



6th ESST/VDZ Conference & Exhibition

The 6th Conference of the European Society for Sugar Technology (ESST) and Verein Deutscher Zuckertechniker (VDZ) took place in Poznań, Poland, from the 26 to the 29 of May 2019. Organized this year by Joachim Rüger, President of the VDZ's Nord branch, the congress was the largest ESST event ever.

Poznań is a centre of trade, sports, education, technology and tourism. It is an important academic site, with about 130,000 students. Poznań also hosts the Poznań International Fair – the biggest industrial fair in Poland and one of the largest fairs in Europe.

A total of 373 participants from 22 countries was registered for the meeting held in the Earth Hall of the Poznań Exhibition area. The guest program was attended by 25 participants. These numbers make it the most well-attended ESST conference in the history of the organization.

ESST Council meeting

During the ESST Council Meeting, ESST Vice-President Bram Fetter took over the tasks of the absent President Gary Punter. Fetter noted that the first ESST-financed research project at the University of Łódź has been successfully finished by Dr. Maciej Wojtack. Currently, the Scientific Committee is discussing new projects to be established in cooperation with interested universities. Outgoing ESST President Gary Punter, who has been serving ESST in this position since 2017, did not seek reelection since he recently retired. The proposal to enlarge the Executive Board by one member to five members was accepted by Council. The Council elected the following Executive Board members for the 2019–2021 term:

President	Bram Fetter
Treasurer	Arend Wittenberg
Board Member 1	Pascal Hamon
Board Member 2	Wolfgang Kraus
Board Member 3	Steve Williams

The ESST currently comprises the following members: 15 sugar manufacturers, 6 Sugar Technologists Associations, and the 56 Supporting Members.

Scientific Committee Meeting

On May 26, the ESST Scientific Committee held its regular meeting for the first time under its new President Piotr Wawro. Members discussed the proposals for new research projects to be supported by ESST.

During the meeting, three presentations were illustrated:

- Stefan Meldau: “Heterogeneity of sugar beets-challenge for recoverable sugar analysis of grower’s field samples”;
- Anne Hartwig: “PDW-Spectroscopy in the sugar industry”;
- Svatopluk Henke: “Current and future research in the field of physico-chemical properties”.

The Scientific Committee elected two new members: Christa Hoffmann (IfZ Göttingen), and Ricco Kügler (Nordzucker). Walter Hein resigned from the Scientific Committee after his retirement.



The new ESST Executive Board (left to right): Arend Wittenberg, Steve Williams, Wolfgang Kraus, Bram Fetter, Piotr Wawro, Pascal Hamon, Jürgen Bruhns (Photo: Verlag Bartens)



The Presidents of ESST and VDZ, Bram Fetter (left) and Thomas Kuhlmann opened the conference (Photo: Verlag Bartens)



Kasper Larsen (left) and Manuel Ruiz-Holst (Photo: Verlag Bartens)

Scientific sessions

The conference was opened by Presidents of VDZ and ESST, Thomas Kuhlmann and Bram Fetter, respectively. This was followed by 21 presentations and a Poster Session with 11 posters, illustrated for five minutes each. The abstracts of the papers have been published in Sugar Industry No. 6 and are available on the web at www.esst-sugar.org.

The main themes of the conference included:

- Beet quality and its effect on the process
- Digitalization and sugar industry
- Green energy

There were three invited Plenary Presentations by Peter Rein, Anne-Katrin Mahlein and Alexander Pöhler.

The well-known cane sugar technologist Peter Rein spoke on technological developments in the cane sugar industry over the last ten years.

Two plenary Sessions were devoted to “Digitalization”, which was one of the themes of the conference. Ann-Katrin Mahlein, the Director of the Institut für Zuckerrübenforschung in Göttingen, spoke on “Innovations in agriculture – how can sensors and robots support growing sugar beet?”

Optical sensors are able to non-invasively and objectively measure changes in the plant physiology during growth or when plants exhibit stress due to drought or disease. Several studies showed that hyperspectral sensors are valuable tools for characterizing plants on different scales from the tissue to the canopy level. She gave an overview on the basic principles of optical sensors and possible applications for plant monitoring.

