

WHAT is SYSTEMS & COMPONENTS and WHO is it for?

**SYSTEMS &
COMPONENTS**

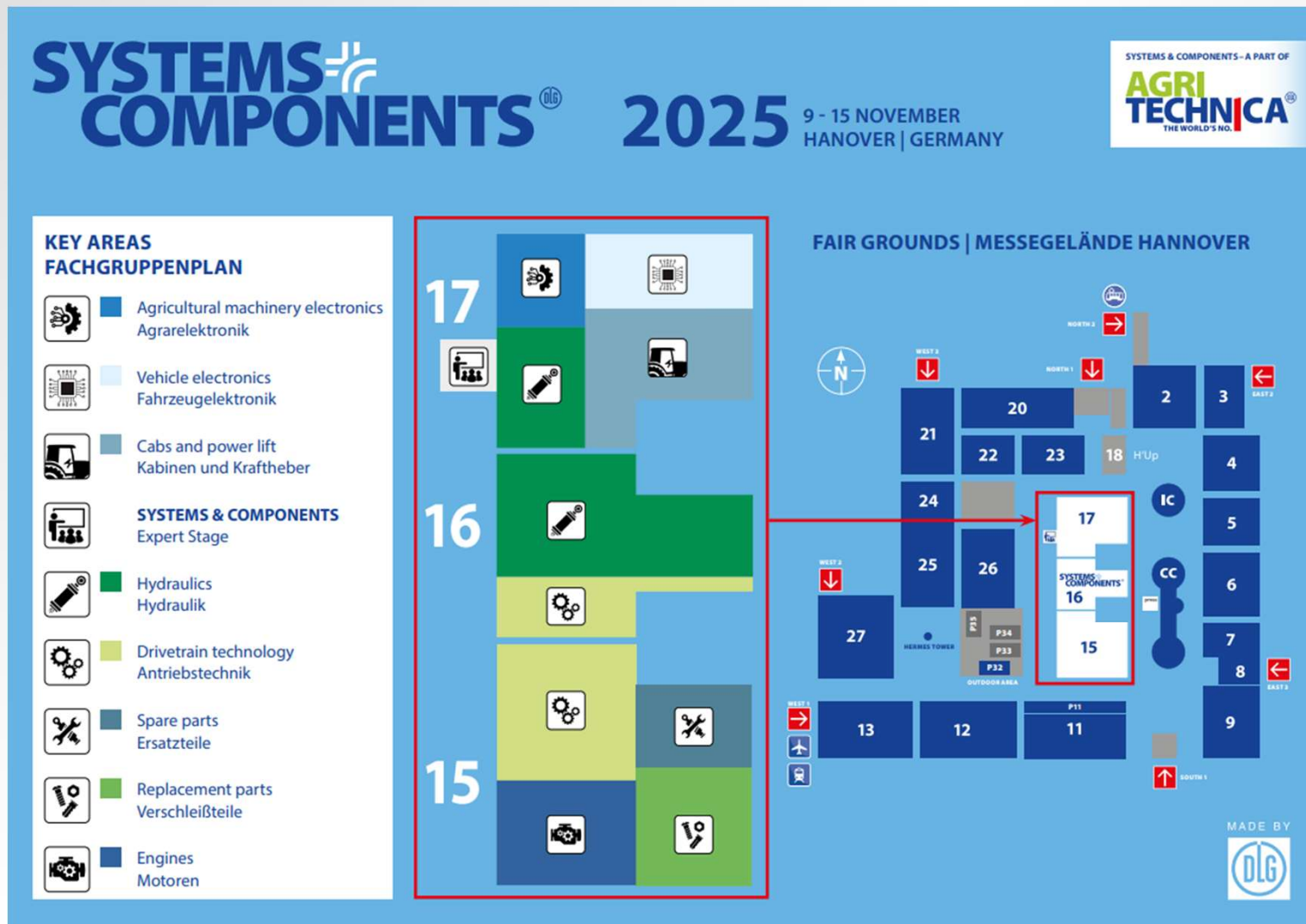


At AGRITECHNICA 2025 **SYSTEMS & COMPONENTS** is the B2B marketplace of the international supplier industry for agricultural machinery and the entire mobile machinery sector.

It is specifically for OEM engineers, developers, system integrators, purchasing/sourcing staff, and others interested in the latest innovations for machinery systems and components.

