



*The **AM** Production Factory*



# ZARE AT A GLANCE

**1963:**  
Year of establishment.

**1968:**  
Installation of the first CNC machines in Italy.

**2009:**  
Official start-up of ZARE Prototyping, the division of ZARE fully dedicated to AM

**2012:**  
Transformation of the whole factory into an Additive Manufacturing company.

**2014:**  
Installation of the first DMLS/SLM Machine.

**2016:**  
Installation of Concept Laser Xline 2000R, the largest machine available on the market.

**2017:**  
Installation of SLM Solution SLM500, the first QuadLaser machine in Italy.

**2018:**  
Installation of 5 Axis CNC Machines and opening of the new area for the metrology and quality control room.

# FACILITIES

## ZARE

Dedicated to the AM industrial production

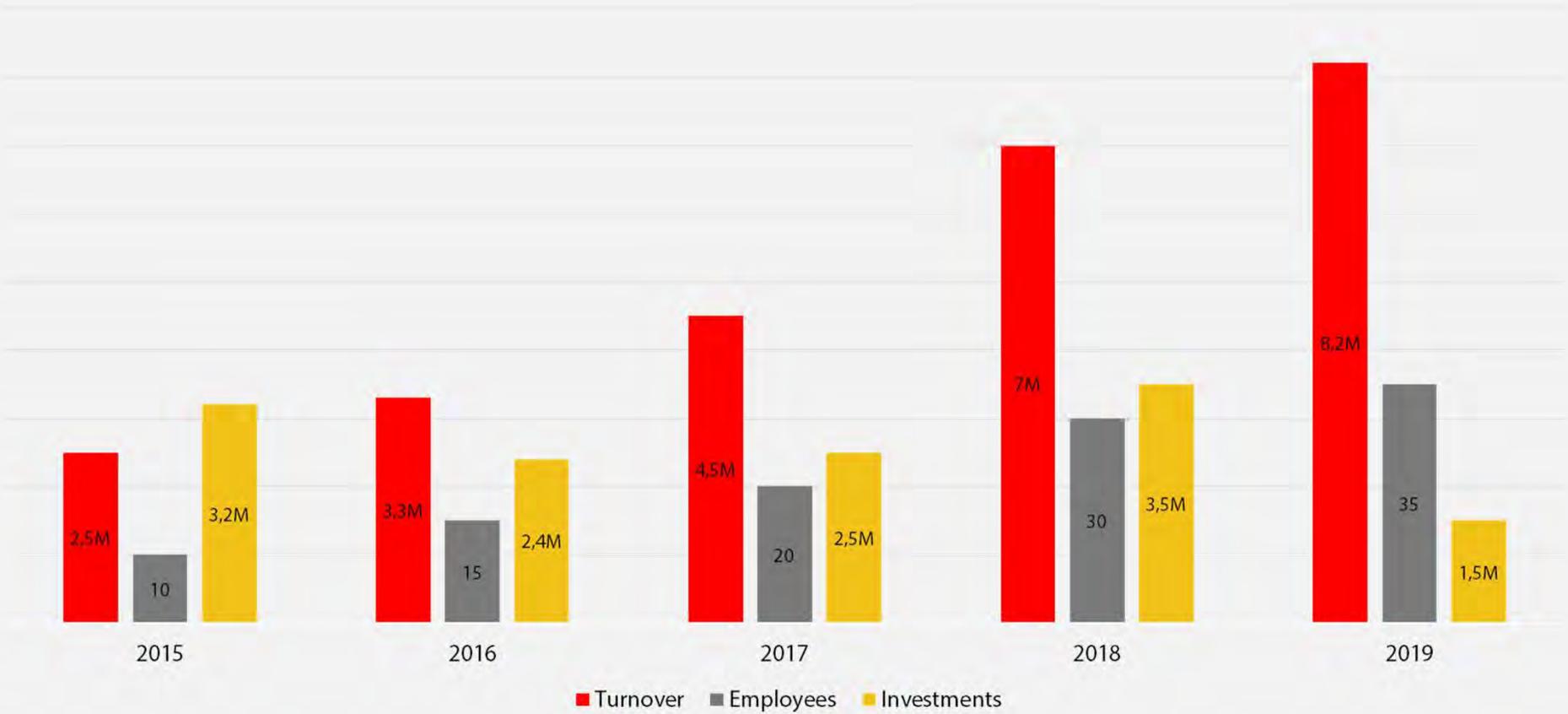


## ProXera

Dedicated to the production on medical and dental application



# TURNOVER, EMPLOYEES AND INVESTMENTS TREND



# CERTIFICATIONS

**ZARE** is certified  
**UNI EN ISO 9001:2015**

and

**prEN 9100:2016**

for Aeronautics and  
Aerospace supply chain  
with the certified body TÜV  
Sud.

