

Manufacturing
aerostructures
and aerospace parts
& assemblies along
with complete equipment
solutions. Manufacturing
excellences.

There is
more
in everything

Luigi Pirandello

Overview



1990: the first generation was born

The "**Lavorazione Particolari Aeronautici (L.P.A.)**" company was founded in 1990 by Mrs. Michelina Sammarco in Druento (Turin).

In 2000 the company was joined by Mr. Costantino Carrera, who had previously worked at Alenia (currently absorbed in the Aircraft and Aerostructures divisions of Leonardo Company) for twenty years, and Mr. Lorenzo Carrera.

The L.P.A. was mainly focused on:

- Manual bench work,
- Assembly manufacturing
- Technical support and operational assistance at customers' premises

taking advantage of the solid and robust Mr. Costantino Carrera experience in the mechanical engineering sector and, specifically, in the aerospace industry.

2012: the legacy continues to live on

Aerotech S.r.l. was founded in 2012, 22 years after its predecessor, L.P.A., leveraging the commitment and experience of the Carrera-Sammarco family and its co-workers, the support of its approved suppliers and the confidence of its customers.

The new company represents the ideal bridge between L.P.A. historical legacy and future in the high-tech industrial sectors.

Mr. Lorenzo Carrera, the CEO of Aerotech S.r.l., with the support of his team of young co-workers and the long lasting experience of his father Mr. Costantino Carrera, is currently leading the company growth in various business sectors with a strong focus on the development of:

- Human resources
- Manufacturing technology
- Solid customer-focused culture

Our Business

Taking advantage of more than 40 years of experience and know-how in the Aerospace and Defence sector, **Aerotech S.r.l.** is able to design (leveraging engineering, reverse engineering and re-engineering robust capabilities) and produce components and structures made of titanium, steel and aluminum.

As part of our business, we also provide turn-key solutions for production support equipment (i.e. assembly jigs, tools and equipment for automated production lines, etc) for the Defence sector as well as for public and private clients of the Civil sector, in Italy and worldwide.

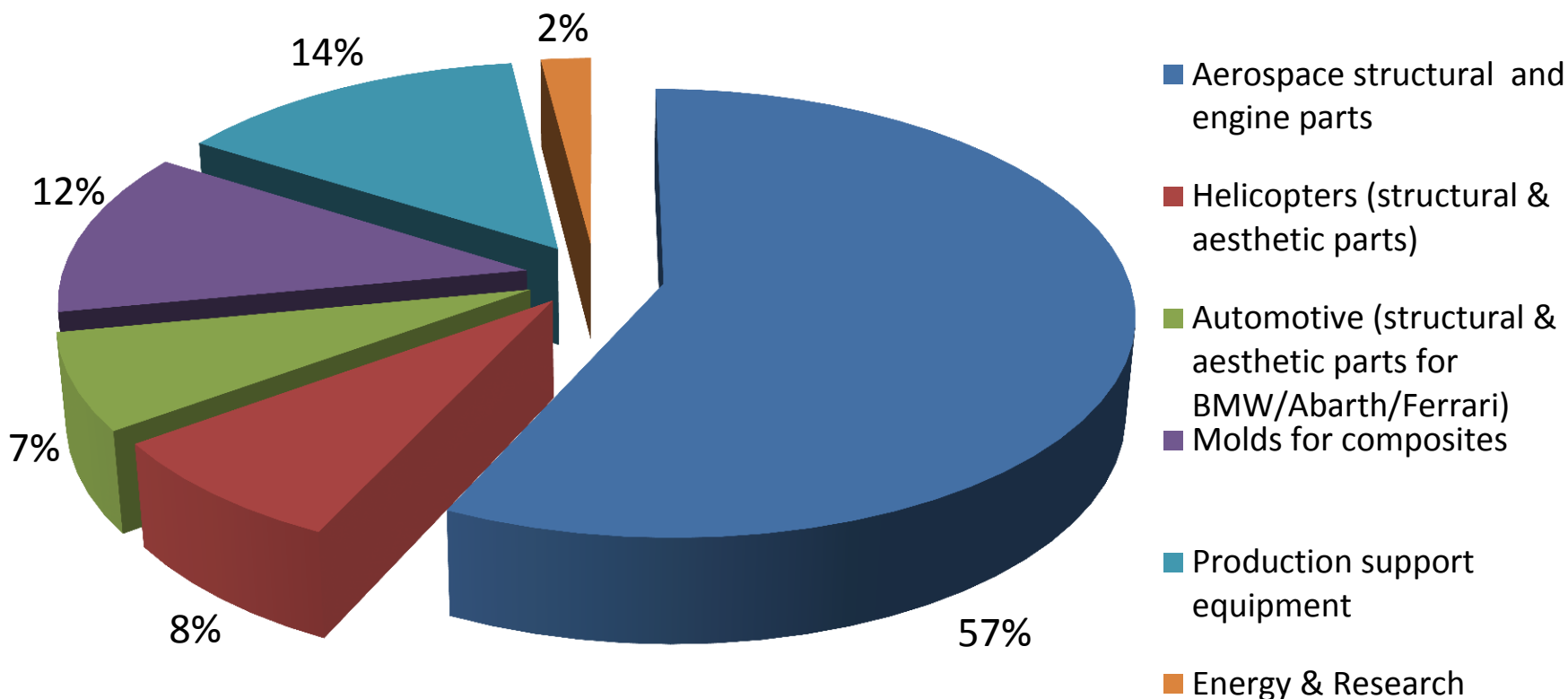
Aerotech S.r.l. core business is the production of medium to large size aerospace structural parts (aluminum ones up to 7,000 mm in length, titanium ones up to 4,500 mm in length) and components of all sizes for both aircraft and aero-structures (i.e. frameworks, ribs, panels, intercostals, etc). We also perform mechanical assembly activities for aircraft components and equipment.

Last but not least, **Aerotech S.r.l.** has a solid experience in design and manufacturing molds for composite laminating, foaming, sheet molding, etc.

Business sectors

Aerotech S.r.l. is currently operating in a wide range of business sectors, with a strong focus on Aerospace and Defence.

Percentages of the latest 3Y revenue



Our Capabilities

Aerotech S.r.l. manages in-house the following activities:

- Parts/components/Equipments design with computer-aided technologies CAD/CAM
- Cutting
- Abrasive waterjet cutting
- 3/5/6 axis machining
- Surface polishing
- TIG and MIG welding
- Parts/components/Equipment mechanical assembly
- Special gluing
- Riveting
- Dimensional test with 3D reverse engineering and traditional instruments

Our Partnerships

Main on-going Partnerships:

- MOREGGIA & C. S.p.A
- TECNOTESSILE ADLER S.r.l
- ALFAMECCANICA S.r.l.