Alexander Pöhler discussed the “Potentials of digitalization in the sugar industry.” He gave a general assessment of

new digital technologies, currently being developed, regarding their usage in sugar factories and the results of the pilot implementations

ESST Awards

Since its 2013 meeting, the ESST Board has been presenting two awards: the ESST Science Award and the ESST Best Paper Award. The aim of these awards is to encourage sugar technology R&D, to reward high-quality scientific contributions to ESST and the international sugar technology network, and to share results with others. In 2017 the ESST Board awarded Jan Maarten de Bruijn, the long-term President of the Scientific Committee.

For 2019, the ESST Board awarded the ESST Science Award to Pavel Kadlec and Zdeněk Bubník from the Prague University (see page 377).

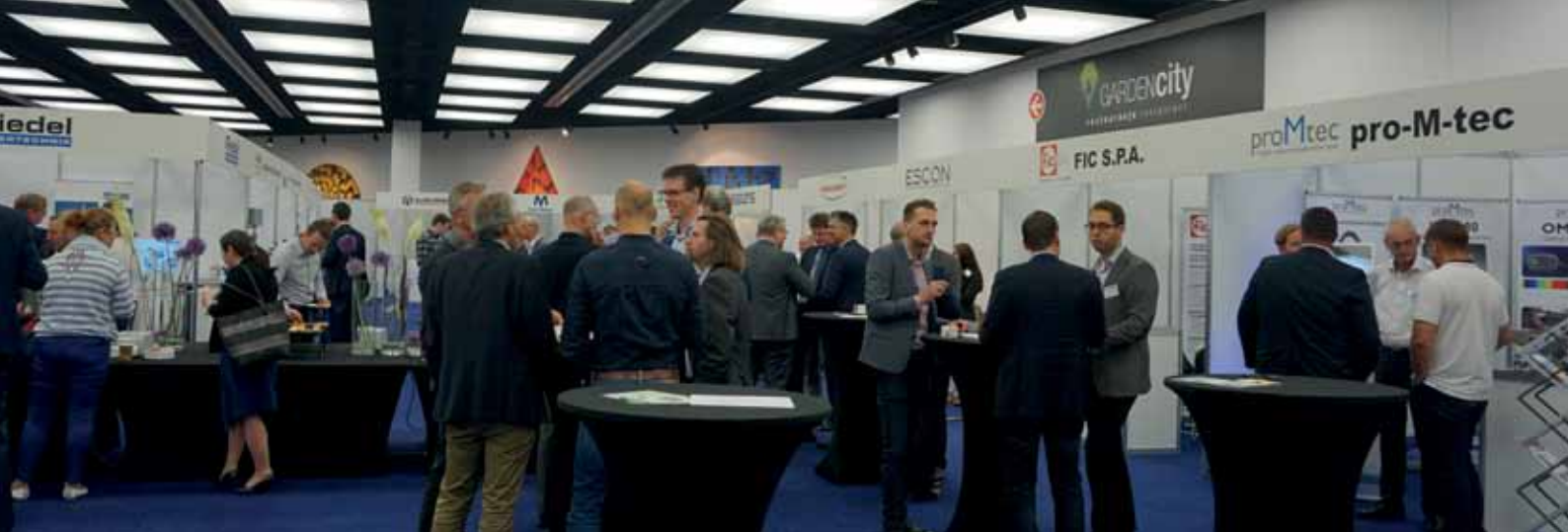
For the first time, all participants were



Peter Rein (Photo: Verlag Bartens)



Anne-Katrin Mahlein (Photo: Verlag Bartens)



During coffee breaks and lunch the exhibition was well visited (Photo: Verlag Bartens)

Pavel Kadlec and Zdeněk Bubník won the ESST Science Award

Pavel Kadlec was born in České Budějovice, South Bohemia (Czech Republic), in 1940. In 1962, he completed his studies in Chemical Engineering at the University of Chemistry and Technology (UCT) Prague. He then worked for two years as a chemist and technologist at the Hodonín sugar factory. In 1964, he started to work on his PhD thesis in food chemistry and technology at UCT Prague. In 1967, he successfully defended a thesis on “ion exchange membranes in the sugar industry.” From 1966 to 1977, Dr. Pavel Kadlec has worked as assistant professor, teaching laboratory courses and lectures of Sugar Technology.