In 2019, **ZARE** starts  
certification activities to achieve

**Nadcap** Metal Additive  
Manufacturing certification.





# **METAL LASER SINTERING**

*DMLS/SLM Technologies*

# MACHINERY



1 x Concept Laser Xline 2000R  
(800x400x500)



1 x SLM Solution SLM500  
QuadLaser (500x280x365)



5 x Concept M2 MultiLaser  
(250x250x280)



1 x Renishaw AM250  
(250x250x300)



2 x SLM Solution SLM280  
TwinLaser (280x280x365)



1 x Concept Laser M2 Cusing  
2 x Concept Laser MLab

# MATERIALS

Aluminium AlSi10Mg

Aluminium AlSi7Mg0.6 A357

Scalmalloy

Stainless Steel AISI316L

Stainless Steel AISI420

Stainless Steel 17-4 Ph

Stainless Steel 15-5 Ph

Maranging Steel 1.2709

Titanium Ti6Al4V

Inconel 625

Inconel 718

Hastalloy X

Haynes 263 / Nimonic 263

Alloy 282

Cobalt Chrome F75

Copper Alloy CuNi2SiCr

Bronze

Tungsten

# R&D MATERIAL DEPARTMENT

From 2017 the company decided to invest every year in internal R&D activities in order to develop new parameters for metal materials already processable with AM Technology as well as parameters for specific new alloys still not suitable for this process.

## Machine dedicated for the R&D:



1 x Concept M2 MultiLaser  
(250x250x280)

## Materials Developed:

Stainless Steel AISI420

Hastalloy X

Haynes 263 / Nimonic 263

Alloy 282

Copper Alloy CuNi2SiCr

Tungsten

## Work in Progress:

Aluminium 2618

W360 Steel

K340 Steel

Kovar

Invar

Titanium Aluminide

# CNC MACHINING

In October 2018, ZARE comes back to his origins thanks to the of two 5 Axis CNC Machines for the machining of parts made by DMLS/SLM Technologies



3 x GF Mikron Mill P 500 U

1 x GF Mikron Mill P 800 U

1 x Robot Fanuc



The image is a composite. On the left, there is a close-up of a laser-sintered metal part, showing a textured surface with the letters 'LZAF' and 'LP PHOTO' faintly visible. On the right, a large industrial laser sintering machine is shown in a factory environment. The machine is white and blue, with a red '3' logo and the text 'VANGUARD si HS' on its side. The floor is a grey, textured metal plate. A red and grey chevron graphic separates the two images.

# LASER SINTERING

*SLS Technology*

# MACHINERY



2 x 3D System Vanguard  
(380x330x450)



1 x 3D System ProX 6100  
(380x330x450)