Other Partnerships:

- TESEO S.p.A. (Clemessy - Italie)
- CERN (Conseil Européen Recherche Nucléaire)
- NOVO MEKO
- WEBASTO
- ADLER PELZER
- ADLER PLASTIC
- DEMA S.p.A.
- TYVAK Satellite

New / forthcoming Partnerships:

- Qualified supplier for LEONARDO S.p.A. since 2016
- Qualification process on-going for ALSTOM, PIAGGIO AEROSPACE and ENI S.p.A
- In collaboration with ADAA (Association for Astronomic and Astronautic Disclosure)

Our Suppliers

Aerotech S.r.l. counts on a solid network of qualified suppliers for purchasing:

- Raw materials or semi-finished products
- Machining equipment
- Special processes and/or treatments in accordance with aerospace guidelines

Our Certifications

Aerotech S.r.l. quality management system is certified according to:

- UNI EN ISO 9001:2016
- EN 9100:2015 for the Aerospace industry
- We also respect the technical specifications regarding Boeing, ATR, Eurofighter, Piaggio, Agusta Westland, and AirBus.

Company Business Functions

Streamlined company structure to get the best balance between control and flexibility

Business Functions

PRODUCTION

Technical office

Production &
Quality

Distribution/
Logistics

SALES

Marketing &
Sales

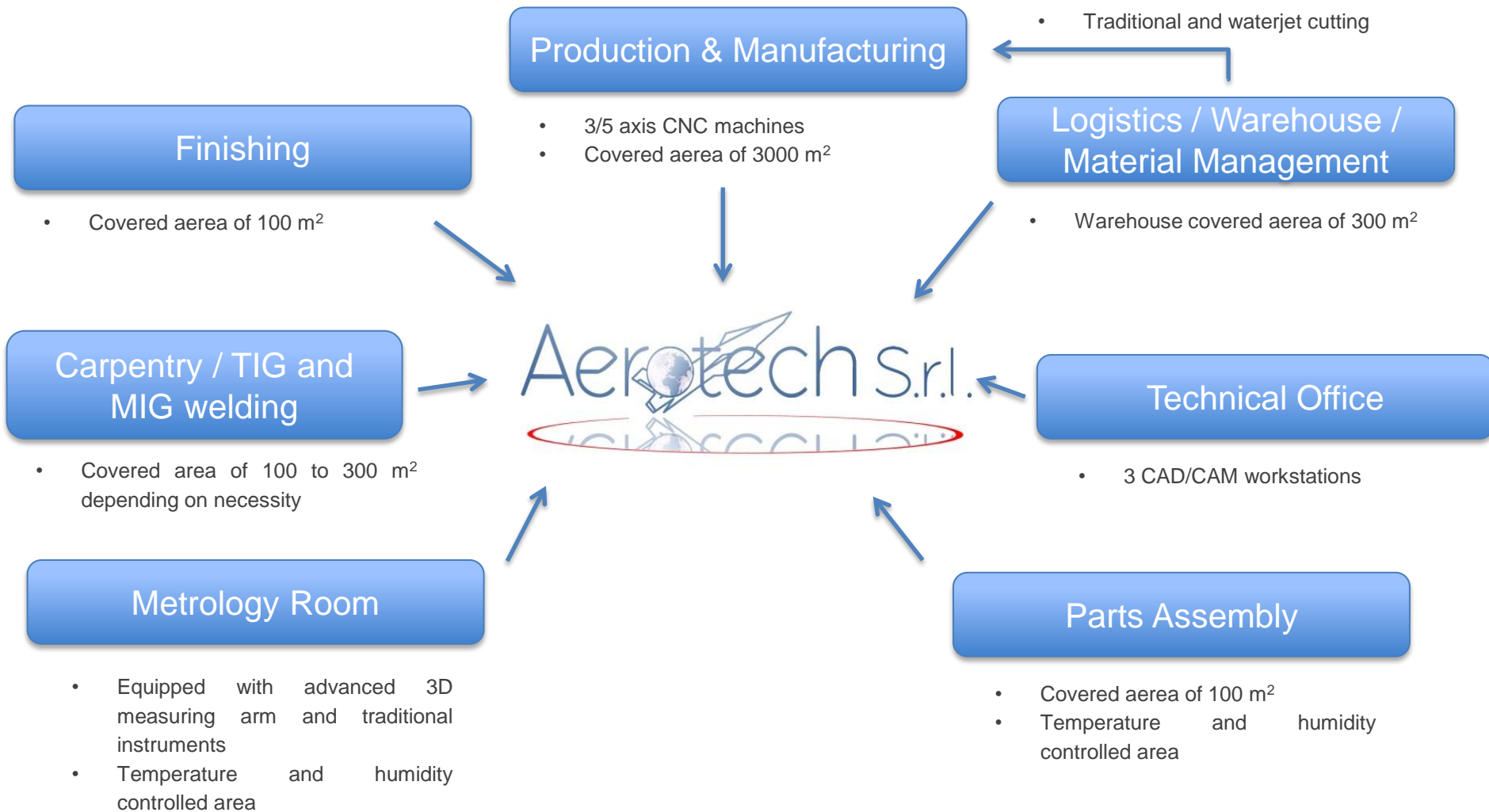
SUPPORT

Buying/
Purchasing

HR/Personnel

Accountancy

Producing Functions focus



Dimensional Test and Other



CAD/CAM



Logistic And Storage



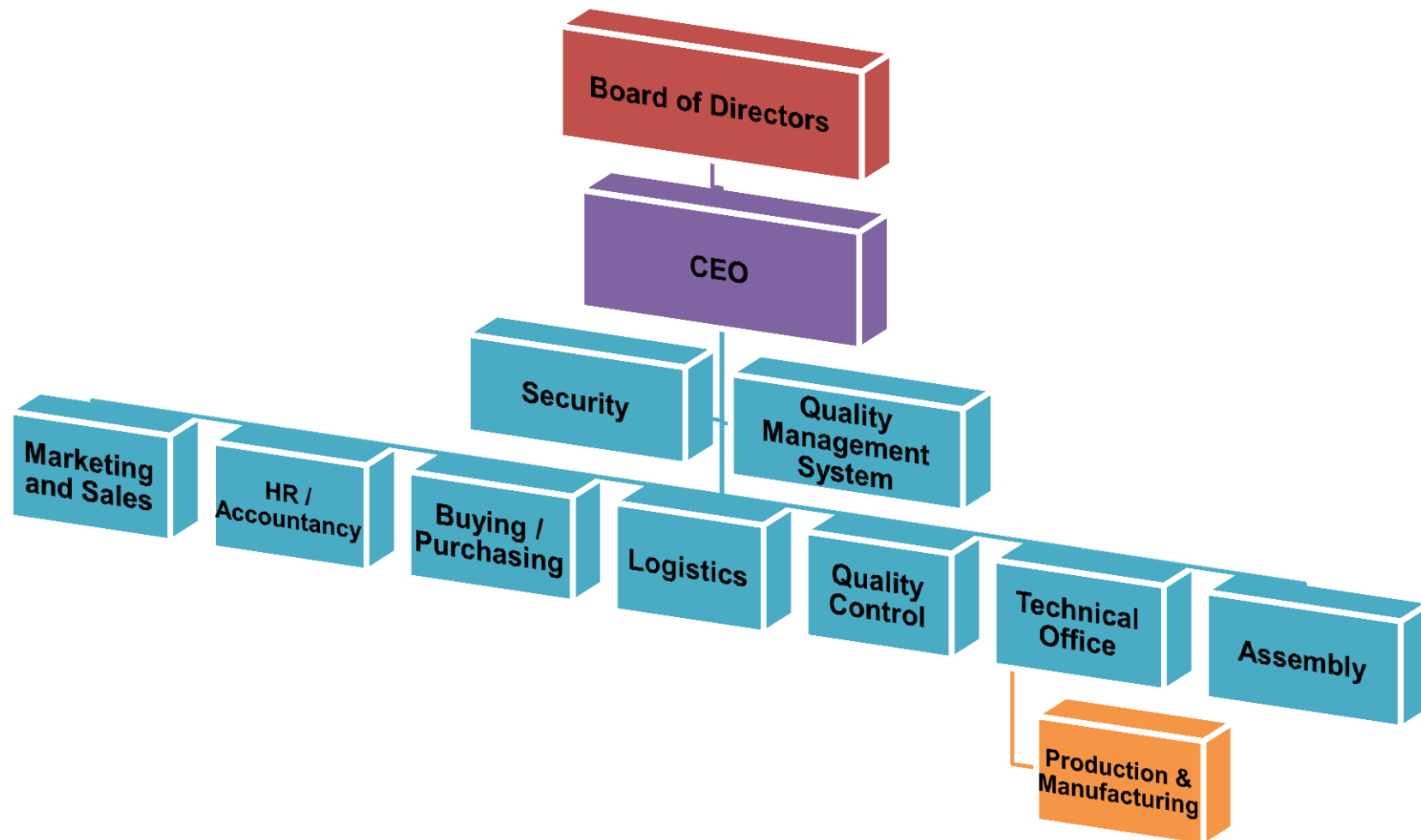
Waterjet Cutting



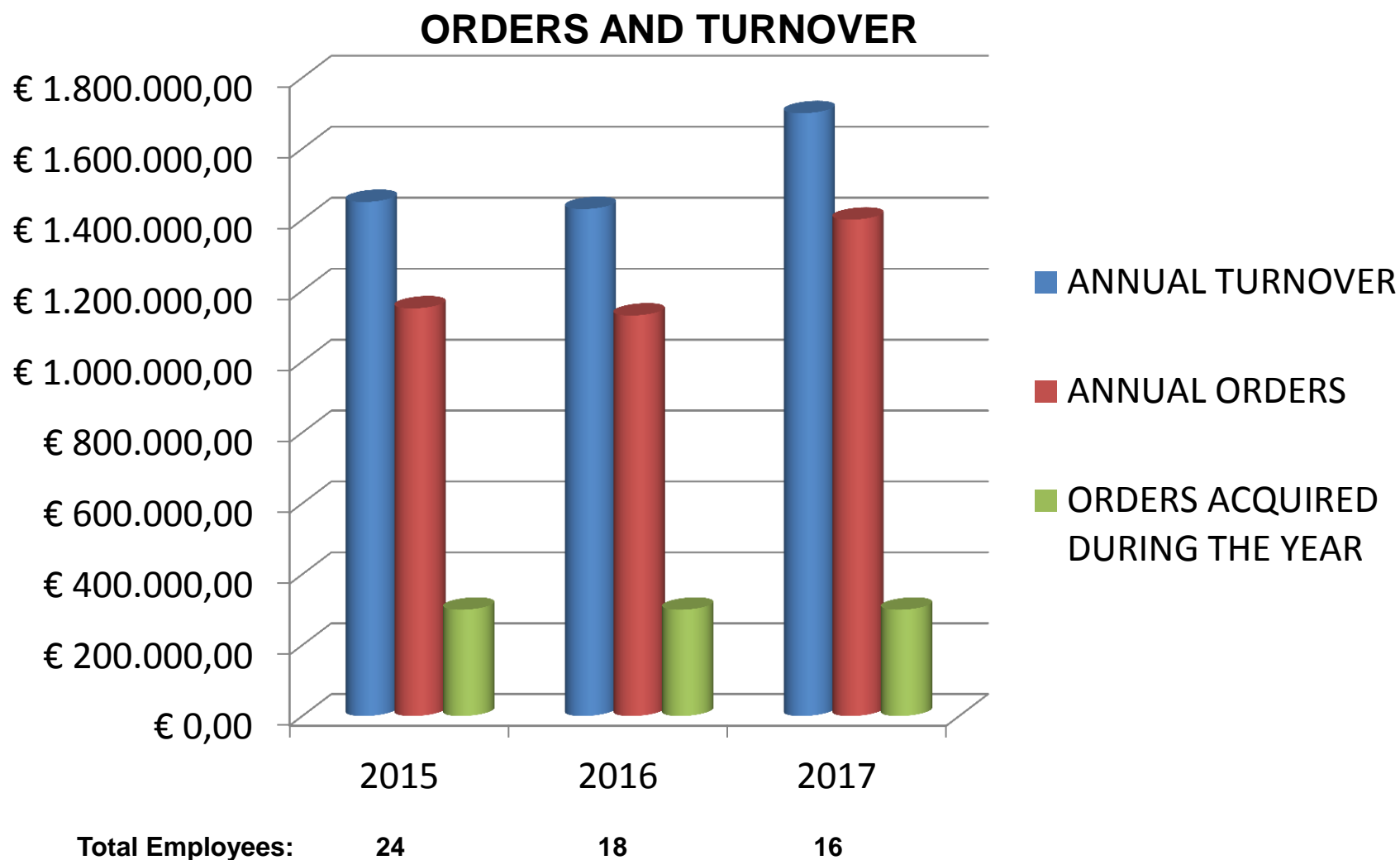
Welding And Maintenance, Surface Finishing and Polishing



