



Industrial 3D Printing Solutions and Services



is a healthcare company committed to providing Patient Specific Services, Orthopedic Implants and Bioprinting using Additive Manufacturing Technology

Is using it's experience on Metal Additive Manufacturing, 3D Medical Modeling, Patient Specific Design and Industrial AM Applications to develop new products

has high skilled Management and technical team who have global business experience, network and ability to manage multi-disciplinary projects and to navigate complex challenges



Dental



Medikal



Endüstriyel



Odyoloji

– Endüstriyel 3D Printing ve Mühendislik çözümleri –



FIRST PATENT

- Scoliosis Surgery
- GE Healthcare Innovation Award
- METU YFYI Award
- BTech Trademark
- AKUT 3 Global Case
- CNN, BBC, Reuters

CERTIFICATIONS

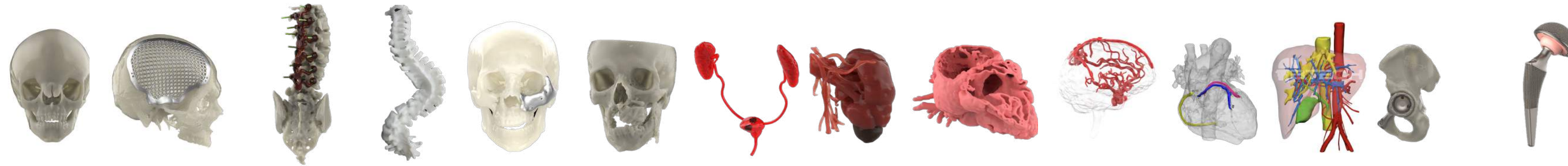
- Urology Surgery
- Tumor Surgery
- ISO 13485
- Horizon Project (Erasmus Plus)
- Materialise Certified Training Centre

GROWTH

- Organ Transplantation
- Orthopaedic Surgery
- Cardiovascular Surgery
- Metal AM Researches
- Lattice Structures
- CEO - Fortune 40 Under 40
- Horizon FP7 (Seal of Excellence)
- PREMURSA (Marie-Curie)

FUTURE

- Additive Manufactured Orthopedic Implants
- BioPrinting
- Personalized Regenerative Medicine



2014

2015

2016

2017

2018

2019

2020

FUTURE

START

- Company Founded
- Craniofacial Surgery
- Seed Investment

NEW APPLICATIONS

- Oral-Maxillofacial Surgery
- Teknojump
- Discovery Channel Documentary

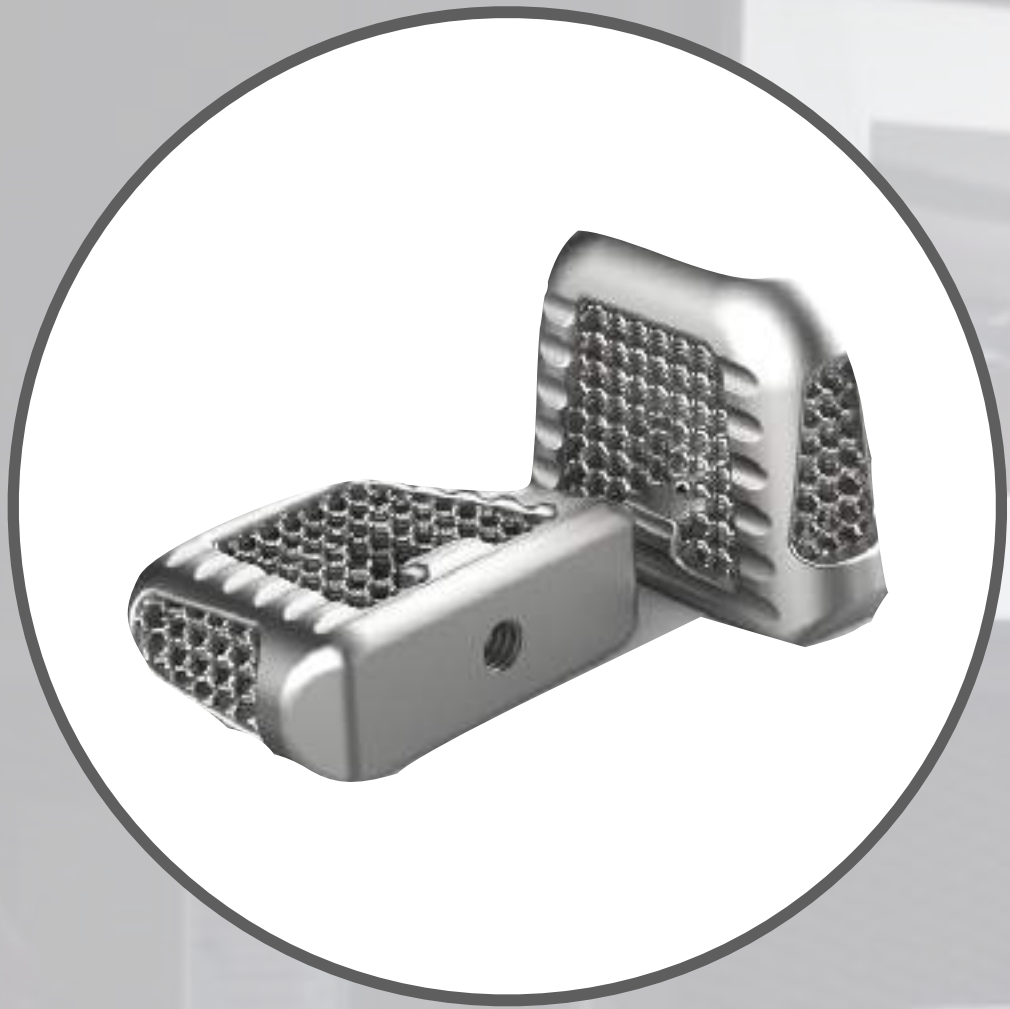
NEW OFFICE

- Neurosurgery
- Pediatric Cardiology
- Patent for Skololiosis Surgery
- New office at METU Teknopark
- ISO 9001

