Roboze

# Re-shaping manufacturing

## Additive production with high performance materials

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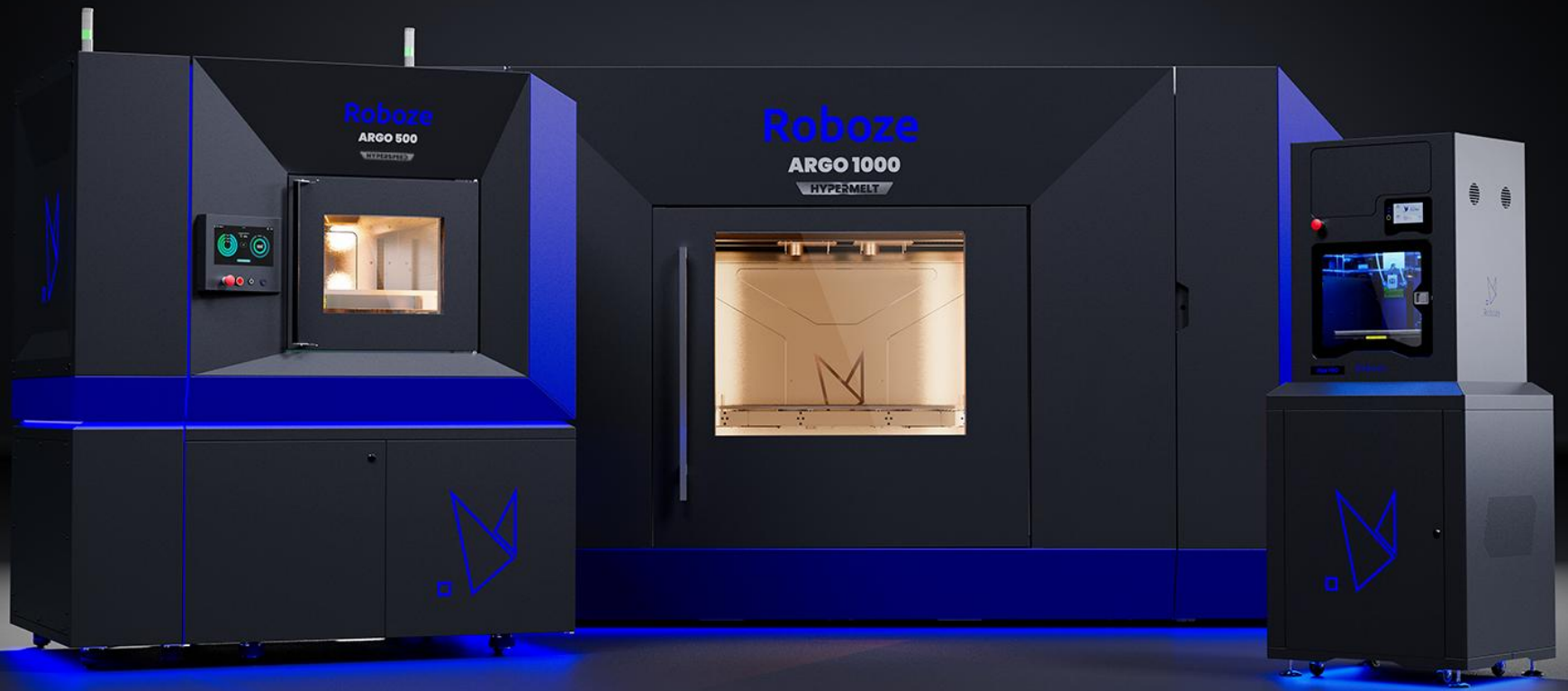


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# The Roboze Ecosystem

One holistic manufacturing environment that brings advanced materials to life



**Material Science**

Proprietary materials that are **lighter** and **cheaper** than metals but just as strong

**Hardware**

**Patented**, 3D printers; ultra-precise, fast, complex geometries, large volumes, scalable

**Software**

Software that ensures **process reliability, autonomy** and **continuous updates**

**Service**

Engineering services from **product redesigns** to **supply chain reconfigurations**

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# Roboze Technology & Services

Unlocking advanced material manufacturing with cutting-edge tech and expert support for every mission.

