#### **DYNAmore**



I herewith register for the free of charge information day: "ENVYO and Composite-Analysis" 12<sup>th</sup> March 2018, Stuttgart, Germany.

#### Sender

First name:
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Company/University:
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Street:
Zip-code, city:
Tel.:
Fax:
E-Mail:

Date, Signature: \_\_\_\_\_

Please complete and fax to +49(0)711-459600-29, send to DYNAmore GmbH, Industriestr. 2, D-70565 Stuttgart, Germany, or e-mail to seminar@dynamore.de.

Online registration at www.dynamore.de/info-envyo

Declaration of consent to the use of personal data:

With your registration you allow us the use and the processing of your data
for the seminar organization and promotional purposes. You may, at any time,
revoke your consent by contacting DYNAmore GmbH via phone or in writing.

#### DYNAmore GmbH

DYNAmore is dedicated to support engineers in solving nonlinear mechanical as well as multiphysical problems numerically. Our product portfolio includes the finite element solver LS-DYNA, the pre- and postprocessor LS-PrePost and the optimization software LS-OPT as well as numerous finite element models needed for crash worthiness simulation (dummies, barriers, pedestrian and human models, etc.).

Our main field of activity is to sell, teach, support, and codevelop the software LS-DYNA and LS-OPT. In addition, we provide engineering services for numerical analysis and integrate simulation software in your CAE environment.

Our advanced training offer includes classical seminars, workshops, webinars, support and information days as well as LS-DYNA user conferences. More detailed information can also be found on our support and tutorial web sites: www.dynasupport.com and www.dynaexamples.com

We are one of the first addresses for pilot studies and development projects with respect to the simulation of nonlinear dynamic problems. We are always at your disposal to answer your questions on specific applications as well as test licenses.

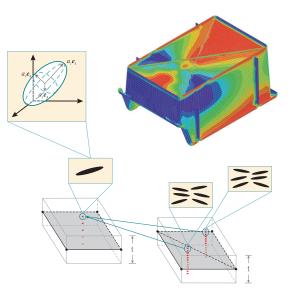
You will find DYNAmore in Stuttgart, Dresden, Ingolstadt, Berlin, Wolfsburg, Langlingen, Zürich (CH), Linköping (S), Göteborg (S), Turin (I), Versailles (F) und Dublin, Ohio (USA).

# Contact

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# Information day: ENVYO and Composite-Analysis

12<sup>th</sup> March, Stuttgart



With presentations from BMW, DLR, EDAG, JSOL, Opel Automobile, Politecnico di Torino and DYNAmore.



## ENVYO and Composite-Analysis

The information day ENVYO and Composite-Analysis provides experience with the newly developed software tool ENVYO from various application areas and gives an overview of the state of the art in simulation technology in the area of composite materials with LS-DYNA.

# **ENVYO**

The software tool ENVYO was developed from the effort to make simulation and test data accessible for questions in the context of simulation. ENVYO creates interfaces between different software tools for process simulation and structure analysis with LS-DYNA for further processing and homogenization of simulation data.

During the information day, experts from industry and research will report on their experiences with ENVYO in various application areas. In addition, the lectures will present ENVYO's latest achievements and discuss individual questions in direct contact with the developer.

## Composite-Analysis

The use of composite materials has steadily increased in recent years due to the growing importance of lightweight construction. If these materials are also used for crash-relevant components in the future, the demands on simulation tools will increase enormously. As a result of this development, numerous enhancements have been implemented in LS-DYNA.

The information day will present the current state of the art of simulation techniques in the field of composite, gives an overview of the possibilities of the simulation of composite materials in LS-DYNA and presents current developments.

We look forward to your participation.

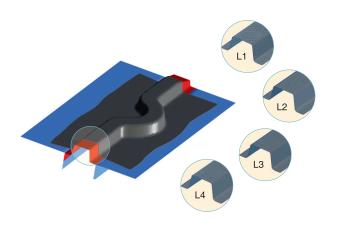
Your DYNAmore GmbH



# Preliminary Agenda

#### 10:00 Welcome

- 10:10 Recent Developments in ENVYO C. Liebold (DYNAmore)
- 10:30 Investigation of Energy Absorption in Textile Composites with the Mapping Tool ENVYO *M. Vinot (DLR)*
- 11:00 Structural Analysis of Thermoplastic Composite Components Integrating Mapping Process with ENVYO *N. Jayasree (Politecnico di Torino)*
- 11:30 Enhanced Experimental Characterization of a Short Fiber Reinforced Thermoplastic Polymer *M. Helbig (DYNAmore)*
- 12:00 Lunch break
- 13:00 Laboratory guided tour with presentation of the Pendulum impetus from 4aa *Employees of DYNAmore and* 4a engineering GmbH
- 13:30 Recent Enhancements in LS-DYNA for Composite Modeling *C. Liebold (DYNAmore)*



- 13:45 Composites Manufacturing Process Modeling with Introduction to J-Composites *M. Nishi (JSOL Corporation)*
- 14:30 Carbonfiber Reinforced Sheet Molding Compounts – Simulation and Reality J. Lausch (EDAG Engineering GmbH and Technische Hochschule Ingolstadt)
- 15:00 Coffee break
- 15:30 Application of Process Simulation in Automotive Product Development: Forming Simulation for Fiber Reinforced Plastics J. Cichosz (BMW AG)
- 16:00 Simulation and CT Technology in Textile LightWeight Design *H. Finckh (DITF Denkendorf)*
- 16:30 Crash Simulation of Short Glass Fiber Reinforced Plastics Polypropylene with Analysis of the Failure Probability *N. Sygusch (Opel Automobile GmbH)*
- 17:00 Discussion
- 17:15 End

#### Facts

When:	12 <sup>th</sup> March 2018, 10:00-17:15
Where:	DYNAmore headquarters or
	Hotel Pullmann Stuttgart Fontana
	(location will be communicated in time)
Charge:	Free of charge
Languages:	German and English

# Arrival

The DYNAmore headquarters and the hotel are both located directly at the S-Bahn station Stuttgart-Vaihingen and can be reached with the lines S1, S2 and S3 from the main station.

#### Registration

To register for the free information day ENVYO and Composite Analysis please use the registration form or register by e-mail to seminar@dynamore.de or online at www.dynamore.de/ info-envyo.