



# **9th ESST/VDZ Conference**

## **Programme**

Musik- und Kongresshalle (MuK)  
Lübeck, Germany, 10 to 13 May 2026

## Photos, Film recordings

By attending the ESST/VDZ conference, attendees agree that the photos taken during the conference and in the exhibition hall may be used for public relations purposes. If one of the participants does not wish this, he must declare this in writing before the start of the event, otherwise his agreement is valid. The photo, sound and film recordings may be used for documentation and public relations purposes by the organizers.

## Accompanying persons programme

### **Sunday, 10 May 2026**

18 h 30      Welcome Reception  
                  (at MuK Conference Center Lübeck)

### **Monday, 11 May 2026**

18 h 00      Get together in exhibition area

### **Tuesday, 12 May 2026**

10 h 00      European Hansemuseum  
                  (Meeting point European Hansemuseum Lübeck)

11 h 30      Guided walk through Lübeck

12 h 30      Lunch at the Schiffergesellschaft

15 h 00      Boat cruise

## Registration

**Sunday, 10 May** 15 to 21 h MuK Lübeck

**Monday, 11 May** 8 to 16 h MuK Lübeck

## Sunday, 10 May 2026

14 h 00 ESST Board (Room 5/6)

16 h 30 ESST Council (Room 5/6)

**18 h 30 Welcome Reception (MuK Conference Center)**

## Monday, 11 May 2026

8 h 00 VDZ-Ausschuss für Preisarbeiten  
(Room 3/4)

10 h 00 ESST Scientific Committee  
(Room 1/2)

10 h 00 VDZ-Vorstand (Vorstand und Beirat)  
(Room 3/4)

10 h 30 VDZ Arbeitskreis Junge Mitglieder  
(Room 5/6)

## Monday, 11 May 2026

14 h 00      Opening  
Pascal Hamon, Harald Powitz

### **Plenary Presentation**

14 h 10      Nicolas Wüthrich  
European sugar industry at a pivotal juncture

### **Decarbonization**

Chairman: Piotr Wawro

15 h 00      Ruben Rey, Stéphane Petit, Frédéric Lefevre, Marc  
                  Clauseuse  
Exergoeconomic Optimization of the Multiple  
Effect Evaporation Design and Heat Integration

15 h 25      Coffee Break and Poster Session

### **Artificial intelligence and sugar production**

Chairman: Eckhard Flöter

15 h 55      Kornel Hulak  
Improving the Continuous Crystallization Process  
with AI Models

16 h 20      Mahesh Kumar Murugaia  
Ask. Answer. Act. Learn: How AI speeds Decisions  
in Sugar Production

16 h 45      Mathieu Cura, Vincent Gavroy, Franck Honoré  
Empowering Process Engineers with OIAalytics:  
Real time Data-Driven Optimization of Beet Sugar  
Purification Step

17 h 10      Andreas Soika, Mark O. Burkhardt  
Integrated Crystallization Control  
(SFC Crystallisation)

17 h 35      Andrew Youssef, Wolfgang Klosterhalfen  
Model Predictive Control Concepts for the Sugar  
Industry Using Extraction as an Example

## Evening Programme

18 h      Get together in the exhibition area

21 h      End

## Tuesday, 12 May 2026

### Short Presentations

Chairman: Piotr Wawro

9 h 00      John Jensen  
Simple and Rapid Method for Mannitol Analysis in Juices

Jiří Zítko, Bjarne Nielsen  
Real-time Colour Measurement and Purging Measurement for Process Control?

