

ORGANISED BY  edana™

FILTRE @INDEX™ 17

A FILTRATION CONFERENCE & TABLETOP DISPLAY
Conference Programme

 edana™
THE VOICE OF NONWOVENS

ORGANISED BY edana

FILTREX™ @INDEX™17



YOUR BADGE

Please note that it is mandatory to wear your badge at all times. Your badge gives you access to the conference room, lunches, coffee breaks, and the evening networking event.

CONFERENCE SCHEDULE & ACTIVITIES

DAY 1 | Wednesday 5th April, 2017

NOTE: Registration desk open throughout the entire conference

- Conference starts at 09.00 and finishes at 18:15
- Welcome coffee and opening of the tabletop area: 09.45 to 10.15
- Networking lunch: 12.30 to 14.00
- The FILTREX™ Innovation Award – nominees presentation: 14.00 to 15.00

19.00 – 21.30 FILTREX™ 2017 Dinner Party & The FILTREX™ Innovation Award Ceremony at the Château des Bois

18.30: meet in the entrance hall of Palexpo
18.30 – 18.45: buses will depart from Palexpo
21.00 – 21.30: buses will return to Palexpo and to the centrum of Geneva (Gare Routière at Place Dorcière)

The Château des Bois was established on feudal land in 1631. Today, it is one of the rare wine Châteaux in the Republic and Canton of Geneva. Its vineyards are on the hillsides of Bourdigny and Peney with superb exposure to the south and south-west giving excellent sunshine hours. A perfect place for relaxed networking that combines a unique property, excellent wines and history.

BUSINESS CASUAL

DAY 2 | Thursday 6th April 2017

NOTE: Registration desk open throughout the entire conference

- Conference starts at 08.30 and finishes at 15.30
- Welcome coffee: 08.00 to 08.30
- Networking lunch: 12.50 to 14.00
- Goodbye coffee: 15.20 to 16.00

DELEGATE SURVEY & PRESENTATIONS

Your feedback is important to ensure our events continue to meet your needs and expectations. Help us make our next event even better by completing the Delegate Satisfaction Survey.

At the end of the conference, you will receive an email with a personalised link to complete the survey.

After you complete the survey, you will be directed to a page to download the available presentations from this conference.

Should you have any questions about the survey or presentations, contact delphine.rens@edana.org for assistance.

FUTURE EDANA EVENTS

2017

- ▶ 7 – 8 June **EurAsian Geotextiles Symposium**
Beijing, China
- ▶ 27 – 29 September **OUTLOOK™**
Cascais, Portugal
- ▶ 25 – 26 October **Nonwovens Innovation Academy**
Chemnitz, Germany

2018

- ▶ 6 – 7 February **Middle East and North Africa Symposium**
Dubai, UAE
- ▶ 14 – 15 March **OUTLOOK™**
Asia Singapore
- ▶ 23 – 24 May **International Nonwovens Symposium**
Rome, Italy

Visit www.edana.org for further details

NEED HELP ?

The EDANA staff are looking forward to helping you make your attendance at FILTREX™ 2017 a success for you and your business.

Thank You! The EDANA team

Wednesday, 5th April

08.30 → 17.30

Registration at Palexpo – Geneva

Please wear your badge at all times for easier networking

Note that your badge can be retrieved from the 4th April at the INDEX™ badges distribution counters

08.30 → 09.00

Registration & networking

09.00 → 09.45

Keynote Speaker

Air pollution and health: challenges and opportunities for policy-makers, citizens, and the industry



Prof. Nino Künzli

Deputy Director, Swiss Tropical and Public Health Institute
Dean, Swiss School of Public Health (Switzerland)

09.45 → 10.15

 WELCOME COFFEE & OPENING OF THE TABLETOP EXHIBITION

10.15 → 10.30

Opening and Welcome



Pierre Wiertz

General Manager, EDANA (Belgium)

10.30 → 12.30

SESSION 1

Health effects of fine & ultra-fine particles on humans



MODERATOR

Joerg Sievert

Chief Operating Officer, Freudenberg Filtration Technologies (Germany)

10.30 → 10.50

Air pollution metrics – Why particle mass “PM” is a misleading definition

- Definition of pollutants in exhaust gas differs from definition in ambient air
- Metrology of pollutants not consistent during type approval and actual use
- Toxicity to humans and impact on the environment not taken into account
- Secondary effects like formation of toxic substances within filters are ignored
- In case of highly toxic substances best available technology must be required



Andreas Mayer

Director, TTM (Switzerland)

10.50 → 11.10

Indoor odours – challenges for research

- Odour perception: how the nose works
- Indoor air guide values in Germany
- Measurement of odor and irritating effects



Kirstin Sucker

Scientific staff, Institute for Prevention and Occupational Health (IPA),
Ruhr Universität Bochum (Germany)



Let's Tweet!

