

VDI

International VDI Conference

6th International VDI Conference - Smart Farming

May 16 and 17, 2022, Düsseldorf

- The State of AgTech in Europe and how it compares to the US
- Farming Technologies: Optimizing the Use of Robotics, AI and more
- A Question of Data: How Standards pave the Way for Smart Farming Worldwide
- Safety Requirements for Autonomous Agricultural Machinery
- What's going on in the AgTech StartUp Community?

+ **Interactive Round Table Session**

Meet international Experts from:



An event organized by VDI Wissensforum GmbH
www.vdi-international.com/12K0100022



09:00 Registration & Welcome Coffee

10:00 Chair's Welcome and Opening Address

Chair: Dipl.-Ing. Ralf Kalmar, Business Development Manager, Fraunhofer IESE, Germany

I. Market Development & AgTech Trends

10:15 Customer Insight on Smart Farming – The Growers' Perspective

- Market data on Smart Farming usage from current grower surveys
- Insights on drivers and barriers to adopt Smart Farming technologies
- How to leverage potentials for Smart Farming

Dipl.-Ing.agr Kai Schleyerbach, Senior Research Director, Kynetec, Germany

10:45 How advanced Technologies could support Farmer's Wellbeing and Profitability?

- The farmer's changing role in data-driven cultivation practices
- What is the role of corporations in the ag value chain?
- Risk reduction, savings, higher yield and quality: Solutions in automated pest control & monitoring, crop load management & automated harvesting
- Key challenges in sustainable business models for data-driven solutions and overcoming them

Daria Batukhtina, Business Development Manager, Kubota Group Innovation Center Europe, The Netherlands

11:15 Why is Europe falling behind in AgTech, and how to catch up?

- Trends and developments in the global AgTech landscape
- Main differences between the American and European AgTech landscapes
- Opportunities for European companies to catch up in the AgTech domain

Patrick Honcoop, Partner, PHAEN and Founder, AgTech-Pro LLC, USA

11:45 Smart Spraying – A disruptive Technology for future Farming

- Apply Herbicides only where it is needed
- Scan, decide, apply, document – A holistic system for better weed management
- Achieve more profitability by saving inputs and optimizing outputs
- Enhance sustainability by using data-driven intelligence

Janis Faltmann, Global Product Manager Smart Machinery, BOSCH BASF Smart Farming GmbH, Germany

12:15  Lunch

II. Ag Data & AI

13:45 A Question of Data: How Standards pave the Way for Smart Farming Worldwide

- Foundation of a Strategic Advisory Group on Smart Farming at ISO level
 - Analysis of the standardization landscape, identifying gaps with focus on system interoperability and harmonization of standards
 - Focus of activities of the intern. experts group is contributing to the SDGs
- Johannes Lehmann, Head of Business Development Smart Farming, German institute for standardization (DIN e.V.), Germany, co-author: Dr. Andres Ferreyra, Data Asset Manager, Syngenta Digital, USA

14:15 Leveraging on-farm Data to Open Sustainability Revenue Streams

- New revenue streams for sustainability and regeneratively produced products
- Contribution of on-farm data to realizing added value of identity-preserved commodities
- Pathway for farmers to leverage data in climate-conscious markets

Dr. Anastasia Volkova, CEO, Regrow Ag, USA

14:45 Knowledge-based sustainable Plant Production

- Automated data acquisition from ag-robots
- Application of agriculture digitization in cropping systems
- Value creation from knowledge-based farming

Prof. Ole Green, Founder, AGROINTELLI, Denmark

15:15  Networking & coffee break

15:45 Demystifying Artificial Intelligence in Agriculture

- What AI can & cannot do for your business
- The key ingredients for a successful data & AI project
- How to start with AI and how not to fail

Tomáš Borovička, CEO & AI Lead, Datamole, Czech Republic

16:15 III. Interactive Round Tables

We invite you to engage directly with other experts! The discussions are interactively moderated by experts in an array of fields revolving around smart farming. Choose which topic is of most interest to you and introduce your own experiences and questions.

One of the topics is: **Perception and Safety around Smart Farming Vehicles – Sabri Bayouhdh**, VP Technologie Arcure, Head of Innovation, Blaxtair, France. More Round Table topics will be announced on site.

17:15 End of Conference Day One



17:30 Get-together

Relaxed and informal atmosphere for in-depth conversations.

09:30 Chair's Welcome

Chair: James Miller, Consultant, Tractors and Farm Equipment (TAFE) Ltd, UK

09:35 IV. Updates from the AgTech Startup Community

Get in touch with interesting startups! You are interested in a new industry collaboration? You are looking for innovative technologies and solutions? Then join our interactive startup session. Listen to carefully selected startups presenting their ideas. Take part in the subsequent discussion moderated by **Prof. Ole Green**, Founder of AGROINTELLI, Denmark.

1. **Automating Greenhouse Farming** – Iddo Geltner, PhD, Co-founder & CEO, Arugga AI Farming, Israel
2. **CLAWS: Concentrated Light, Autonomous Weeding and Scouting** – Ricard Pardell, CTO, Earth Rover, Spain/United Kingdom
3. **The 21st Century Orchard Management Solution** – Avi Kahani, Founder & CEO, FFRobotics, Israel

11:00 ☕ Networking & coffee break

V. Automation & Farming Technologies**11:30 Future Focus – Assistance, Automation & Autonomy in Smart Farming Technology**

- TAFE Outlook in global presence and focus of corporate role in Ag-value chain
- Innovative technology trends in global Ag landscape & Opportunities for European market
- Are Automation & Autonomous Ag equipment innovations advancing ahead of curve?
- Maturity of technology, expectation of customers, minimum value of product, time to market, ROI
- Smart farming technology for small tractors – A future?