Andreas Lehnberger, Dirk Spangenberg  
Centrifugal Operation: Basket Design and Vibration Issues

Karol Miądlicki, Łukasz Marchewka, Dariusz Sikorski  
From Pixels to Process Control: Visual and Thermal Monitoring for Process Control in Sugar Manufacturing

Amitha Asokkumar  
Optimizing Sugar Crystallization through a Process Digital Twin

Louise Camp, Laurence Cegel  
Decarbonization Strategies for the Beet Sugar Industry: Equipment and Process Optimization

**Decarbonization**

Chairman: Florian Kipping

9 h 35 Arash Bagherzadeh, Quido Smejkal, Sascha Nicolai, Steve Howe  
Hybrid Heat Management for Fossil-Free Beet Processing: Integrating Strengthened Evaporation and Targeted Vapour Compression

Thomas Kimmenauer, Stefan Szymkiewicz, Arash Bagherzadeh, Quido Smejkal, Sascha Nicolai, Steve Howe

Low Temperature Enddrying (LTD) of Sugar Beet with optimized Valorization of Waste Heat: Example of the Frauenfeld Sugar Beet Factory

Raymond C. Decorvet , Zeno Antonini, Gianluca Tocco, Arash Bagherzadeh, Quido Smejkal  
Integration of Heat Pump Technology in a Beet Sugar Factory: A Case Study as a Contribution to Roadmap to Zero Emissions Sugar Production

10 h 35 Coffee break and Poster Session

11 h 20 Thomas Will  
Vision of Energy Positioning for Sugar Industry

Markus Lorenz  
Biomethane Production in the framework of Climate Protection Agreement

Nicolai Zenns  
Electrification Concepts:  
Zero Waste-Heat-Strategy

12 h 20 Lunch

**Changes in beet quality and processing properties**

Chairman: Barbara Muir

- 13 h 30     Sakura Yagami, Karl Schlumbach, Jonas Niksch, Eckhard Flöter  
Year II on the Extraction of Beet with varying Quality – Beet Characteristics and Processing
- 13 h 55     John Jensen, Slawomir Marek  
Na, K, Amino-N in Delivered Beets – Trends and How Good Fit to Varieties Trials – Opportunities and Expectation Management
- 14 h 20     Kathrin Ilzhöfer, Martin Benz, Romy Geer  
Evaluation of a Model integrating molecular biological Data with Conventional field-based Monitoring to detect Infestation Zones and severity Levels of SBR and Stolbur
- 14 h 45     Maciej Wojtczak, Jakub Macierzyński, Aneta Antczak-Chrobot  
Polyphenols and Proteins in Sugar Beet Leaves: Composition, Variability, and Valorization Opportunities
- 15 h 10     Coffee break and Poster Session

**General Sugar Technology**

Chairman: John Jensen

- 15 h 40     Andreas Lehnberger, Folker Aljets, Thomas Schulze, Carmen Moschner  
Insights to the Operation of a Countercurrent Cossette Mixer
- 16 h 05     Felix Johannes Preiss, Stephan Kuhnke, Barbara Schmidt, Romy Geer  
Acetaldehyde Emission of High Temperature Beet Pulp Drying Systems – Influencing Process Parameters

## Tuesday, 12 May 2026

- 16 h 30     Jonas Nicksch, Sakura Yagami, Karl Schlumbach,  
Eckhard Flöter  
Design and Application of a Small-Scale  
Extraction Cell Trying to Mimic the Tower

### Evening Programme

- 18 h 00     Departure of busses from MuK  
to Hotel Maritim in Travemünde
- 19 h 00     Reception
- 20 h 00     Dinner
- 22 h 30     First bus departs
- 23 h 45     Last bus departs

Dress code: smart casual

## ESST Programme Committee

Piotr Wawro (President)  
Eckhard Flöter  
John Preben Jensen  
Florian Kipping  
Gabriel Matturro  
Barbara Muir

9 h 00 **VDZ-Mitgliederversammlung**  
(only for VDZ members)

**Tagesordnung**

1. Begrüßung und Eröffnung
2. Bericht des Vorsitzenden
3. Bericht des Geschäftsführers
4. Bericht der Kassenprüfer
5. Entlastung des Vorstandes
6. Wahl des ausländischen Mitglieds für den Hauptverein
7. Wahl der Kassenprüfer
8. Bericht aus dem Ausschuss für Forschung und Prüfung von Publikationen
9. Bericht des Arbeitskreises „Junge Mitglieder“
10. Bekanntgabe des Tagungsortes 2027