Company Organizational Chart



Key figures – latest 3-year period



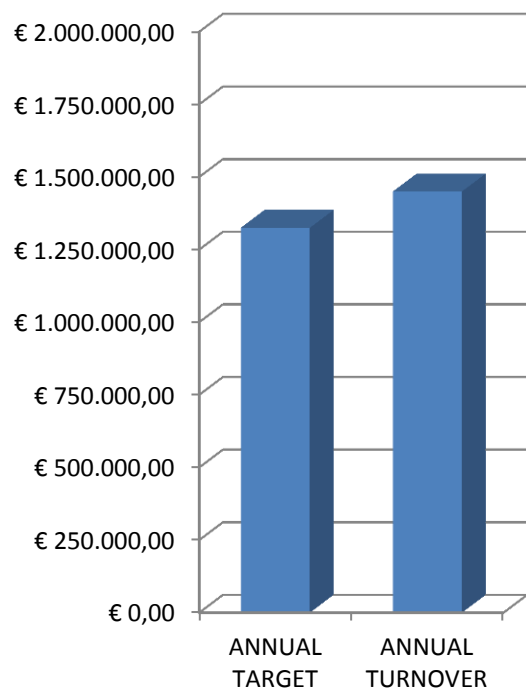
Key figures – latest 3-year period

Annual target € 1.325.000
Annual turnover € 1.450.000

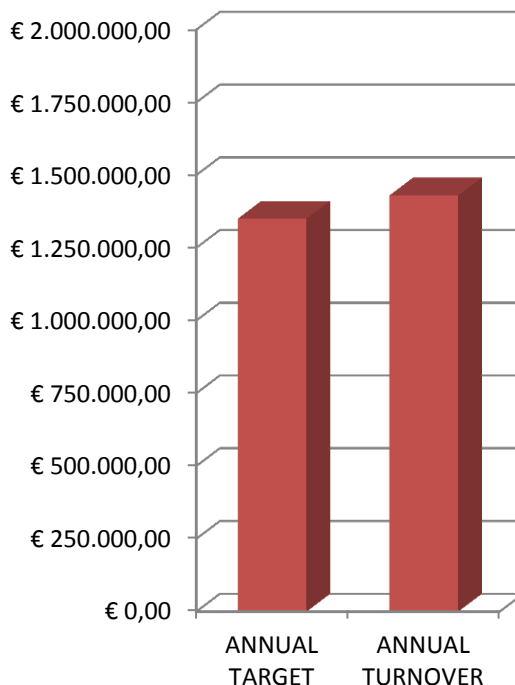
Annual target € 1.350.000
Annual turnover € 1.430.000

