



# 7th ESST/VDZ Conference

## Programme

Centre des Congrès de Reims  
Reims, 22 to 25 May 2022

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## **ESST Programme Committee**

Piotr Wawro (President)  
Renata Czaplinska  
Stefan Frenzel

John Preben Jensen  
Timo Johannes Koch  
Barbara Muir

## Registration

Sunday, 22 May 16 to 19 h Hotel de La Paix

Monday, 23 May 10 to 14 h Centre des Congrès de Reims

### Sunday, 22 May 2022

- 15 h ESST Board  
Hotel de La Paix, Room Londres
- 16 h 30 ESST Council  
Hotel de La Paix, Room Londres
- 19 h ESST Welcome Reception  
Hotel de la Paix

### Monday, 23 May 2022

- 8 h 30 VDZ-Ausschuss für Preisarbeiten  
Hotel de La Paix, Room Londres
- 9 h 00 Arbeitskreis Junge Mitglieder  
Hotel de La Paix, Room Roma
- 9 h 30 ESST Scientific Committee  
Hotel de La Paix, Room Lisboa
- 9 h 30 VDZ-Vorstand (Vorstand und Beirat)  
Hotel de La Paix, Room Londres

### Tuesday, 24 May 2022

- 17 h 00 ISSCT-Landesverband Deutschland  
Centre des Congrès Room 5, Level 2

14 h 00    Opening  
            Bram Fetter, Harald Powitz

**Plenary Presentation –**

Chairman: Piotr Wawro

14 h 10    Niels Bahnsen (Niras)  
            Green Energy for Seasonal Consumers – Options  
            from an Energy Systems Perspective

14 h 40    Giorgia Arnaboldi (General Manager Markets  
            Shell Energy Europe)  
            Navigating the energy transition with Shell  
            Energy in Europe

**CO<sub>2</sub> Neutral Production of Beet Sugar –**

Chairman: Nico Antens

15 h 00    Michael Ricke-Herbig  
            Greenhouse gas neutral sugar industry in  
            Germany – Pathways to climate-neutrality 2050

15 h 25    Coffee break

15 h 55    Thomas Frankenfeld  
            Recycling of waste wood – The Swiss way to  
            reduce CO<sub>2</sub> in sugar production

16 h 20    Sven Buhrmann  
            Nordzucker plans for fossil free sugar production

16 h 45    Kaspar Gehl Larsen, Arne Sloth Jensen  
            CO<sub>2</sub> neutral sugar factory, in affordable steps

## Monday, 23 May 2022

- 17 h 10 Lennart Schröder, Knut Köhncke, Boris Morgenroth  
Concepts for decarbonization of energy demand of beet sugar factories
- 17 h 35 Sébastien Schellen, Vincent Couplet  
Significant energy savings in beet sugar industry to reach the decarbonization goals
- 18 h 00 End

### Evening Programme

- 18 h 15 Get together in exhibition area
- 20 h 15 End

**Short Presentations** – Chairman: Piotr Wawro

9 h 00      Elke Hilscher, Heiko Narten, Isabel Bejenke  
Sugarbeet quality analysis – Going beyond sugar

Philip Schofield  
Can I improve the efficiency of my batch  
centrifuge when it is time to replace the basket?

Bernd Langhans  
Advanced digital control strategies for optimized  
production flow with the clear focus on  
minimized operator interference and full data  
transparency – Examples and results

K. Kadlec, M. Kminek, P. Kadlec, S. Henke,  
S. Gillarová, Z. Bubnik, E. Šárka  
Measurement and process control in sugar  
technology

Aresh Bagherzadeh, Quido Smejkal  
Process development with systematic energy  
reduction in beet sugar processing

Lillith Baczynski  
Comparison of antimicrobial processing aids to  
replace formalin in beet sugar processing

Mirko Löhn, Holger Fersterra  
Sugar substitutes – Particularities and challenges  
in the crystallisation of non-sucrose sugars

**CO<sub>2</sub> Neutral Production of Beet Sugar** –

Chairman: John Jensen

9 h 40      Nico Antens, Marc van Dijk, Menno Roukema  
Flash cooling crystallization: a novel technology  
for the sugar industry?