TraBTech

- CE Certification (On Progress)
- Metal AM Centre
- Polymer Material Researches

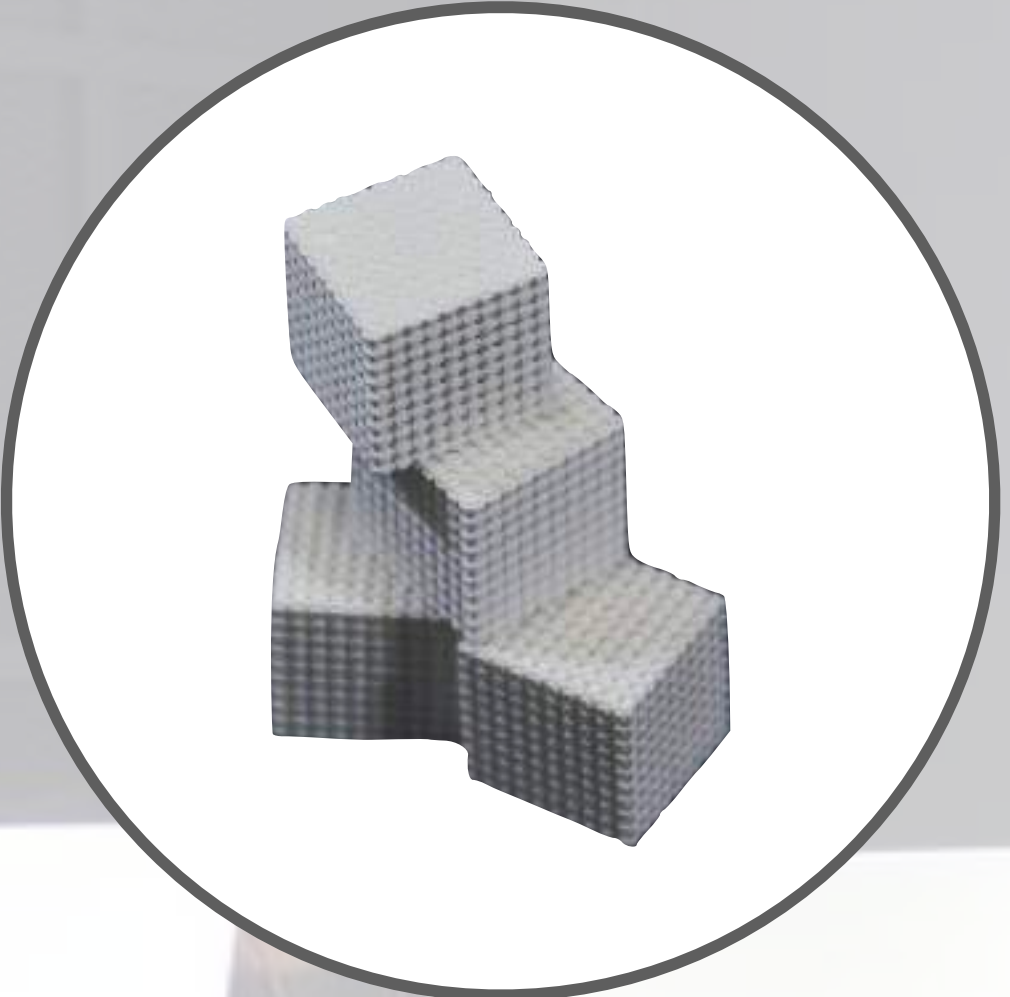
Additively Manufactured Implants



Aviation/Space Applications



Material Development



Medical Device Development





ISO 9001



ISO 13485



Certified Training Centre



**TraBTech
(On Progress)**




Future



CERTIFICATIONS

Formlabs
Desktop 3D Printer



Prodways
Industrial 3D Printer



Sisma
Metal Laser Sintering



Materialise
3D Modelling Software



Apium
PEEK 3D Printer



FARO
3D Scanner



NEWS

Technology

Injured sea turtle gets 3D printed jaw

18 May 2015

f WhatsApp Twitter Email Share



A 3D-printed beak has been fitted to a sea turtle injured by a collision with a boat's propeller.

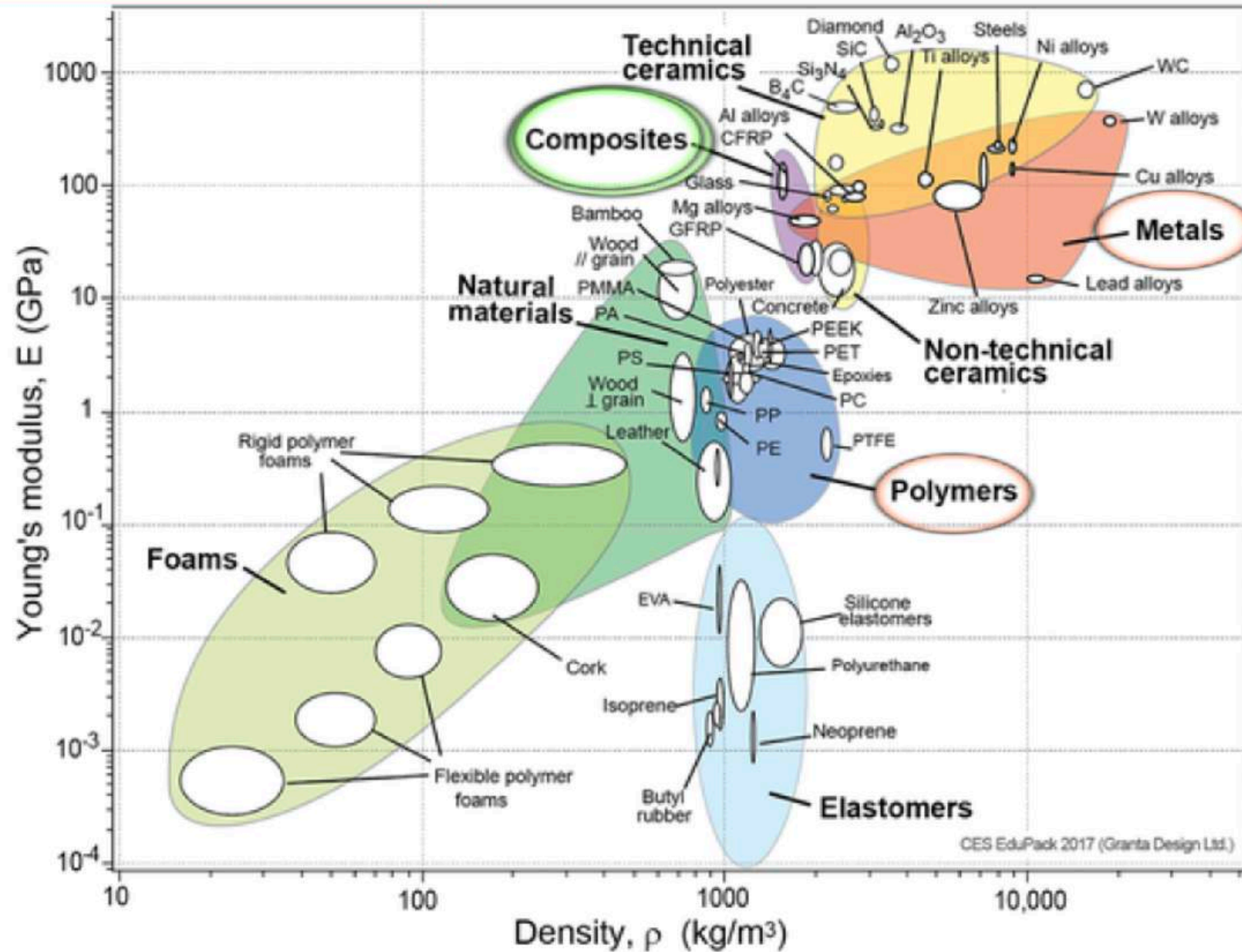
The beak, made of medical-grade titanium, replaces the loggerhead turtle's jaws, half of which were sheared off in the accident.