#FILTREX17
#EdanaNonwovens

11.10 → 11.30

Effects of fine and ultrafine particle exposure on humans in the Aachen exposure lab

- Exposure studies with volunteers using different welding fumes and a study with NO₂
- Effect monitoring using induced sputum, nasal lavage, blood tests and others



Thomas Kraus

Professor, RWTH Aachen University (Germany)

11.30 → 11.50

Filter media evaluation in relation to airborne allergens

- Natural particles with allergenic potential
- Synthetic particles with allergenic potential
- Outlook on cell cultures as indicators for the biological state of cells



Uwe G. Haefner

Head of Industrialization & Innovation,
Freudenberg Filtration Technologies (Germany)

11.50 → 12.30

Panel discussion with the speakers (incl. Q&A)

12.30 → 14.00

 LUNCH & NETWORKING IN THE TABLETOP AREA

14.00 → 15.00



The Filtrex™ Innovation Award

FILTREX™ is proud to present the very first award recognizing innovation in filtration!

Five nominees will each present their innovation in a 10-minute presentation. The audience will elect the winner who will be announced during the FILTREX™ 2017 walking dinner party.

15.00 → 16.30

SESSION 2

Standardisation



MODERATOR

André Boni

Marketing Director, Hollingsworth & Vose (Belgium)

15.00 → 15.20

ISO 16890 : a revolutionary new approach to filter performance rating

- Weaknesses and limitations of the current standards EN 779 and ASHRAE 52.2
- The new approach: filter rating based on particulate matter (PM) size fractions
- Transition from the old to the new rating
- Energy efficiency rating in the light of the new ISO standard



Thomas Caesar

Director Global Filter Engineering Industrial Filtration,
Freudenberg Filtration Technologies (Germany)

15.20 → 15.40

ISO 16890 – A global filter test standard

- Background of the ISO 16890
- PM₁: an important health aspect
- ISO16890 vs EN 779 vs ASHRAE 52.2
- A technical reflection on testing according to ISO16890



Chris Ecob

Global Technical Director, Camfil (United Kingdom)

15.40 → 16.00

Energy efficiency in HVAC filtration – Developing nonwoven filter media further

- Energy efficient filter media
- Synthetic nonwovens
- HVAC applications
- High separation efficiency at low energy use



Lorenz Summa

Senior R&D Manager Filtration Products, **Sandler** (Germany)

16.00 → 16.30

Panel discussion with the speakers (incl. Q&A)

16.30 → 17.00

 COFFEE BREAK & NETWORKING IN THE TABLETOP AREA

17.00 → 18.15

SESSION 3

Quality assurance and testing



MODERATOR

Martin Dauner

Head of Dept. of Filament and Nonwovens Technologies, **ITV Denkendorf** (Germany)

17.00 → 17.20

Modular filter test rig system

- Modular filter media test rig which apply to the standards ISO 5011, ISO TS 19713, EN 779, ASHRAE 52.2 and ISO/FDIS 16890
- Measurement device for very high concentration, e.g. in ISO 5011/ISO TS 19713 as well as for low concentration, e.g. in EN 779, ASHRAE 52.2 and ISO/FDIS 16890
- FTControl software with automatic software routines according to standard



Sven Schütz

Sales & Applications Engineer, **Palas®** (Germany)

17.20 → 17.40

New developments in automatic optical inspection systems (AOI)

- ABI (adaptive background illumination) for detecting even small defects in textured materials
- Virtual X-Ray: shows foreign particles even inside the filter material
- Formation analysis for control of the homogeneity of the filter material covering the full web width and length
- Feedback of inspection results for immediate process optimization