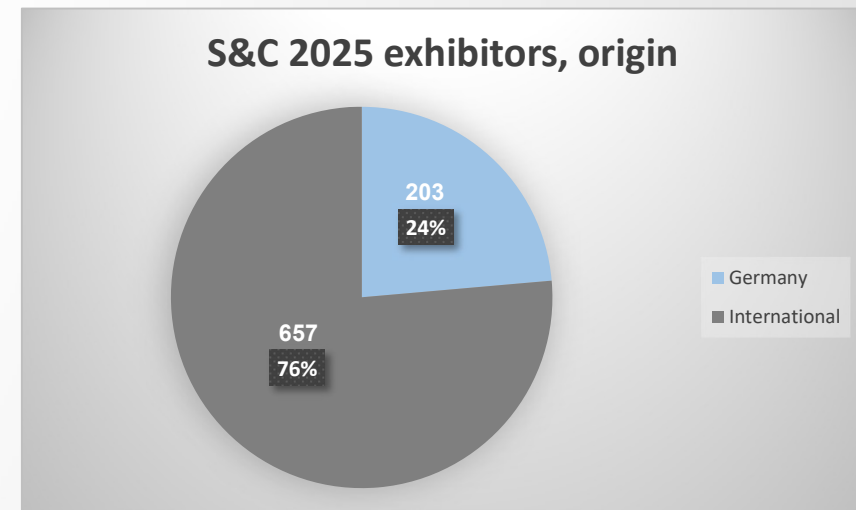
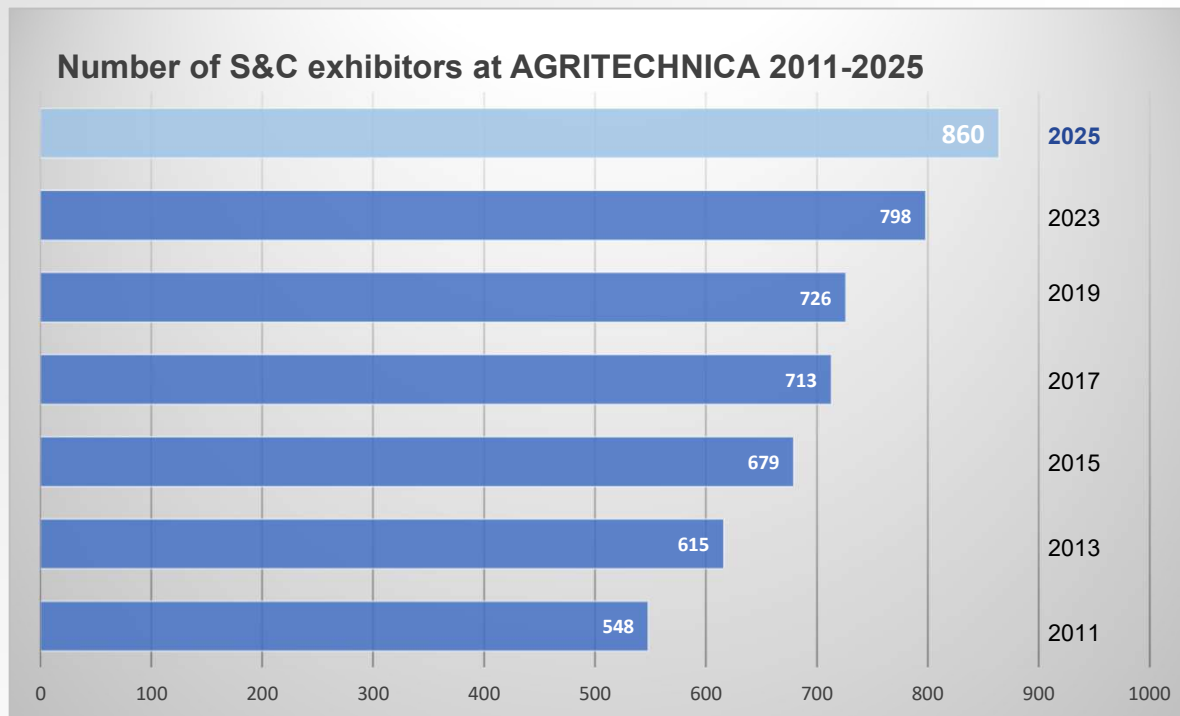
What will visitors find at SYSTEMS & COMPONENTS 2025 ?

**SYSTEMS
COMPONENTS**



SYSTEMS & COMPONENTS 2025: Facts & Figures

AGRITECHNICA 2025 (all exhibitors): about 2,700 expected



Top 5 exhibitor countries, by size of exhibit space

(number of exhibitors)

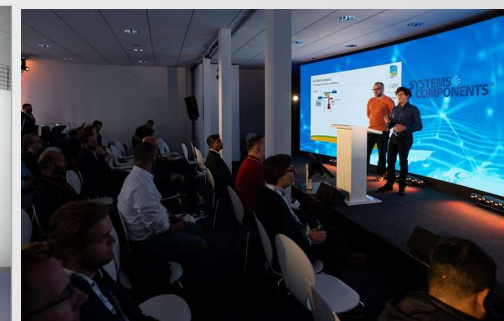
1. **Germany** (203)
2. **Italy** (161)
3. **Turkey** (75)
4. **China** (147)
5. **India** (49)