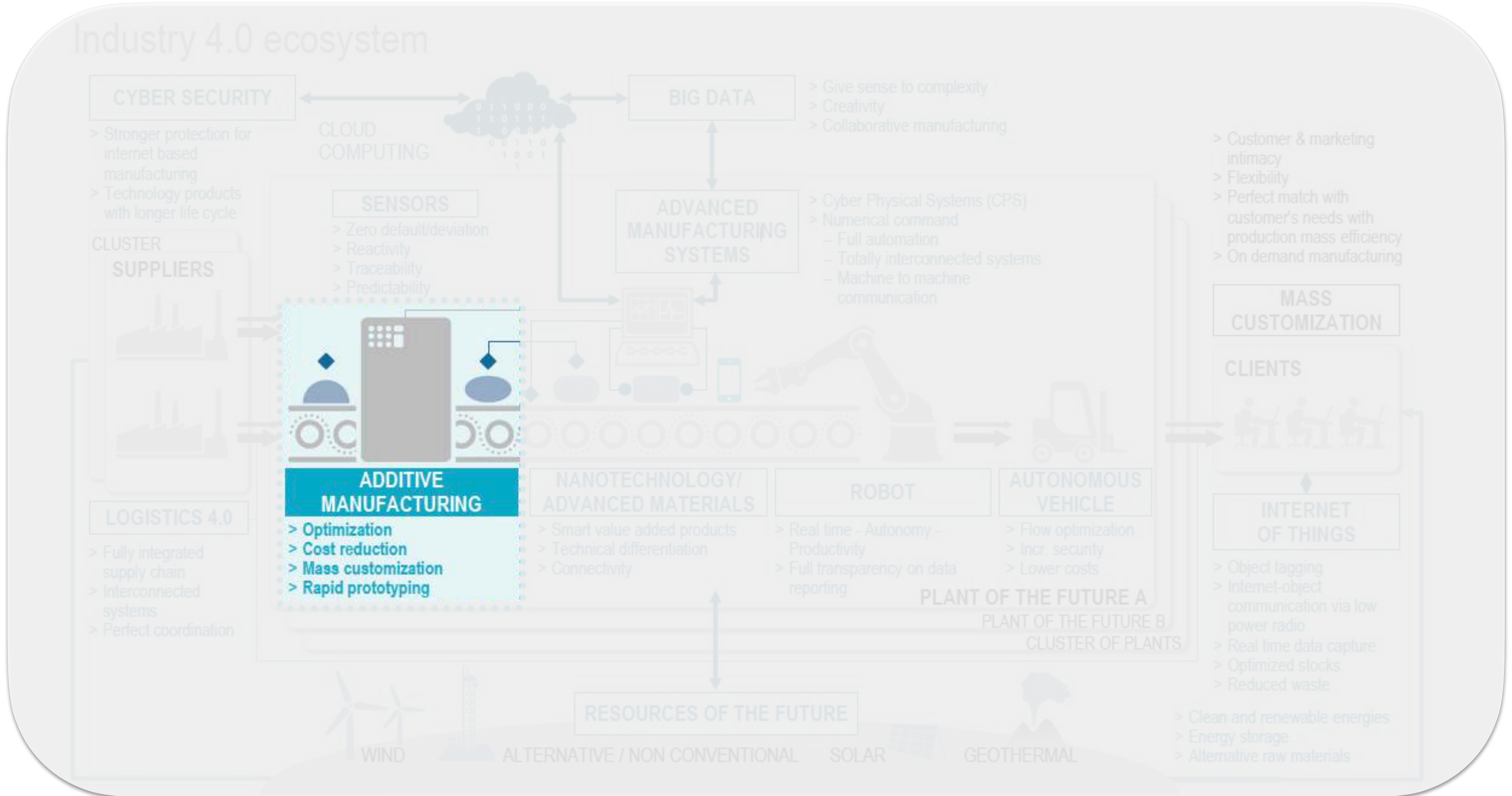
ADDITIVE MANUFACTURING TECHNOLOGIES



Material Landscape:

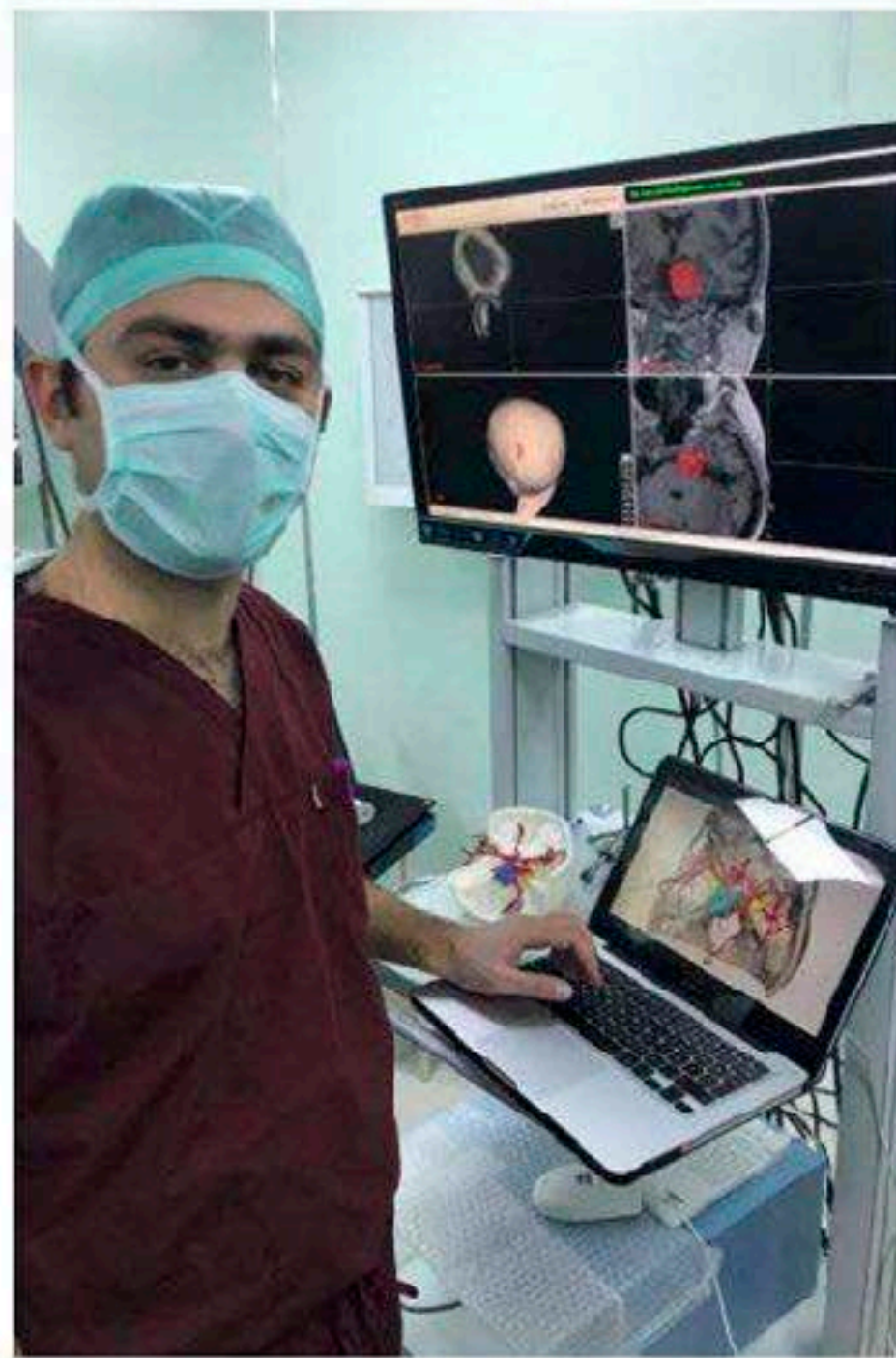
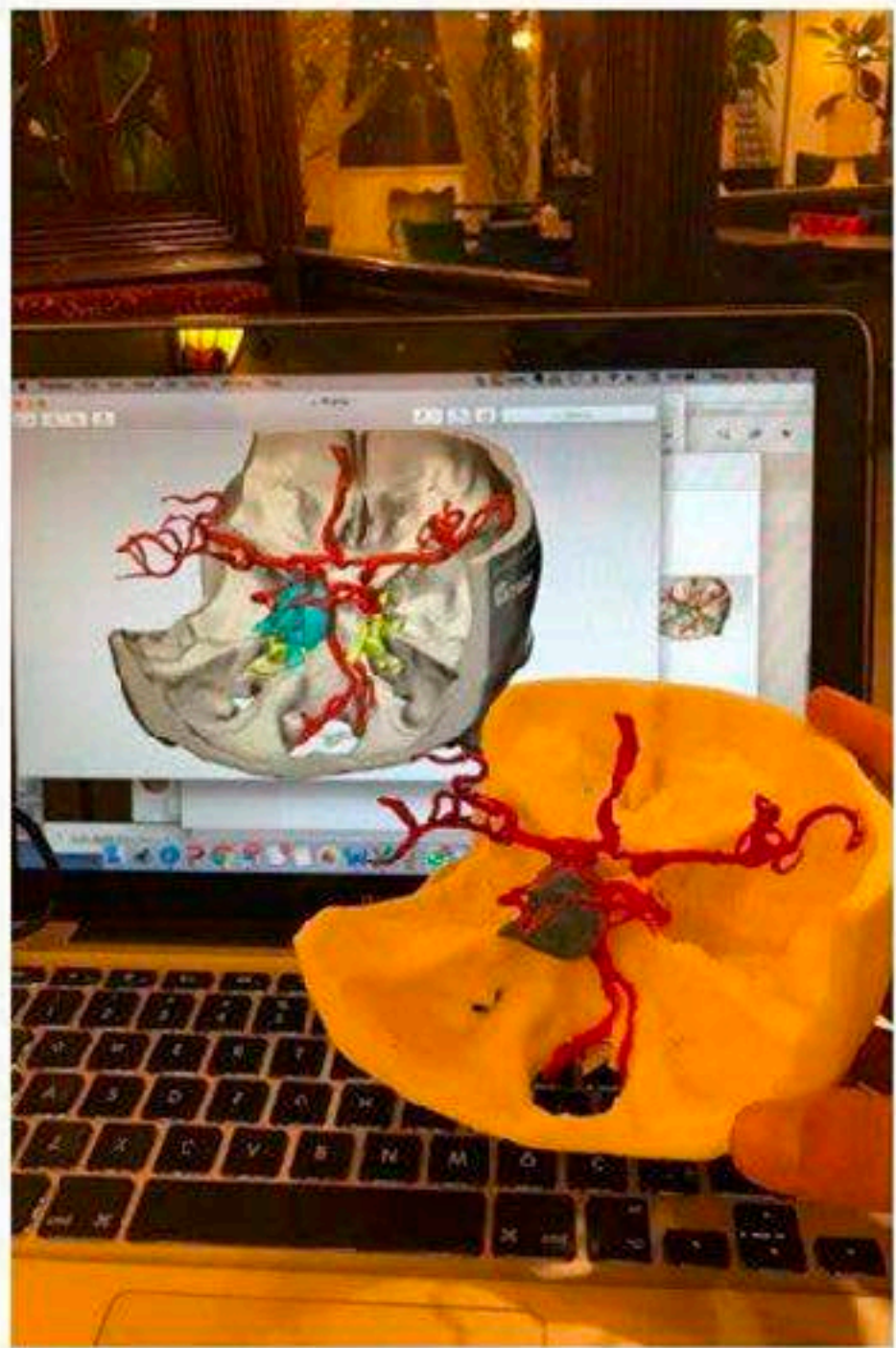