**Decarbonization**

Chairman: Stephane Petit

- 10 h 00 Rémi Aubry, Catherine Hénault, Philippe Robert, Urs Venus, Anna Jacobs (Presented by Rémi Aubry and Michael Ricke-Herbig)  
Balancing Greenhouse Gas Fluxes in Acidic Agricultural Soils: Integrating Nitrous Oxide Reduction and Carbon Dioxide Emissions in Sugar Factory Lime Applications

**General Sugar Technology**

Chairman: Stephane Petit

- 10 h 25 Natalie Bahr, Susanne Rudolph-Flöter, Eckhard Flöter  
Application of FTIR to Determine Sucrose Concentrations in Complex Matrices
- 10 h 40 Anna Laux, Karl Schlumbach, Nadja Hermsdorf, Bernd-Christoph Schulze, Eckhard Flöter  
On the Ability to Evaluate IEX Resins at Small Scale under Industrial Conditions
- 10 h 55 Karl Schlumbach, Constantin Frantziach, Eckhard Flöter  
Investigation of Screen Configurations for Improved Centrifugation in Sugar Production
- 11 h 10 Coffee break and Poster Session

**Changes in beet quality and processing properties**

Chairman: Sebastian Fritsch

- 11 h 35 John Jensen  
Implementation of Glucose Analysis in Beet Filtrate in all Tarehouses

11 h 50     Andreas Georg Degenhardt  
              The Components of the Sugar Beet and their  
              Influence on the Sugar Manufacturing Process

**Decarbonization of lime production**

Chairman: Sebastian Fritsch

12 h 05     Daniele Terruzzi, Piyush Godse  
              The TFG Gas fired Lime Kiln is the Solution for the  
              Green Sugar Industry

Edward Nicol, Alexandre Spiga, Vincent Couplet,  
Marc Vandemoortele, Jean-Pierre Laurent  
Externalisation of Lime Production in the Beet  
Sugar Industry as a Means of Decarbonating:  
Assessment of the Impact on the Process and the  
Resulting Modifications

Marine Beguin, Christof Ruhrmann, Géraldine  
Léonard, Marc Bieswal, Eric Lourtie  
Lime Externalization in Sugar Industry

Robert S. Gärtner, Axelle Fillinger, Christopher  
Pust, Tobias Dickmann, Vega Bierwolf  
Improving the Liming of Raw Sugar Beet Juice  
by Lime Quality – An Opportunity to Support the  
Decarbonization of Sugar Production

12 h 50     Closing remarks

13 h 00     End of Conference

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THE HOUSE OF LIME

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intelligent heat transfer

## Posters

*The numbers in brackets indicate the position of the poster*

Achim Oebel

Lifetime Extension for Gearboxes in Horizontal and Vertical Presses (1)

Jacek Molski, Karol Grygiel, Magdalena Molska, Radosław Michał Gruska

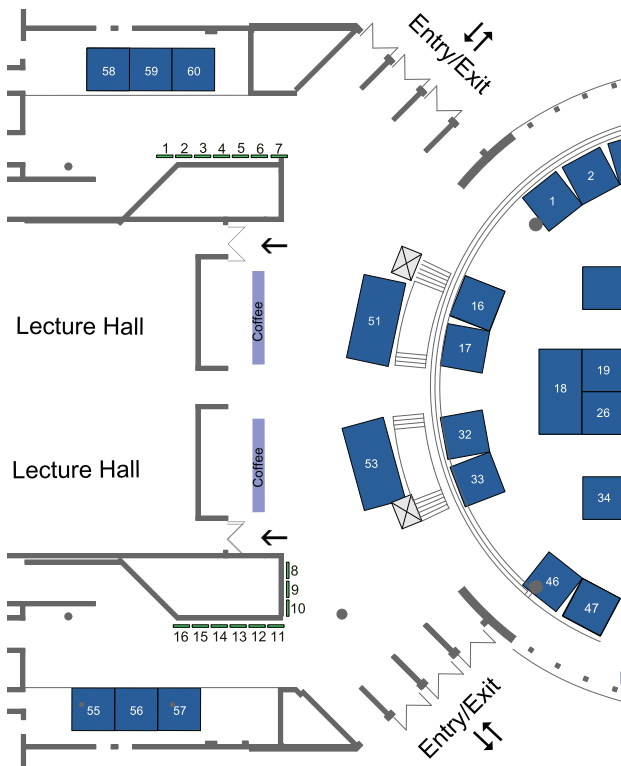
Plastics Across the Sugar Line: Triboelectric Risks, Material Choices and ATEX-Ready Designs (2)