Technical Program: S&C Expert Stage



FRI, Nov 7	SAT, Nov 8	SUN, Nov 9	MON, Nov 10	TUE, Nov 11	WED, Nov 12	THU, Nov 13	FRI, Nov 14
 VDI (Association of German Engineers) LAND.technik AgEng 2025 International Conference on Agricultural Engineering Nov 7-8, 2025 Hanover Convention Center		 17:00 AWARD CEREMONY	S&C EXPERT STAGE Technical Program 10:00 – 16:00 full program online soon at www.agritechnica.com and in the AGRITECHNICA 2025 app			S&C EXPERT STAGE 10:30-12:00 Forestry Forum 13:00-15:00 Pop-Up Talks Forestry 	Young Professionals & Women in Engineering Day

- Specialized technical program: presentations, expert-led panel discussions, and networking
- For OEM engineering staff, developers, system integrators, etc.
- Agricultural electronics | Automation | Drive technologies | Digital services, etc.
- Location: S&C Expert Stage hall 17 H02



Awards: SYSTEMS & COMPONENTS Trophy – Engineers' Choice



A jury of OEM development engineers awards innovative systems and components with new or significantly improved concepts that make a distinctive contribution to the development and realization of products and new or improved processes.

October 16th : Announcement of the winners



All trade press & the interested engineering community are invited to the S&C Trophy Awards ceremony:

When?

Sunday, November 9th 17:00 – 18:00

Where?

S&C Expert Stage, hall 17 H02



SYSTEMS COMPONENTS

2025 9. - 15. NOVEMBER
HANNOVER

INNOVATIONS DRIVING TRANSFORMATION

Intelligent, connected and efficient
solutions for agricultural and off-
highway machinery

Prof. Dr. Till Meinel | Cologne Institute of
Construction Machinery and Agricultural
Engineering (IBL) and chairman of the
Systems & Components Trophy
Innovations Committee

