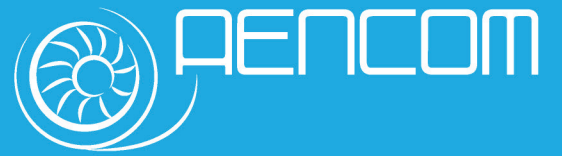


The Cluster

UNITED WE STAND





The Cluster

AENCOM is a **cluster of Italian companies** working together towards a single objective: provide fully integrated solutions for **AEro-ENGINE COMPONENTS**, sub-assemblies and equipments. Thanks to our skilled chain, we can find the easiest and fastest solution to satisfy your requests.

Capable as a BIG
Competitive as an SME



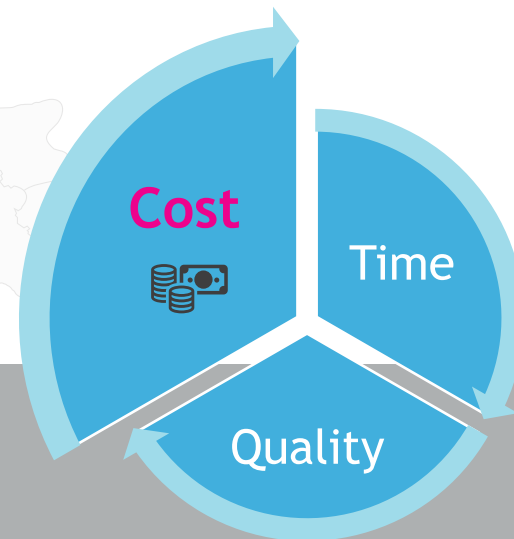
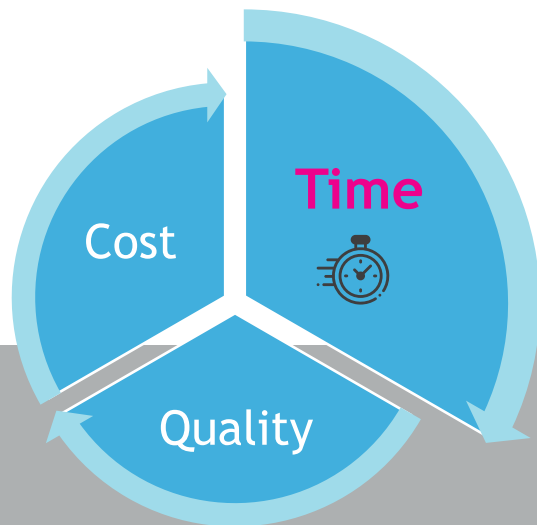


Why choose the Cluster

Fast reaction
capacity Scalable
Territoriality Short
supply chain

EN 9100 Quality
SystemCustomer qualified
processesNADCAP qualified
processesCluster members
qualified by P&W

Vertical solutionWide
range of serviceSpecific
knowledge in thepropulsion
supply chain





How the team works

The basis of the work is a turn-key approach with a clear governance: a **Cluster Network Agreement** signed by all partners within the project **Torino Piemonte Aerospace - Italy**.

The Cluster Leader, in accord with the Customer, assigns a Main Contractor to each project and distributes tasks to the partners involved, performing Project Management, Capability and Capacity Assessments, Risk Management, Planning and LOBs up to the FAI and delivery to the Customer.

By applying a detailed Capability Matrix, AENCOM gives Customers full visibility on the execution of each task.

EASY, LEAN, SMART



Our Numbers



16 Involved Partners



1250 Total Employees



250M€ Total Turnover





Our Capabilities

- **Innovative design:** Design for Additive Manufacturing | Multi-Disciplinary Optimization
- **Concurrent Product Development**
- **Industrialization:** Assembly in clean room class 100K - ISO 8 | Certification of Process | Certification of Conformity (CoC)
- **Wide range of manufacturing process:** NADCAP Near-Net-Shape Hot/Warm Forging and Rolling (production process designed around the desired material fiber disposition) | Full Machining capabilities | NADCAP massive Heat-Treatment process (low and high-alloy steels, nickel alloys) | Sheet Metal Cutting and Fabrication | Forming | Manual Surface Finishing | Welding and Brazing | Composites Manufacturing
- **Non-destructive Inspection and Testing:** 3 Ct scan from 300 to 450 kv for components until 0.5 mt diameter to 1.0 high in a metrology room EN 9100 certified
- **Special Process**
- **Kitting**
- **Assembly**
- **Technical Painting**
- **Testing and Qualification**



