

4th International VDI Conference Automation and Robotics in Agriculture

June 28 and 29, 2023, Dusseldorf

Keynotes: Naïo
Technologies
PÖTTINGER &
Trimble

- Ag Robots and full Autonomy
 - Autonomous Implementation focused on Farmers' Needs Now and in the Future
 - Dos and Don'ts – Practical Experiences with Ag-Robots in the Field
 - Automating Livestock Management – Solutions & Use Cases
 - How to grow as an Innovative AgTech Start-up
- + Panel Discussion: Are Field Robots already safe enough to sell to every Farmer?
+ Interactive Round Table Session

Meet international Experts from:



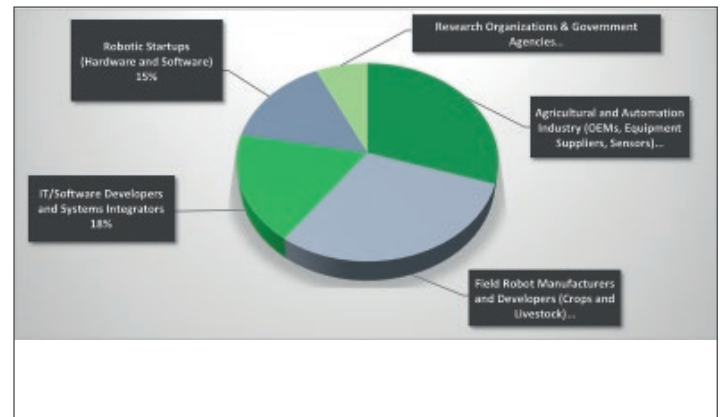


About us

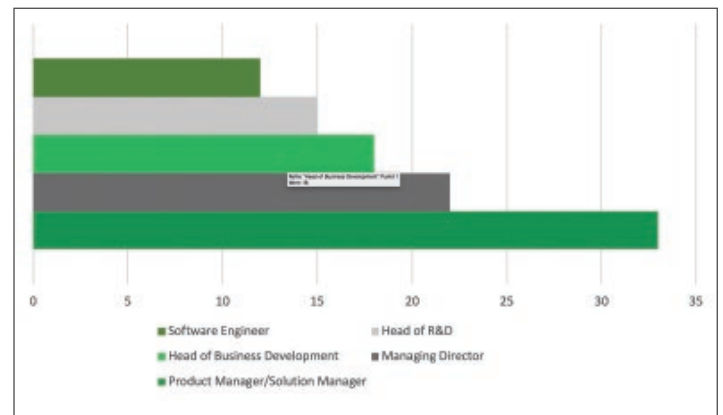


The Association of German Engineers (VDI) is one of the largest technical-scientific associations in Europe. Throughout the years, the VDI has successfully expanded its activities nationally and internationally to foster and impart knowledge about technology-related issues. As a financially independent, politically unaffiliated and non-profit organization the VDI is recognized as the key representative of engineers both within the profession and in public.

Expected Participants according to Functions



Expected Participants according to Industries



Reasons to attend

- Meet international Agriculture Industry Experts
- Prepare for a Real-World View of Autonomy in Farming
- Gain Insights into functional Safety for agricultural Robots
- Benefit from practical Experiences with Ag-Robots in the Field
- Hear about Automation and Robotics from the Perspective of an Implement Manufacturer
- Network with innovative Companies

9:00 Registration & Welcome Coffee

10:15 Chair's Welcome and Opening Address

Ole Green, Founder, Agrobotelli, Denmark

10:30 Speed Networking | Make the most of this networking opportunity by participating in these quick and effective 1-to-1 interactions. Get to know the other attendees and exchange your business cards.

State of Automation

10:45 Ag Robots and full Autonomy

- What is „Full Auto“ and how is it legal?
- First feedback in Europe and in the US
- What's next?

Gaëtan Séverac, Co-founder, Naio Technologies, France

11:15 Beyond Level 5 Autonomy – A Real-World View of Autonomy in Farming

- Looking beyond the hype: Cultivating a thoughtful approach to autonomous implementation based around farmer's needs now, in 3 years and in 30 years
- Gain insight from the lessons learned from real-world applications with some of today's premier industrial vehicle manufacturers
- Assess your company's path to autonomy and how to achieve your autonomous vision

Meiko Martin, Director of Business Development – Off-Road Autonomy, Trimble Inc., United States

11:45 Successful Robot Introduction – Find the right Farm for Automation

- With less soil available, more mouths to feed and a need for more sustainable agriculture: How can agriculture robots contribute?
- The inherent complexity of agriculture and successful robot business cases
- Field experience: What are key challenges for automation, market introduction and operation to bring this technical innovation to the farm?

