

CxMan – Computer Aided Technologies for Additive manufacturing

www.caxman.eu
Budget: 7,143,300€
Duration: 09/2015- 08/2017

Ambition:

- Provide a 3-variate design representation supporting: Analysis based design; Support structures, Complex inner structures, Variable/anisotropic material
- Enable design interoperable with process planning and thermal simulation of AM
- Provide a Cloud Platform and Cloud services/workflows for the above. Builds on the Clesgo platform developed in the fp7 I4MS IP www.CloudFlow.eu.
- Provide an ecosystem of algorithms for AM (Open Software)
- Contribute to standardization on AM (ISO 10303 –STEP)

Partners:

- **Norway:** SINTEF (Coordinator#, 3D modelling, Cloud Infrastructure), Jotne EPM Technology (ISV* PLM, Standardization), Tronrud Engineering (Printing of prototypes)
- **Germany:** Fraunhofer IGD (Design of inner structures), DFKI (Cloud Infrastructure)
- **France:** MISSLER (ISV*CAD/CAM), Novatra (Use case: Injection mold cooling system)
- **Italy:** CNR-IMATI (Process Planning, IGA+), STAM (Nutating Gearbox)
- **Spain:** CIMNE (Thermal simulation), TRIMEK (ISV* Metrology)
- **Austria:** BOC (ISV* Business modelling)
- **Slovenia:** ARCTUR (Cloud/HPC computing)

*ISV: Independent Software Vendor

+ IGA: Isogeometric Analysis

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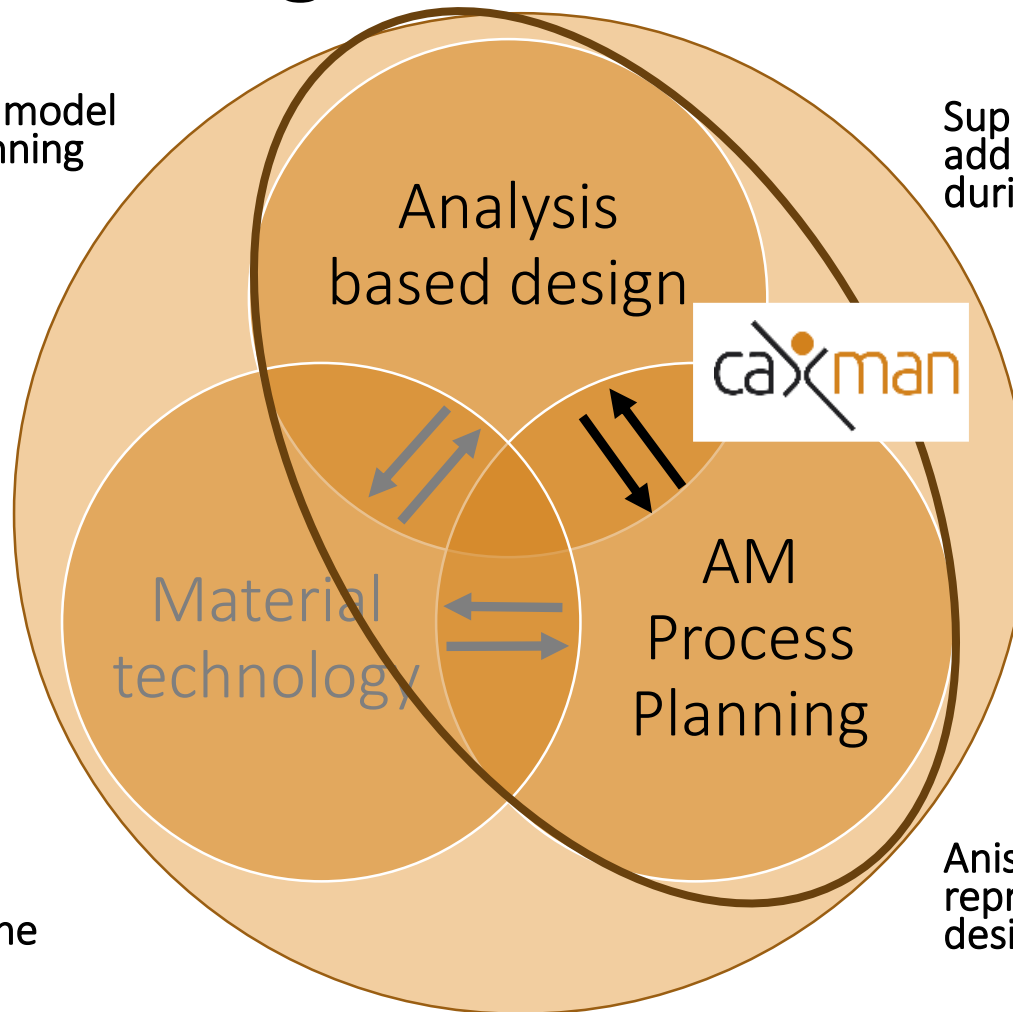


AMEF2016, November 9, 2016, Brussels

Interoperability essential in future CAx-technologies for AM

Update of design model
after Process Planning

Support structures
addressed already
during design



Complex inner
structures
represented in the
design model

Anisotropic material
represented in the
design model

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