving to the project an integrated design approach, anticipating problems and having a real time view of the construction. The different internal professionals ensure the full coverage of all the skills offered.







#### **ENGINEERING**

Structural engineering Civil engineering **Mechanical & Electrical Tensile structures** Fire protection engineering Installation methodologies

#### **FACADES &** ARCHITECTURE

Facade engineering Architecture Interior design Bim coordination **Multidisciplinary coordination** 

#### CONSULTING

**Project management Construction management** Safety coordination Commissioning

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# Structural engineering

The structural design process carried out by Incide Engineering arises from a pre-design phase through simplified calculation schemes that come from both theoretical know-how and years of experience in the sector, to then develop detailed analyzes using models and finite elements of the entire structure, according with structural drawings and load conditions, in order to obtain an accurate representation of the structural functioning.

#### Steel, concrete and mixed structures

Specialized FEM modeling - Seismic analysis Detail drawings Shop drawings



#### Special structures

Port cranes - Structures for industrial plant Industrial piping & machine pedestal Industrial ducts & chimney - Special analysis



#### Installation and erection metodologies Tensile structures

Erection design - Costruction sequencies Temporary stage stability - Lfting with stand jack Lifting tools design



From the concept to installation Specialised FEM modelling Executive and constructive 3D modeling



# **Engineering services**

We carry out designing by finding innovative, energy efficient and cost-effective solutions for electrical, mechanical and energy distribution systems. In total integration with the other disciplines, we design systems for different construction sectors, from power plants to civil buildings, to industrial complexes of different production types.

We are committed to creating the best solutions through our technical ingenuity and responsiveness to client needs.

#### Civil engineering

Geotechnical engineering, Special foundation design, Design Development of all types of air conditioning, ventilation and of roads and bridges, and all complimentary Infrastructural constructions.



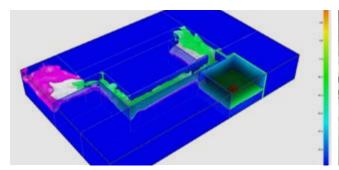
industrial plant systems, for the various types of product sectors.





#### Fire Prevention engineering

We manages the fire safety of buildings, from the definition of risk to the application of active and passive protection solutions.



#### Electrical and special systems

Design of power plants & medium-low voltage distribution, lighting & special systems, integrating the regulations and building automation systems.



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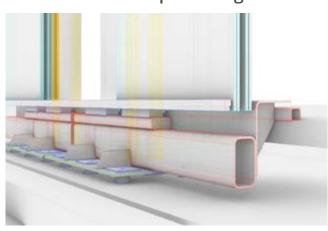
### Facades & Architecture

Incide provides facade design and consultancy, to architects, builders and Public and Private operators in all phases of the project. We start from the concept and research of materials for proposing the construction scheme that we develop to the detail. We offer a suite of specialist analyzes (Structural, Energy & Solar, Thermal & Acoustic and windy analyzes) to solve complex design challenges, improve buildability, maximize energy efficiency and increase safety.

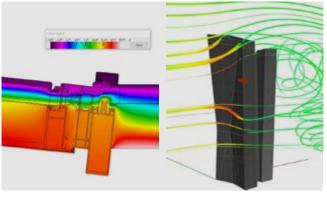
# Concept, bidding, detailed design and Engineering



BIM models & shop drawings



Thermal & acoustic design, wind, energy & solar analysis



Facade structures



# Consultancy activities

Consultancy activities of such as Assistance on Tenders, Works Supervision, Safety Coordination, and Commissioning complete the list of services that Incide Engineering is able to provide in a completely professional way.

#### **Project management**

Assistance in the processes of design definition, feasibility and execution phases, construction planning, coordination and management, planning and control of project activities.



#### Works management

Complex infrastructures, restoration of historic buildings, contemporary and innovative buildings, gardens, small schools, shopping centers, with public and private clients.



#### Safety coordination

Prevent accidents during the execution of the works, analysing and evaluating the risks pertinent to each particular activity taking place on-site.



