

# JEC conferences

Paris, March 14-15-16-2017



## JEC world

International Composites Event

(ENGLISH) PROGRAM AT A GLANCE

**6 SESSIONS**

**45+** speakers

OFFICIAL SPONSOR



Altair

**JEC** KNOWLEDGE & NETWORKING  
GROUP DEVELOPING THE COMPOSITES INDUSTRY WORLDWIDE

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# Edito

The global composite materials market is projected to hit over \$105 billion by 2021 which represents a strong and steady increase in demand and opportunities to use the many properties composite materials offer.

Light-weighting, reducing processing times, making affordability a priority, and finding solutions to pressing environmental concerns by making composites more sustainable, all represent oncoming challenges in need of innovative advancements.

The JEC World conference program aims to educate and provide the latest information, trends and experience feedbacks to professionals willing to improve their knowledge and seize the consequent networking opportunities. In 2017, the JEC World conferences will cover thermoplastic composites, braiding, and production technologies as well as several major industries such as Automotive, Aeronautics, and Construction and offer a complete overview of the value chain and the ever-expanding use of composite materials.

The variety of applications in which composite materials have found a valuable place will only be getting wider as technologies improve and industrials realize the full potential of using them. In order to meet market expectations, new developments will come from all fronts.

On the raw material side, **GFRP composites have a bright future** thanks to their constant expansion in several key industries such as Construction and Infrastructures, with renovation playing a big part, and Automotive. The competition with carbon fiber is a powerful incentive to **develop advanced glass fibers**, with a focus on increased tensile strength and modulus. Resins also need to be taken into consideration when it comes to performance, with **thermosets being more widely used but thermoplastics quickly gaining ground thanks to recyclability properties and reduced costs**.

Transportation remains the largest industry for composite materials and as such is a constant source of innovation in order to **fulfill market expectations related to more lightweight parts, reducing costs and increasing recyclability**. Carbon fiber has infinite potential in building and construction applications thanks to the rehabilitation needs of infrastructures, specifically in the U.S.

"Current Trends in the Automotive Industry", "Aeronautics: Multiscale Modeling for Behavioral Predictions", "Composites as a Worthy Alternative to Traditional Materials in the Construction Industry" and "Production Technology for Multi-Material Lightweight Components" are only a few of the topics we are dedicating to these very issues, as they aim to answer the most pressing questions.

**With presentations coming from over ten different countries**, the worldwide impact of composite materials will be well illustrated.

With **6 sessions** and over **45 speakers, 35 presentations** will take place during JEC World 2017. Several guided booth visits organized along with specific conference sessions (Thermoplastics, Braiding, and Production Technology) will supplement the technical content from the presentations with concrete examples and the possibility of having a privileged contact with the visited companies.

Thanks to its international network, the JEC added value is to offer a unique educational platform. To this end, **come, meet and listen** the most advanced companies worldwide and the best speakers amongst industrials such as: **Airbus, Dassault Aviation, Safran Aircraft Engines, Faurecia, Magna Exteriors, ONERA, DuPont, and many more.**

**Cecile LAGOUTTE**

*Conferences / Awards Project Manager  
JEC Group*





## Program at a glance



Dates & Times	Conferences
Mon March 14 10AM - 12:45PM 	Thermoplastics – Multimaterial Solutions
Mon March 14 2PM - 4:45PM	Aeronautics: Multiscale Modeling for Behavioral Predictions
Wed March 15 10AM - 1:20PM 	Production Technology for Multi-Material Lightweight Components
Wed March 15 2PM - 4:45PM	Current Trends in the Automotive Industry
<b>Wed March 15</b> <b>2PM - 5PM</b> 	Unlock the potential of Lightweight Design with Composite <i><b>Presented by Altair - Free Conference</b></i>
Thu March 16 10AM - 12:20PM 	Braiding: Taking the Technology to the Next Industrial Level
Thu March 16 2PM - 4:45PM	Composites as a Worthy Alternative to Traditional Materials in the Construction Industry



This session includes a guided booth tour of selected companies

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## Thermoplastics – Multimaterial Solutions

- ⊕ Potential of thermoplastic composites in various industries
- ⊕ Manufacturing needs

When it comes to using composite materials, thermoplastics have become a staple in many major industries such as Aeronautics or Automotive thanks to their unique properties and the involved processing techniques. Design, manufacturing, optimized structures and hybrid solutions are just a few of the themes that will be developed during this session. This session will delve into the various aspects of the thermoplastic composites value chain, starting from automotive and aeronautics markets adapted polymer development to recycling. Several presentations will illustrate assembly and functionalisation of composites structures thanks to multimaterials.

