

SUCCESSFUL R&I IN EUROPE 2017
9TH EUROPEAN NETWORKING EVENT

Computational Material Modelling for Fast-Paced European Industrial Productions

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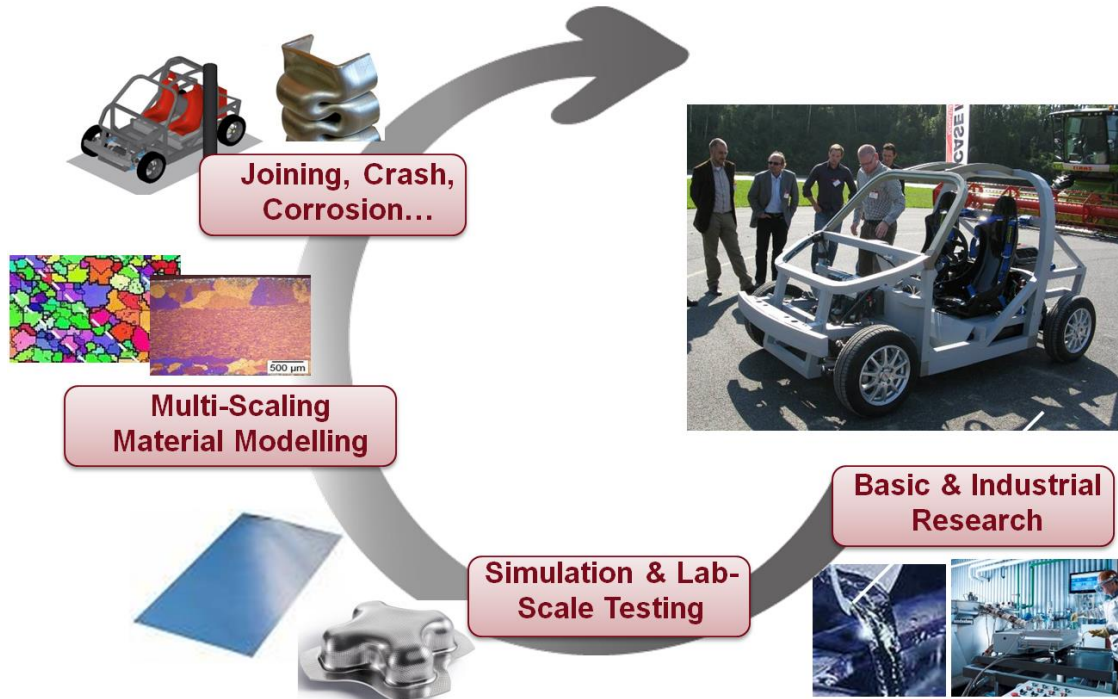
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Light Metals Technologies Ranshofen, Center for Low Emission Transport, Austrian Institute of Technology