Annual target € 1.400.000
Annual turnover € 1.700.000

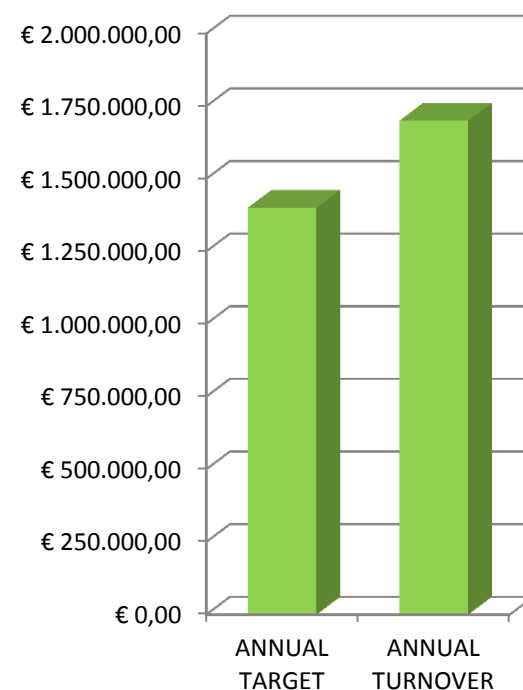
2015



2016



2017

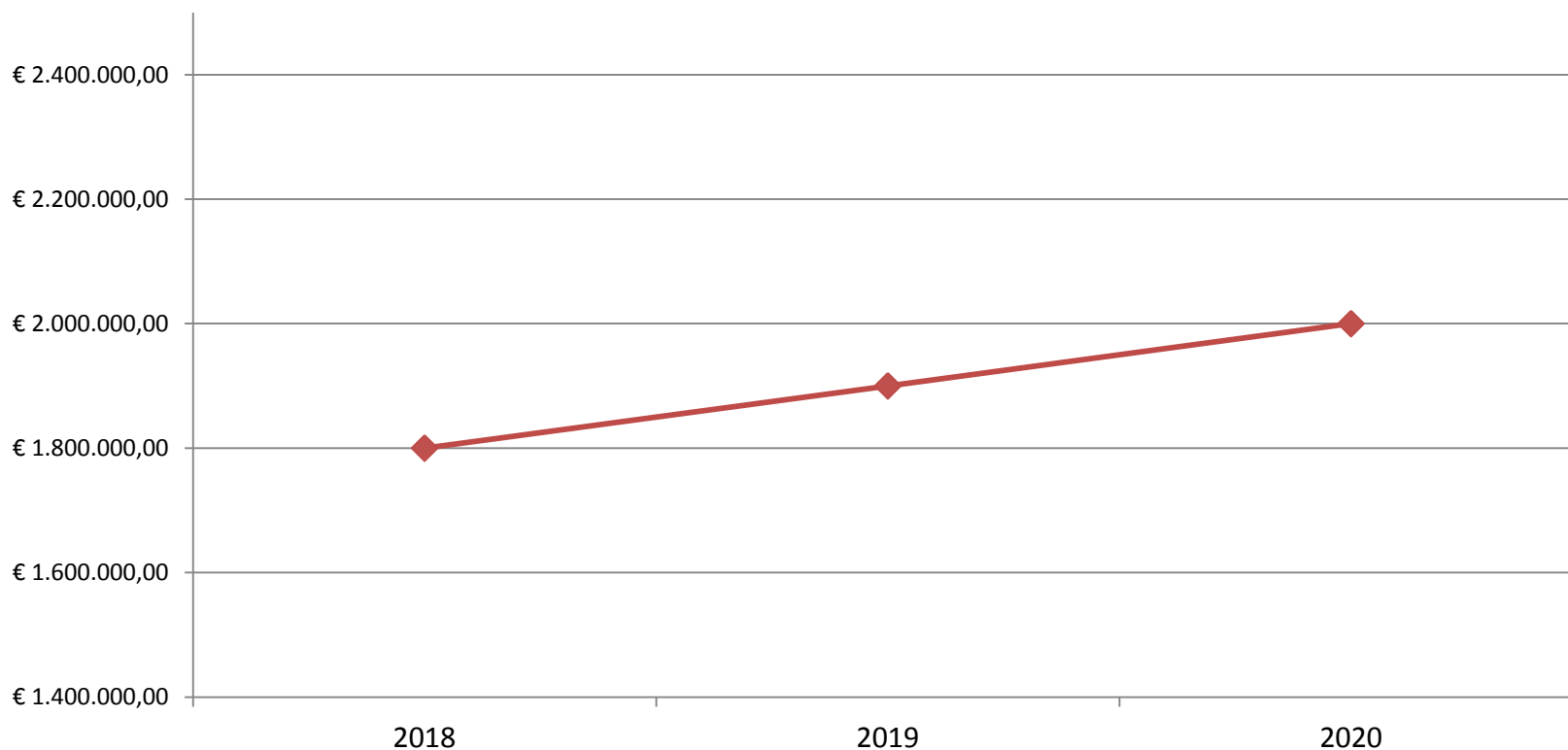


Company targets – 2018 to 2020

| # | Area | Target | Notes |
|---|--|--|---|
| 1 | Business development | <i>Growth of the Customer portfolio in order to diversify the revenue sources in different business sectors</i> | |
| 2 | Human resources development | <i>Forecasted sustained training for the Company employees in order to enhance the production efficiency</i> | |
| 3 | Materials costs | <i>Reduction of materials procurement / management cost both reinforcing the loyalty of our long-established suppliers and making more efficient our supplier management capabilities</i> | Target cost reduction = around 10% |
| 4 | Additional assets procurement | <i>Forecasted investments for the procurement of new additional mechanical machining machines</i> | Increase of: <ul style="list-style-type: none"> • Production volume • Range of products due to additional mechanical machining technologies |
| 5 | Special processes and treatments | <i>Forecasted investments for get in-house the following qualified processes:</i> <ul style="list-style-type: none"> • Heat Treatments • Sandblasting • Shoot Peening | |
| 6 | Welding | <i>Achieve certification UNI EN ISO 9712:2012 Lv.2</i> | |
| 7 | Additional strategic partnerships | <i>On-going application as qualified supplier with Alstom, Eni and Piaggio Aerospace, Rolls Royce (with their obtained interest)</i> | |

Revenue forecast – next 3-year period

FORECASTED REVENUES

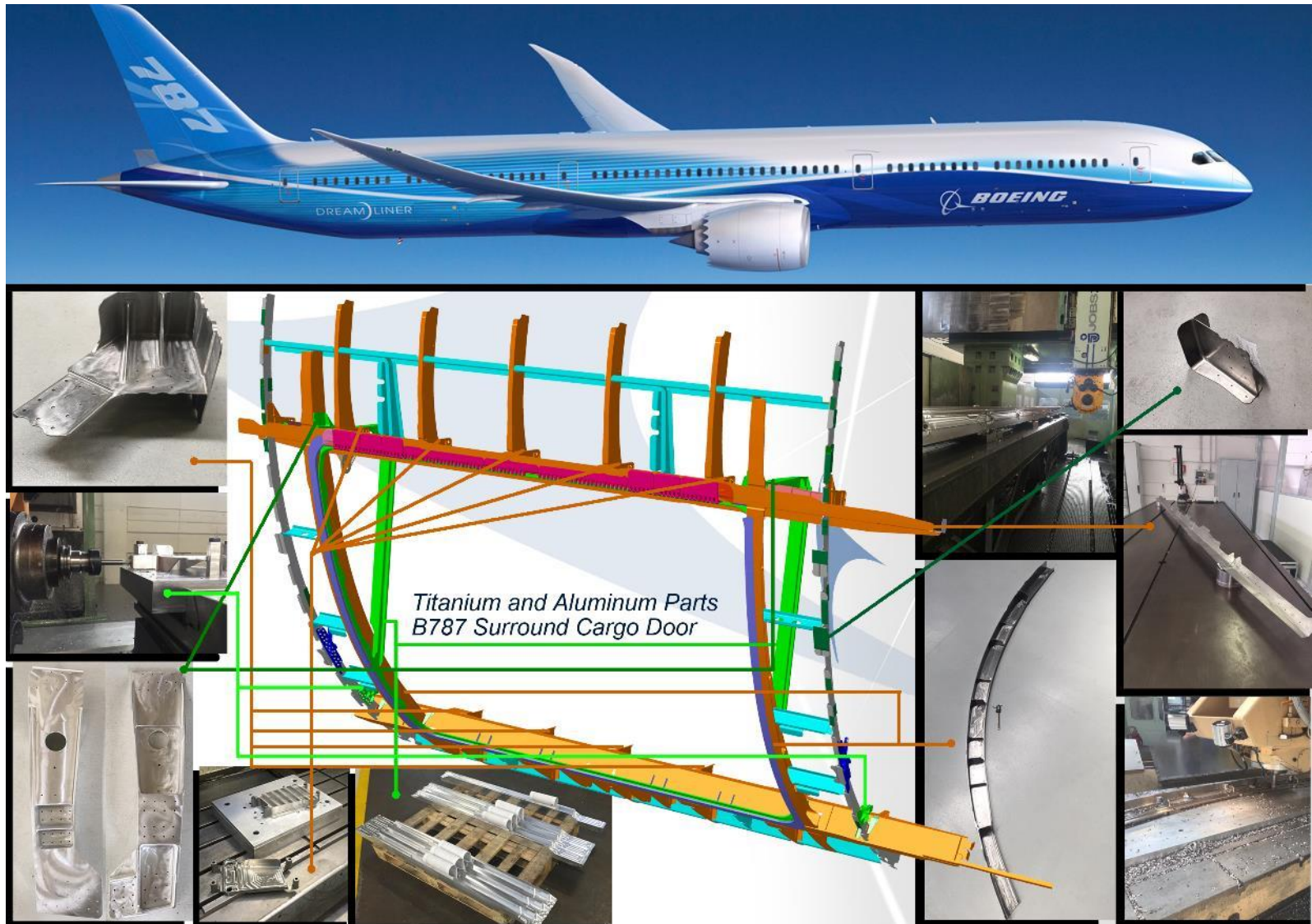


Forecasted Employees: 18

20

20

Production examples



Aircraft Components and Equipments



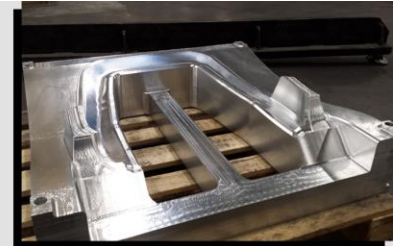
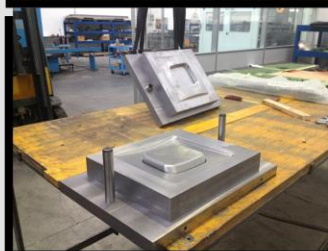