#systemsandcomponents



www.agritechnica.com/de/systems-components



SYSTEMS & COMPONENTS – A PART OF

**AGRI
TECHNICA**
THE WORLD'S NO. 1

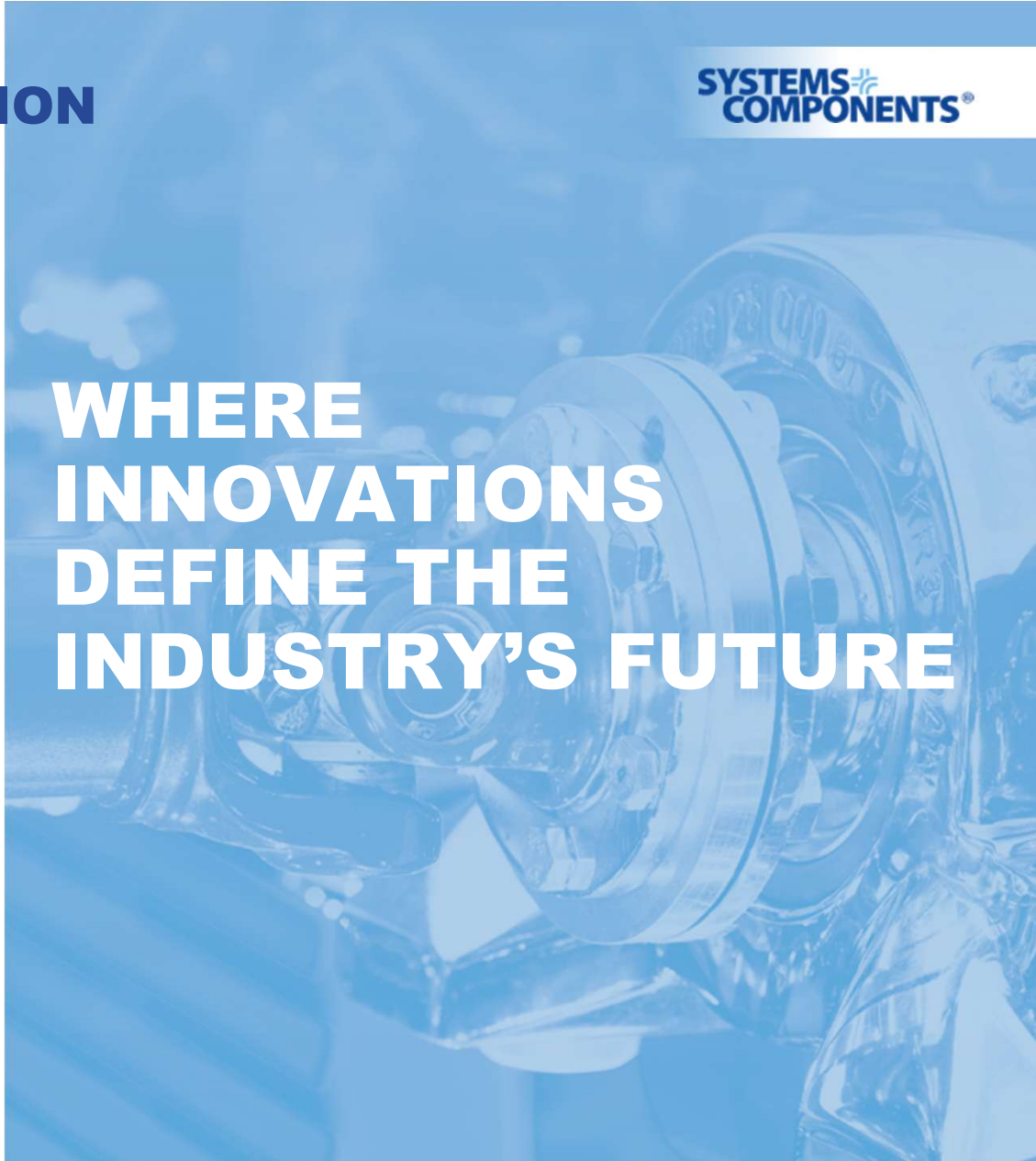
MADE BY



THE PLATFORM FOR INNOVATION

- **Showcasing next-generation solutions**
A stage for breakthrough product innovations
- **Spotting tomorrow's trends today**
Developments here reflect the future direction of the sector
- **Industry Pulse**
Innovations presented serve as a benchmark for technological progress and competitiveness
- **Innovation Ecosystem**
A unique space where suppliers, manufacturers, and researchers shape what comes next.

SYSTEMS
COMPONENTS



**WHERE
INNOVATIONS
DEFINE THE
INDUSTRY'S FUTURE**



TOUCH SMART EFFICIENCY

LATEST TRENDS IN SYSTEMS AND COMPONENTS

**SYSTEMS+
COMPONENTS®**

Autonomous Machine Control

- Modern electronics & AI-powered technologies
- Smart, safe & efficient automation

Advanced Sensor Solutions

- 3D LiDAR, stereo cameras, ultrasound & phased-array radar
- Precise environment perception & obstacle detection under extreme conditions

NextGen HMI Systems

- Enhanced safety, comfort & efficiency
- Intuitive operation, even for less experienced users

Powertrain & Components

- Electrification & Energy efficiency
- Modularity & Scalability for diverse applications

Hydraulic Innovations

- New systems for greater safety, flexibility & sustainability
- Supporting environmental protection and performance

AI APPLICATIONS



SYSTEMS
COMPONENTS®

AI technologies for agricultural and construction machinery optimize workflows through autonomous operating functions and intelligent data analytics, significantly increasing efficiency and precision.

INTEGRATED SENSOR SYSTEMS



Integrated sensor systems for mobile machines increase efficiency and safety through precise real-time monitoring and predictive maintenance.

HUMAN MACHINE INTERFACES



Source: <https://www.rafi-group.com/news/safety-touch/>, last checked on September 06, 2025

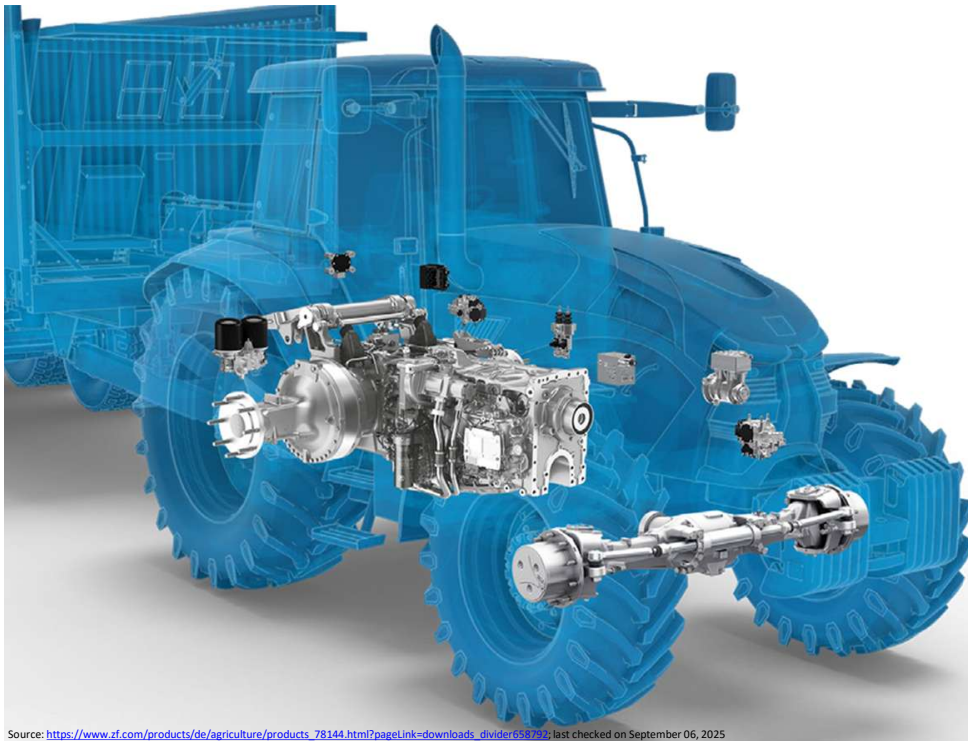
NexGen HMI improve operability, user-friendliness and security in numerous applications

COBOTS



Cobots provide efficient support in tasks such as fruit harvesting, sorting and indoor farming, thus relieving the burden on human workers.

