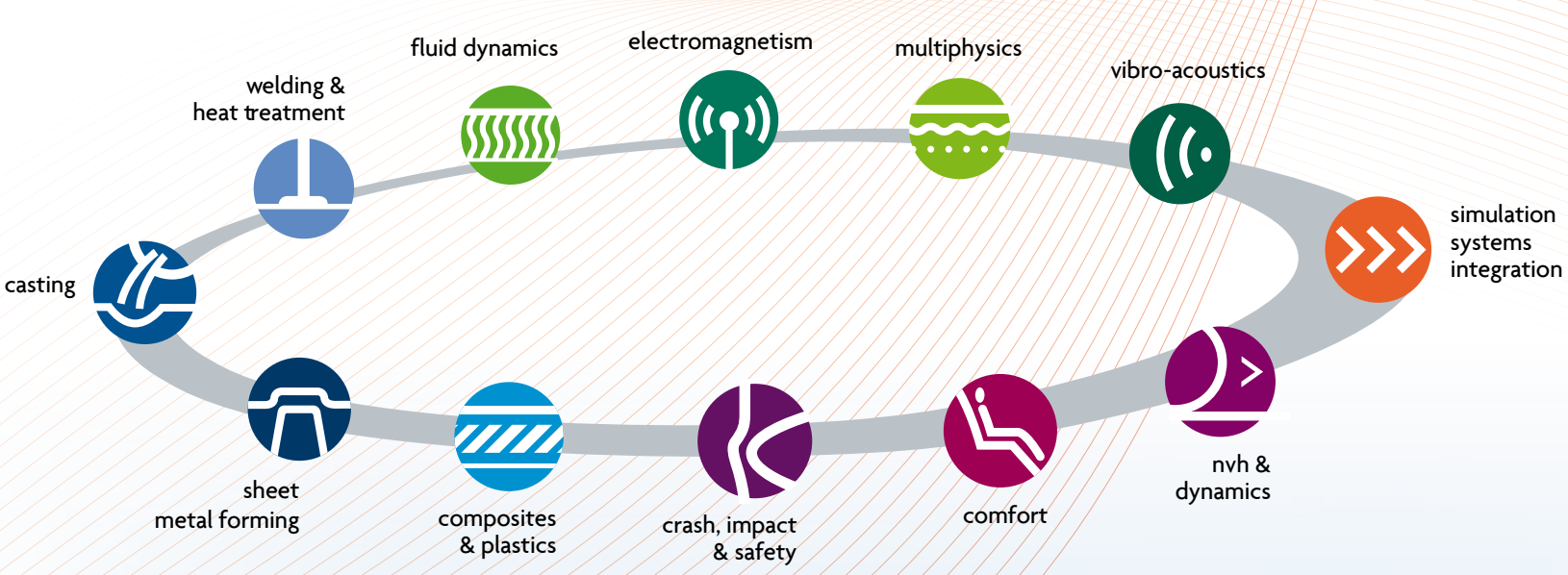
Global Forum 2010

Global Users Conference on Virtual Prototyping

19-20 May, 2010 - Munich, Germany



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Global Forum 2010

Why?

Share your experiences in **Virtual Prototyping**, learn from your **peers from around the world,** hear about **latest software updates** and upcoming enhancements, and **meet face to face** with ESI support teams, sales representatives and managers.

How?

Over 90 simulation experts will present projects and case studies on Virtual Prototyping in a wide range of industry applications in **six parallel sessions** on **Virtual Performance** (Crash & Safety, Comfort), **Virtual Manufacturing** (Casting, Sheet Metal Forming, Welding, Composites & Plastics) and **Virtual Environment** (Vibro-Acoustics, Multiphysics and Electromagnetics).