# MATERIALS

PA603CF

PA620MF

Duraform EX Black

Polypropylene PP

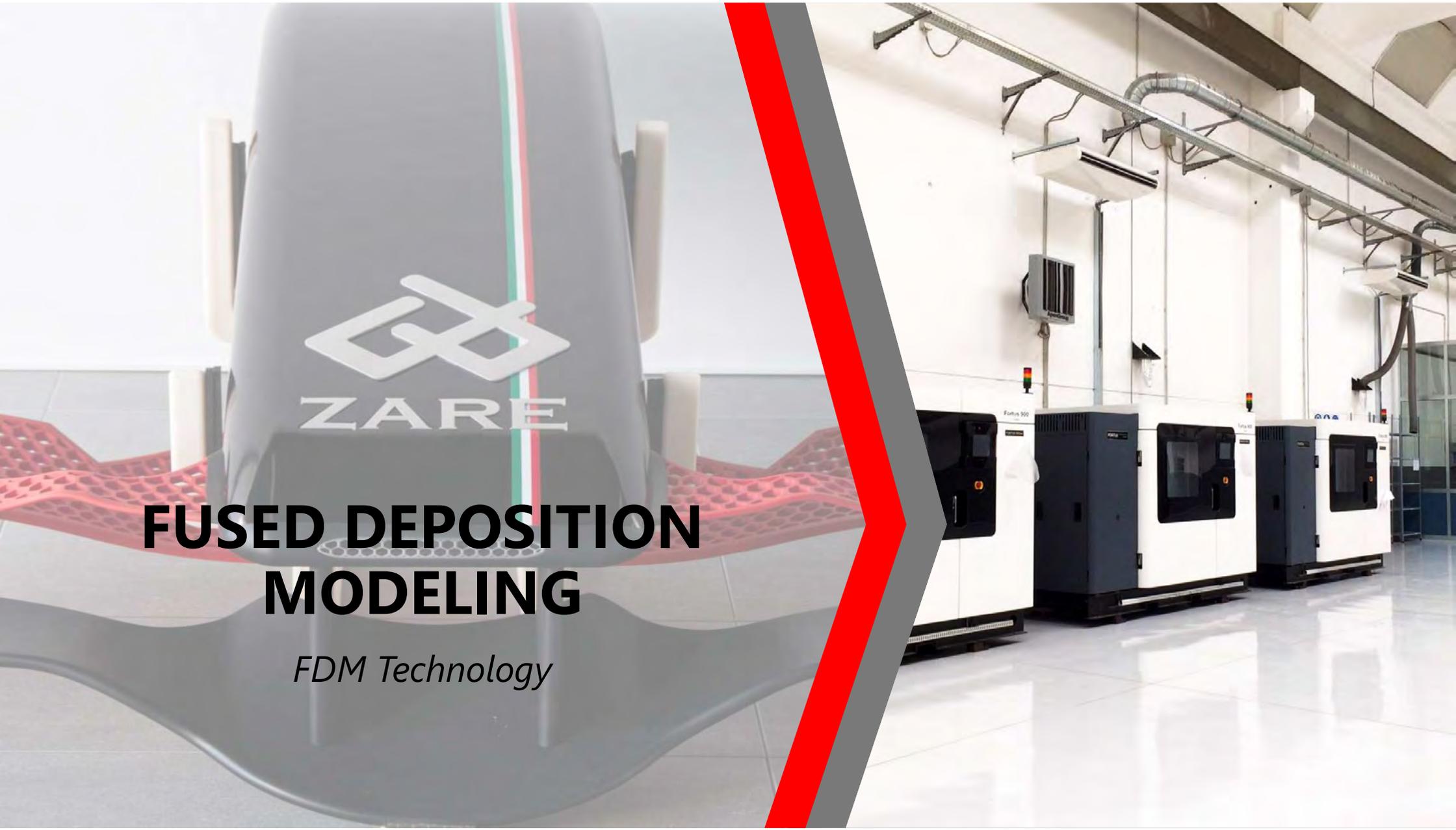
Duraform TPU

FlexSinter

CastForm PS

AlluSinter

WhiteSinter



# FUSED DEPOSITION MODELING

*FDM Technology*



# MACHINERY



1 x Stratays Fortus 900mc  
(914x610x914)

# MATERIALS

ABS M30 / ESD7

PC Polycarbonate

PC-ABS

PPSF / PPSU

Nylon 12

Nylon 12 CF

Nylon 6

Ultem 9085 / 1010

Antero 800NA



# MULTI JET FUSION

*MJF Technology by HP*



# MACHINERY

# MATERIALS



3 x HP Jet Fusion 3D  
(380x285x380)

PA12

PA 12 FDA

PA11

PA12 Glass Beads

# OTHER TECHNOLOGIES



Stratasys Polyjet Objet  
( 2 Machines)



SLA Technology  
( 1 Machine)



Vacuum Casting  
( 1 Machine)