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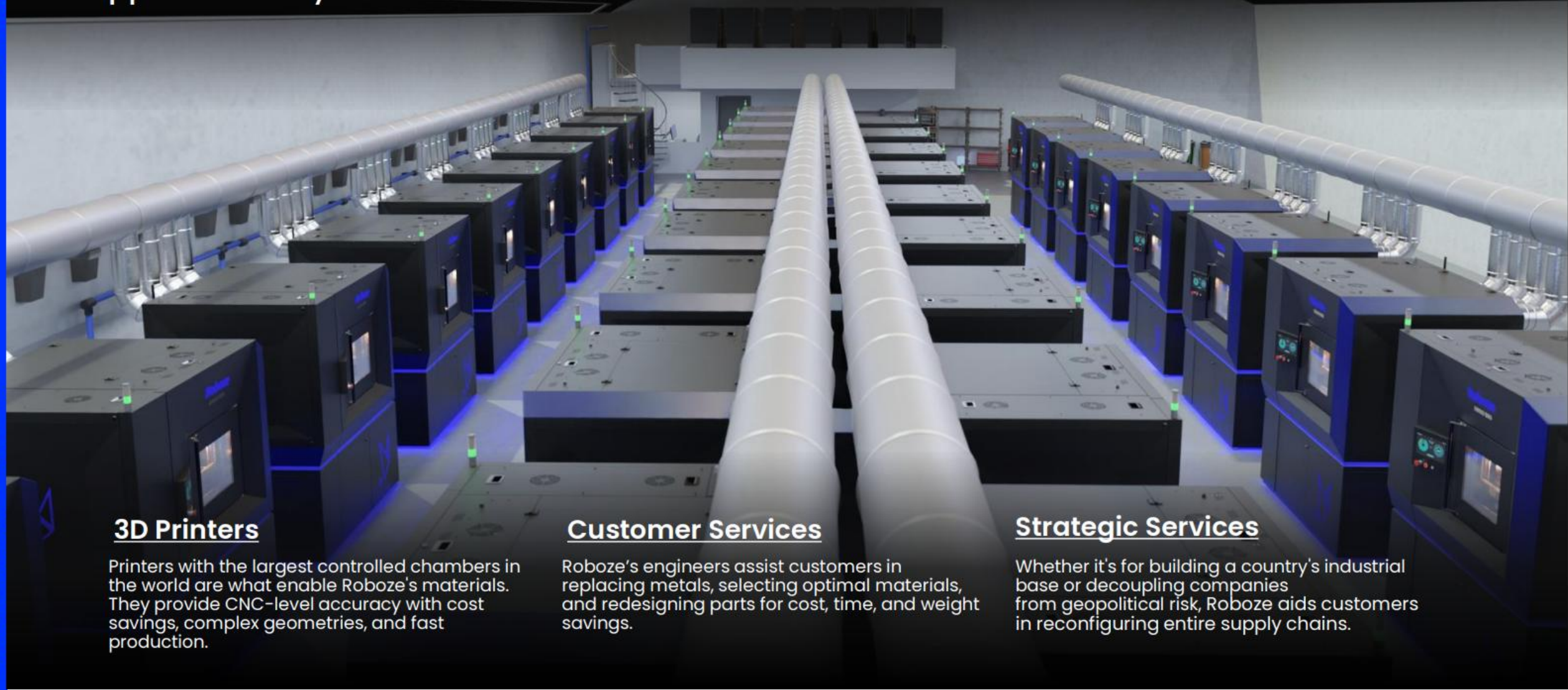

## 3D Printers

Printers with the largest controlled chambers in the world are what enable Roboze's materials. They provide CNC-level accuracy with cost savings, complex geometries, and fast production.

## Customer Services

Roboze's engineers assist customers in replacing metals, selecting optimal materials, and redesigning parts for cost, time, and weight savings.

## Strategic Services

Whether it's for building a country's industrial base or decoupling companies from geopolitical risk, Roboze aids customers in reconfiguring entire supply chains.

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# Benefits of Additive Manufacturing vs Traditional

- **Weight Reduction**
  Replacing heavy metals with super polymers and composites can reduce weight by 50%.
- **Leadtime Reduction**
  On Demand Additive Manufacturing can reduce substantially sourcing lead-times
- **Readiness Driver**
  The fastest technology to go from Design to Production increasing mission readiness

| Key Differentiation | Roboze | Metal CNC | Molded Polymers | Carbon Lamination |
|---|---|---|---|---|
| Cost | ✓ | ✗ | ✓ | ✗ |
| Lead Time | ✓ | ✗ | ✗ | ✗ |
| Weight | ✓ | ✗ | ✓ | ✓ |
| Strength | ✓ | ✓ | ✗ | ✓ |
| Parts Consolidation | ✓ | ✗ | ✗ | ✗ |
| Sustainability | ✓ | ✗ | ✗ | ✗ |
| Supply Chain Flexibility | ✓ | ✗ | ✗ | ✗ |
| Design Flexibility | ✓ | ✗ | ✗ | ✗ |
| Production Parts - Size | ✓ | ✓ | ✗ | ✗ |
| Small Run Size | ✓ | ✗ | ✗ | ✓ |