KEYNOTE SPEAKERS

We give special thanks to our keynote speakers who will open ESI Global Forum 2010 in the plenary session on the morning of May 19:

Toshihiro Araki,
General Manager, NISSAN MOTOR CO., LTD.
CAE Current Status and Future Plan at Nissan Motor

Stéphane Baril,
Head of Composite Products Engineering, EADS Astrium
Satellite Antenna Reflector Design and Optimization Using Vibro-Acoustics Simulation

Roger Herdy,
Program Manager, NASA MSFC Engineering Science and Technical Services, Qualis Corporation
Vdot™, a Software Solution to Optimize Aerospace Applications

Dr. Bernd Mlekusch,
Head of functional body design and technikmodel, Audi AG
CAE Aided Car Body Design

Nizar Trigui,
Vehicle Energy Management Engineering, Ford Motor Company

PARTNERS

ESI Global Forum 2010 is kindly supported by our partners:

MAY 19, 2010

8:00am Registration

8:30am - 12:30pm PLENARY SESSION

08:30	**ESI Group**	Haluk Menderes, *Executive Vice President Sales & Marketing - Worldwide Operations*	*Welcome*
08:35	**ESI Group**	Alain de Rouvray, *Chairman & CEO*	*President's Address: End-to-End Virtual Prototyping*
09:00	**NISSAN MOTOR CO., LTD.**	Toshihiro Araki, *General Manager*	*CAE Current Status and Future Plan in Nissan Motor*
09:30	**Ford Motor Company**	Nizar Trigui, *Vehicle Energy Management Engineering*	
10:00	**EADS Astrium ST**	Stéphane Baril, *Head of Composite Products Engineering*	*Satellite Antenna Reflector Design and Optimization Using Vibro-Acoustics Simulation*
10:30	*Coffee Break + Demo Theatre*		
11:00	**Qualis Corporation**	Roger Herdy, *Program Manager, NASA MSFC Engineering Science and Technical Services*	*Vdot™, a Software Solution to Optimize Aerospace Applications*
11:30	**Audi AG**	Dr. Bernd Mlekusch, *Head of functional body design and technikmodel*	*CAE Aided Car Body Design*
11:30	**Hewlett-Packard & INTEL**	Jeremy Purches, *HPC Engineering Segment Manager - EMEA* Stephan Gillich, *Marketing Manager Digital Enterprise Group*	
12:30	*Lunch*		

2:00pm - 6:30pm PARALLEL SESSIONS

VIRTUAL PERFORMANCE

Virtual Performance

Session Chair: **Peter Ullrich**, *Virtual Performance Solution Product Manager*

2:00	Peter Ullrich, **ESI Group** *Update on Virtual Performance Solution*
2:30	Jens Philippeit, **Siemens Product Lifecycle Management Software (DE) GmbH** *Support of Data Preparation in Model Build Process for Crash Analysis*

Structural Design

Session Chair: **Peter Ullrich**, *Virtual Performance Solution Product Manager*

3:00	Sou Natori, **NISSAN MOTOR CO., LTD** *Development of Full Vehicle Crash Simulation Using PAM-CRASH*
3:30	Eisei Higuchi, **Honda R&D Co., Ltd.** *Investigation of Structural factors Influencing Compatibility in Vehicle -to- Vehicle Side Impacts*
4:00	*Coffee Break + Demo Theatre*
4:30	Dr. Lars Greve, **Volkswagen Aktiengesellschaft** *Advances in fracture modelling based on dynamic mesh refinement*
5:00	Marc Lambriks, **Corus** *Improved predictive modeling by linking forming, joining and in-service performance*
5:30	Peter Reithofer, **4a engineering GmbH** *4a impetus – efficient evaluation of material cards for non-reinforced and reinforced thermoplastics*
6:00 6:30	Roundtable Discussion

Safety / Airbags

Session Chair: **Dr. Christophe Jacob**, *Safety Product Manager*

3:00	Erich Blümcke, **AUDI AG** *AUDI´s Integrated CAE Method applied to Out of Position Simulations featuring Passenger Airbags*
3:30	Manfed Schlenger, **Autoliv B.V. & Co. KG** *Permeability of airbag fabrics - a new approach*