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With the presentations from

<b>Solvay</b>	<b>Marc Doyle</b> SENIOR VICE PRESIDENT RESEARCH & INNOVATION, COMPOSITE MATERIALS GLOBAL BUSINESS UNIT	
<b>Cetim</b>	<b>Alain Lemascon</b> DESIGN EXPERT <b>Damien Guillon</b> DESIGN EXPERT	
<b>IRT Jules Vernes</b>	<b>Sébastien Gueroult</b> R&D ENGINEER	
<b>Cetim</b>	<b>Richard Tomasi</b> POLYMER COMPOSITE & ENGINEERING DEPARTMENT MANAGER	
<b>Cermat</b>	<b>Frédéric Ruch</b> POLYMER COMPOSITE & ENGINEERING DEPARTMENT MANAGER	
<b>CTIPC</b>	<b>Jérôme Sicard</b> HEAD OF COMPOSITE IN THE RESEARCH AND DEVELOPMENT DEPARTMENT	



This session includes a guided booth tour of selected companies

## Aeronautics: Multiscale Modeling for Behavioral Predictions







- ⊕ Predictive modeling
- ⊕ Mechanical analysis
- ⊕ Structure strength optimization

Composite materials make for complex behavioral challenges: structure sizing, processes, tooling, environmental influence, etc. As their use becomes more widespread, the need for efficient and well-adapted damage models has grown. Mechanical properties need to be taken into account as best as possible in order to optimize the use of composite materials, notably in Aeronautics where the requirements are particularly stringent.

In partnership with



With the presentations from

<b>ONERA</b>	<p><b>Frédéric Laurin</b>  <b>CHAIRMAN</b></p> <p><b>Martin Hirsekorn, Christian Fagiano</b> RESEARCH SCIENTISTS</p> <p><b>Aurélien Doitrand</b> PHD STUDENT</p>	
<b>Airbus Safran Launchers</b>	<p><b>Camille Martin</b> STRUCTURE ANALYSIS ENGINEER</p> <p><b>Ludovic Ballere</b></p>	
<b>e-Xstream Engineering</b>	<p><b>Roger Assaker</b> CEO</p> <p><b>Laurent Adam</b> R&amp;D DIRECTOR</p>	
<b>Safran Aircraft Engines</b>	<p><b>Julien Schneider</b> MECHANICAL EXPERT</p> <p><b>Nicolas Carrere</b> ENGINEER</p>	
<b>Airbus</b>	<p><b>Laurent Risse</b> SENIOR EXPERT COMPOSITE AIRFRAME STRUCTURE ANALYSIS</p>	
<b>Dassault Aviation</b>	<p><b>Dominique Martini</b> STRESS ENGINEER</p>	

## Production Technology for Multi-Material Lightweight Components

- ⊕ Hybrid structures joining
- ⊕ Efficient manufacturing

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Developed with success from a partnership with the AZL Aachen Center for Integrative Lightweight Production of RWTH Aachen in 2015 and 2016, and reissued in 2017, this session will cover multi-material lightweight components. The use of multi-material systems is increasing, and bringing along a host of challenges in production techniques, joining of hybrid parts, large scale production, etc.

With the presentations from

<p><b>Aachen Center for Integrative Lightweight Production (AZL) of RWTH Aachen University</b></p>	<p><b>Michael Emonts</b> CEO</p> <p> <b>CHAIRMAN</b></p> <p></p>
<p><b>Institut für Textiltechnik der RWTH Aachen University (ITA)</b></p>	<p><b>Hans-Christian Früh</b> R&amp;D - ENGINEER</p> <p></p>
<p><b>Fraunhofer Institute for Laser Technology (ILT)</b></p>	<p><b>Frank Sneider</b> MACRO JOINING AND CUTTING</p> <p></p>
<p><b>Laboratory of Machine Tools and Production Engineering (WZL) of RWTH Aachen University</b></p>	<p><b>Sarah Ekanayake</b> M. SC., RESEARCH ASSOCIATE</p> <p></p>
<p><b>DuPont Performance Polymers</b></p>	<p><b>Portia Yarborough</b> BUSINESS MANAGER – COMPOSITES</p> <p></p>
<p><b>Frimo / Schuler Pressen GmbH</b></p>	<p><b>Thomas Joachim</b> HEAD OF PRODUCT MANAGEMENT PRESSING/ FORMING</p> <p><b>Patric Winterhalter</b> PRODUCT MANAGER COMPOSITES</p> <p></p>



This session includes a guided booth tour of selected companies

## Current Trends in the Automotive Industry

- ⊕ Challenges, opportunities, emerging trends
- ⊕ High volume manufacturing
- ⊕ Virtual characterization and crash simulation

The Automotive industry remains by far the largest market for composite materials, making it crucial regarding innovation and advancements in materials and manufacturing processes. The main challenges: raw material cost reduction, light-weighting, and achieving mass production, are direct consequences of environmental requirements becoming more rigorous as concern about carbon emissions grows.