POWERTRAIN & COMPONENTS



Source: https://www.zf.com/products/de/agriculture/products_78144.html?pageLink=downloads_divider658793; last checked on September 06, 2025

SYSTEMS
COMPONENTS®

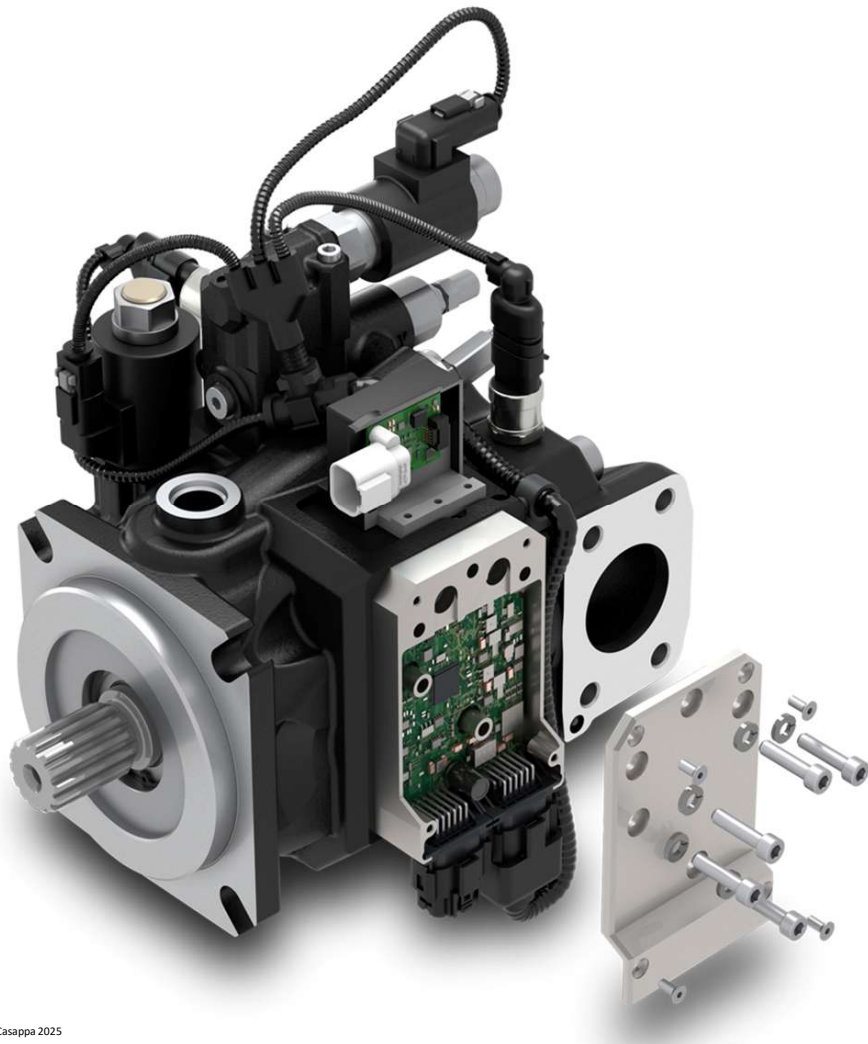
...allow a fast and flexible electrification of ag and construction machines.

...combine traction, PTO, and hydraulics.

...are modular, scalable, with optimized packaging for maximum efficiency and installation flexibility.

HYDRAULICS

SYSTEMS+
COMPONENTS®



...smarter

...safer

...greener

...more compact

CONCLUSION INSIGHTS

**INTELLIGENT,
CONNECTED,
AND EFFICIENT
SOLUTIONS ARE
SHAPING THE NEXT
ERA OF
AGRICULTURAL AND
OFF-HIGHWAY
MACHINERY**



- **Integration of Digital Intelligence**
Autonomous control, advanced HMI, and smart sensors enhance safety, efficiency, and operator comfort
- **AI and Data at the Core**
Real-time decision-making and adaptive systems unlock new levels of precision and automation
- **Sustainability through Technology**
Hydraulic, powertrain, and energy-efficient solutions support environmental protection and long-term performance
- **Ecosystem for the Future**
Collaboration between suppliers, manufacturers, and researchers accelerates the transformation and defines tomorrow's industry standards