Safety / Humans & Dummies

Session Chair: **Dr. Charles Thibaud**, *Technical Director DACH Operations*

4:30	Dr. Steffen Peldschus, **Ludwig-Maximilians Universität München, Institute of Legal Medicine** - *Detailed fracture simulation with the PAM-CRASH HUMOS model*
5:00	Dr. Arnauld Malak, **Denton COE GmbH** *Optimization Techniques in Conjunction with Complex ATD Pam-Crash FE Models*
5:30	**First Technology Safety Systems, Inc,** C. Kleessen, *Developments in PAM-CRASH Dummy Models* R. Kant, *A new Development in Pedestrian Safety the Flex-Pli GTR PAM-CRASH Model*
6:00 6:30	Roundtable Discussion

VIRTUAL ENVIRONMENT

Multiphysics

Session Chair: **Dr. Mustafa Megahed**, *Manager Center of Excellence - CFD & Multiphysics*

2:00	Dr. Mustafa Megahed, **ESI Group** *Update on Multiphysics*
2:30	Dr. Martin Dauelsberg, **Aixtron AG** *Validation of RF Induction Heating Models*
3:00	Dr. Margarita Baeva, **INP Greifswald e.V.** *Magnetohydrodynamic modeling of inductively coupled plasma torches with CFD-ACE+*
3:30	Dr. Vít Jirásek, **Institute of Physics, Academy of Sciences of the Czech Rep.** *CFD modeling in research and development of chemical lasers at the Institute of Physics*
4:30	Dr. Harald Laux, **Osram Opto Semiconductors GmbH** - *Design study of small horizontal CVD reactor by means of Computational Fluid Dynamics*
5:00	Dr. Aurel Salabas, **OC Oerlikon Solar** *Validation of gas-phase mechanism for capacityvely coupled plasma discharges used in photovoltaic applications*
5:30	Marcos Lema, **von Karman Institute for Fluid Dynamics & University of A Coruña** *Multiphase Fluid Hammer in a confined environment*
6:00 6:30	Roundtable Discussion

Vibro-Acoustics

Session Chair: **Dr. Phil Shorter**, *Director of Vibro-Acoustic Product Operations*

2:00	Dr. Phil Shorter, **ESI Group** *Update on Vibro-Acoustics*
2:30	Stefano de Stefanis, **Thales Alenia Space** *Industrial Applications of SEA Approach for Space Systems Design*
3:00	Dr. Alexander Peiffer, **EADS Innovation Works** *Periodic CFRP structure modeling using wave and hybrid methods*
3:30	Ivan Ngan, **European Space Agency-ESTEC** *Development and application of vibro-acoustic analysis tools at the European Space Agency*
4:30	A. Sandor Matla, **Van Cappellen Consultancy** *Building SEA Predictive Models to Support Vibro-Acoustic Ship Design*
5:00	Massimo Martini, **IVECO S.p.A.** *Heavy Truck Acoustic Comfort Noise Methodology with SEA Approach*
5:30	Dr. Gregor Müller, **MAGNA STEYR Fahrzeugtechnik AG & Co KG** *Weight and Cost Optimisation of a Sport Coupé's Sound Insulation Package in a virtual Project Phase*
6:00 6:30	Roundtable Discussion

VIRTUAL MANUFACTURING

Casting

Session Chair: **Marco Aloe**, *Casting Product & Product Marketing Manager*

2:00	Marco Aloe, **ESI Group** *Prediction of microstructure and mechanical properties in Aluminium and ADI castings after Heat Treatment*
2:30	Zbynek Kuzma, **DSB EURO s.r.o.** *Steel Casting Optimization*
3:00	Robin Schmidt, **Technische Universität Dresden** - *Novel efficient methods in developing manufacturing processes for high performance gas turbine blades of energy and propulsion systems*
3:30	Andreas Carlsson, **Swerea SWECAST AB** *Cast simulation of thin walled ductile iron*
4:30	Vlastimil Bryksí, **Kovolis Hedvikov a.s.** *Numerical simulation as a part of technological process in development and production of die castings for automotive*
5:00	Dr. Jean-Christophe Gebelin, **University of Birmingham** *Computer Modeling and Materials for Aeroengine Applications*
5:30	Dr. Duncan Putman, **Rolls-Royce plc** *Mechanical modeling of single crystal investment casting*
6:00 6:30	Roundtable Discussion

