

Metal Additive technology development in Ansaldo Energia for advanced design solution and energy transition driver

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ansaldo | energia

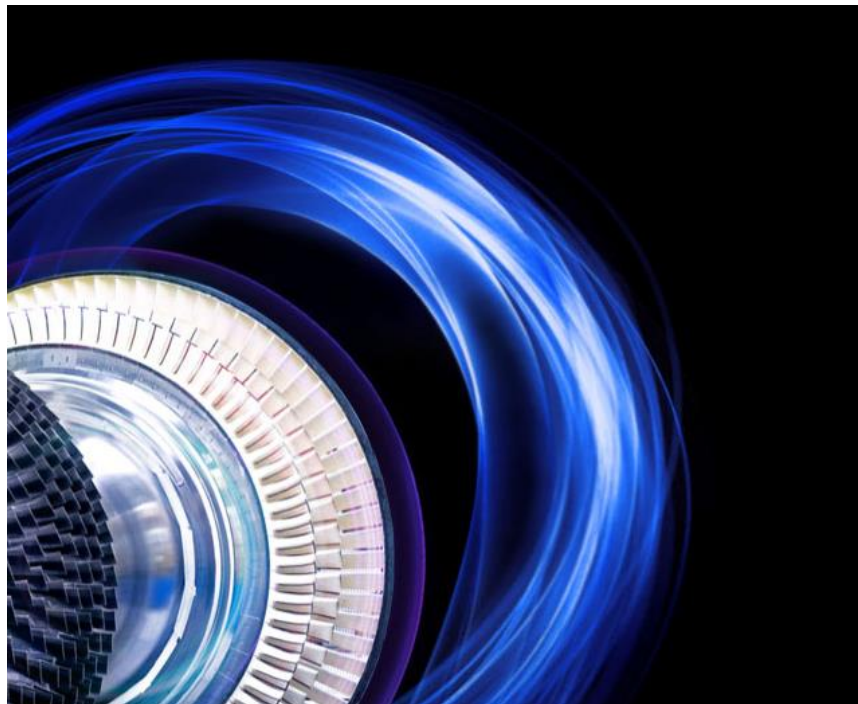


Museo Alfa Romeo, Arese, Italy | Sept 25-26, 2024

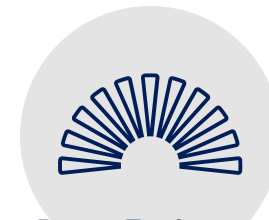
Ansaldo Energia in the World



Integrated Business Model for the Power Generation Industry



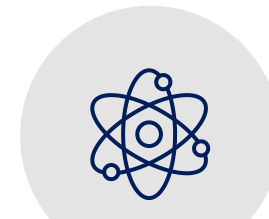
**Engineering, Procurement
& Construction**
Power Plants