ATR

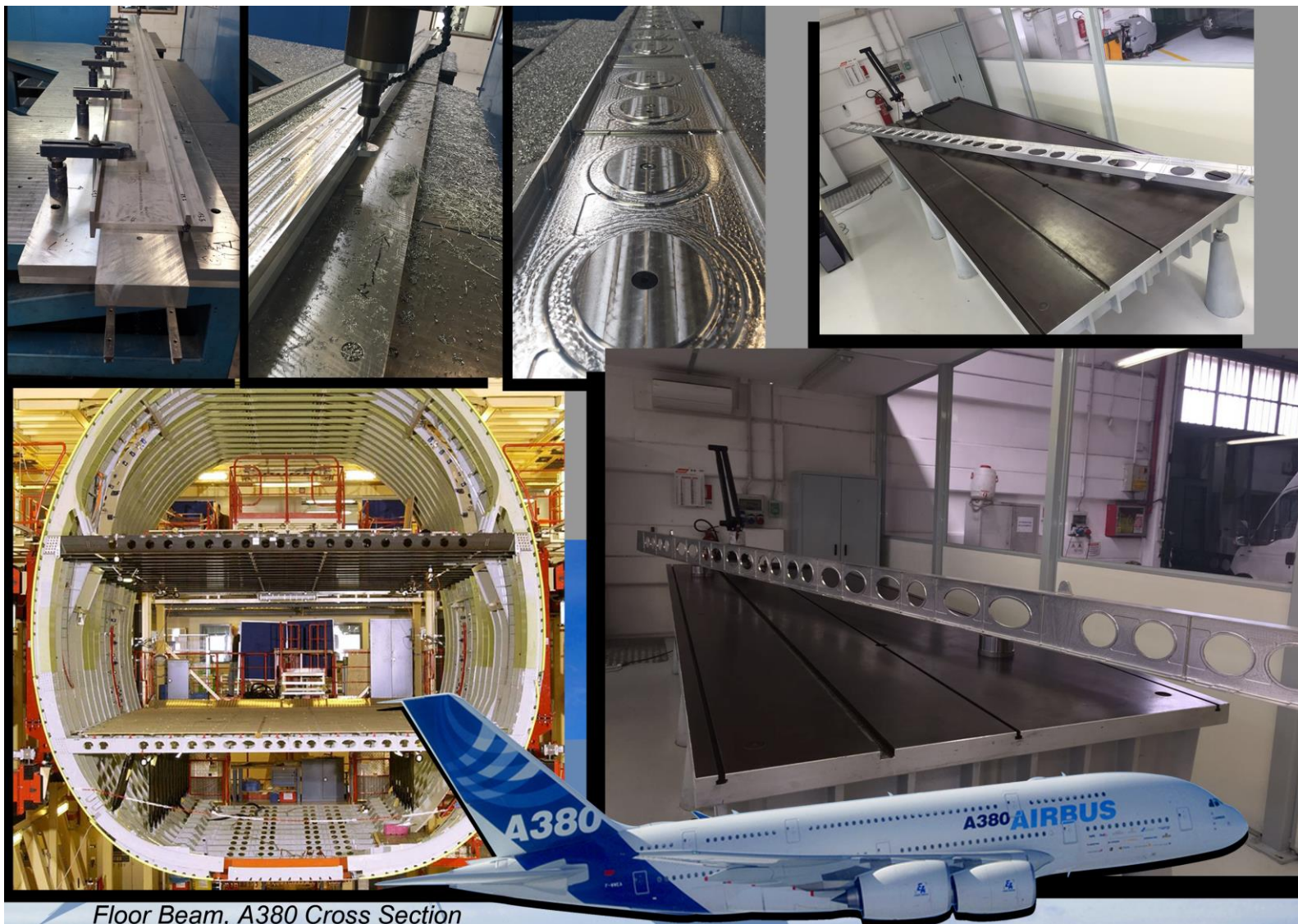
Frameworks, Windows Frame,
components



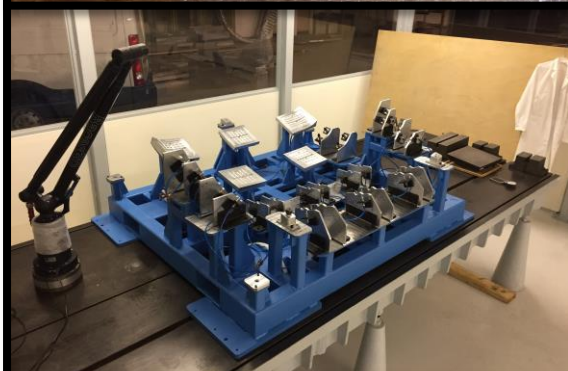
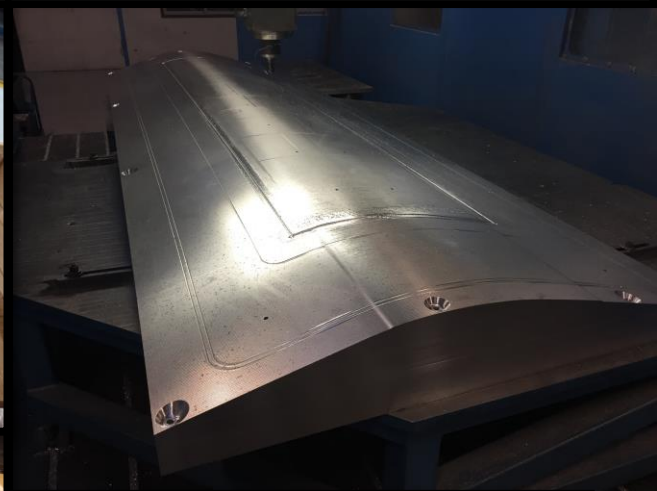
Molds for laminating of composite materials, foam, sheet metal forming and vacuum equipment for trimming.
Full supply equipment of many sizes.







Floor Beam, A380 Cross Section



Full Equipment

Additive Manufacturing will be in the future an important sector of production, in many application fields:

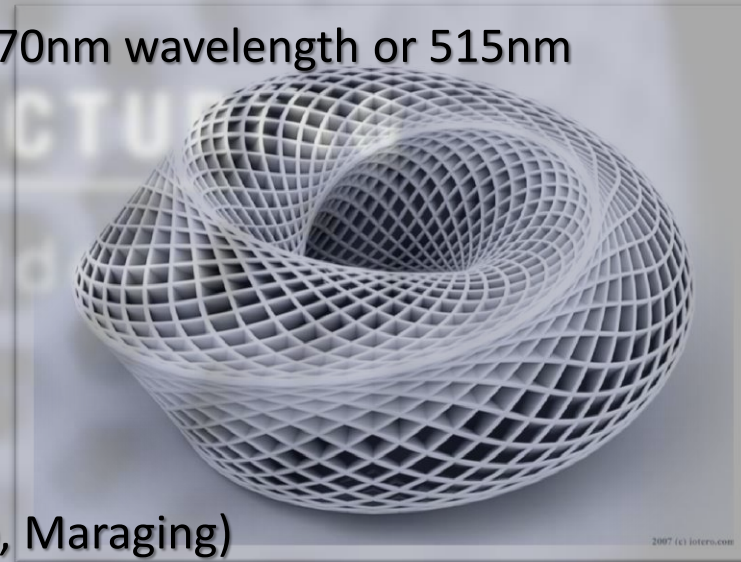
- biomedical, aerospace, aviation, food and packaging, automotive, space propulsion and exploration, transportation, R&D for new materials and new applications, IGT, Power&Water, Energy, Oil&Gas.