**Air Duct**
ULTEM™ AM9085F
Lightweight and strong
**50% lighter**
Enhanced efficiency

**UAV Rudder**
Carbon PA PRO
Customizable design
**-60% lead time**
Faster production

**Helicopter Intake Duct**
Carbon PEEK
Durable, lightweight
**30% cost reduction**
Improved reliability

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# Applications for different platforms

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## Air Systems

- Erosion shields on wings.
- Parts for cockpit.
- Supports for avionics.
- Environmental Control System parts.
- Protection elements for landing gear.
- Lightened EMI shielding.
- Fixtures for fuel control sensors

## Drones

- Drone Frames
- Propellers
- Sensor Housings
- Weapon Mounts
- Surveillance Equipment
- Payload Containers
- Structural Components
- Customized Airfoils
- Battery Casings

## Submarine and Naval

- Sonar Dome Housings
- Propeller Blades
- Torpedo Tube Components
- Comm. Equip. Casings
- Periscope Mounts
- Ballast Tank Valves
- Diving Mechanisms
- Airlock Seals
- Nav. System Enclosures

## Ground Systems

- Interior Cabin Parts
- Engine Mounts
- Communication Equipment
- Weapon Mounts
- Customized Vehicle Brackets
- Air Intake
- Liquid reservoires
- Tactical Vehicle Accessories

A Collaborative approach tailor-made for your needs

# Business Offering for Aerospace & Defense

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## Sustainment Programs development

1. **On-Demand Spare Parts**: Printing parts as needed, reducing inventory costs.
2. **Digital Inventory**: Storing part designs digitally for quick production.
3. **Reduced Lead Times**: Faster production of critical spare parts compared to traditional methods.
4. **Customization**: Tailoring spare parts for specific applications or upgrades.
5. **Minimized Obsolescence**: Extending the life of older equipment by printing discontinued or hard-to-find parts.
6. **Local Production**: Enabling decentralized, near-site manufacturing for quicker distribution and lower logistics costs.
7. **Material Flexibility**: Producing parts using high-performance materials that match or exceed original part specifications.

## Offset Programs

1. **Local Manufacturing Capabilities**: Establishing AM facilities in offset partner countries, enabling local production of parts and components.
2. **Technology Transfer**: Sharing AM knowledge, software, and techniques to enhance local capabilities.
3. **Job Creation**: Developing skilled labor in AM processes, boosting local employment.
4. **Supply Chain Diversification**: Reducing dependence on foreign parts by producing spares locally via AM.
5. **Joint R&D Projects**: Collaborating with offset countries on AM innovations and materials.
6. **Capacity Building**: Supporting long-term operational sustainability with AM technology through training and support programs.

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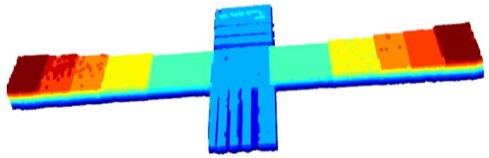
Roboze R&D Efforts

# Innovation Through Continuous Research & Development

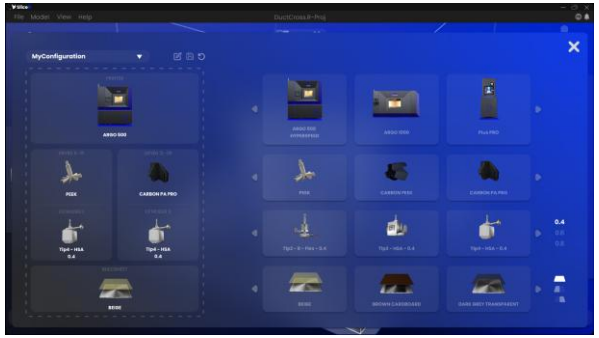

## New Technology Deployment

Roboze R&D is working on new technologies aiming to increase the strength and reduce the porosity of additively manufactured components



## Onboard Electro-Optical Inspection System

Electro-optical camera enabling real-time inspection and digital reconstruction of the build **accelerating parts certification** and **reducing inspection time.**



## AI Trained Manufacturing Parameters Software

Setting up 3D printing for mission critical components is time-consuming and needs skilled labor. Roboze's AI software simplifies this, making machine **setup quick and scalable.**

## Advanced Materials Formulations

Formulations for specific needs include advanced thermo- and electro-conductive materials, as well as STEALTH materials.

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# BARI, IT

## HEADQUARTERS EMEA

Via Vincenzo Aulisio 31/33
70124 Bari-Italy

(+39) 080 505 7559

# HOUSTON, US

## HEADQUARTERS US

7934 Breen Drive
77064 Houston, TX, Stati Uniti

(+1) 346 229 5675

# MILANO, IT

## CUSTOMER DEVELOPMENT CENTER

Via Polidoro da Caravaggio, 30
20156 Milano, Italia

Roboze