Power Equipment
Gas & Steam Turbines
and Generators



Power Services
Multi-Platform Service Provider
with One-Stop Shop Solution

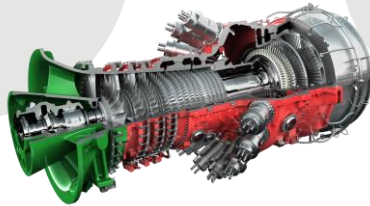


Nuclear
Fusion, Decommissioning,
Plants

Ansaldo Energia Core business and portfolio



**GT36
GT26**



**AE 94.3A
AE 94.2
AE 64.3A**



**Steam turbines
Generators
Hydrogenerators**

GT Full Service Product Portfolio



Spare Parts



**Repair Rotor
life extension**



**Engineering
and Field Service**



Upgrades



Training



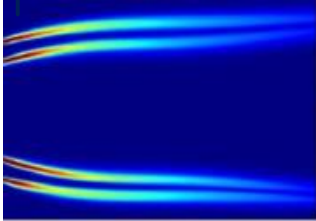
**Digital
solutions**



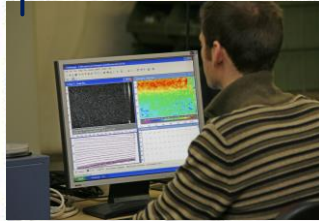
