

Project idea/ Field of expertise:

Smart Implants and surgical support systems

Organisation Name:

n|w

University of Applied Sciences
Northwestern Switzerland, FHNW

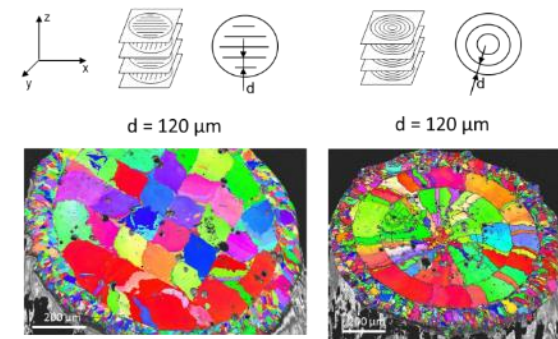
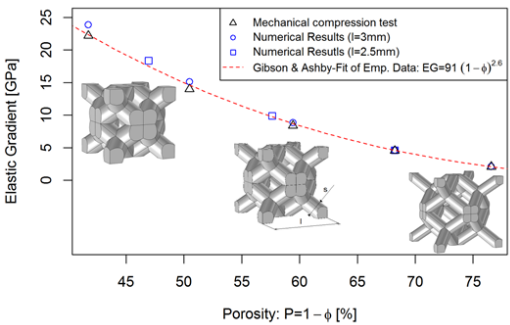
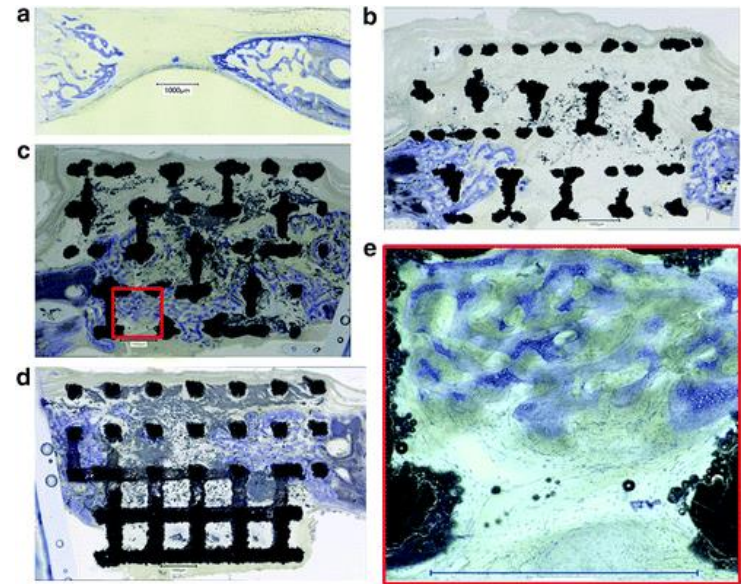
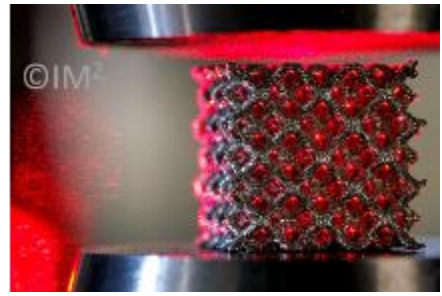
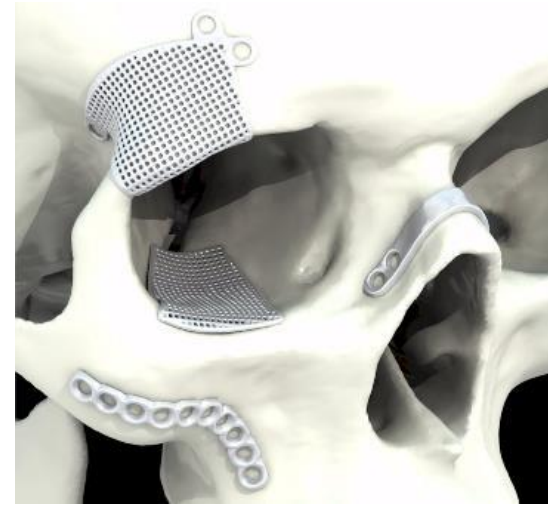
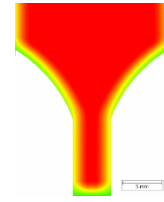
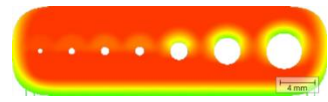
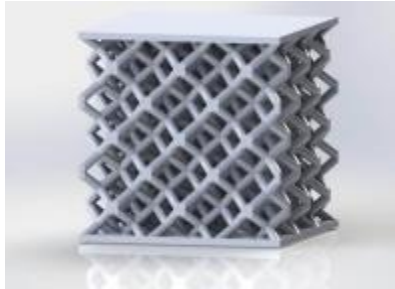
**Adressed challenge(s)/
PPP(s):**

- Advanced Materials
- Advanced manufacturing and processing

**Adressed topic(s) in
Work Programme:**

Advanced materials,
Advanced manufacturing and processing

Additive Manufacturing



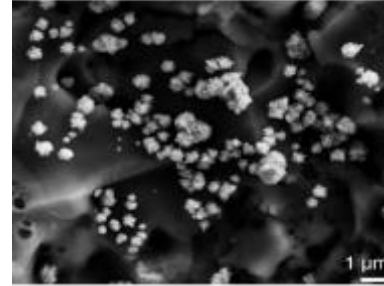
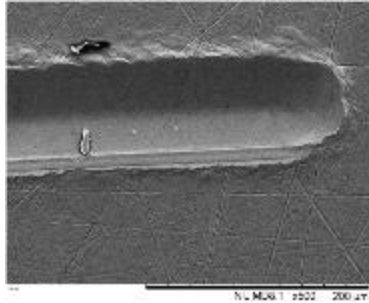
S. Zimmermann et al., BioNanoMat 15 (S1), S35, (2014).

M. de Wild et al., 3D Printing and AM, 6(1):40-49 (2019).

T. Bormann, et al., Int. J. Mat. Res. (2013).

• implant development

software based design, additive manufacturing of biometalls, biomechanical validation, surface treatments, ...



- patient-specific implants
- accelerate osseointegration
- prevent biofilm formation
- Increase lifetime

N. Vogt, Curr Dir Biomed Eng 2(1): 31–34 (2016). C. Jung et al, eCM (2015).

• smart surgical support systems

extra and intra-corporal sensors, surgical navigation, robotics, smart instruments, local drug delivery, ...



Dépasser les frontières :
projet après projet
Der Oberrhein wächst zusammen,
mit jedem Projekt



Fonds européen de développement
régional (FEDER)
Europäischer Fonds für regionale
Entwicklung (EFRE)



Contact details

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