A.M. technologies for metal:

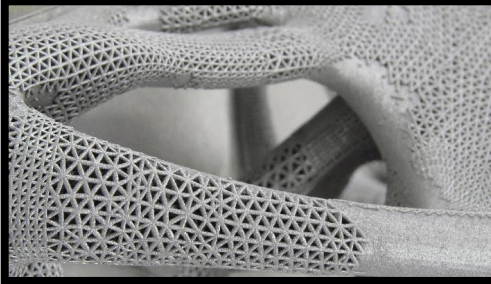
- Laser melting (from 100W to 2KW energy source: 1070nm wavelength or 515nm wavelength for Copper melting)
- EBM (electron beam) melting
- Nano particle jetting
- Jet binder / Multi Jet Fusion / Single Pass Jetting

Materials available:

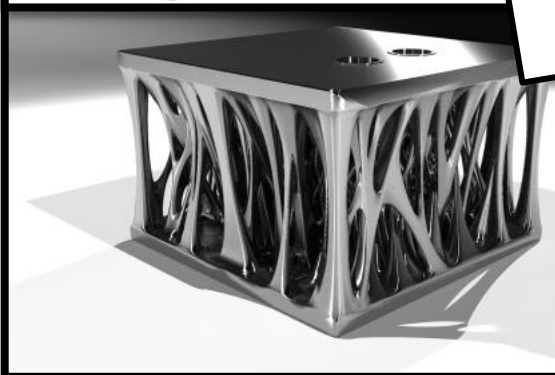
- Aluminum (6xxx and 2xxx and 7xxx series)
- Steel/Stainless Steel (15-5PH, 17-4PH, 316L, CoCrMo, Maraging)
- Titanium (Ti6Al4V grade 2/5/23, gamma-TiAl, Ti45Al7Nb0.3W)
- Nickel Based Alloy (In625, In718, In939, In738LC, HX)
- Development of new materials for custom needs



We are sorry: due to the confidentiality of projects we can't show our customer's components



**Additive Manufacturing
Supplying and Production**



Company Participation

Aerotech S.r.l. is part of the **ALI Consortium**:

it's a consortium of 4 Italian SMEs (Founders: Aerotech, Labormet2, ITACAE, ThinkOutsideTheBox), and many others collaborations, cooperating to effectively meet a customers tangible needs: reverse engineering, topology optimization and additive manufacturing, including the necessary mechanical machining and finishing, up to the approval & certification process.

- CLONE & OPTIMIZE Project (FIA 2016 – FIA2018 Farnborough)
- INTEGRATED WHOLE SUPPLY CHAIN

The applications are several:

- Aircraft parts to be replaced, when spares, CAD data or original tooling are unavailable,
- parts that cannot be anymore produced since the line is dismissed
- parts whose structural design reveals improvement opportunities.

The entire work flow can last some days, depending on the case complexity, and includes a certification process according to ISO 9100, with the purpose of assuring that the new parts have the same or improved performances, with respect to the original ones.

Company Participation

With the experience grown throughout many years of the various **ALI Consortium** participants, and thanks to our last experimental cluster project “Back to the Future”, we can now offer, in our corporate network, various competences and services, with qualifications for the aerospace world:

- Project management
- Supply chain management
- Concept design
- Detailed design & drafting
- Additive manufacturing (plastic, titanium alloy, aluminum alloy, Inconel, iron)
- Post processing including proper Heat Treatments (also specific for A.M. metallurgy/materials)
- Hipping
- Conventional machining 3-5 and more axis
- Sheet metal fabrication
- Honey comb
- Cutting with Laser, waterjet ecc.
- EDM, ECM
- Welding tig – mig
- Superfinishing
- Heat treatment
- Galvanic processes
- Coatings
- Shot peening
- DT / NDT tests
- X-ray
- Assembly
- CT scan
- CMM
- and MORE...

Clone & Optimize System

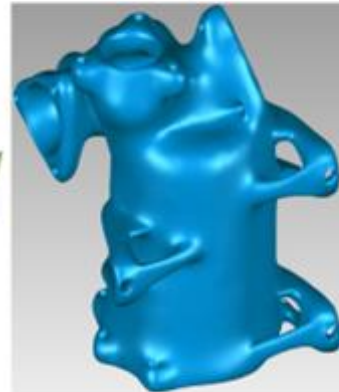


Non-destructive 3D testing
Reproducible 3D metrology

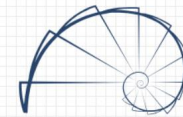


ITACAe
INGEGNERIA & INNOVAZIONE

CAD modelling & engineering
Structural optimization



3D printing preparation
Metal additive manufacturing



TOB

Think Outside The Box



*Existing
Physical
Part*

*Final
Physical
Part*



Machining & processing,
laser marking, milling,
quality control & certification



*From the original part
...1145 g*



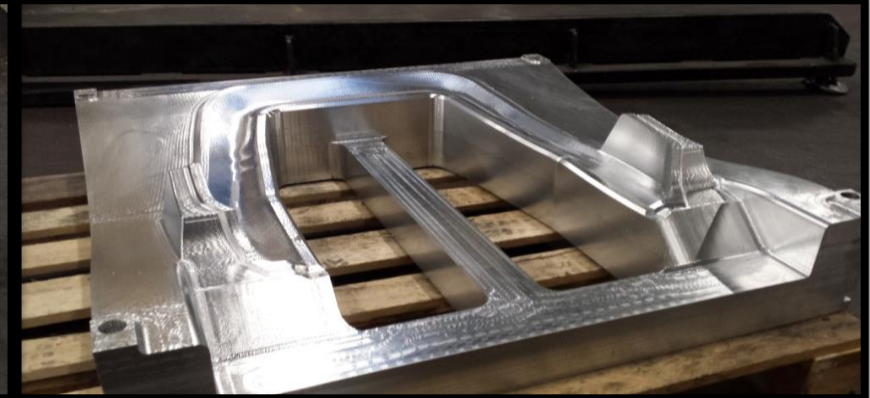
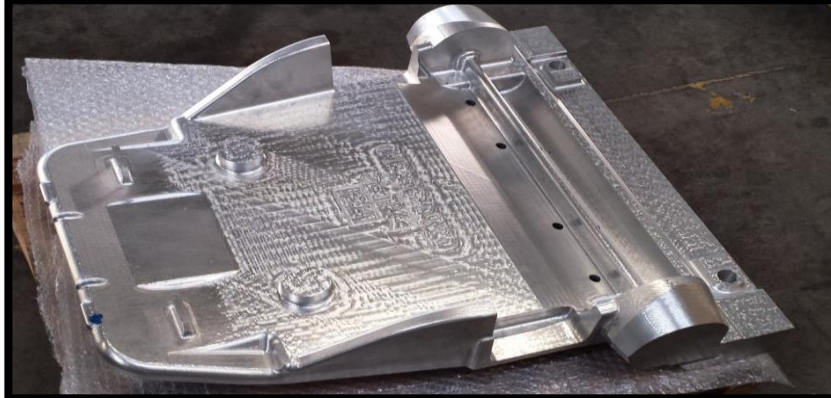
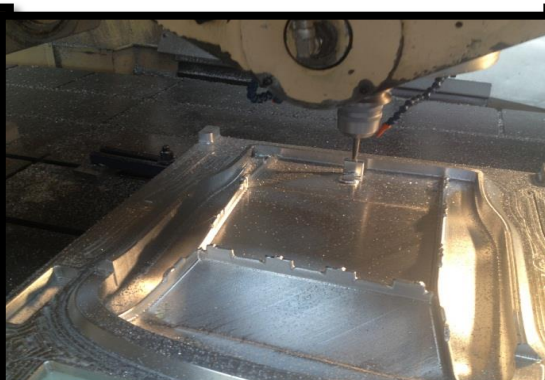
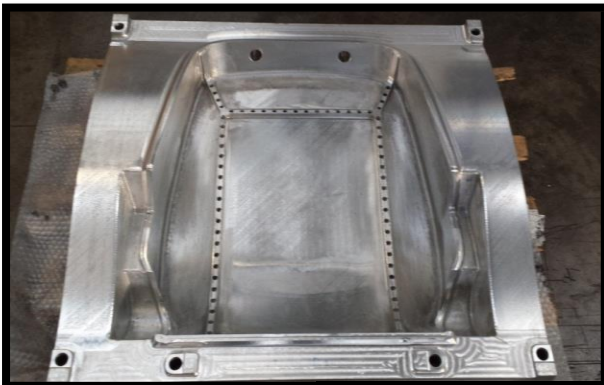
*... or its optimized
version ... 985 g*