Hans Oerley

Senior Manager Business Development, **Dr Schenk** (Germany)

17.40 → 18.00 **On-line pressure drop analyzer – A novel innovation for the filter media production**

- Pressure drop is a key performance indicator of a filter media. However, so far it has only been possible to measure pressure drop on lab scale
- We have developed a novel analyzer to measure pressure drop on-line
- With the on-line pressure drop analyzer (PDA) it is possible to control process parameters to achieve improved and constant quality of a filter media
- Correlation to various lab standards is more than 0,95 and due to wide measurement range the PDA can measure very open and closed structures without re-calibrating



Vesa Kukkamo

Vice President, ACA Systems (Finland)

18.00 → 18.15 **Q&A with speakers**

19.00 → 21.30 **FILTREX™ 2017 Dinner Party**

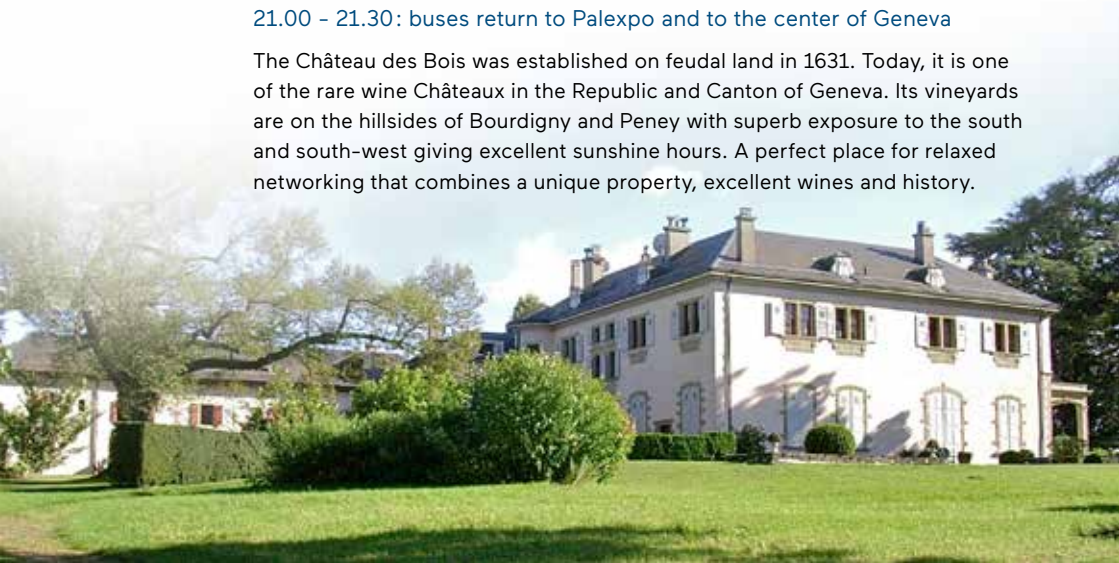
The FILTREX™ Innovation Award Ceremony at the Château des Bois

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Thursday, 6th April

08.00 → 15.30 **Registration at Palexpo – Geneva**

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08.00 → 09.00  WELCOME COFFEE AND NETWORKING IN THE TABLETOP AREA

08.30 → 09.00 **Keynote Speaker**

The global filtration market and its importance for nonwoven media

An analysis of the industry's structure, leading companies and their vertical integration and innovation power

- Markets and definitions – Media, filters and filter equipment
- An estimated global market of \$60 billion
- What's the industry structure?
- Some very significant customers for the nonwovens industry
- Who are the major players? Finished filter makers: buyers, innovators or both?



Adrian Wilson

Editorial Consultant and Analyst, Sustainable Nonwovens & BCC Research (United Kingdom & United States)



Let's Tweet!

#FILTREX17
#EdanaNonwovens

09.00 → 10.40

SESSION 4

Fibres for filtration media



MODERATOR

Marines LagemaatScientific and Technical Affairs Director, **EDANA** (Belgium)

09.00 → 09.20

Lyocell micro-fibrillated cellulose fibres, versatility in fibre media design

- Selection of man-made cellulose fibres for high efficiency filter media
- Structure and fibrillation of lyocell fibres
- Mathematical modelling of filter media compared to practical measurements

**Andy Slater**Segment Manager, Global Business Development, Technical, **Lenzing** (Austria)

09.20 → 09.40

Novel PP meltblown polymer that allows a step change in nonwoven performance

- What are the limitations in today's PP nonwovens for filtration?
- How can the polymer used in the functional layer address these restrictions?
- Latest meltblown product innovations to enable finer fibres and improved filtration efficiency and achieve higher filter classes
- How can these new polymer concepts allow meltblown webs to enter in new applications, higher filter classes etc.?