Philip Schofield, Markus Weingartner

ANDRITZ Equipment for the Recycling of Beet Washing Water – Solution & Current Results (3)

Roman Markalov

Analysis of Accuracy and Efficiency of Sugar Beet Processing (4)



## Posters

Mathis Kuczejda, Sarah Dinkler

NIR Polarimetry in the Beet Sugar Industry (5)

Frédéric Sauvage, Jean-Pierre Laurent, Vincent Couplet

Crystallization Modelling, from Sugar Crystal to Boiling House (6)

Christian Scheidle

Leveraging Synergies of LENZING`s Patented CakeFil Candle Filter Design and Advanced Filter Cloth Weave Structures for Highly Efficient Mud-Juice-Filtration (7)

Quirin Kraus, Fynn Reuver

Transparent quantities. Smart processes. Sugar beet stocktaking with OWL EYE® (8)

Historic sugar factories Francières (9) and Oldisleben (10)

John Jensen

Simple and Rapid Method for Mannitol Analysis in Juices (11)

Louise Camp, Laurence Cegel

Decarbonization Strategies for the Beet Sugar Industry: Equipment and Process Optimization (12)

Amitha Asokkumar

Optimizing Sugar Crystallization through a Process Digital Twin (13)

Karol Miądlicki, Łukasz Marchewka, Dariusz Sikorski

From Pixels to Process Control: Visual and Thermal Monitoring for Process Control in Sugar Manufacturing (14)

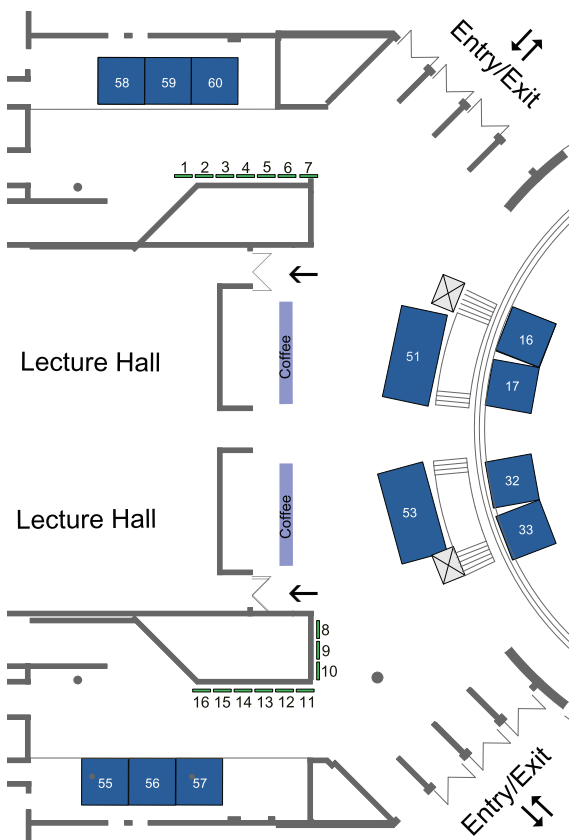
Jiří Zítko, Bjarne Nielsen

Real-time Colour Measurement and Purging Measurement for Process Control? (15)

Andreas Lehnberger, Dirk Spangenberg

Centrifugal Operation: Basket Design and Vibration Issues (16)