Sheet Metal Forming

Session Chair: **Dr. Martin Skrikerud**, *Die Design & Sheet Metal Forming Product Marketing Manager*

2:00	Dr. Martin Skrikerud, **ESI Group** *Update on Sheet Metal Forming*
2:30	Benedikt Krönauer, **Technische Uni München (UTG),** *Automated Generation of Load and Forming Adjusted Stiff Bead Patterns*
3:00	Robert Bass, **Cambridge, Metals & Plastics** *Tool Prototyping with Simulation - Modifying Tube Hydroform Tools*
3:30	Johan Friberg, **AP&T AB** *Simulation based design of press hardening tools*
4:30	Se Wook, Oh, **Hyundai Motors Company** *A Study on the application of the predicted springback for securing the accurate dimension of car body panel*
5:00	Dr. Marcela Cid Alfaro, **Corus** *Advance friction modeling for deep drawing processes*
5:30	Takeo Ohtsuka, **Mitsubishi Motor Company** *Prediction and Compensation of Surface Deflection using PAM-STAMP*
6:00 6:30	Roundtable Discussion

Welding & Heat Treatment

Session Chair: **Harald Porzner**, *Virtual Manufacturing Product Line Manager*

2:00	Harald Porzner, **ESI Group** *Update on Welding*
2:30	Dr. Philippe Bristiel, **PSA Peugeot Citroën** *Welding simulation applied to rear cross-member of automotive vehicle*
3:00	Dr. Josef Bárta, **VÍTKOVICE HEAVY MACHINERY, a.s.** *Heat Treatment Numerical Simulation in VÍTKOVICE HEAVY MACHINERY*
3:30	Christoph Stapelfeld, **BTU Cottbus** *Calculation of Welding Distortions in Large Structures Using the Maximum Temperature Model and the Coupled Analytic-Numerical Shrinkage Force Model*
4:30	Sebastjan Kastelic, **Faculty of natural science and engineering Ljubljana** *Using numerical simulation for deformation prediction with different sequences*
5:00	Mukesh Jindal, **ITER - India, Institute for Plasma Research** *Study of residual stresses, deformation and heat affected zone of ITER Cyrostat circumferential field joint*
5:30	Markus Urner, **Technische Universität Braunschweig** *Numerical Computation of Welding Distortions at a Steel Structure based on a Railway Vehicle*
6:00 6:30	Roundtable Discussion + Session Closing