**Gustaf Tobieson**Application Marketing Manager, **Borealis** (Sweden)**Henk van Pariedon**Application Development Engineer, **Borealis** (Sweden)

09.40 → 10.00

Nanoval's mixed micro & nano spunlaid – An alternative to conventional meltblown

- High tenacity and high elongation
- Adjustment of filament diameter distribution range
- Less air demand due to spin-cone concept
- PP, PET, PLA, PPS and Cellulose/Lyocell (solution spun)

**Christian Gerking**Project Manager, **Nanoval** (Germany)

10.00 → 10.20

Nanofibres for air filtration: delivery, durability, downstream processing

- Performance requirements for nanofiber media, material handling challenges, and test standards relevant to making nanofibers useful for filtration applications
- Contribution of the nanofiber layer's characteristics on the figure of merit and MPPS (most penetrating particle size)
- Solving the nanofiber durability/process-ability issue by looking at substrate design, nanofiber adhesion systems, fiber to fiber bonding, and polymer selection
- The effects of the aforementioned in the downstream processing/ specification protocol necessary for ISO16890/EN1822 and ASHRAE 52.2

**Lukas Plistil**R&D Engineer, **Elmarco** (Czech Republic)

10.20 → 10.40

Q&A with speakers

10.40 → 11.10

☕ COFFEE BREAK AND NETWORKING IN THE TABLETOP AREA

11.10 → 12.50

SESSION 5

Application oriented solutions



MODERATOR

Andreas Manz

Sales Manager Technical Specialities DACH, key accounts,
Berry Plastics (Germany)

11.10 → 11.30

Improved indoor air quality without increasing cost

- Higher fine particle pollution leads to more efficient filtration
- Demonstrating higher performing filter, long filter life and competitive cost
- NanoWave LM as new version of market leading technology for pocket filters
- Pleatable version to expand into different applications

**Bastian Keil**

Director Global Product Marketing, Hollingsworth & Vose (Germany)

11.30 → 11.50

New hybrid filter media for new generation of bag filter

- New innovative Filter media combines microglass & synthetic fiber
- Superior efficiency and pressure drop
- New bag filter for long life and/or harsh environments

**Roger Eckrich**

Europe & Asia Sales Leader Filtration & Separation,
Johns Manville (Germany)

**Richard Ringström**

Filtration Technology Chief Engineer, Camfil (Sweden)

11.50 → 12.10

Keep it pure: latest developments in cabin air filtration

- Fine dust filtration (PM2.5) with new generation of cabin air filter media
- Field test results of in cabin concentration demonstrating real time filter performance of mentioned filter media
- Gas adsorption filters for effective removal of VOC, SO₂, NO_x, NH₃
- Functionalisation of filter media for enhanced protection (e.g. biofunctional filters)

**Thomas Heininger**

Manager Research & Development Cabin Air Filters,
MANN+HUMMEL Innenraumfilter (Germany)

12.10 → 12.30

Air Intake filter media for enhanced gas turbine health and energy throughput

- Operational efficiency and overall gas turbine health heavily depends on the quality of the air entering the turbine.
- Correct selection of air filters and air filter media is therefore one of the most crucial factors
- Compressor fouling occurs when very small particles pass through the filtration system and adhere to the compressor blades altering the aerodynamic properties and mechanics of the compressor
- High humidity and salt entering the turbine may also have a negative impact on operational performance and costs e.g. due to corrosion
- Trends in filter media development, tailor-made laboratory and 2nd generation filter media

**Jan Kaukopaasi**

Global Business Development Manager,
Industrial and Cabin Air Filtration, Ahlstrom (Finland)