## Exhibition



### Opening hours

Monday 11 May	13 h to 21 h
Tuesday 12 May	9 h to 17 h
Wednesday 13 May	9 h to 13 h

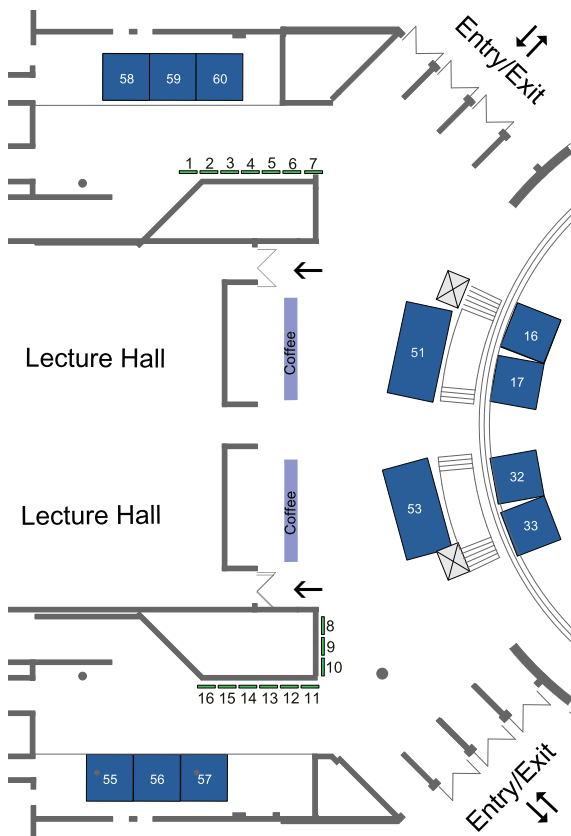
### Exhibitors

airpower europe	49
AMF-Bruns	32
Andritz	14
Applexion	7
APRO Polska	48
ArmaSys Armaturen und Systemtechnik	43
Babbini	34
Behn + Bates	5

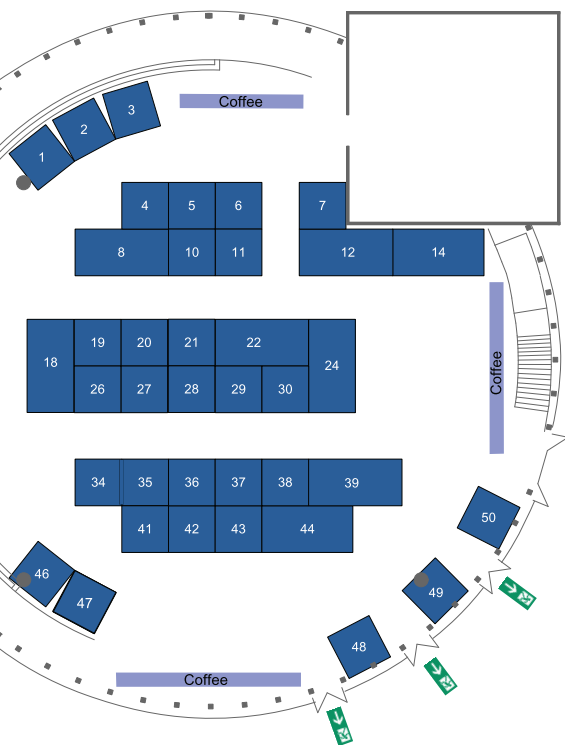


Berthold	57
BMA Braunschweigische Maschinenbauanstalt	39
Buckau-Wolf	27
Bussetti	30
Cimprogetti	10
De Smet Engineers & Contractors	36
Eberhardt	29
EnerDry	19
EnProCo Berlin	46
ESCON Engineering Services & Consulting	42
Filtrapol	33
Fives FCB	26
Fluid.iO	6
Glaß & Wolff Metalltechnik	47