Massimo Ribaldone, CTO & President Business Development, Tractors and Farm Equipment (TAFE) Ltd, India & United Kingdom

12:00 Addressing Safety Requirements for Autonomous Agricultural Machinery

- Autonomous operation of agricultural machinery requires advanced safety concepts beyond ISO 25119 or 13849
- Current state of standardization and point out methods and tools for advanced safety engineering of higher automation levels in agriculture
- Safety assurance of AI-based safety functions

Dr. Rasmus Adler, Program Manager Autonomous Systems, Fraunhofer IESE, Germany

12:30 🍴 Lunch

14:00 Safe and agile Software Development for Farming

- Utilize opensource ROS 2 based Apex.OS SDK to develop safety certifiable vehicles
- Scalable software architecture for cloud to vehicle development of small machines up to large tractors
- Example use-cases and applications

Dr. Michael Aeberhard, Head of Application Engineering, Apex.AI., Germany

14:30 Cyber Security: Challenges and Relevance for Ag Tech Manufacturers

- Drivers of cyber security in precision agriculture
- What to consider when introducing cyber security to agricultural machinery manufacturers
- Insights from a UN R 155 implementation program
- Sneak Peek: Cyber Security vs Right to Repair

Simon Weichler, Consultant and **Florian Ebert**, Manager, both: Risk Advisory, Deloitte, Germany

15:00 3D Vision Sensors as Eyes for Smart Farming

- 3D snapshot technologies as a basis for 3D vision sensors
- Advantages of the individual 3D snapshot technologies: Time-of-flight, stereo vision, and structured light stereo vision
- Raw data provider, edge computing or plug&play devices: Full flexibility is key
- Field examples from other industry branches: Learnings for Ag applications

Dr. Fabian Zimmer, Application Engineer, 3D Compact Systems, co-authors: Dr. Nadja Nagel, Dr. Anatoly Sherman, all: SICK AG, Germany

15:30 Conference Chair's Closing Remarks

15:45 End of Conference

OEM
Insights

**Upcoming Events****3rd International VDI Conference**

Automation and Robotics in Agriculture

July 6–7, 2022 in Dusseldorf, Germany

International Conference on Agricultural Engineering

AgEng-LAND.TECHNIK 2022

November 22–23, 2022 in Berlin, Germany

7th International VDI Conference

Connected Off-Highway Machines

Date and venue:

May 16-17, 2022

Van der Valk Airporthotel Dusseldorf, Germany

Following topics will be discussed:

- The Future of Autonomous Mobile Machines
- Connected Vehicle Technology
- Machine Maintenance and Remote Monitoring
- Importance of Data Management
- Safety & Security of Connected Off-Highway Machines
- Digital Solutions for Fleet Management & Fleet Operations

www.vdiconference.com/01K0902022

Parallel
running
conferences



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6th International VDI Conference

Autonomous Trucks

Date and venue:

May 16-17, 2022

Van der Valk Airporthotel Dusseldorf, Germany

Following topics will be discussed:

- New Business Solutions & Digital Services for Commercial Vehicles
- Use Cases for Hub-to-Hub, confined Areas and Last Mile Delivery
- Safety and Security Development
- Data Handling, Connectivity and on-board Software
- Legal Frameworks, Sensor Control, and Sensor Fusion

www.vdiconference.com/01K0915022



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Supporting Experts

Dipl.-Ing. Ralf Kalmar, Business Development Manager, Fraunhofer IESE, Germany
Rhett Schildroth B.Sc., President, Redsheild Consulting, USA
James Miller, Consultant, Tractors and Farm Equipment (TAFE) Ltd, UK
Dan Danford, Global Industry Relations Manager, CNH Industrial America LLC, USA
Julian Sanchez, Director Emerging Technology, John Deere, USA



Become a speaker

Become a speaker at our international VDI Automotive Conferences. Make yourself known in the industry and discuss best practice examples with other international experts. We are looking for speakers on: Automation & Robotics in Agriculture, Sensor & HMI Technologies for the Off-Highway Industry.

Please submit your topic to:
Dr. Maria Georgiou-Smith
Product Manager International Business
Agricultural Engineering
Phone: +49 211 6214-467
Email: georgiou-smith@vdi.de

Registration

Terms and Conditions

Registrations: Registrations for conference attendance must be made in writing. Confirmation of your registration and the associated invoice will be mailed to you. Please do not pay your conference attendance fee until you have received our invoice and its invoice number to be stated for transfer. German VAT directives apply. Please state your VAT-ID with your registration.

Conference venue
Van der Valk Airporthotel Düsseldorf
Am Hülserhof 57
40472 Düsseldorf, Germany
Phone: +49 211/20063-0
Email: dusseldorf@valk.com



You will find more hotels
close to the venue at
www.vdi-wissensforum.de/hrs

Hotel room reservation:

A limited number of rooms has been reserved for the benefit of the conference participants at the Van der Valk Airporthotel Düsseldorf
Please refer to "VDI Conference". For more hotels: www.vdi-wissensforum.de/hrs

VDI Wissensforum service package:

The conference package includes the conference documents (online), beverages during breaks, lunch and the get-together on May 16, 2022.

Conference attendance conditions and terms can be found on our website:
www.vdi-wissensforum.de/en/terms-and-conditions/

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If you want to meet with and reach out to the first-rate experts attending this VDI conference and to powerfully present your products and services to the well-informed community of conference participants, please contact:

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Register online!

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Yes, I will participate as follows:

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VDI Conference 16.-17.05.2022
(12K0100022) € 1890

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