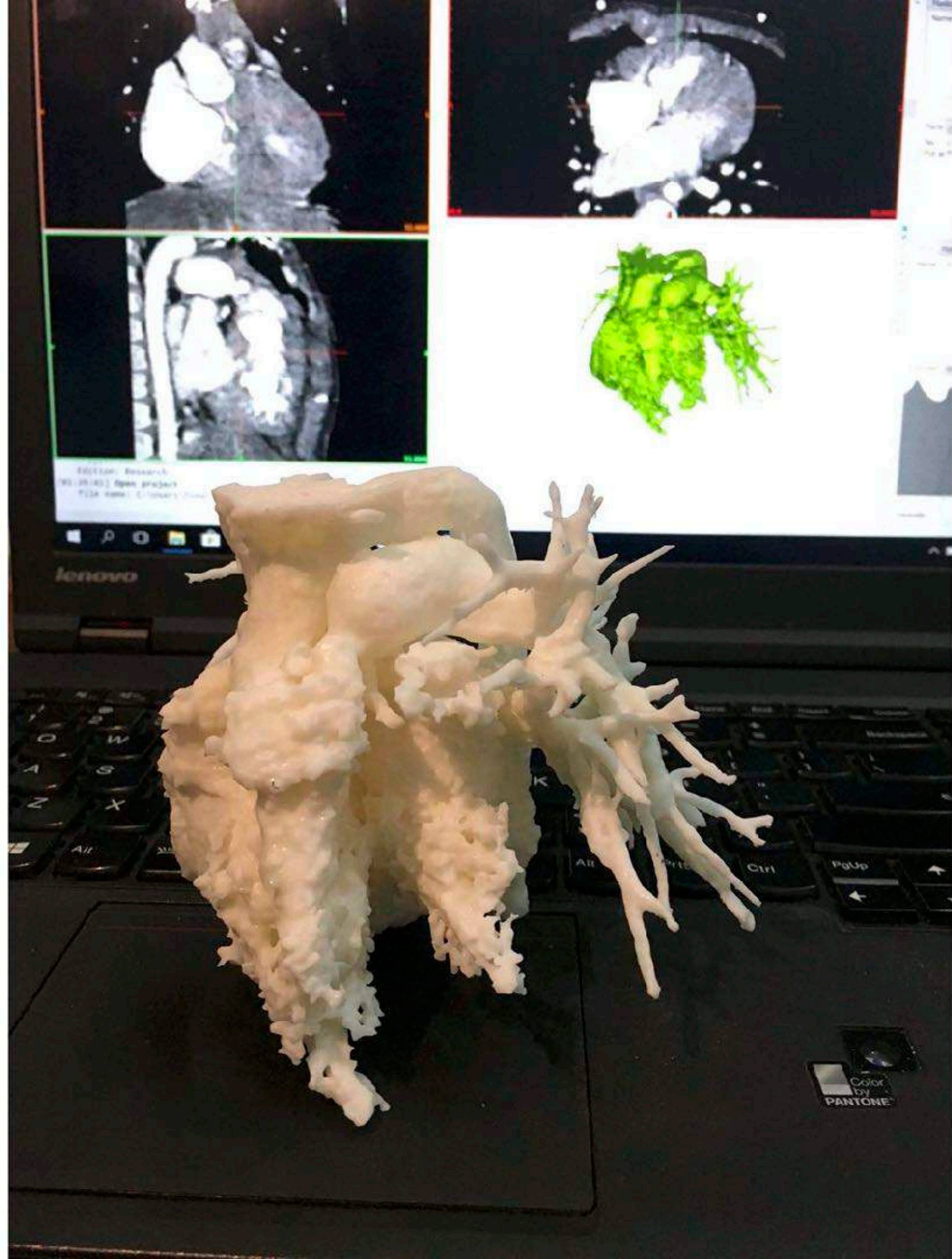
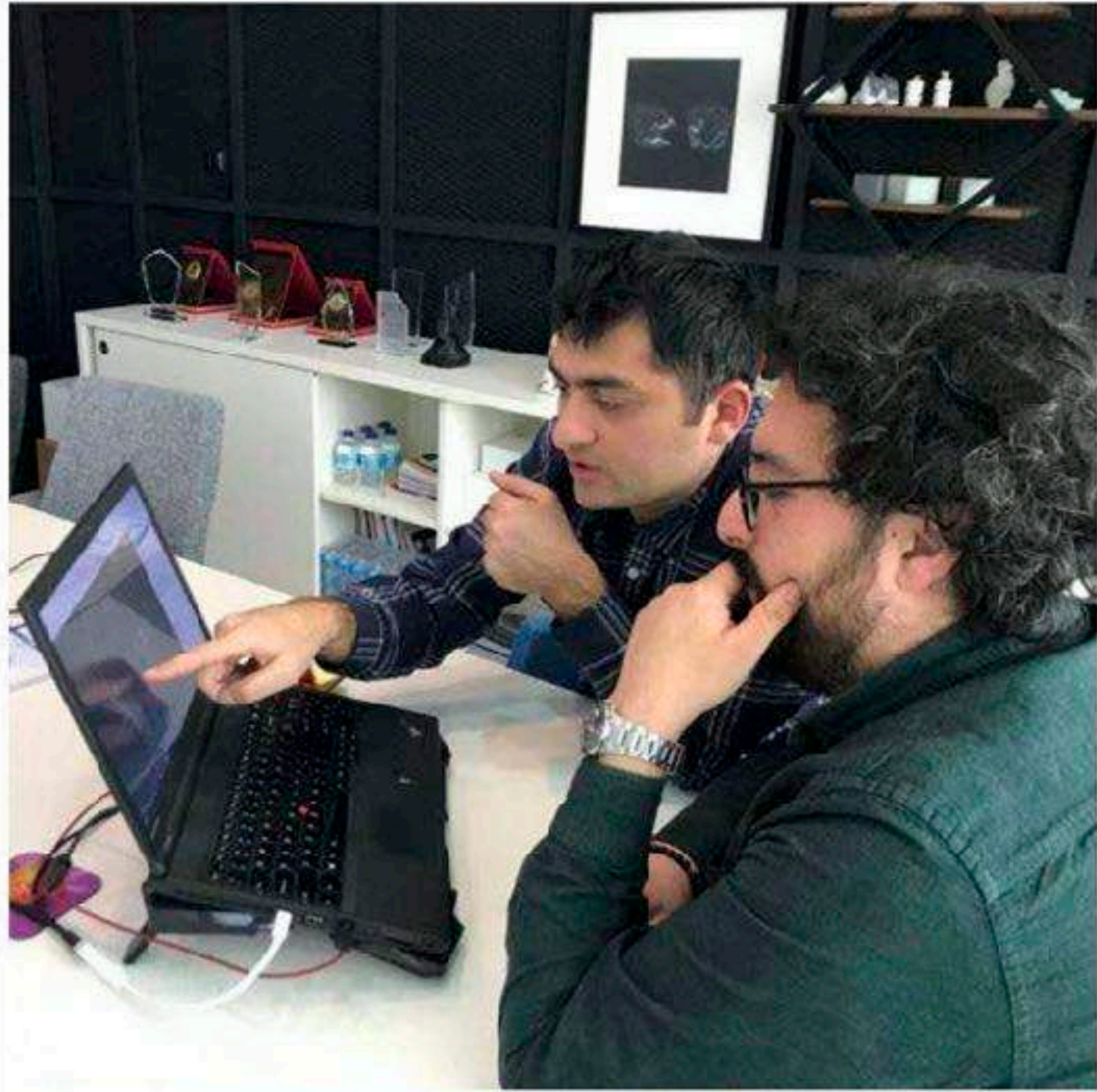