Our Products

- **Turbine components and sub-assy:** Blades, Vanes, Casing, Rings | Brackets, Links, Mounts | Composite Fans and Structures | Strainer Assemblies, Pressure Tubes, Mixer Ring Assemblies, De-Oiler Assemblies, Baffles, Heat Shields
- **Rotating parts:** Centrifugal Impellers, Integrally-bladed Rotor Parts, Disks/Rotors
- **Gearboxes components and sub-assy:** Housing, High-precision Gears, Spur Gears, Double Helical (with ground profile), Ring Gears | Worm Shafts and Worm Gears, Couplings and Frontal Inserts | Gleason Straight, Spiral and Zerol Bevel Gears | Splined Shafts (Internal - External), Freewheels, Cams | Multiplier and Transmission Units, Milled Racks, Ground Racks | Toothed Sectors, Frontal and Involute Tothing, Tothing with Swell and Profile Correction
- **Bearing components**
- **Manifolds**
- **Pumps**
- **Shrouds (machining, fabrication and brazing)**
- **Sheet metal components**
- **Broaches**
- **Electrical parts, electrical harnesses and electrical systems integration**
- **Special Gauges**
- **Heat Protection Systems**
- **Instruments and services for quality check laboratories and R&D departments**





Our Offer

- CAD (3D-2D)
- DESIGN FOR ADDITIVE
- CAE THERMO-MECHANICAL
- CAE THERMO-FLUID
- CAE ELECTRO-MAGNETIC
- MULTIBODY ANALYSES & NON-LINEAR ANALYSES

PRODUCT
DESIGN



BLUE ENGINEERING
SRSED
SISTEL

- MASSIVE HEAT TREATMENTS
- SURFACE HEAT TREATMENTS
- THIN FILM COATINGS
- TECHNICAL PAINTING
- HEAT RESISTANT PAINTING
- HOT / WARM FORGING & ROLLING

FERROUS
NON FERROUS
PROCESS



GRUPPO T.T.N.
MASSUCCO INDUSTRIE
MORELLO
TEMI

- CAM
- CMM PROGRAMMING
- TOOLING DESIGN
- GAUGE MANUFACTURING
- TOOLING MANUFACTURING
- IG MANUFACTURING
- ELECTRICAL HARNESSSES
- ASSEMBLY IN CLEAN ROOM

MANUFACTURING
ENGINEERING



LBM
MILLTECH
ALLINOX
ROSFER
SISTEL

- FORMING
- WELDING & BRAZING
- EDM
- HONING & GRINDING
- MACHINING
- SHEET METAL MANUF.
- MANUAL SURFACE FINISHING
- ELECTRICAL HARNESSSES