12.30 → 12.50

Q&A with speakers

12.50 → 14.00

 LUNCH AND NETWORKING IN THE TABLETOP AREA

14.00 → 15.20

SESSION 6

Innovations in nonwoven filtration media



MODERATOR

Werner Groh

Director Nonwovens Technology & Engineered Products,
Johns Manville (Germany)

14.00 → 14.20

Spunlace filter media for mobile filtration application

- 100% synthetic filter media made of PET and Co- Pet fibres
- High efficiency with low pressure drop
- Acrylic or no binder – environment friendly (sustainability)
- Gradient structure, high initial efficiency

**Lalit Joshi**

Deputy Manager, Product & Business Development, **Welspun India** (India)

14.20 → 14.40

Innovative nonwovens and nano fibers for filtration

- Production technology: description of JX's unique processes used in CLAF and Milife with machine direction oriented web and a cross machine direction oriented web thermally bonded.
- Processing and final product performance benefits generated by the unique dimensional stability and thin profile of these cross laminated nonwovens
- Applications: review of the value added by cross laminated oriented nonwovens from filtration to industrial composites
- Innovation: using benefits of cross laminated oriented nonwovens for developing new products/composites. Focus on newly developed micro fibre nonwovens for the filtration market

**Marc Levillain**

General Manager, **JX Nippon ANCI** (France)

14.40 → 15.00

Ultra-thin liquid repellent coatings for filtration applied by low pressure plasma – An answer to REACH restriction on PFOA and PFOS

- Low pressure plasma nanocoatings and equipment
- Lowest environmental footprint
- PFOA- and PFOS-free durable water repellent (DWR) coatings
- Nanofiber membranes and laminates, nonwovens, membranes

**Eva Rogge**

R&D Manager, **Europlasma** (Belgium)

Development of sintered nonwovens

- Project with the main goal of developing nonwovens, charged with metal particles or metallic fibers, corresponding to the application-specific requirements of the sintered materials
- They can be used for diverse applications such as high temperature and chemically resistant materials
- This allows new forms, shorter production processes and new filter products
- The need of an alternative lightweight sintered material grows in different fields of application
- We would like to offer a new developed structure to this market

**Tobias Thiem**

Research & Development, **Norafin Industries** (Germany)

15.20 → 16.00

 **GOODBYE COFFEE & NETWORKING IN THE TABLETOP AREA**

THANKS

EDANA would like to thank the members of the FILTREX™ 2017 Programme Advisors for their help in setting up this programme :