## Tuesday, 24 May 2022

- 10 h 05 Petr Sobotka, Petr Koting  
The way to reduce lime consumption in a sugar factory
- 10 h 30 Coffee break and Poster Session

### **Measurement & Process Control –**

Chairman: John Jensen

- 11 h 00 Jan Johansson  
Cyber security and production continuity in the sugar factory
- 11 h 25 Peter Meinecke  
Old Walls, new ideas – How former production sites can shape a company's image today
- 11 h 50 Arnd Wittenberg, Stefan Scholl  
Sweet IoT – An initiative for the digitalization of the sugar producing industry
- 12 h 20 Lunch

### **Structure of Beet –** Chairman: Wolfgang Klosterhalfen

- 13 h 45 Christa Hoffmann, Stefan Frenzel  
ESST Scientific Committee Working Group: Beet texture and process behaviour
- 14 h 10 Aneta Antczak-Chrobot, Maciej Wojtczak  
Differences in the structure and the chemical composition of exopolysaccharides isolated from the various origin sugar beet
- 14 h 35 Pascal Hamon  
Optimization and real-time control of beet slicing quality and wear of knives
- 15 h 00 Coffee break

**Sweet IoT Discussion Forum** – Chairman: Stefan Scholl

13 h 45 Room 5, Level 2

**General Sugar Technology** – Chairman: Barbara Muir

15 h 30 Gillian Eggleston, A. Triplett, P. Gaston, D. Stewart  
Fructan (levan) is a more pervasive polysaccharide in the sugar industry than previously thought

15 h 55 Robert W. Howe, Vadim Kochergin  
A path to implementation of the lime free sugar process

16 h 20 Christian Garsia  
Economic analysis of gypsum dosing

16 h 55 Mahresh Kumar  
Alarm management and human machine interface (HMI) in sugar industry control system

17 h 20 End

**Guest programme**

9 h 15 Start at Conference Center  
Visit of caves Champagne Mercier  
Lunch at Epernay  
Visit by bus of Epernay and coteaux historiques des champagne

16 h 30 Return to Reims

**Evening Programme** (Centre des Congrès de Reims)

18 h 30 Reception

19 h 30 Gala Dinner



9 h **VDZ-Mitgliederversammlung**  
(only for VDZ members / nur für VDZ-Mitglieder)

**Tagesordnung**

1. Begrüßung und Eröffnung
2. Bericht des Vorsitzenden
3. Bericht des Geschäftsführers
4. Bericht des Kassenprüfers
5. Entlastung des Vorstandes
6. Wahl der Kassenprüfer
7. Bericht aus dem Ausschuss für Forschung und Prüfung von Publikationen
8. Bericht des Arbeitskreises „Junge Mitglieder“
9. Bekanntgabe des Tagungsortes 2023

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A green molecular structure graphic consisting of several small circles connected by lines, resembling a network or a chemical structure.

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**Crystallization** – Chairman: Stefan Frenzel

- 10 h      Jörg Tuchert  
The role of nonsucrose components in technical sugar solutions
- 10 h 25   Felix Geisendörfer, Eckhard Flöter  
Vapor bubble growth in sucrose solutions: a combined theoretical and laboratory study
- 10 h 50   Thomas Häßler  
Particle size distribution during silo truck loading/discharging
- 11 h 15   Coffee break