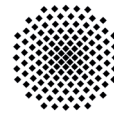
With the presentations from

<b>Lucintel</b>	<b>Sanjay Mazumdar</b> CEO	 <b>CHAIRMAN</b>	
<b>Magna Exteriors</b>	<b>Joseph Laux</b> DIRECTOR OF BUSINESS DEVELOPMENT AND ADVANCED ENGINEERING (EU) – LIGHTWEIGHT COMPOSITES		
<b>DuPont Performance Materials / CNH Industrial - IVECO</b>	<b>Fabrice Giaume</b> TECHNICAL PROGRAMS LEADER – LIGHTWEIGHTING		
	<b>Stefano Chieti</b> PERFORMANCE ENGINEER		
<b>Hexion</b>	<b>Ian Swentek</b> APPLICATIONS DEVELOPMENT ENGINEER		
<b>Faurecia</b>	<b>Guillaume Chambon</b> R&D PRODUCT MANAGER		
<b>ESI Group</b>	<b>Patrick De Luca</b> COMPOSITES SOLUTION - CENTER OF EXCELLENCE - MANAGER		

## Braiding: Taking the Technology to the Next Industrial Level

Braiding is a technique that presents many benefits, and an opportunity to get the best out of fibers. Notably, it allows for stronger and more damage tolerant composite parts and improves manufacturing efficiency and repeatability. This session will delve into various applications in the Automotive and Sports & Leisure industries, as well as tackle machine concepts and production quality.

In partnership with



Universität Stuttgart

With the presentations from

<b>TU Munich</b>	<b>Klaus Drechsler</b> PROFESSOR	<b>CHAIRMAN</b>	
<b>LCC</b>	<i>To be announced</i>		
<b>Munich Composites</b>	<b>Felix Fröhlich</b> MANAGING DIRECTOR		
<b>ESI Group</b>	<i>To be announced</i>		
<b>University of Stuttgart</b>	<b>Peter Middendorf</b> IFB DIRECTOR	<b>CHAIRMAN</b>	
<b>Apodius</b>	<b>Alexander Leutner</b> CEO		



This session includes a guided booth tour of selected companies



## Composites as a Worthy Alternative to Traditional Materials in the Construction Industry

The absence of official codes and regulations in the building & construction field has long been a hindrance to the use of composite materials. However, with forecasts of accommodation capacities doubling by 2050, the industry needs low mass, low energy consumption materials more than ever. This session will delve into the full potential of composite materials for construction, as well as common issues and their solutions.

With the presentations from

<b>Connectra</b>	<b>Andrew Mafeld</b> MANAGING DIRECTOR	 <b>CHAIRMAN</b>	
<b>A. Schulman</b>	<b>Matthew Kaczmarczyk</b> MARKET MANAGER AEROSPACE/DEFENSE & HIGH PERFORMANCE AUTOMOTIVE		
<b>Autodesk / MIT</b>	<b>Massimiliano Moruzzi</b> SENIOR PRINCIPAL RESEARCH SCIENTIST		
	<b>Mehran Ebrahimi</b> RESEARCH SCIENTIST		
	<b>Mark Goulthorpe</b> ASSOCIATE PROFESSOR		
<b>Multiplast</b>	<b>Guillaume Kemlin</b> PROJECT AND R&D MANAGER		
<b>Ecole des Ponts ParisTech</b>	<b>Jean-François Caron</b> ARCHITECTED STRUCTURES AND MATERIALS TEAM LEADER		
<b>Acciona Infrastructure</b>	<b>Bansal Anurag</b> GLOBAL BUSINESS DEVELOPMENT		

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## PRICES

Until February 16, 2017

### Conferences access

1 Session	Starting at €200 €350
Package	Starting at €260

#### The attendance fees include:

- Access to the conference(s) you selected
- Free access to the 3 days of the Show (value of €80 onsite)
- Free trade magazines from our partners
- Proceedings



## Register online

[www.jecworld-badges.com](http://www.jecworld-badges.com)

\* All prices quoted are in EUROS and include VAT - Earlybird tariffs for online registration