7:30pm GALA EVENING

ABSTRACTS AND WEEKLY UPDATES AVAILABLE AT WWW.ESI-GROUP.COM/GLOBALFORUM2010

MAY 20, 2010

9:00am - 1:00pm PARALLEL SESSIONS

VIRTUAL PERFORMANCE

VIRTUAL ENVIRONMENT

VIRTUAL MANUFACTURING

	Structural Design	Interior Design	Multiphysics	Vibro-Acoustics	Casting	Sheet Metal Forming	Composites & Plastics
Session Chair	**Peter Ullrich**, *Virtual Performance Solution Product Manager*	***Christian Marca***, *Virtual Seat Prototyping Product Manager*	**Dr. Mustafa Megahed**, *Manager Center of Excellence - CFD & Multiphysics*	**Dr. Phil Shorter**, *Director of Vibro-Acoustic Product Operations*	**Marco Aloe**, *Casting Product & Product Marketing Manager*	**Dr. Martin Skrikerud**, *Die Design & Sheet Metal Forming Product Marketing Manager*	***Dr. Patrick de Luca***, *Composites Product Manager*
9:00	**Honda R&D Co.,Ltd**	Jean-Jacques Pesce, **Faurecia Interior Systems** *Polyurethane foaming process simulation applied to automotive instrument panels*	Klaus Mutschler, **IMTEK - University of Freiburg** *Simulation studies on a capacitive droplet sensor*	Dr. Fabienne Guerville, **Alstom Transport SA** *Prediction of aeroacoustic contribution to interior noise in high speed train's cab with hybrid FE-SEA modeling*	Mitja Petric, **Faculty of Natural Sciences and Engineering, University of Ljubljana** *Optimization of tilt casted AL-casting of heat exchanger*	Albert Emrich, **OPEL AG**	Prof. François Trochu, **École Polytechnique de Montréal** *Computer Based Optimisation of Composite Manufacturing by Resin Injection*
9:30	Josep Salvo, **SEAT S.A.** *Explicit – Implicit, Unique Modeling*	Dr. Xuguang Wang, **INRETS (French National Institute for Transportation and Safety Research)** *Motion simulation for ergonomic design of products: challenges and current researches*	Britta Hagmeyer, **NMI Naturwissenschaftliches und Medizinisches Institut, Universität Tübingen** *Modeling and numerical simulation of wetting, flow and forces in the development of lab-on-chip devices*	Dr. Ulf Orrenius, **Bombardier Transportation** *Modeling of roof mounted aeroacoustic sources for a high speed train*	Dr. Andrey Koltygin & Pavel Petrovsky, **Moscow Institute of Steel and Alloys** *Experience of magnesium castings production by pouring into 3d-printed moulds made in the National University of Science and Technology "MISIS"*	Marc Lambriks, **Corus** *Industrial application of the Corus-Vegter material model*	Dr. François Dumont, **Eurocopter Deutschland GmbH** *Forming simulation approaches for non-woven reinforcements*
10:00	Max Spuling, **Audi AG** / Daniel Beckenbauer, **EDAG GmbH & Co. KGaA** *PAM-CRASH Implicit in bonnet stiffness simulation*	Christian Marca, **ESI Group** *Multi-Domain Integrated Simulations for Virtual Seat Prototyping*	Krzysztof Grabowiecki & Armen Jaworski, **CIM-mes Projekt Sp. z o.o.** *Simulation of Inkjet Printing on Textiles*	Prof. Kirill V. Horoshenkov **University of Bradford** *Sustainable poro-elastic materials for noise control applications: production, characterization and modeling*	Dr. Lorenzo Valente, **Ecotre Sas di Valente Dr. Tiziano & C.** *HPDC benchmark beetwen simulation and reality: cavity filling results with and without sleeve and shoot piston.*	**University of Ulster** Dr. Alan Leacock, *Analysis of the Flex-Forming Process using PAM-STAMP 2G* Dr. Michael Ludlow *Tailored Calibration Methods for Hill 1990 and Improved Alternative Models*	Solange Amouroux-Berthe, **Dassault Aviation** *Simulation of the autoclave assisted resin infusion*