**Organic sugar and specialities production** –

Chairman: Florian Emerstorfer

- 11 h 35   Andreas G. Degenhardt, Elke Jansen, Timo J. Koch  
The manufacturing, the properties and selected applications of invert sugar syrups
- 12 h 00   Pascal Hamon  
Organic products in Cristal Union
- 12 h 25   Jakub Macierzyński, Maciej Wojtczak  
Sugar beet leaves as a potential source of bioactive compounds
- 12 h 50   Arvind Chudasama  
Sugar reduction/replacement technologies seek to mimic a single ingredient with a concoction
- 13 h 15   Final remarks
- 13 h 20   End of conference

## Posters with short presentation

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

B. Langhans

Advanced digital control strategies for optimized production flow with the clear focus on minimized operator interference and full data transparency – Examples and results **(1)**

M. Löhn, H. Fersterra

Sugar substitutes – Particularities and challenges in the crystallisation of non-sucrose sugars **(2)**

A. Bagherzadeh, Q. Smejkal

Process development with systematic energy reduction in beet sugar processing **(3)**

L. Baczynski

Comparison of antimicrobial processing aids to replace formalin in beet sugar processing **(4)**

K. Kadlec, M. Kminek, P. Kadlec, S. Henke, S. Gillarová, Z. Bubnik, E. Šárka

Measurement and process control in sugar technology **(5)**

E. Hilscher, H. Narten, I. Bejenke

Sugarbeet quality analysis – Going beyond sugar **(6)**

P. Schofield

Can I improve the efficiency of my batch centrifuge when it is time to replace the basket? **(8)**

## Posters

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

E. Hilscher, H. Narten, E. Carvalho  
KWS BEETROMETER® – Beet quality analysis for the 21st century **(7)**

P. Schofield  
The benefits of using wedge wire screens in a continuous centrifuge **(9)**

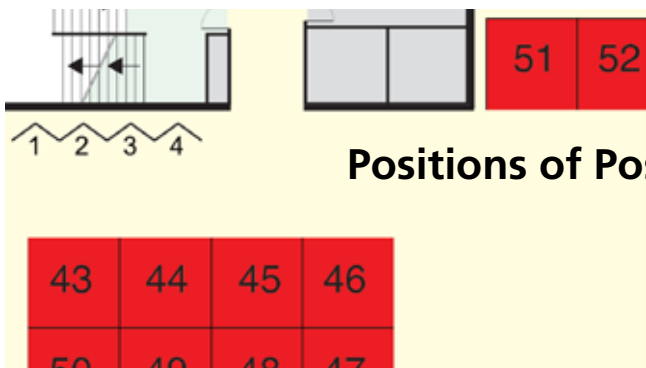
M. Tesar  
Antifoaming agents used during the organic beet sugar production **(10)**

J. Egholm  
Automatic in-line measurement of dry sugar crystals **(11)**

S. Gillarová, S. Henke, A. Hinková, Z. Bubník, V. Pour,  
E. Šárka, P. Kadlec, M. Sluková  
Automation and control of membrane separation station **(12)**

S. Henke, S. Gillarová, T. Svoboda, Z. Bubník, P. Kadlec,  
E. Šárka, M. Sluková  
Automation and control of continuous chromatographic separation **(13)**

A. Waszczuk, A. Maligłowska, Ma. Ludwicki, Mi. Ludwicki  
Device for the periodic measurement of the thin juice hardness **(14)**



## Posters

B. Gaillac, C. Rua

Process improvements and energy savings brought by online measurement **(15)**

Th. Middelhof

Green screen – high efficiency sugar screening through direct excitation **(16)**

J. Lamb

Processing aids for enhancing the production of sugar from sugar beet **(17)**

T. Aabo Andersen

Novel online sensing solution for sugar refining **(18)**

B.C. Nielsen, T. Diringer

Purging sensor for monitoring and control of separation in discontinuous centrifugals **(19)**

M. del Carmen Perez, G. Eggleston, P. Gaston, A. Triplett, Ch. Verret, St. Imbachi-Ordonez

Differences in use of commercial filter aids to clarify cane juices **(20)**

S. Ganzerli

Saniter® Beta, the “green” alternative biocides for the production of organic sugar **(21)**