Corné Rispens, MSc. BEng., Entrepreneur – Adoption of Agriculture Robots, DUCKSIZE, The Netherlands

12:15  Lunch

Intelligent Operations & Implementations

13:40 Automation and Robotics from the Perspective of an Implement Manufacturer

- Focus and degree of autonomy
- Standardization and interfaces
- Challenges for product development

Dr. Martin Follmer, Director Product Digitalisation, PÖTTINGER Landtechnik GmbH, Austria

14:10 Trends and Technologies empowering Navigation of Ag Robots

- Experiences in Ag robotics market (technology and market trends)
 - Safety and reliance on high precision positioning, their availability, integrity for Ag robotics application
 - How GNSS/INS can help overcome challenges inherent to Ag robotic systems
 - Discussing main use cases in Ag robotics & the fit of navigation technology
- MBA Gustavo Lopez**, Market Access Manager, Septentrio, Belgium

14:30 Safe environmental Perception – A Key Technology for Safety of Agricultural Robots

- Top-down – A new approach for functional safety for Ag-robots
- Real Environment Detection Area (REDA): Validation methodology for sensor systems in outdoor applications
- Proof of safe functionality & productivity in outdoor area

Christian Meltebrink, Technical Industry Manager – Outdoor Automation, SICK AG, Germany

14:50 Panel Discussion: Field Robots: Safe enough to sell to every Farmer?

Moderation: **René Koerhuis**, Ag robotics specialist, Future Farming Magazine, The Netherlands

15:20  Networking & Coffee Break

Growing new Technologies

15:50 Automation in Agriculture – Is the Time ripe now?

- Needs for automation in agriculture
- Copy paste from industry
- Necessary preconditions for a successful automation in agriculture
- Way of farmerswork has to change with automation

Josef Schmidt, CEO, digital workbench gmbh, Germany

16:15 Using AI for Weed Control and Crop Scouting

- Development of weeding and scouting solution
- How AI is used to identify and target weeds
- Use of AI for crop monitoring
- Benefits to growers in adopting smart robotics in farming

Tomàs Pieras, CTO, Earth Rover, United Kingdom

16:40 How do we grow as Innovative AgTech Start-up?

- Know the market, think global, act local
- Focus on execution
- Leverage the core technology
- Build strong partnerships

Martijn R. Lukaart, Founder & CEO, Odd.Bot B.V., The Netherlands

17:05 End of conference Day One



18:00 Get-together

09:30 Interactive Round Table Session

During the interactive Round Table Session, we invite you to engage directly with other experts. The discussions are interactively moderated by experts in an array of fields revolving around robotics and automation in agriculture. Discuss and identify challenges within your sector as well as problems, needs, and solutions. The focus is on the participants – Choose which topic is of most interest to you and introduce your own experiences and questions. The Round Table topics will be announced on our website prior to the event.

10:30 ☕ Networking & Coffee Break

Automating Livestock Management – Solutions & Use Cases**11:00 Precision Farming – How to keep both Farmers and Cows happy**

- Robotic milking – Lessons learned
- Automatic body condition scoring – The importance of a good energy balance
- Data collection and analysis

Björn Wiklander, Manager, Data Science & Machine Learning, DeLaval International AB, Sweden

11:30 Gas Monitoring and Process Control via LoRa – Eliminating Hazards through Smart Sensor Devices

- Concept and design principles of a smart monitoring device (low energy consumption, remote data access)
- Advantages and challenges of LoRa in agricultural environments in terms of implementation and network availability
- Safety, sustainability and efficiency enhancement through emission control in livestock farming and pest control in silos
- Contextual air quality data: Visualization and interpretation of sensor readings and environmental data

Andreas Nauber, New Business Development Manager, Co-Author: Silja Dennier, Head of New Business Development, both: Drägerwerk AG & Co. KGaA, Germany

12:00 🍴 Lunch

Robotics on the Fields**13:30 Automation and Robotics Adoption**

- Experience with robots in field crops in Canada since 2020
- What is working well and what is not
- Farmers comments around adoption, their wishes and concerns
- Future work with robots, and robotic implements

Chuck Baresich, President & Founder, Haggerty AgRobotics Company, and General Manager, Haggerty Creek Ltd., Canada

14:00 Architecture of complete Agrocycle Autonomous System for Plantations

- Typical mechanization components for the agricultural cycle using shown for an apple plantation
- Overview of the specifications for an autonomous system supporting the agricultural cycle
- Introducing an autonomous agrosystem, which satisfies the required conditions illustrating this concept's feasibility

Dr. Mikhail Kostkin, CEO, Pek Automotive d.o.o., Slovenia

14:30 Per Plant Farming in Cereal Crops

- The value of per plant farming
- The required hardware, AI and software to make it work
- Getting farmers to adopt this system

Ben Scott-Robinson, CEO, Small Robot Company, United Kingdom

15:00 Dos and Don'ts – Practical Experiences with Robot in the Field

- Commercial focus crop applications for robots
- Criteria and compromises when using robots in open fields
- Autonomy and Remote supervision of robots

Jess Pedersen, Product Specialist, Agointelli, Denmark

15:30 Closing Remarks

15:45 End of conference

**Upcoming Events****7th International VDI Conference****Smart Farming**

April 24-25, 2023 in Dusseldorf, Germany

80. International Conference**LAND. TECHNIK 2023**

November 10-11, 2023 in Hannover, Germany

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Sandra Schreiner
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Please submit your topic to:
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You will find more hotels
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Hotel room reservation: A limited number of rooms has been reserved for the benefit of the conference participants at the NH Düsseldorf City Nord.

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Automation and Robotics in Agriculture



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www.vdi-international.com/12K0901023



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Participation Fee + VAT

VDI Conference 28.-29.06.2023
(12K0901023) € 1990

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