#### **Testing and Commissioning**

We follow the start-up and testing of building and plant engineering systems, up to the phases of delivery to the client and the taking charge by end users.



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# Aviation sector

Thanks to the heterogeneity and complexity of the projects developed, Incide Engineering has acquired high skills in different market categories.

Incide has numerous professionals with years experience in the design of airports and aeronautical infrastructure, working with companies operating in the aeronautical sector, airport operators and airlines.











#### ORLY AIRPORT - T ORLY 3

Year: **2016** 

Owner: Paris Airport

Client: **JV Omba / Simeon** 

Location: Paris - France

Market: Aviation - Infrastructures - Commercial

Services: Steel Structure Detail Design

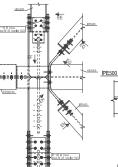


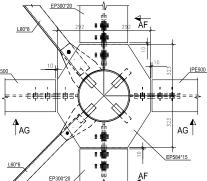
















#### FIUMICINO AIRPORT - TERMINAL 3

Year: **2016** 

Owner: **Aeroporti di Roma ADR** 

Client: Cimolai S.p.a. - Permasteelisa S.p.a.

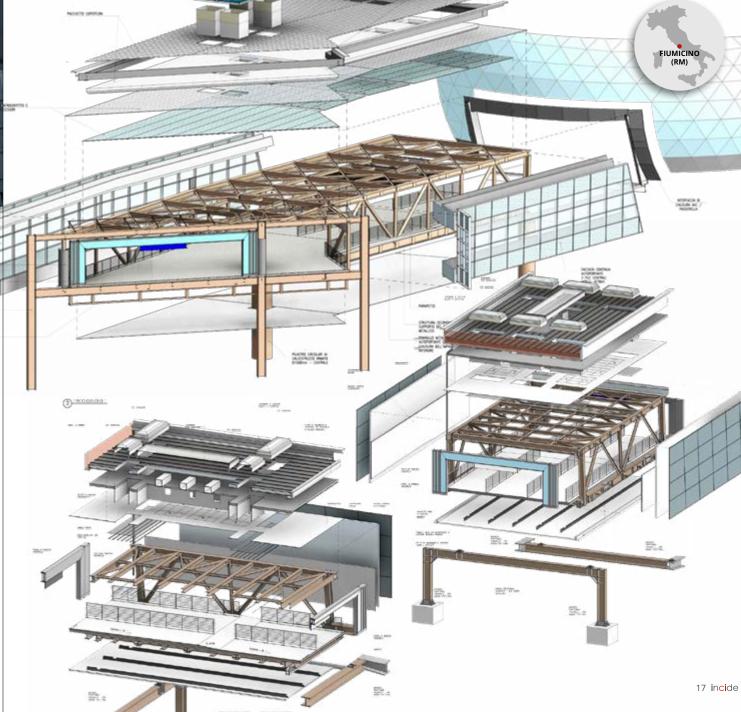
Location: Rome - Italy

Market: Aviation - Infrastructures

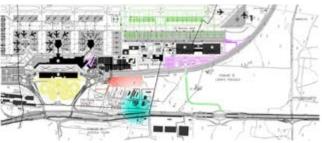
Services: Architecture - Structural engineering

Facade engineering











Year: **2009** 

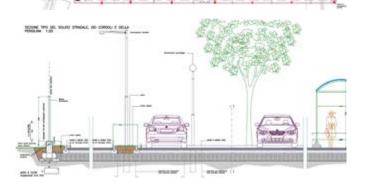
Owner: SEA S.p.a. Aeroporti Milano
Client: SEA S.p.a. Aeroporti Milano