... to its copy ... 1095 g



And more...



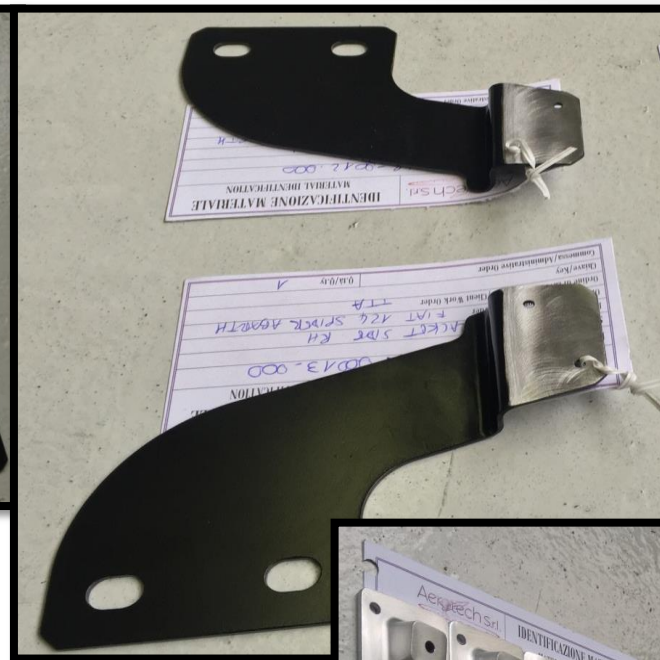


IVECO DAILY



PANDA CROSS

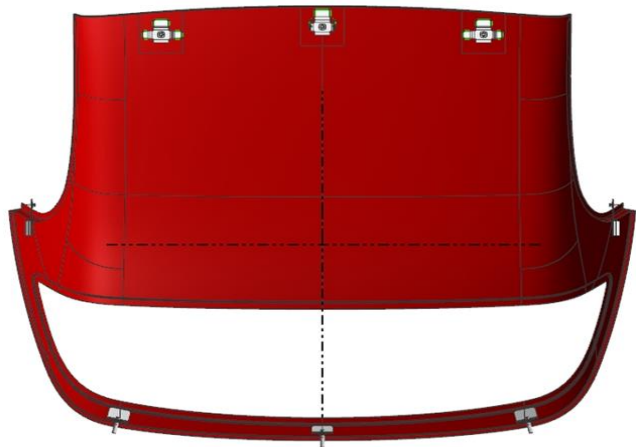




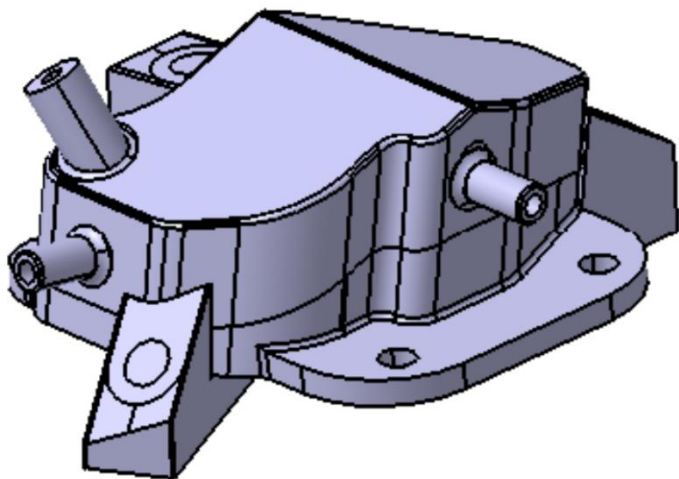
ABARTH 124 SPIDER



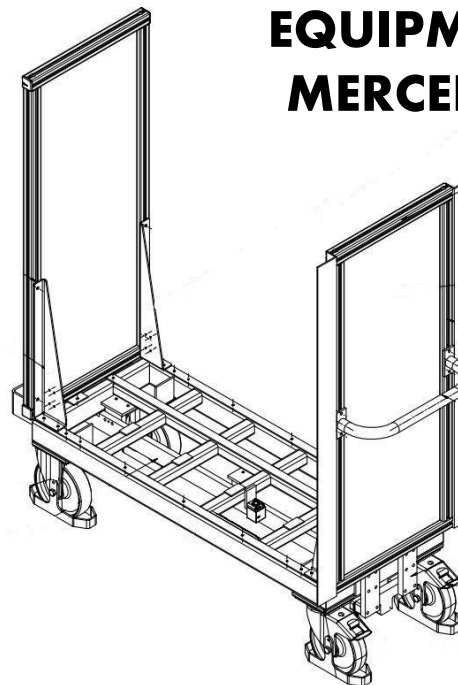
ABARTH 124 RALLY



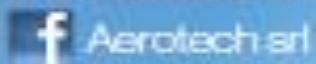
FERRARI



EQUIPMENTS FOR MERCEDES-BENZ



Aerotech S.r.l. - Unipersonale
Corso Novara, 29
10078 Venaria Reale (TO) Italy
Tel. +39 011.19.66.29.00
Fax. +39 011.19.66.29.01
info@aerotechsrl.com
www.aerotechsrl.com



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