André Boni, Hollingsworth & Vose

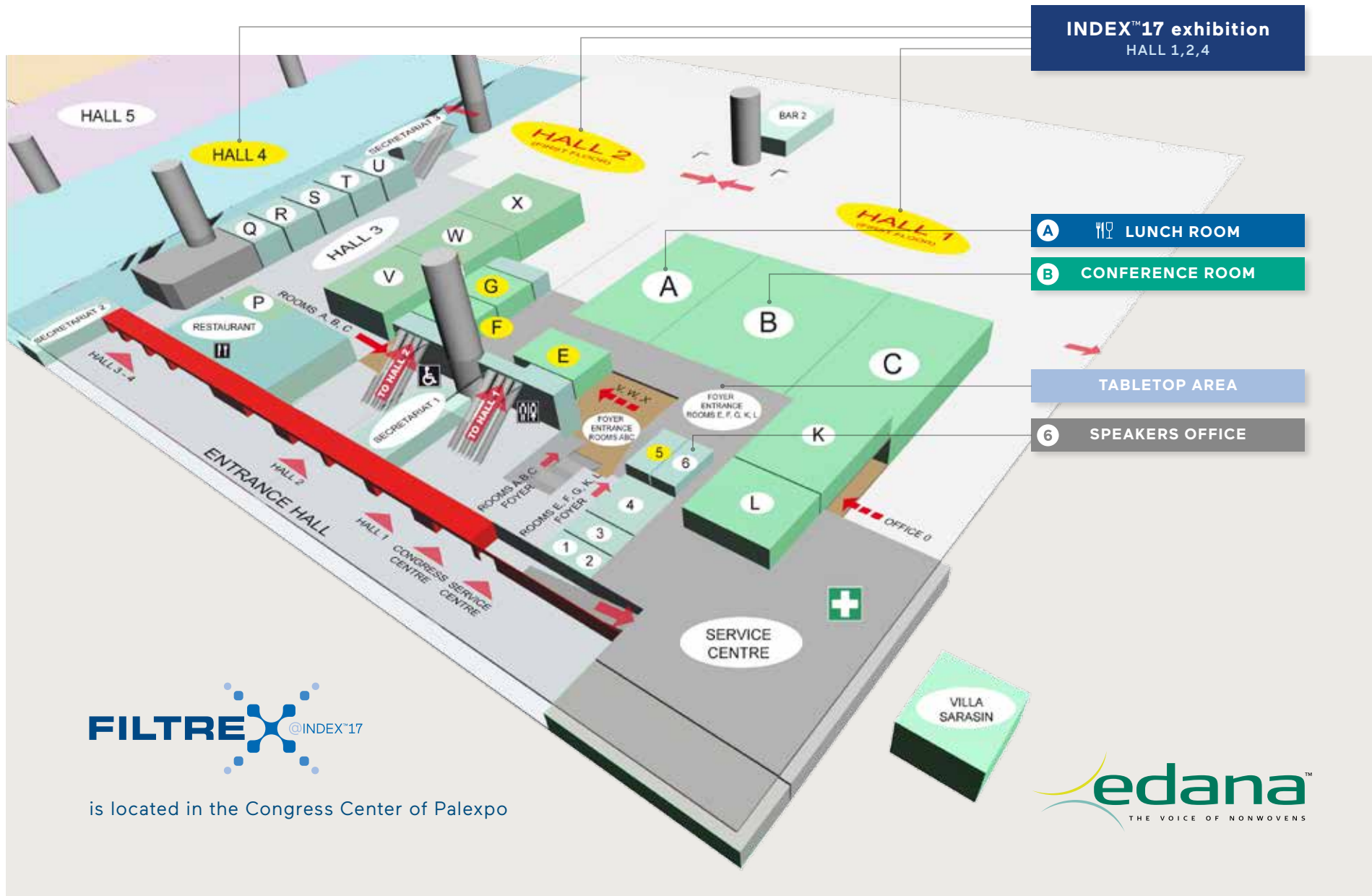
Christian Hassmann, Johns Manville

Jochem Hofstetter, Hollingsworth & Vose

Andreas Manz, Berry Plastics

Joerg Sievert, Freudenberg Filtration Technologies

This programme may be subject to last-minute changes and cancellations.
All presentations & moderated sessions will be held in English.



is located in the Congress Center of Palexpo






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CALL FOR PAPERS

Deadline: 10th May 2017



NONWOVENS
INNOVATION
ACADEMY

HOSTED BY



SÄCHSISCHES
TEXTIL
FORSCHUNGS
INSTITUT e.V.

25th & 26th OCTOBER 2017

Chemnitz | Germany

The Nonwovens Innovation Academy (NIA) brings together academics, students, scientists, engineers and industry experts, to encourage the development of technical understanding and research to support innovation and growth in the nonwovens and related industries. In 2017, it is hosted by our partner Saxon Textile Research Institute (STFI) in their brand new Center of Textile Lightweight Engineering in Chemnitz / Germany.

THIS EDITION FEATURES

- ▶ Student grants
- ▶ Lab/facilities visit
- ▶ Posters exhibition
- ▶ Technical textiles art showcase
- ▶ Discovery of a longstanding textile tradition

TOPICS INCLUDE



GENERAL INNOVATIONS IN:

- ◀ Raw materials or components that are of special relevance to the nonwovens industry
- ◀ Finished products made of, or incorporating nonwovens
- ◀ Sustainable nonwoven products or processes

AND SPECIFIC INNOVATIONS IN

- ◀ Cradle-to-Cradle in nonwovens
- ◀ Nonwoven-based lightweight structures in different applications



For more information, contact giovanna.merola@edana.org or visit the "Conferences and Symposia" section of www.edana.org  

6 – 7 February, 2018

PARK HYATT HOTEL
DUBAI | UAE

**MIDDLE EAST
& NORTH AFRICA**

NONWOVENS
SYMPOSIUM & EXHIBITION

A UNIQUE
CONFERENCE
AND TABLETOP
EXHIBITION FOR
THE NONWOVENS
INDUSTRY IN
THE MIDDLE EAST
AND NORTH
AFRICA REGION



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