Endüstri 4.0











Customics Model



Customics CVS



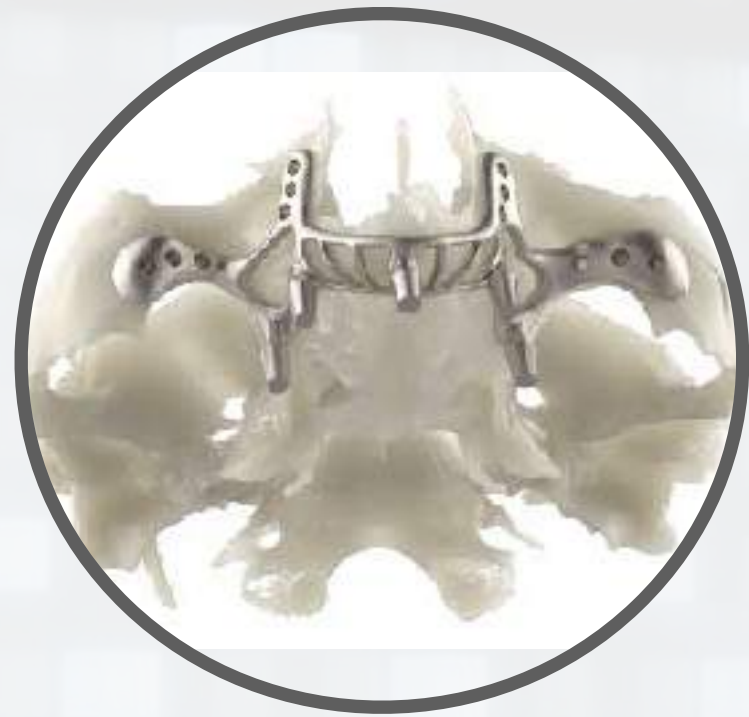
Customics Guide



Smart Spine



Customics Osteotomy



Customics SPI



Customics TMJ



Customics CMF



Customics Ortho



TraBtech



Titanium



PEEK



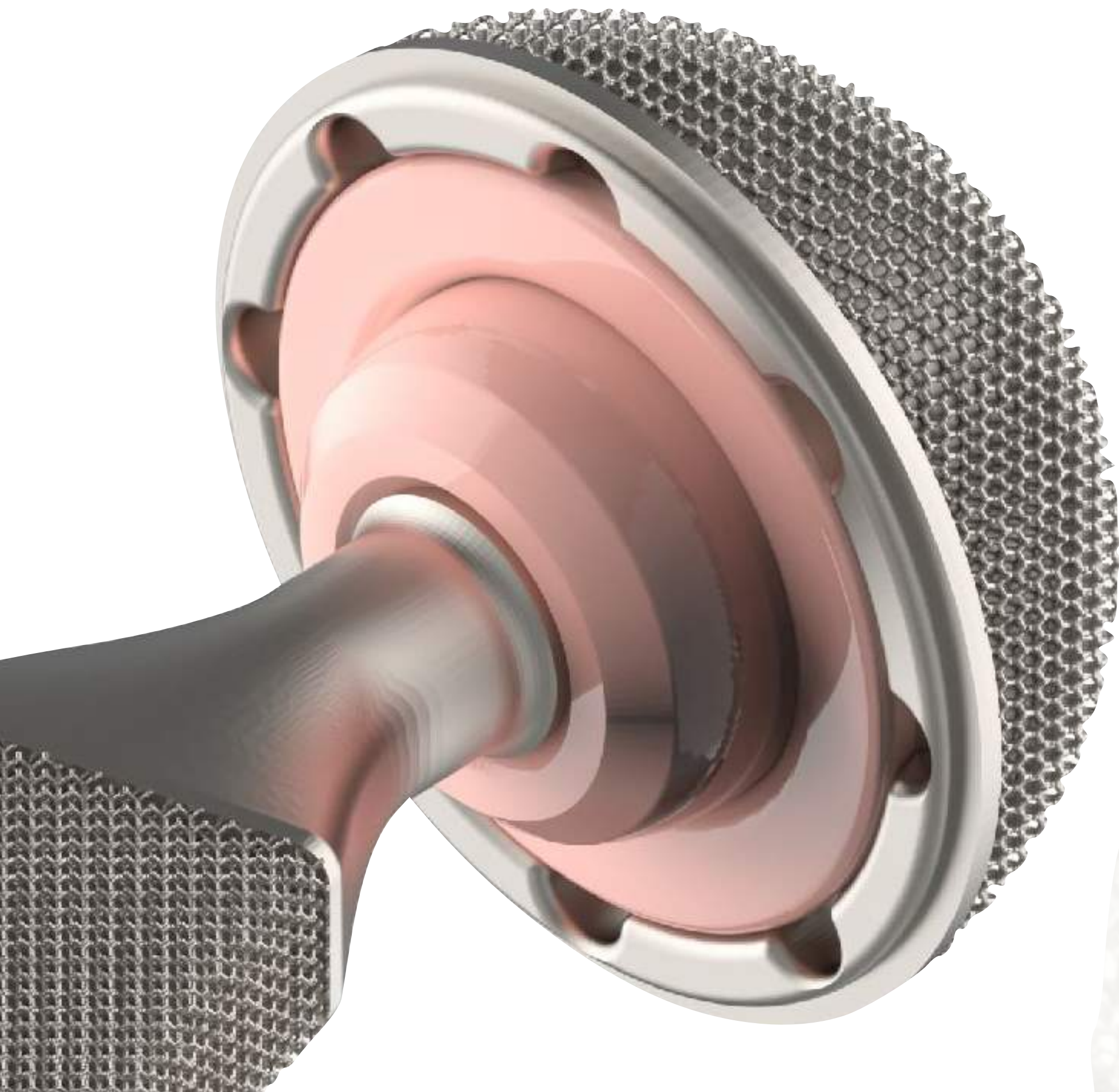
CoCr

Btech delivers patient specific implants for Ortho, CMF, Dentistry made of Titanium, PEEK and CoCr



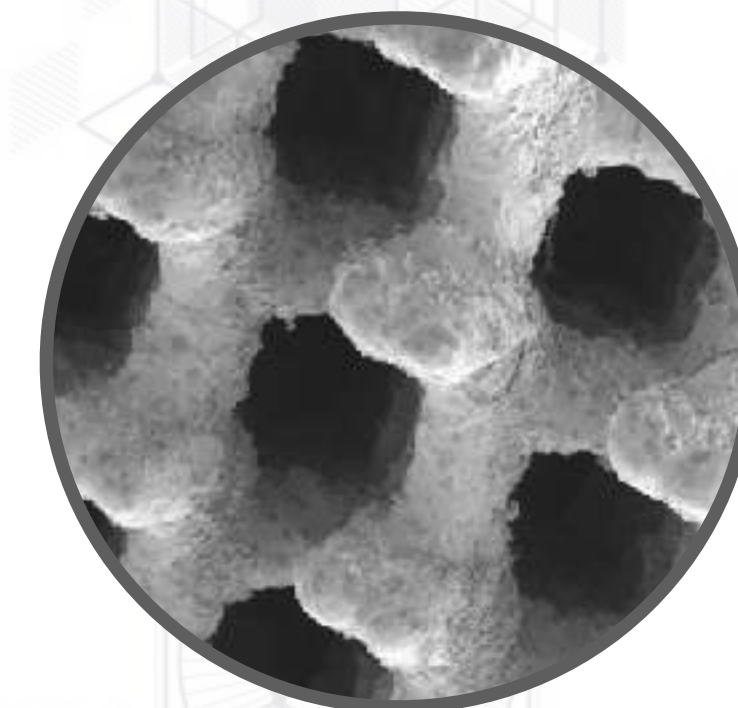
Additively Manufactured Hip Cup

CE 2020 Q3



- **Almost 10 years Experience Know-How on Medical 3D Printing and Metal Additive and Manufacturing Technologies**
- **A new generation hip prosthesis suitable for a wide patient profile**
- **Not a coating - Uniform Interconnected Pores**
- **Optimized 3D Structured and highly porous surface to enhance cell migration and vascularization**
- **Titanium Alloy (Ti6Al4V)**
- **Micro and Nano- Roughness**
- **Pore size about 300-400 microns**
- **High Elastic Modulus**
- **Better primer and seconder fixation compared to traditional implants**
- **Less risk of loosening**

- **Highly Complicated Manufacturing Process**
- **New Design Rules based on Metal AM**
- **A lot of unknown (Black Art)**
- **Microstructure and Mechanical Properties**
- **Characterization of Lattice Structures**
- **Validation, Verifications and regulatory complexity**
- **Requires a lot of optimization**









