**Plenary Presentation**

- „Sustainability and decarbonization in the sugar market” - Norbert Harringer (AGRANA).

* „Sugar-based chemicals and fuels – ongoing developments and trends” - Erik Bek-Pedersen.

**Challenges in decarbonization of sugar production**

- „Climate neutrality toolbox of CEFS” - Josh Gartland.

- “Digital energy twin” project” - Stephane Petit.

* „Integrating thermal vapor recompression in a sugar factory” - Daniel Nouws, Marc van Dijk.

- „Beet sugar factory decarbonization” - Saiedeh Wicht, Yannis Affeldt, Boris Morgenroth.

- „Energy and cost efficiency in the sugar house: combining proven methods with continuous crystallization and vapour compression” - Nils Träber, Wjatscheslaw Popov, Deike Laue.

* „Efficient crystallization: Paving the way to 100% electrification in crystallization”- Sébastien Schellen, Vincent Couplet, Adrien Couplet.

**Short presentations**

- „Slurry, viscosity reducer and color remover for efficient and energy-saving sucrose crystallization based on laboratory data and field tests” - Mischa Baier.

- „Sugarlyzer 5000 – The fully automated lab for the sugar industry” - Mario Gürtl.

* „Revolutionary candle type precoat filtration within the sugar industry” - Stefan Schöpf.

- „The future shines bright – Implementation of NIRS-based process-analytical systems in sugar factories” - Isabel Bejenke, Torben Erichsen, Elke Hilscher.

* „Perfecting supersaturation curves in various sugar crystallization processes” - Jakab Rózsa.

- „The effect of dextran on sucrose crystal color and morphology” -

Karin Abraham, Karl Schlumbach, Luiza Fritzsche, Eckhard Flöter.

**Generał Sugar Technology**

- „The beet sugar factory – a European cultural asset” - Martin Bruhns.

* „ICUMSA®: Aims, development and current activities” - Dierk Martin.

**Sugar technology knowledge transfer to new generations – challenges and good practices: 5 presentations + Panel discussion, Chairman: John P. Jensen / Eckhard Flöter**

- „Operator Training System – Practical experiences in the sugar industry”- Lauran Rademaker, Peter van Dam.

* „Bringing shift work closer to young skilled workers” - Isabel Altmann.

* „Humans, technology, organization: Managing generation change in sugar analytics” - Volker Baumann, Sven Boetcher, Nils Bertram.
* „Digitally bridging generations: LLM-RAG innovation in sugar industry”- Mahesh Kumar Murugaiah.

- „Educating the next generation of sugar technology experts: Best practices and challenges” - Maciej Wojtczak, Aneta Antczak-Chrobot.

**Digitization**

- „Weihenstephan Standards and OPC UA – Paving the way for transparent and efficient future production” - Romy Ries.

* „Energy optimizing vacuum pans through machine learning” - Bo Stig.
* „Transforming sugar manufacturing with the power of artificial intelligence” - Brett Stewart, Pablo Fabian Escobar Grajeda.
* „Visual Smart Sensor (VSS) for cossettes quality determination (VSS cossettes). Visual Smart Sensor (VSS) for beet quality determination (VSS external beet quality)” - Wolfgang Klosterhalfen, Mark O. Burkhardt.

**Climate change and beet availability and quality**

- „Technical and technological effects of changing texture properties of sugar beet” - Stefan Frenzel.

- „Beet texture – Technological value of texture altered beet” - Karl Schlumbach, Jörg Tuchert.

* „Impact of drought stress on yield, quality, and beet texture of sugar beet” - Christa Hoffmann.
* „Relationship of long-term storage and raffinose metabolism in sugar beet” - Fernando Finger, Abbas Lafta, Mohamed Khan, Karen Fugate.

**General Sugar Technology**

- „First steps towards a process model of extraction towers” - Karl Schlumbach, Susanne Rudolph, Daniel Eichstädt, Eckhard Flöter.

* „Biodegradation potentials of microorganisms in sugar factories” - Rebekka Birke et al.
* „In-line detection of foreign particles and color measurement for dry sugar on conveyor belt” - Janus Egholm, Ricco Kügler.
* „Numerical modelling regarding the role of sucrose crystals for the evaporation process within a discontinuous evaporating crystallizer” - Felix Geisendörfer, Eckhard Flöter.
* „Application of rapid methods for product release” - Christiane Lakenbrink.

- „Solids-liquid filtration technology and solutions in the sugar beet processing and sugar production: Specific industrial application developments and process optimization” - Manuel Ruiz Holst, Leandro Dinnocenzo.

- „Quality management systems and their further development” -

Marlies Rothauer.