MANUFACTURING



COMUTENSILI
LICAT
MILLTECH
ALLINOX
TEMI
SISTEL

- LIQUID PENETRANT TESTING
- MAGNETIC PARTICLES TESTING
- RADIOGRAPHIC TESTING
- ULTRASONIC TESTING
- 3 CT SCAN

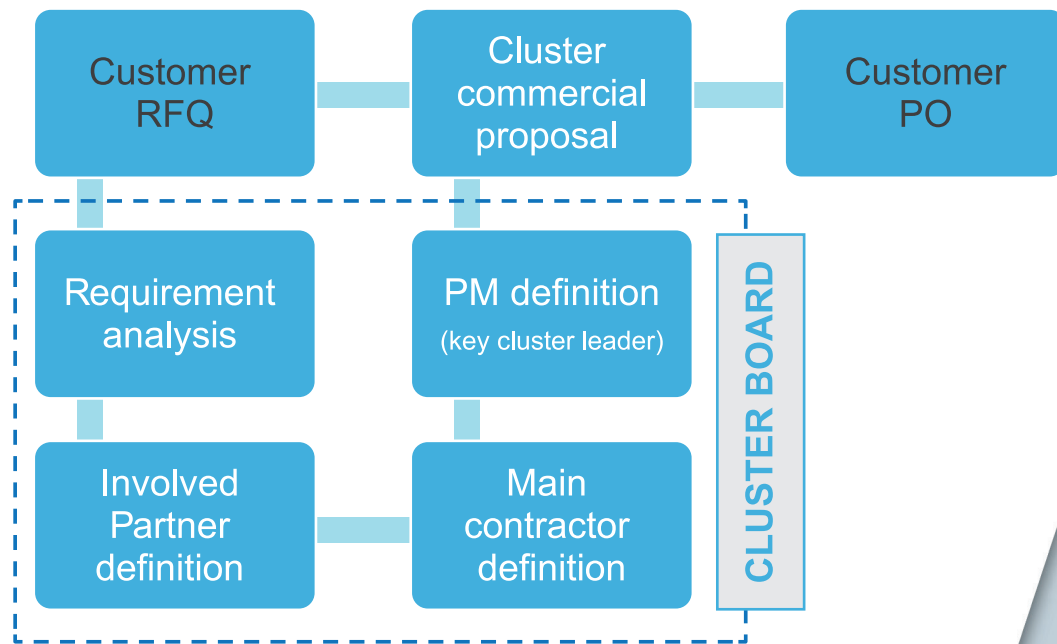
NDI



AERONDI
LABORMET 2



Our Process



VANES



BLADES



SHROUDS



Our Case Study - **Aerospace application** Low Pressure Turbine for CleanSky



-12% lead time from the customer estimation



90% in-house skills



150M€ costs compared to the standard supply chain management



Our Case Study - **Military application**

Swing and Elevation Gearbox for Tank



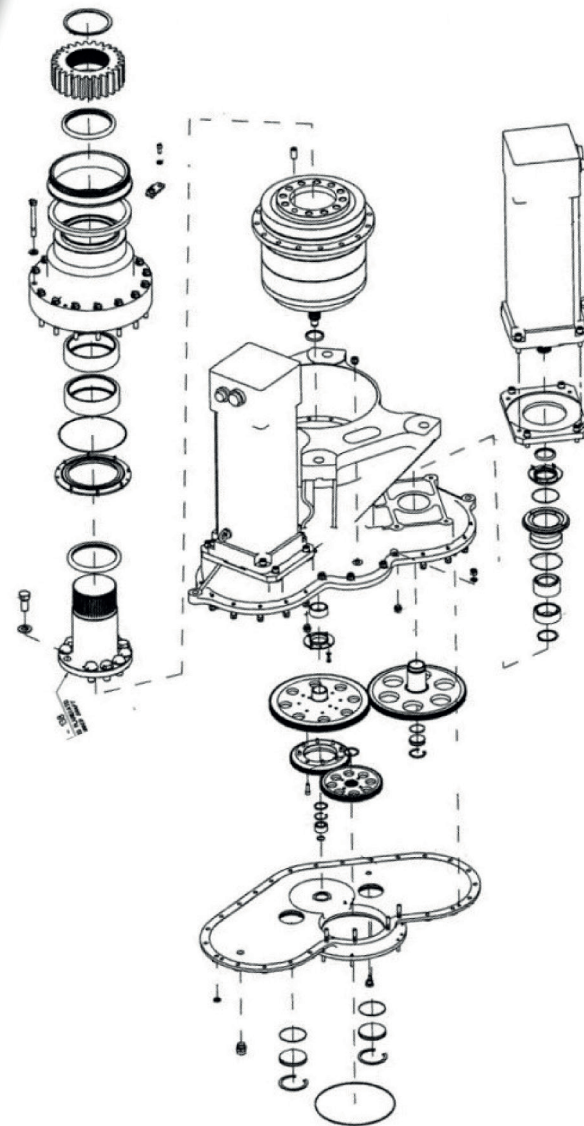
-20% lead time from the customer estimation



100% in-house skills



-15% costs compared to the standard supply chain management





CONTACT

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Thank you for your attention

In collaboration with