Future Perspectives and Technical Challenges in Mobile Machines

Electrics/Electronics for Mobile Machines



Future Perspectives and Technical Challenges in Mobile Machines

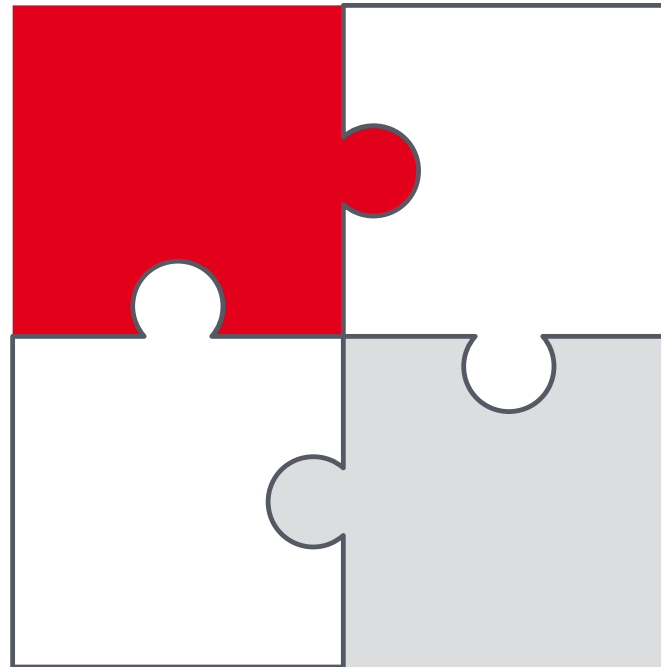
Megatrends

Digitalisation

- New business models
- Connective Products and Digitised Systems
- E-Commerce
Business Tools
- Software defined machines
- Digital Twins
- Cyber Security

Decarbonisation

- Net Zero/ESG
- Reduction CO₂-Footprint (scope 1/2)
- Longer Lifetime
- Energy efficiency
- Second Life
- Recycling
- Environmental impact of products and technologies (scope 3)
- E-Mobility
- H₂
- Electromechanics



Demography

- Developing People
- Research Network
- Purpose & Communication
- Health Policy
- Automation

Deglobalisation

- Political and Market driven
- Production local for local (global local)
- Procurement local for local
- IP Protection

Great opportunities...



Electrification

Automation

Digitalisation

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... but a lot of challenges!