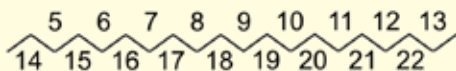
J. Rózsa

Supersaturation-based control of footing magma crystallization **(22)**

53

54

Posters in exhibition hall



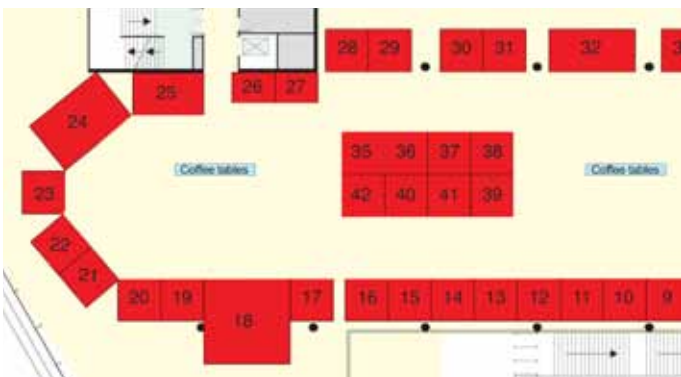
## Exhibition

### Opening hours:

Monday 23 May	13 h to 20 h15 h
Tuesday 24 May	9 h to 17 h
Wednesday 25 May	9 h to 13 h 20

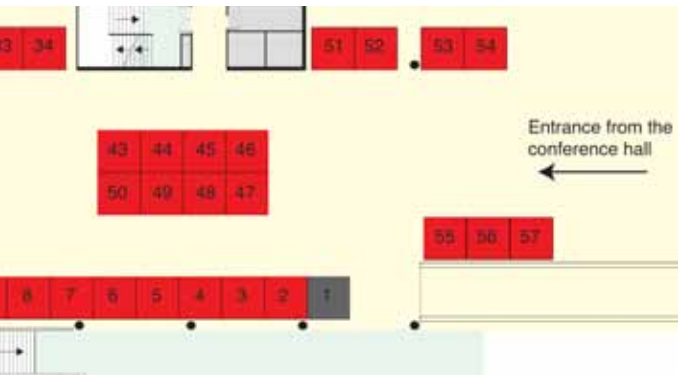
### Exhibitors

airpower europe GmbH	26
AMF-Bruns GmbH & Co. KG	39
Andritz	9
Anton Paar Optotec GmbH	45
APRO Polska Sp. z o.o.	3
ArmaSys Armaturen und Systemtechnik GmbH	10
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GPS Engineering s.r.l.	40
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IPRO Industrieprojekt GmbH	35 + 36
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Krieg & Fischer Ingenieure GmbH	27
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Solex Thermal Science	4
Sollau s.r.o.	30
SternEnzym GmbH & Co. KG	49
SWECO Europe S.A.	29
VECO B.V.	12
SUGAR INDUSTRY / ESST / VDZ	1
WUTRA Fördertechnik GmbH	13
ZIEMEX SAS	19



### **Sugar producers**

AB Sugar (British Sugar, Azucarera)  
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The Andhra Sugars Ltd.  
Cooperativa Produttori Bieticoli  
Cosun Beet Company  
Cristal Union  
Krajowa Spółka Cukrowa S.A.  
Lantic Sugar Inc.  
Lesaffre Freres SAS  
Nordzucker AG  
Pfeifer & Langen GmbH & Co. KG  
Schweizer Zucker AG  
Südzucker AG  
Tereos Suces

### **Sugar Technologists Associations**

American Society of Sugar Beet Technologists (ASSBT)  
ANTZA – Associazione Nazionale Tecnici Zuccheri e  
Alcool  
Fachverein der Zuckerindustrie Österreich  
SNFS – Technical Commission  
Stowarzyszenie Techników Cukrowników  
Verein Deutscher Zuckertechniker

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