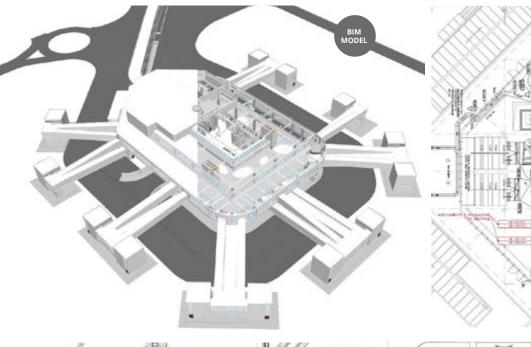
Location: Varese - Italy

Market: **Aviation - Infrastructures** 

Services: Architecture - Electrical engineering

Commissioning







#### MALPENSA AIRPORT SATELLITE A TERMINAL 1

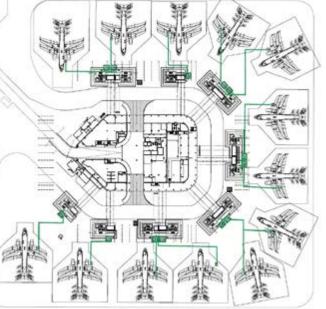
Year: **2021** 

Owner: Comune di Milano

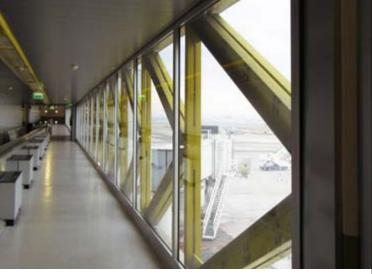
Client: SEA S.p.a. Aeroporti Milano

Location: Varese - Italy

Market: **Aviation - Infrastructures**Services: **Mechanical engineering** 









#### MALPENSA AIRPORT - TERMINAL 2

Year: **2008** 

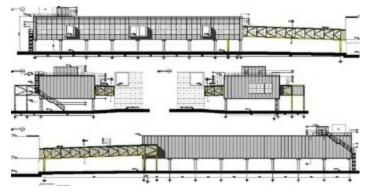
Owner: SEA S.p.a. Aeroporti Milano
Client: SEA S.p.a. Aeroporti Milano

Location: Milan - Italy

Market: **Aviation - Infrastructures** 

Services: Architecture - Structural engineering

MEP - Facade engineering







#### CASABLANCA AIRPORT EXPANSION

Year: **2019** 

Owner: **ONDA** 

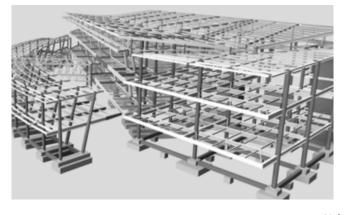
Client: **Jet Contractor** 

Location: Casablanca - Morocco

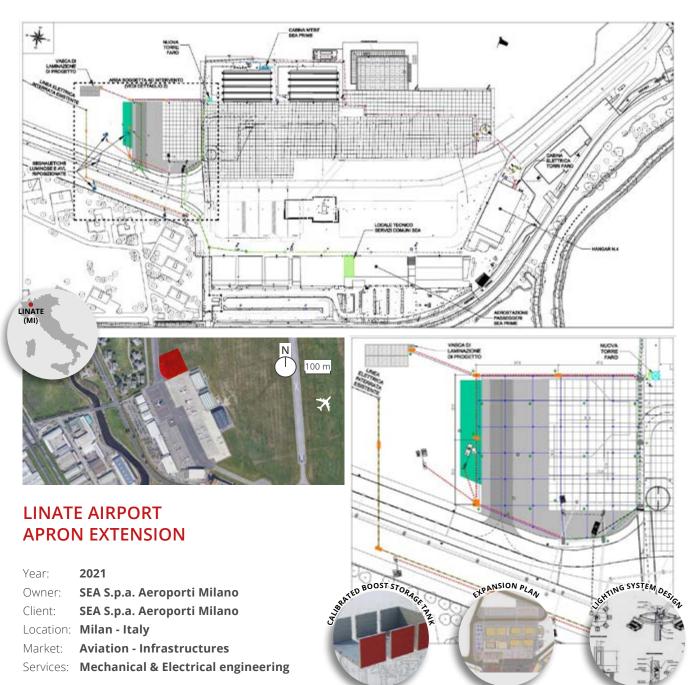
Market: **Aviation - Infrastructures** 

Services: Structural, Civil & Fire protection

engineering - MEP - Bim & coordination



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Year: **2012**Owner: **ENAC** 