**QUALITY CONTROL**

# QUALITY CONTROL



1 x FARO Scan Arm



1 x ZEISS Contura

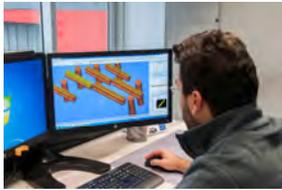
# ADDITIONAL SERVICES



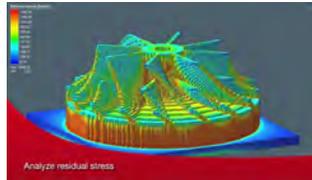
Heat Treatment



Surface Finishing & Painting

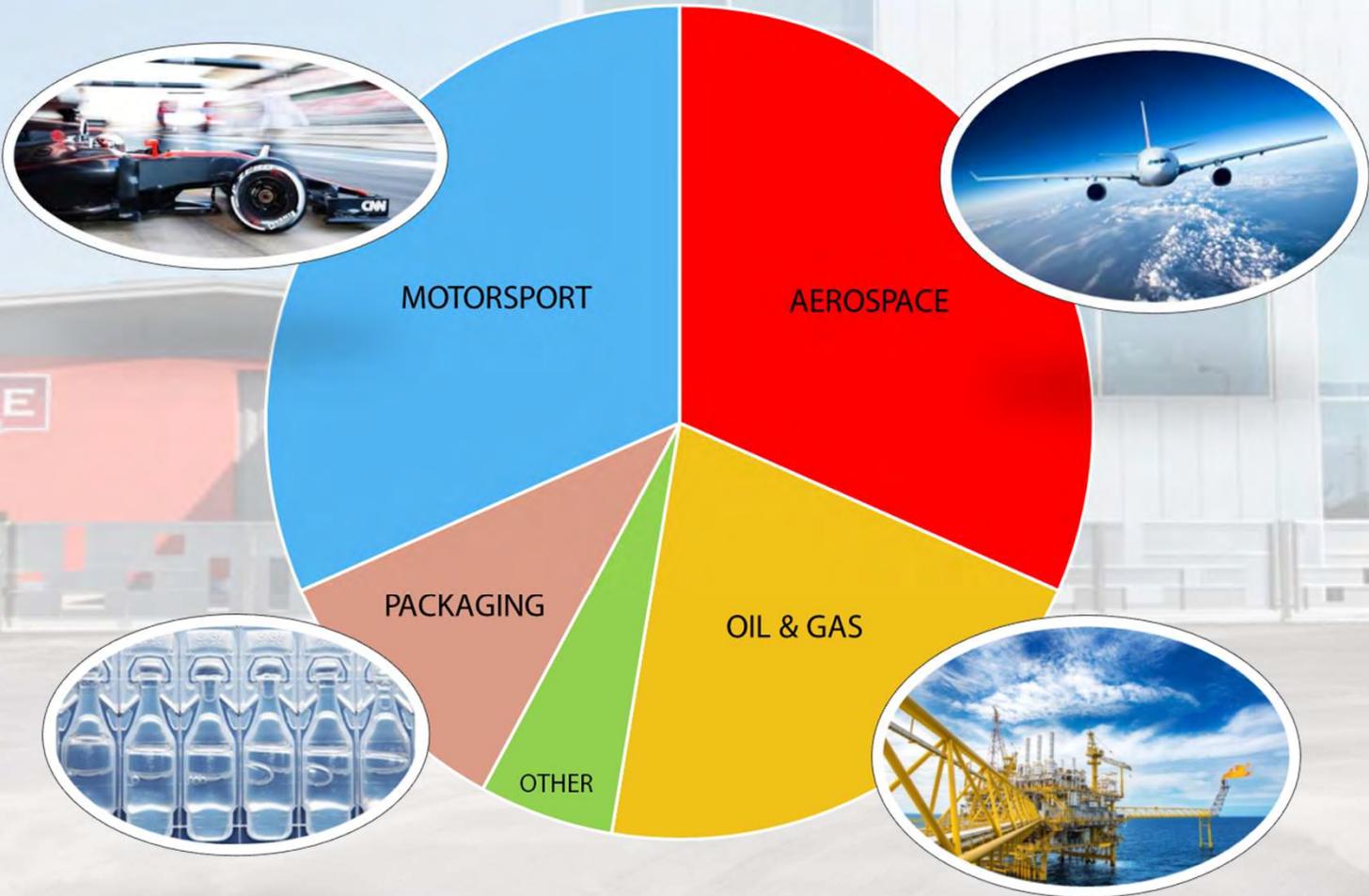


Re-Engineering and  
Design for AM Optimization



Metal Additive Manufacturing  
Simulation with MSC Software

# MAIN INDUSTRIAL TARGET SECTOR



# FUTURE INVESTMENTS

INVEST IN A BRAND  
NEW FACILITY

OPEN A  
MECHANICAL TEST  
LABORATORY

INVEST ON NEW CNC  
MACHINES

INVEST ON NEW  
ADDITIVE  
MANUFACTURING  
TECHNOLOGIES

# ZARE

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***Thanks for your attention***