15/03/2018 Düsseldorf

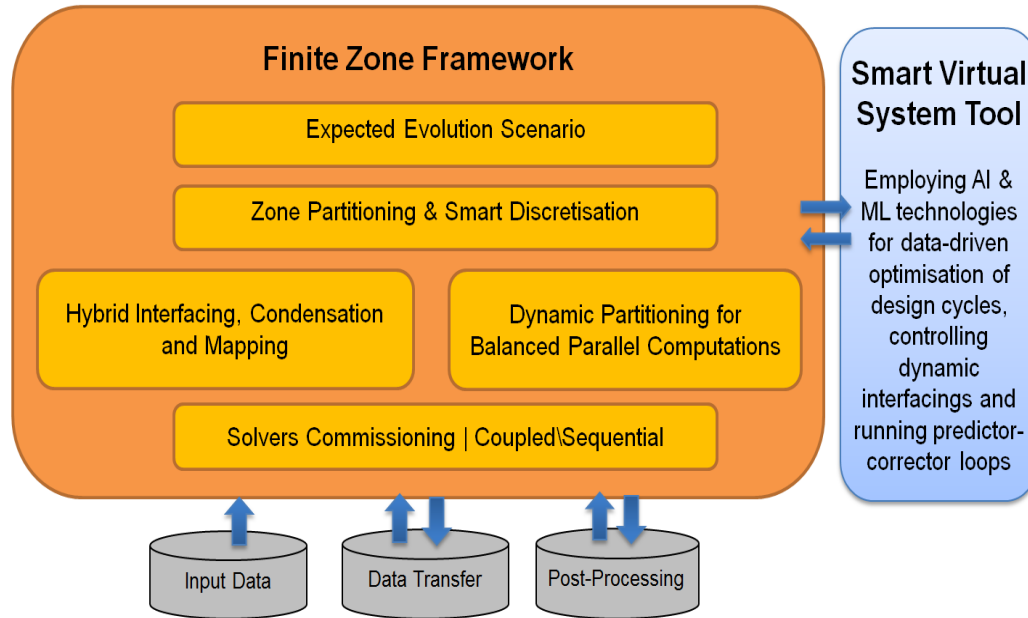


RESEARCH OVERVIEW



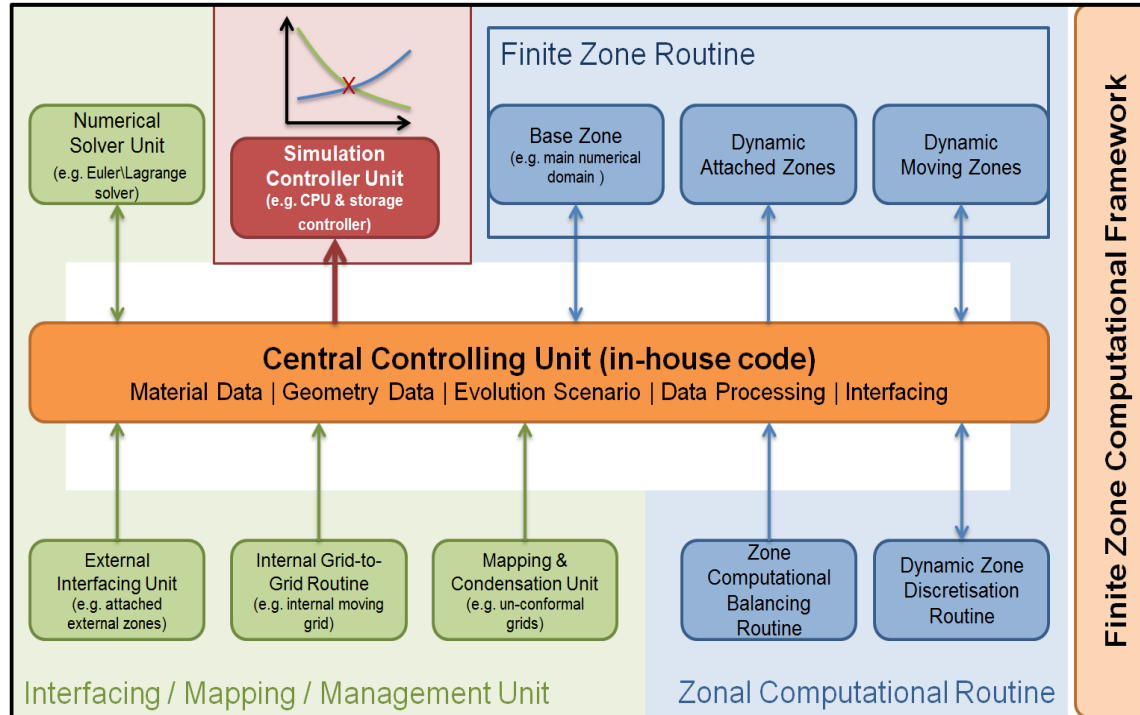
- LKR
 - Number of employees: about 47
 - Location: Ranshofen, Austria
 - Turnover: about 6.4 million €
 - 100% subsidiary of the AIT
 - Non-university research Firm
- Certificates
 - ISO 9001:2008
 - ÖNORM, EN ISO/IEC 17025

MATERIAL MODELS & INDUSTRIAL PROCESSES



- ❖ Wide varieties of material models
- ❖ Integrating these new models into industrial simulation routines.
- ❖ Solving scaling and time issues on implementation of models
- ❖ Handling complex and multi-physical nature of material processes

MATERIAL MODELS & INDUSTRIAL PROCESSES



- To achieve a real improvement in a design of an optimised industrial process
- Handling wide range of parameters involved in a production process (material, process conditions, energy, cost...).
- Increased speed of material/and or product development time and rapid design
- Change the operational practice of companies by making them more data driven, agile, light and competitive

HORIZON 2020: DT-NMBP-10-2019

TOPIC : Adopting materials modelling to challenges in manufacturing processes (RIA)

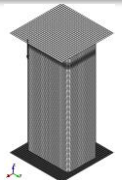
Topic identifier:	DT-NMBP-10-2019		
Publication date:	27 October 2017		
Focus area:	Digitising and transforming European industry and services (DT)		
Types of action:	RIA Research and Innovation action		
DeadlineModel:	two-stage	Deadline:	22 January 2019 17:00:00
Planned opening date:	16 October 2018	2nd stage Deadline:	03 September 2019 17:00:00

Expected Impact:

- Remove barriers to the use of materials models by lowering the learning curve, increase the knowledge-base of European industry and the total cost of ownership leading to an industrial user base of companies increased by a factor 2;
- Increased speed of material/and or product development time and rapid design from concept to market by factor 5 and allow industry to react to changing market and regulatory demands;
- Change the operational practice of companies by making them more data driven, agile, light and competitive and thus support the Digital Single Market (DSM) objectives and thus drastically reduced development costs for industry by a factor 2;

Who are we looking for as partners:

- ❖ Scientific partners for multi scale\physical\resolution material modelling (i.e., universities, research centers...)
- ❖ Partner from light metal industries who are willing to help verifying & implementing our research (i.e., HPDC, AM...)
- ❖ Software companies who are interested to help implementing our new simulation technique (i.e., apps, integrated modules...)
- ❖ Research and industrial partners who are willing to help us implement data-driven smart technologies (i.e., Artificial Intelligent, Machine learning, Neural Network...)



THANK YOU!

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