**Service
agreements**

Ansaldo Energia R&D mission

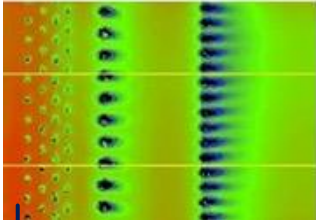
Advanced Combustion Technology



Materials



Digital Technology



Aero Heat Transfer Technology

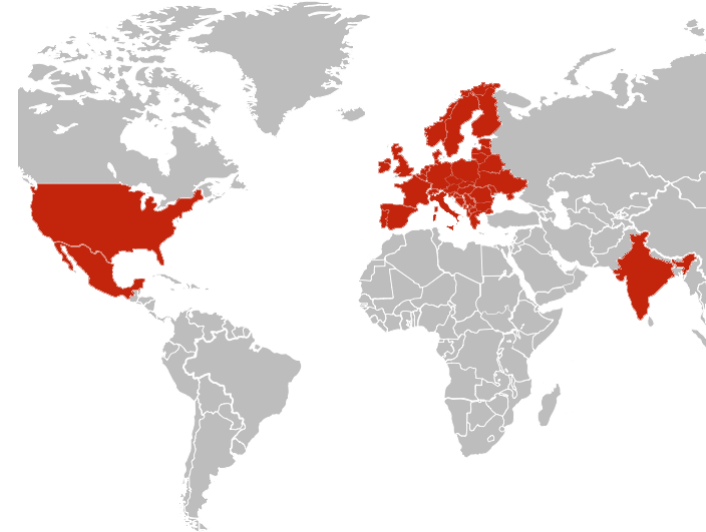


Additive Manufacturing

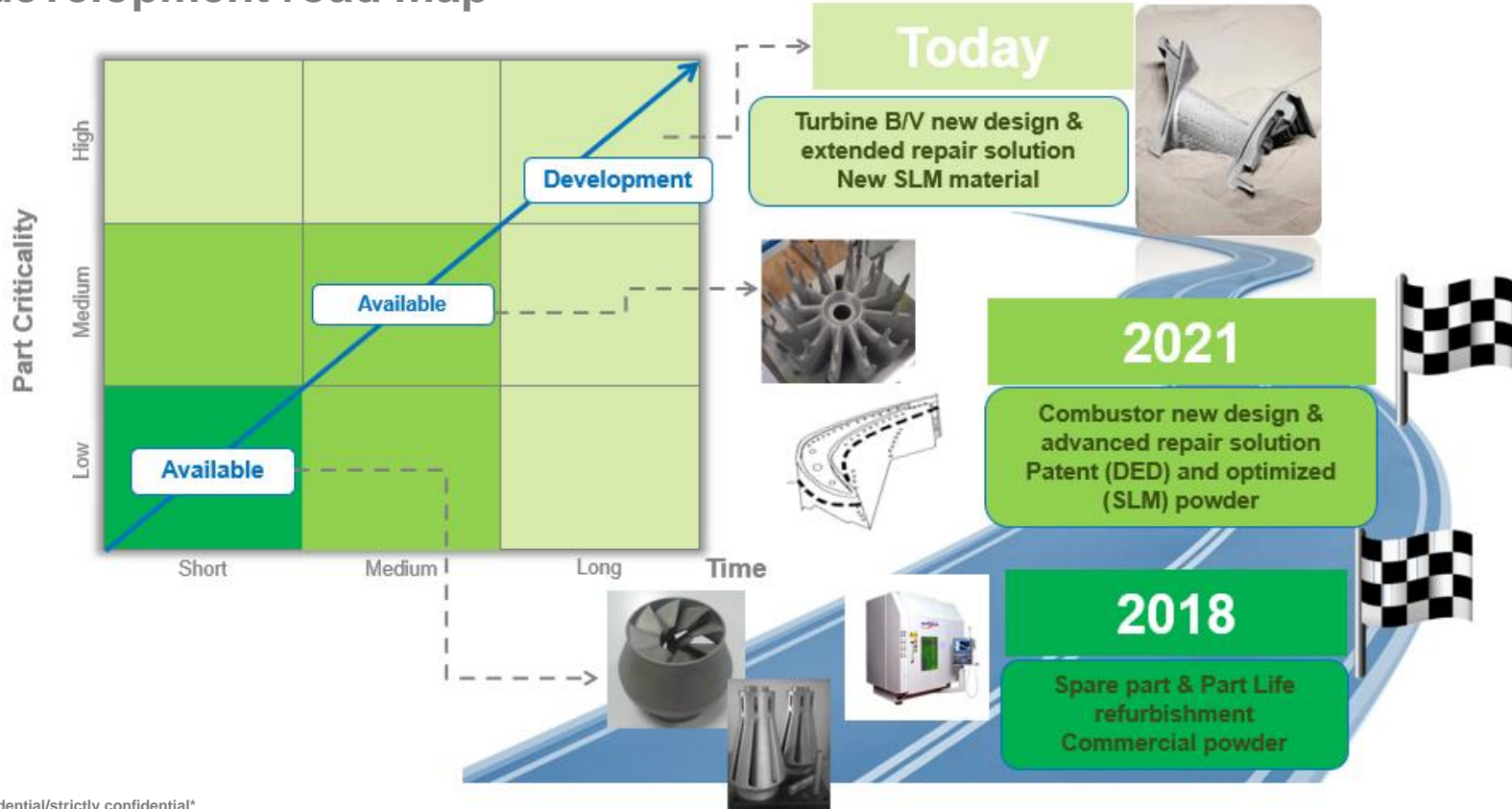


Maintenance plan improvement

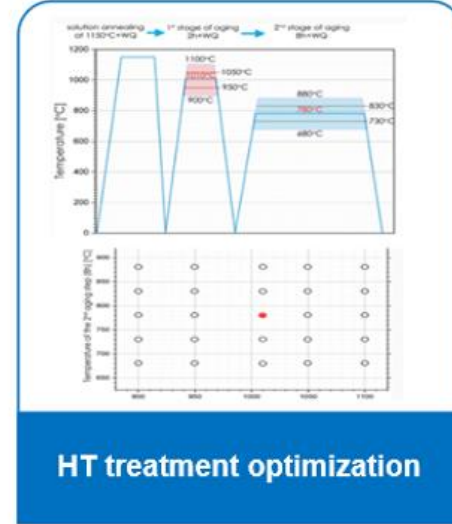
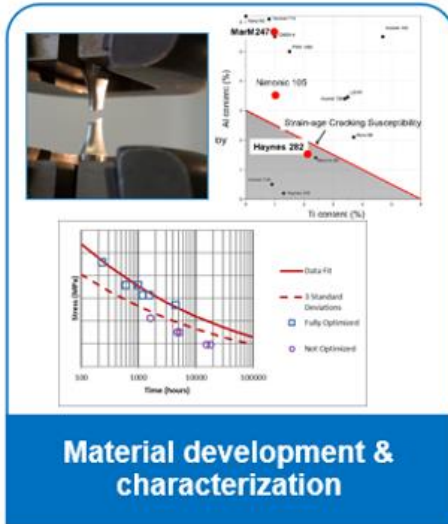
A worldwide cooperation network
 with Universities and Research Centers



AM development road map



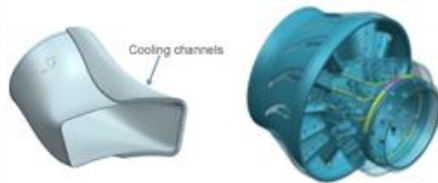
Additive Manufacturing: Material Development