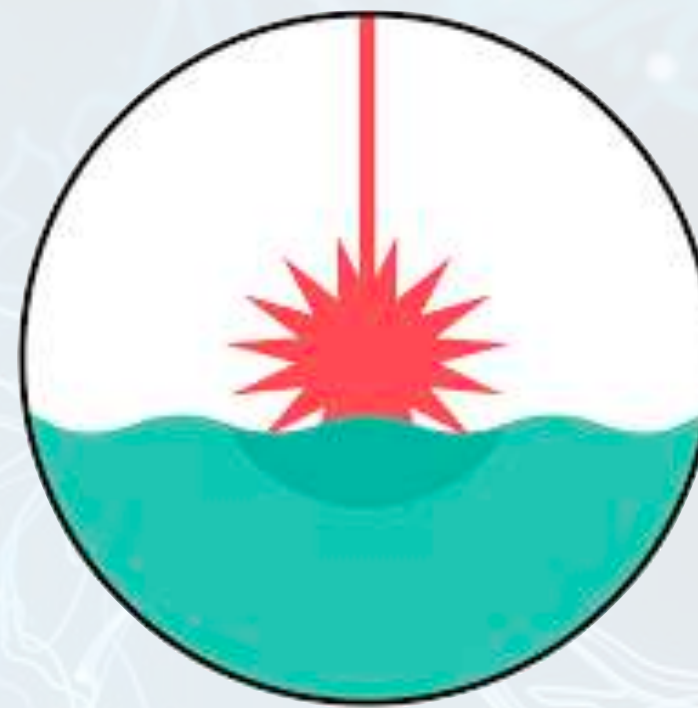
ROBODENT
Digital Dentistry Services



Digital Dentistry Design Services



Material Development



Digital Manufacturing (Laser Sintering)

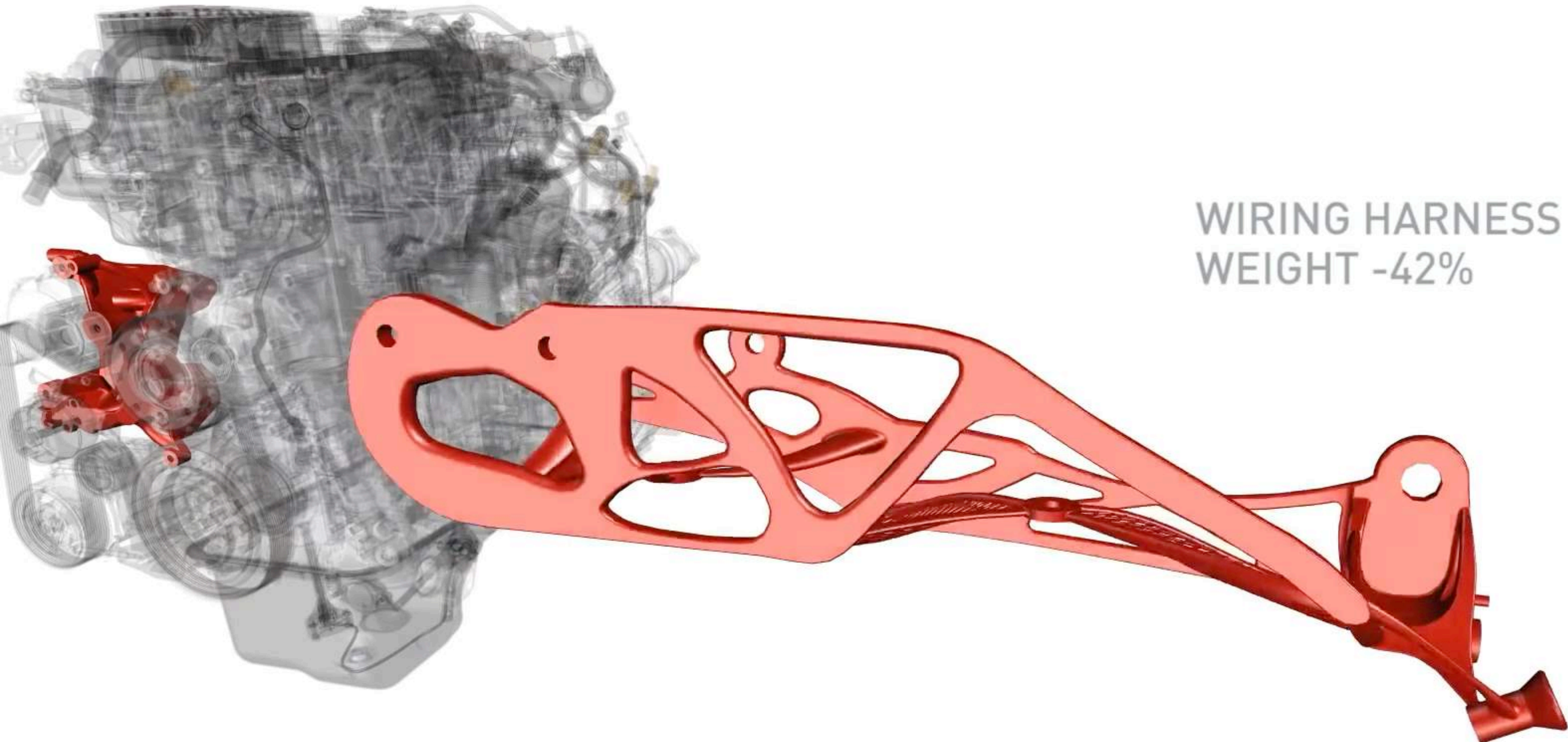


Clear Aligner



**Surgical Guides
(2021)**

Robodent transforms labor dependent works with digital workflows.



WIRING HARNESS BRACKET
WEIGHT -42%





Why Metal AM ?