In 1977–1989, he was associate professor of Sugar Technology, and in 1988 he defended his Dr. Sc. thesis on the “Properties of pure sugar and technical sugar solutions in sugar production” at UCT Prague. He became professor of Sugar Technology in 1989. Between 1993 and 2000, he served as Dean of

Faculty of Food and Biochemical Technology at UCT Prague. In 1994, he was elected Member of the Scientific Committee of ESST (previously CITS) from which he resigned in 2015. In his scientific work, Professor Kadlec focused on analytical methods in laboratory control of sugar factories; computation of technological schema of sugar production; measurement, computation, and evaluation of physical properties of sugar solutions and byproducts.

He is the author and-co-author of 158 original papers. Professor Kadlec authored and co-authored several books for students, food professionals, and technologists.

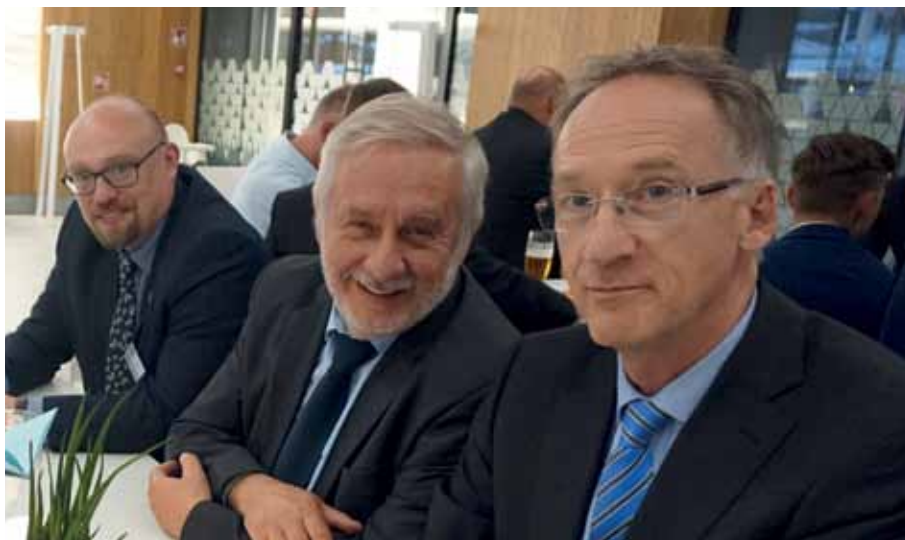
Zdeněk Bubník was born in Písek, South Bohemia (Czech Republic), in 1952. Between 1970 and 1975, he studied Chemical Engineering at the University of Chemistry and Technology (UCT) Prague. He then worked as a technologist at the Mělník sugar factory for three years. In 1978, Zdeněk Bubník went back to UCT to work as assistant professor in the Department of Carbohydrates and Cereals. In 1983, he obtained his PhD defending a thesis in Food Chemistry and Technology. Between 1994 and 2001, he was associate professor, and from 2002 professor of Sugar Technology at UCT Prague. In 2000,



Piotr Wawro (right to left) reads the laudation for the ESST Science Award winner Pavel Kadlec and Zdeněk Bubník (Photo: Verlag Bartens)

Professor Bubník became Head of Department of Carbohydrates and Cereals at UCT, a position he kept until 2017.

In 1999, he was elected Member of the Scientific Committee of ESST (previously CITS). Since 1990, he is associate referee for ICUMSA Subject S4. In his scientific work, Professor Bubník concentrates on the physical properties of sugar and ethanol solutions as well as physical methods for the purification of sugar and carbohydrates. He is further interested in waste water treatment of food industries. Together with Professor Kadlec, Professor Bubník is the co-author of the 8th edition of the Sugar Technologists Manual.