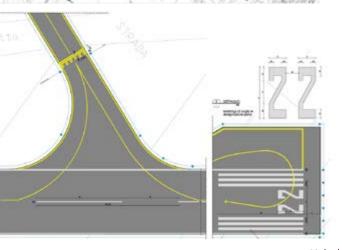
Client: **ENAC** 

Location: **Udine - Italy** 

Market: **Aviation - Infrastructures** 

Services: Civil engineering - Electrical engineering

**Construction management - Architecture** 





#### **FORLÌ AIRPORT**

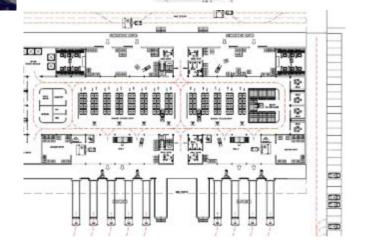
/ear: **2018** 

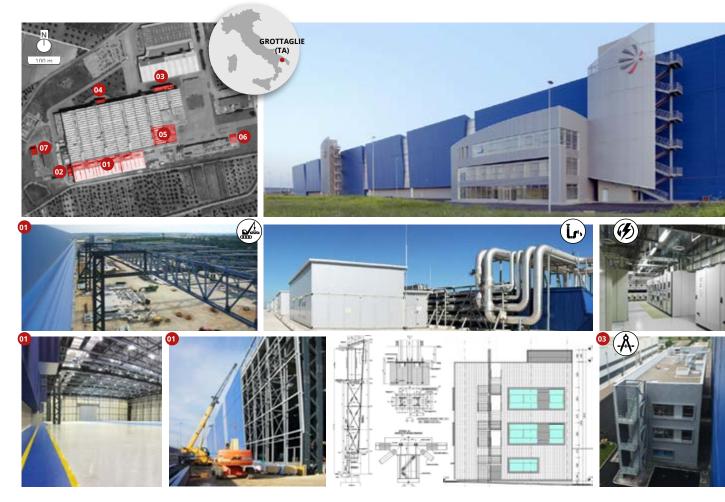
Owner: SEAF Società Esercizi Aeroportuali Forli
Client: SEAF Società Esercizi Aeroportuali Forli

Location: Forlì - Italy

Market: **Aviation - Infrastructure** 

Services: **Architecture** 





#### **ALENIA AERMACCHI PLANT**

Year: **2010 - 2014** 

Owner: Alenia Aermacchi S.p.a
Client: Finmeccanica S.p.a.

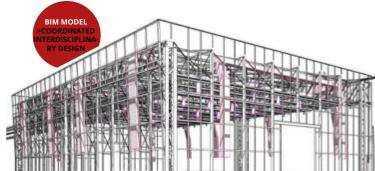
Location: **Taranto - Italy** 

Market: **Aviation - Industrial complex** 

Services: Architecture - Structural engineering - MEP

Fire protection - Construction management

Safety coordination - Commissioning







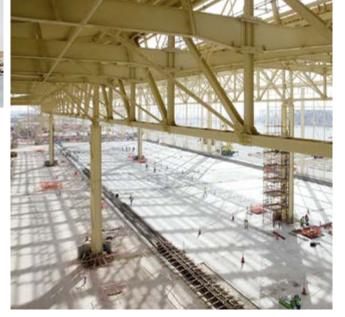


#### **EMIRI HANGARS**

Year: **2009** 

Owner: Qatar Airways
Client: Cimolai S.p.a.
Location: Doha - Qatar

Market: **Aviation - Infrastructures**Services: **Structural engineering** 



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# INTERNATION FLIGHT TRAINING SCHOOL - CAGLIARI

Year: **2020** 

Owner: Aeronautica Militare Italiana

Client: **Leonardo Aircraft** 

Location: Cagliari - Italy

Market: Aviation - Military infrastructure
Services: Structural & Civil engineering