Cyber Security

Safety

Telematics

New Drive Train Technology

Interoperability

Energy Efficiency

Cloud Computing

Great opportunity: ELECTRIFICATION



Electrification

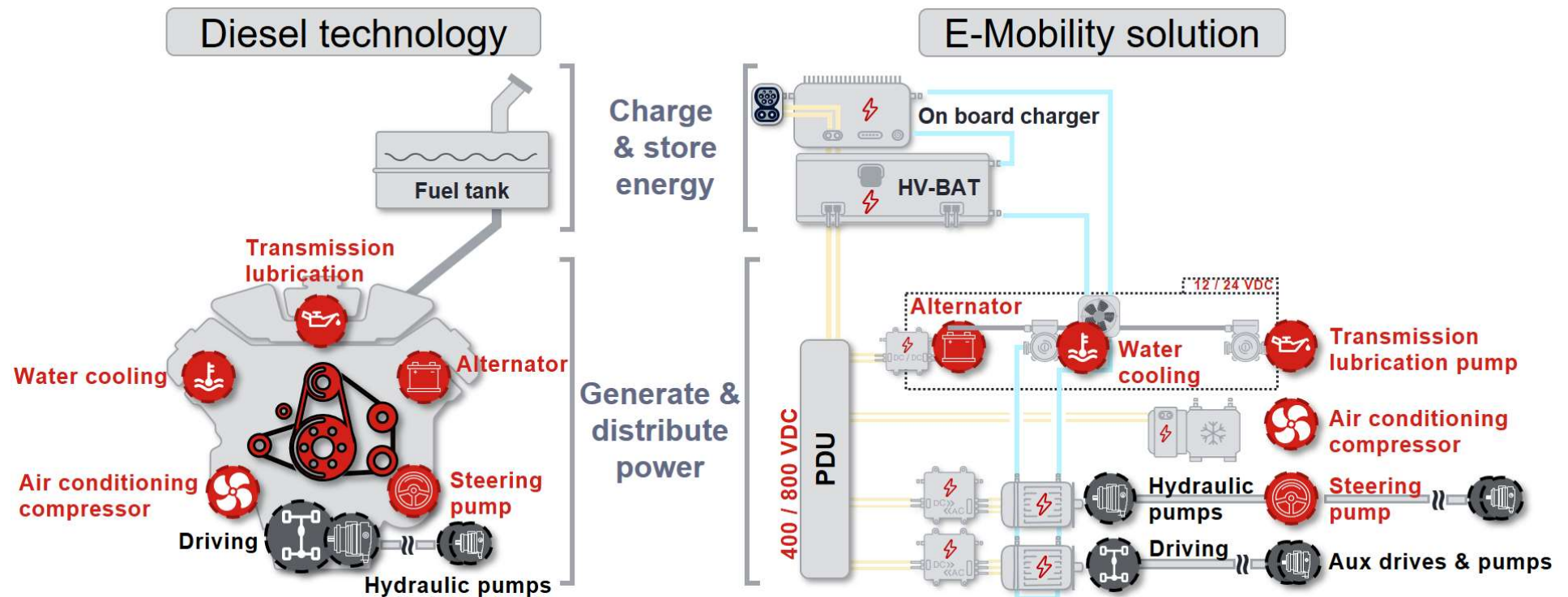
Automation

Digitalisation

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Future Perspectives and Technical Challenges in Mobile Machines

Electrification – Why it's more complex



Future Perspectives and Technical Challenges in Mobile Machines

Electrification – Challenge

Battery determines space, cost and resale-value of the machine

Energy-efficiency of the machine is becoming a key factor

Thermal - & energy management are decisive topics

Significantly increased effort for software and E / E-architecture

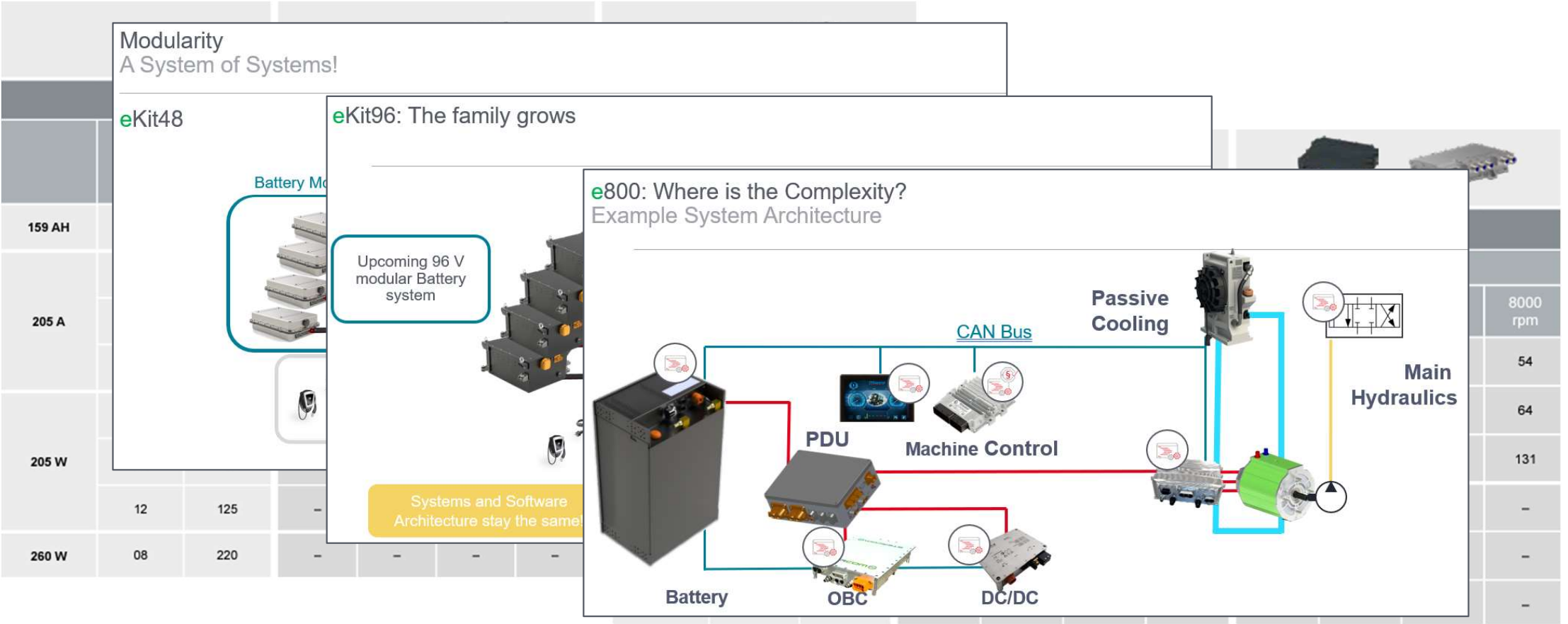
Many new technical challenges > ressources / competences?