## Exhibition



GPS Engineering	35
Hanmar Poland	21
I.K.B. Industriepanung	28
IPRO Industrieprojekt	44
ITECA SOCADEI	20
Keller & Bohacek	8
KWS SAAT	3
La Meccanica	58
Lenzing Filtration	51
Maguin	12
Markert Filtration	2
Multigear	55
Neltec Denmark	41
Pfeifer & Langen IP (Sucrosphere)	50



Putsch®	53
REI Instruments	59
Scangrading	18
Schmidt + Haensch	17
Siemens	60
Silver Weibull Sweden	11
SOLLAU	4
SU GROUP	56
TENENS	24
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Venema Sugar Installations	22
Verlag Dr. Albert Bartens / ESST	16
Wikov	37
WUTRA Fördertechnik	38

## **ESST Members – Sugar Producers**

ACOR

British Sugar plc

Cooperativa Produttori Bieticoli

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Cristal Union

Krajowa Grupa Spożywcza S.A.

Lantic Sugar Inc.

Nordzucker AG

Pfeifer & Langen GmbH & Co. KG

Schweizer Zucker AG

Südzucker AG

Tereos Participations

The Andhra Sugars Ltd.

## **ESST Members – Sugar Technologists Associations**

American Society of Sugar Beet Technologists (ASSBT)

SNFS – Technical Commission

Stowarzyszenie Techników Cukrowników

Verein Deutscher Zuckertechniker

## ESST Members – Suppliers

airpower europe GmbH  
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Anton Paar GmbH  
Applexion SAS  
APRO Polska Sp. z o.o.  
ArmaSys Armaturen und Systemtechnik GmbH  
AUCOTEC AG  
Babbini S.p.A.  
Barriquand Heat Exchangers  
BetaTec Hop Products Ltd.  
Blackburn Chemicals Ltd.  
BMA Braunschweigische Maschinenbauanstalt GmbH  
Broquet Pumps Georges Briere SA  
Buckau-Wolf GmbH  
Bussetti & Co. GmbH  
Carbo Solutions  
Cimprogetti S.p.A.  
COMESSA  
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EATON Technologies GmbH  
Eberhardt GmbH  
EBRO ARMATUREN Gebr. Broer GmbH  
EnerDry ApS  
EnProCo-Berlin GmbH  
ESCON Engineering Services & Consulting GmbH  
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Gaudfrin S.A.  
General Dies S.r.l.  
Glaß & Wolff Metalltechnik GmbH & Co. KG  
GPS Engineering S.r.l.  
ICCE GmbH  
IKB Industrieplanung GmbH  
IPRO Industrieprojekt GmbH  
ITECA SOCADEI  
Johnson Screens  
Keller & Bohacek GmbH & Co. KG  
KWS SAAT SE & Co. KgaA

## ESST Members – Suppliers

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NCR Biochemical  
Neltec Denmark A/S  
ParticleTech Aps  
PMC Ouvrie  
Putsch GmbH & Co. KG  
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Schill + Seilacher „Struktol“ GmbH  
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Sugars International LLC  
Sulzer Pumps Finland Oy  
TENENS SAS S.r.l.  
Trasmec S.r.l.  
Veco B.V.  
Venema Sugar Installations  
W. Kunz dryTec AG

## ESST/VDZ Conferences

- 2009 Rotterdam, Netherlands
- 2011 Bratislava, Slovakia
- 2013 Warsaw, Poland
- 2015 Reims, France
- 2017 Dresden, Germany
- 2019 Poznan, Poland
- 2022 Reims, France
- 2024 Vienna, Austria



## Directions

Scan for google maps  
directions

### Conference Centre:

#### **MuK Conference Center Lübeck**

Willy-Brandt-Allee 10  
23554 Lübeck



### Reception and Dinner on Tuesday, 12 May 2026:

#### **Maritim Strandhotel Travemünde**

Trelleborgallee 2  
23570 Lübeck-Travemünde



Busses leave MuK at 18 h

Busses return to MUK  
from Maritim Hotel after 22 h 30

### Accompanying Persons Programme on Tuesday, 12 May:

#### **Europäisches Hansemuseum Lübeck**

An der Untertrave 1  
23552 Lübeck