Fire protection engineering - BIM







#### **CARGO TERMINAL FACILITY**

Year: **2010** 

Owner: **Doha International Airport** 

Client: **Cimolai S.p.a.**Location: **Doha - Qatar** 

Market: **Aviation - Infrastructures**Services: **Structural engineering** 









#### QATAR AIRWAYS MAINTENANCE HANGAR

Year: **2010** 

Owner: Qatar Airways
Client: Cimolai S.p.a.
Location: Doha - Qatar

Market: **Aviation - Infrastructures**Services: **Structural engineering** 

GAR
250 mt



Ministere de la defense national - Algerie Owner:

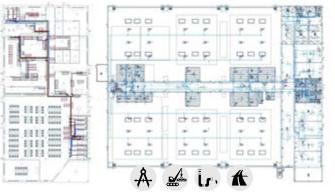
Leonardo S.p.A. Client:

Location: Ain Arnat - Algeria

**Aviation - Industrial complex** Market:

Services: Architecture - Structural engineering - MEP

Fire prevention engineering - BIM







#### NH90 MAINTAINANCE & TRAINING CENTER

Year: 2018

Ministero della Difesa - QATAR Owner:

Leonardo Helicopters S.p.A Client:

Doha - Qatar Location:

Aviation - Industrial complex & plants Market:

Military infrastructure

Services: Architecture - Structural & Civil engineering - MEP











#### LIATEC ELICOPTER MAINTENANCE AND ASSEMBLY PLANT

2009 Year:

Augusta Westland S.p.a. Client:

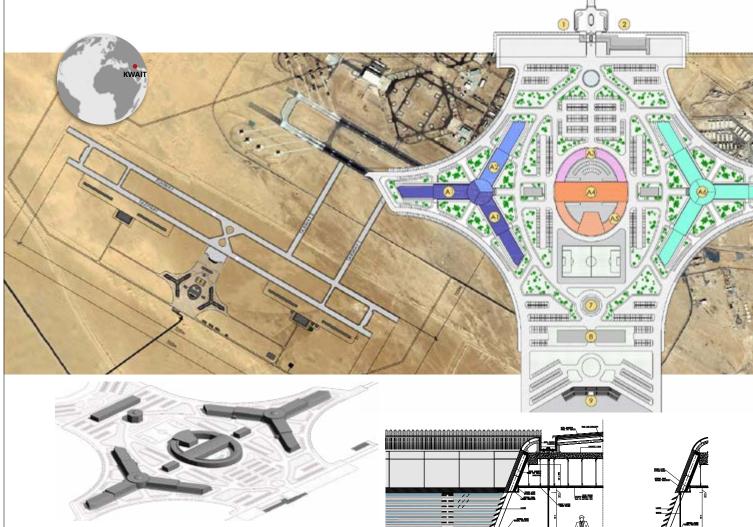
Location: Abu Aisha - Libya

Aviation - Industrial complex Market:

Services: Architecture - Structural engineering

**Electrical & Mechanical engineering** Fire protection engineering - PM





#### **AIR COLLEGE KUWAIT**

2013 Year:

Ministère de la défense du KUWAIT Owner:

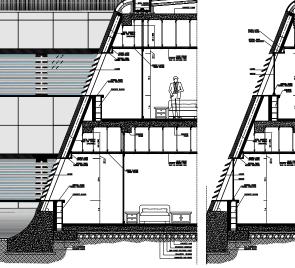
Client: Alenia Aeronautica S.p.A.

Location: Kuwait

Aviation - Industrial complex

Services: Architecture - Structural engineering - MEP

Fire prevention engineering - BIM



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# NH90 HELICOPTER ASSEMBLY FACILITY

/ear: **2010** 

Owner: Augusta Westland S.p.a.