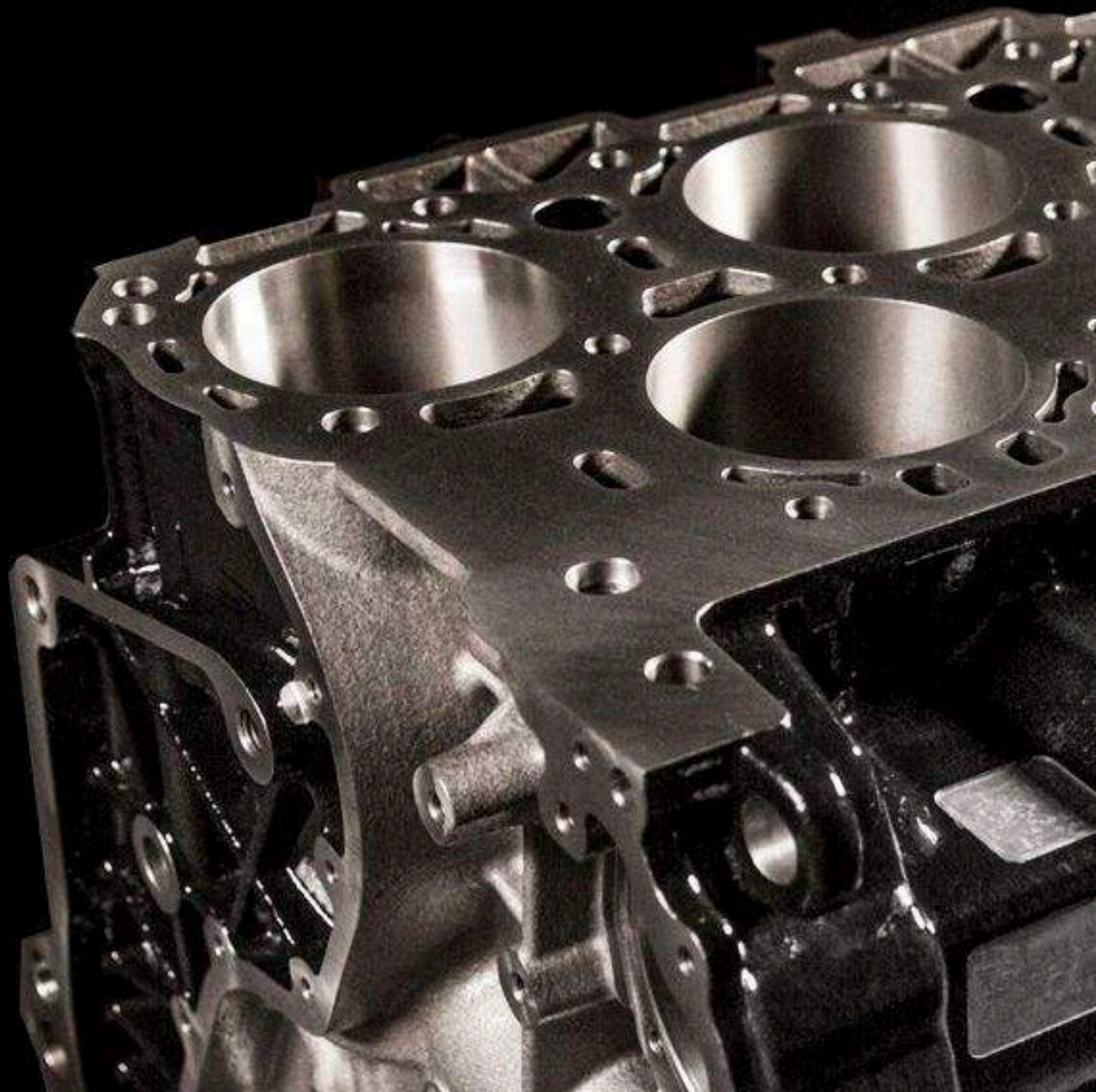
Complexity

Multiple Parts

Materials

Lead Times

Supply Chain





Digital Ear Molds



Custom Earplugs



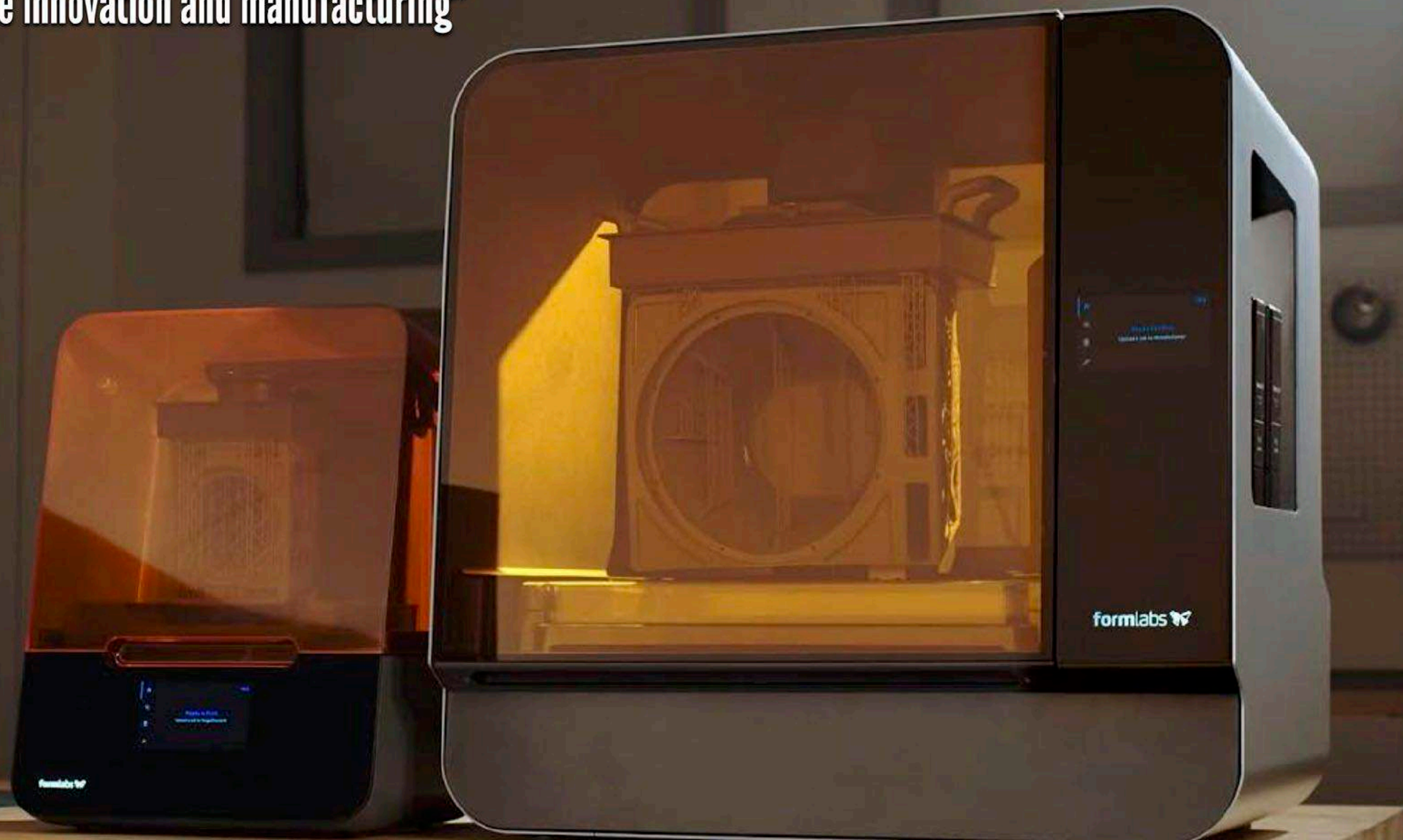
In ear Monitors



Active Military Headset

Earfit delivers digital audiology services to retails, labs and hearing aids manufacturers. Earfit also carry out R&D projects for active military hearing devices.

**“It can change the whole paradigm of how our
Children will see innovation and manufacturing”**



BTECH INNOVATION 2019

THANK YOU

KUNTAY AKTAŞ

CEO