10:30 Coffee Break + Demo Theatre

	Enhanced Applications	Electromagnetics	Multiphysics	Vibro-Acoustics	Casting	Sheet Metal Forming	Composites & Plastics
Session Chair	**Peter Ullrich**, *Virtual Performance Solution Product Manager*	***Dr. Jean-Claude Kedzia***, *PAM-CEM Simulation Suite Product Manager*	**Dr. Mustafa Megahed**, *Manager Center of Excellence - CFD & Multiphysics*	**Dr. Phil Shorter**, *Director of Vibro-Acoustic Product Operations*	**Marco Aloe**, *Casting Product & Product Marketing Manager*	**Dr. Martin Skrikerud**, *Die Design & Sheet Metal Forming Product Marketing Manager*	***Dr. Patrick de Luca***, *Composites Product Manager*
11:00	Christof Kindervater, **German Aerospace Center (DLR)** *Support of Bird Strike Certification by PAM-Simulations applied to the DLR Research Aircraft HALO*	Dr. Jean-Claude Kedzia, **ESI Group** *Update on Electromagnetics*	Dr. Jens-Dominik Müller, **Queen Mary University** *Towards an adjoint multiphysics code Automatic Differentiation of CFD-ACE+*	Michael Eberle, **Technische Universität München** and Andreas Businger, **Universität Stuttgart** *Computation of underbody flow aeroacoustics for a production vehicle*	Ciro Caramielo, **Europea Microsfusioni Aerospaziali S.P.A. (EMA)**	Dr. Harald Friebe, **GOM mbH**, (Dr. S. Mecke/M. Schneider, **Salzgitter Mannesmann Forschung)** *Verification of material characteristics and validation of simulated parts using optical measurement systems*	Josef Křena, **LETOV LETECKÁ VÝROBA, s.r.o.** *Simulation and verification of composite aircraft part forming*
11:30	Naohisa Mamiya, **NISSAN MOTOR CO., LTD.** *Practical use of CAE Technology in Powertrain Development*	Yasushi Hamada & Marie Tsurunaga, **MAZDA Motor Corporation** *24GHz Vehicle Radar Performance Analysis with PAM-CEM*	Dr. Yongjoong Lee, **Paul Scherrer Institute (PSI)** *Application of CFD-ACE+ multiphysics capability for the R&D activities at the PSI high intensity proton beam accelerator facility*	Martin Dannemann, Institut für Leichtbau und Kunststofftechnik (ILK), **Technische Universität Dresden** *Optimization of Transmission loss for Composite Structures using Coupled Finite and Boundary Element Method*	Marco Aloe, **ESI Group** *Optimizing the High Pressure Die Casting Process Using Computer Simulation*	Joelle Garabed, **PSA Peugeot Citroën**	Nicolas Diot, **Safran Engineering Services** *Study of SAFRAN Open 60' Race Yacht Crashworthiness*
12:00	Dr. François Billon, **Comex Nucléaire** *New trends in realistic simulations for Fluid Structure Interaction (FSI) for immersed nuclear structures subjected to earthquakes*	Jean-Philippe Parmantier, **ONERA** *A history of the CRIPTE code and main evolutions*	Guillaume Pierrot, **ESI Group**		Dr.-Ing. Wolfgang Feickert, **Ingenieurbüro Huß & Feickert GbR mbH,** *Using Residual Stresses Calculated with ProCAST within the Analytical Strength Assessment according to FKM*	Prof. Matteo Strano, **Dipartimento di Meccanica, Politecnico di Milano,** *An effective and efficient approach for simulating the mechanical behaviour of metal foam filled tubular structures*	Roberto Catenaro, **YCOM** *RTM vs. AUTOCLAVE PREPREG process for monocoque in ROAD CARS. Specific analysis for a high performance vehicle*
12:30	Antonio Rodríguez Senín, **ATOS-ORIGIN** *Optimization of the Cabin Car Primary Energy Absorption Mechanism (PEAM) of a new TALGO Intercity Train*	Dr. Christoph Mäurer, **EM Software & Systems GmbH** *FEKO - Solving Electromagnetic Problems with Modern Field Simulation Software*	Summary & Closing	Summary & Closing	Summary & Closing	Summary & Closing	Summary & Closing

1:00 Lunch

2:30pm ESI GROUP Vincent Chaillou, *President Product Operations, Chief Operating Officer ESI Group* *Closing & Farewell*

3:00pm - 5:00pm **Automotive Roundtable & Simfolder User Group Meeting**

Location

Munich Airport Marriott Hotel

Alois-Steinecker-Strasse 20 - 85354 Freising – Germany

Tel.: +49 (0) 8161 966-0 - Fax: +49 (0) 8161 966-6281

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How to get there?

You will find detailed directions on our website:

www.esi-group.com/globalforum2010/how-to-get-there

Accommodation

Please refer to our website for several accommodation options within walking distance of the conference.

We have pre-reserved rooms for you at negotiated rates:

www.esi-group.com/globalforum2010/accommodation

Participation

Register online quickly and easily at the following link:

www.esi-group.com/globalforum2010/registration

Participation Rate (Gala Dinner included) 460 EUR (VAT excl.)

For any two persons with the same billing address, a third person can register for free.

Gala evening

Enjoy the Gala Evening on May 19, 2010

at Munich's famous Biergarten Augustiner Keller.

Contact us !

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