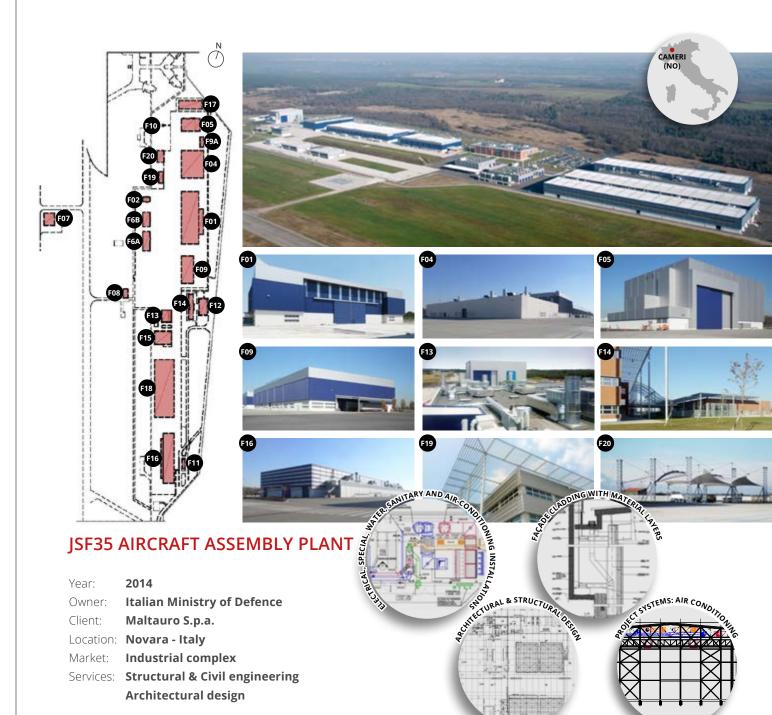
Client: **Leonardo S.p.a.**Location: **Venice - Italy** 

Market: **Aviation - Industrial complex** 

Services: Architecture - Structural engineering

Civil, Electrical & Mechanical engineering







Augusta Westland S.p.a. Owner:

Client: Leonardo S.p.a. Location: Varese - Italy

**Aviation - Industrial complex** Market: Services: Architecture - Structural - MEP

Fire protection - Construction management

**Safety coordination - Commissioning** 







2012 Year:

**Italian Ministry of Defence** Owner: Client: Alenia Aermacchi S.p.a.

Location: Lecce - Italy

**Aviation - Military infrastructure** Services: Architecture - Structural & Civil - MEP

**Construction management - Safety** 



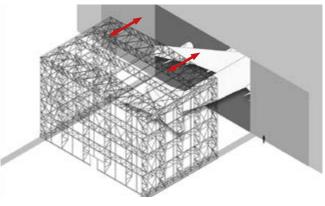












#### M346 AIRCRAFT TRAINING CENTRE

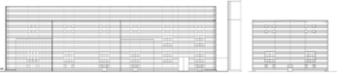
Year: **2006** 

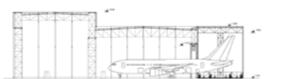
Owner: Officine aereonavali Venezia S.p.a. Client: Officine aereonavali Venezia S.p.a.

Location: Venezia - Italy

Market: **Aviation - Industrial complex** 

Services: Architecture - Structural engineering - MEP Fire prevention engineering - Project management Construction management - Safety coordination













#### **HANGARS 407-605 NAFVAC**

Year: **2019** 

Owner: NAFVAC - USA Navy

Client: **Design built with impresa ICM** 

Location: Catania - Italy

Market: Aviation - Military infrastructure

Services: Structural engineering - MEP

Fire protection engineering









#### SAEI LINE HANGAR - JEDDAH

Year: **2012 - 2016** 

Owner: SAEI Saudia Aerosp. Engineering Industries

Client: **Ghafari Associated** 

Location: Jeddah - Arabia Saudita

Market: **Aviation - Industrial complex** 

Services: Structural engineering

Bim & multidiscplipinary coordination





#### HeadQuarter

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