SLM/DED material portfolio & process optimization and development

Additive manufacturing: components and applications

AEN strategy for SLM component and LMD application



- DESIGN LIMITS INCREASE
- LEAD TIME
- TIME TO MARKET
- SMART PARTS
- TOOLING COST
- ONE GO PRODUCTION

Components



- MANUFACTURING METHOD VALIDATION
- ENVIROMENTAL TEST
- POST PRINTING PROCESS OPTIMIZATION
- NDT IMPLETMENTATION

Fast prototyping



- ADVANCED SOLUTION
- STEP CHANGE IN REPAIR LIMITS
- FULL LIFE REFURBISHMENT

Repair

SLM serial production – GT36 sequential combustor advanced concept



GT36



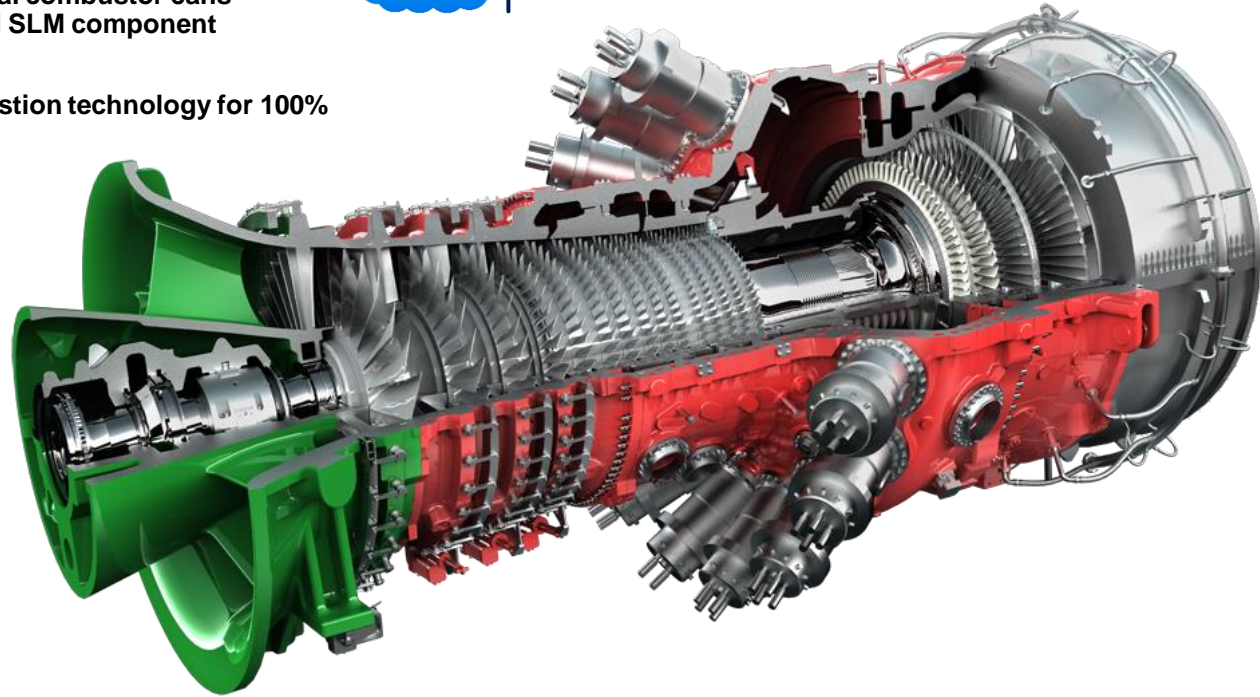
16 sequential combustor cans
9 integrated SLM component



New combustion technology for 100%
hydrogen



Contribution to Net Zero pathway



Thank you for attention

Ansaldo Energia Mission

Ansaldo Energia has always been committed to a sustainable and innovative power generation with the aim to ensure a lower environmental impact and a high flexibility in energy production.