Maciej Wojtczak, Janusz Nozewnik and the organizer of the conference Joachim Rüger (from left)
(Photo: Verlag Bartens)

offered the chance to vote online for the Best Paper Award, which is given out by the conference. Cordula Kohout from Aric (Agrana) won the award with the paper “Modern molecular biological



Winner of the Best Paper Award: Cordula Kohout of ARIC (Agrana) (Photo: Verlag Bartens)

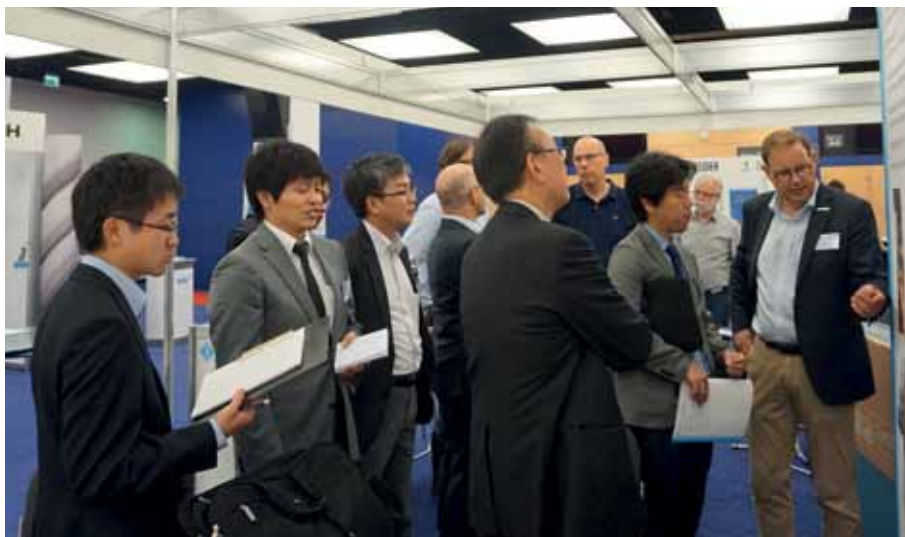
methods for microflora characterization in sugar beet factories” that she wrote with her colleagues. Cordula Kohout is Project manager at ARIC and PhD-Student in Food Microbiology (University of Natural Resources and Life Sciences, Vienna). She obtained her Master in biological chemistry with focus on food chemistry 2016 from the Vienna university.

Photos of the Conference

Additional photos from the conference are available on our website:
www.sugarindustry.info

7th ESST/VDZ Conference

The next ESST/VDZ conference will take place from May 10 to 13, 2021. The exact location is yet to be determined.



Martin Herrmann (right) explains at Putsch exhibition stand (Photo: Verlag Bartens)

Exhibition

The exhibition has become a regular feature of the ESST conference. The Poznań conference center offered ample space for this year's exhibition, where a total of 51 companies offered their products to the European sugar industry:

AMF-Bruns GmbH & Co. KG
Andritz Fiedler
Anton Paar Optotec GmbH
APRO Ingenieurbüro & APRO Polska
Airpower
ArmaSys
Babbini S.p.A.
Barriquand
BMA
Berthold Technologies
Buckman Laboratories NV
BWS Technologie GmbH
Carus Europe
De Smet Engineers & Contractors
DFT Deichmann Filter Technik
Eberhardt Schwab GmbH
ELLI-GPS Engineering s.r.l.
EnerDry A/S
EnProCo – Berlin GmbH
ESCON Engineering Serv. & Cons.
FIC SPA
Glaß & Wolff Metalltechnik
IKB Industrieplanung GmbH
Inmec Instruments
IPro Industrieprojekt GmbH
ITECA-SOCADEI-SAS
Lenzing Technik GmbH
MAGSY
Maguin S.A.S., Promill, iPro
NCR Biochemical
Neltec Denmark A/S
ParticleTech Aps
Pixact
Polimex-Cekop
proMtec Theisen GmbH
Putsch Group
RHEWUM GmbH
Riedel Filtertechnik GmbH
Scangrading
Schmidt + Haensch GmbH & Co.
SFUP Sp. z o. o.
Siemens AG
Silver Weibull Sweden AB
Solenis UK Ltd.
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