New partnerships OEMs & supplier partners



Future Perspectives and Technical Challenges in Mobile Machines

Electrification – Modular Platform Approach Motor/Inverter/System



Great opportunity: AUTOMATION



Electrification

Automation

Digitalisation

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Future Perspectives and Technical Challenges in Mobile Machines

Automation – Also for compact machines

Big German OEM Construction Machines

Motivation

- Enhance Safety for Operators and Bystanders
- Minimize accidents and standing times on construction sites
- Comply with safety standards
- Reduce operator stress

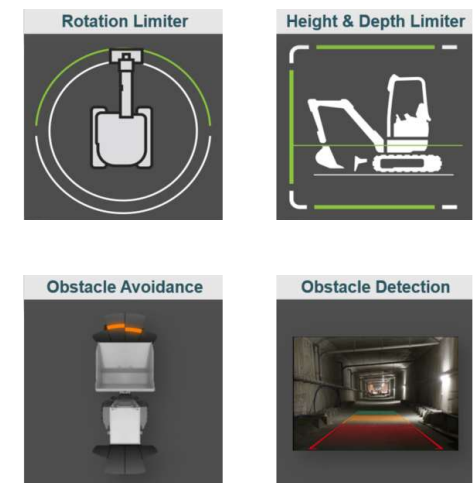
Challenges

- Ensure easy to use HMI (UI/UX)
- Sensor systems and Software development
- Keep costs within acceptable limits
- Do not hinder experienced operators
- Ensure system reusability on various platforms

Assistance Systems & Smart Controls



Advanced Safety Systems



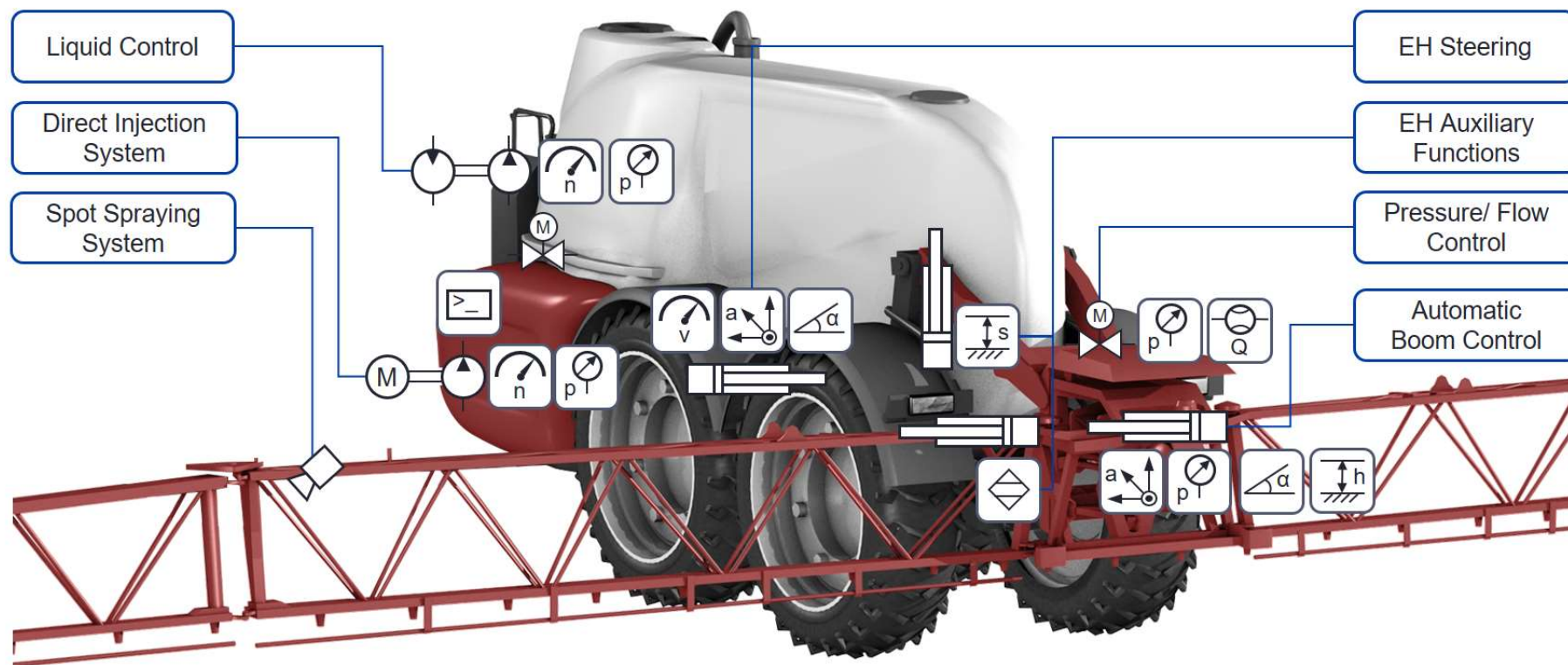
Future Perspectives and Technical Challenges in Mobile Machines Automation – Technology Development Sprayers



Future Perspectives and Technical Challenges in Mobile Machines

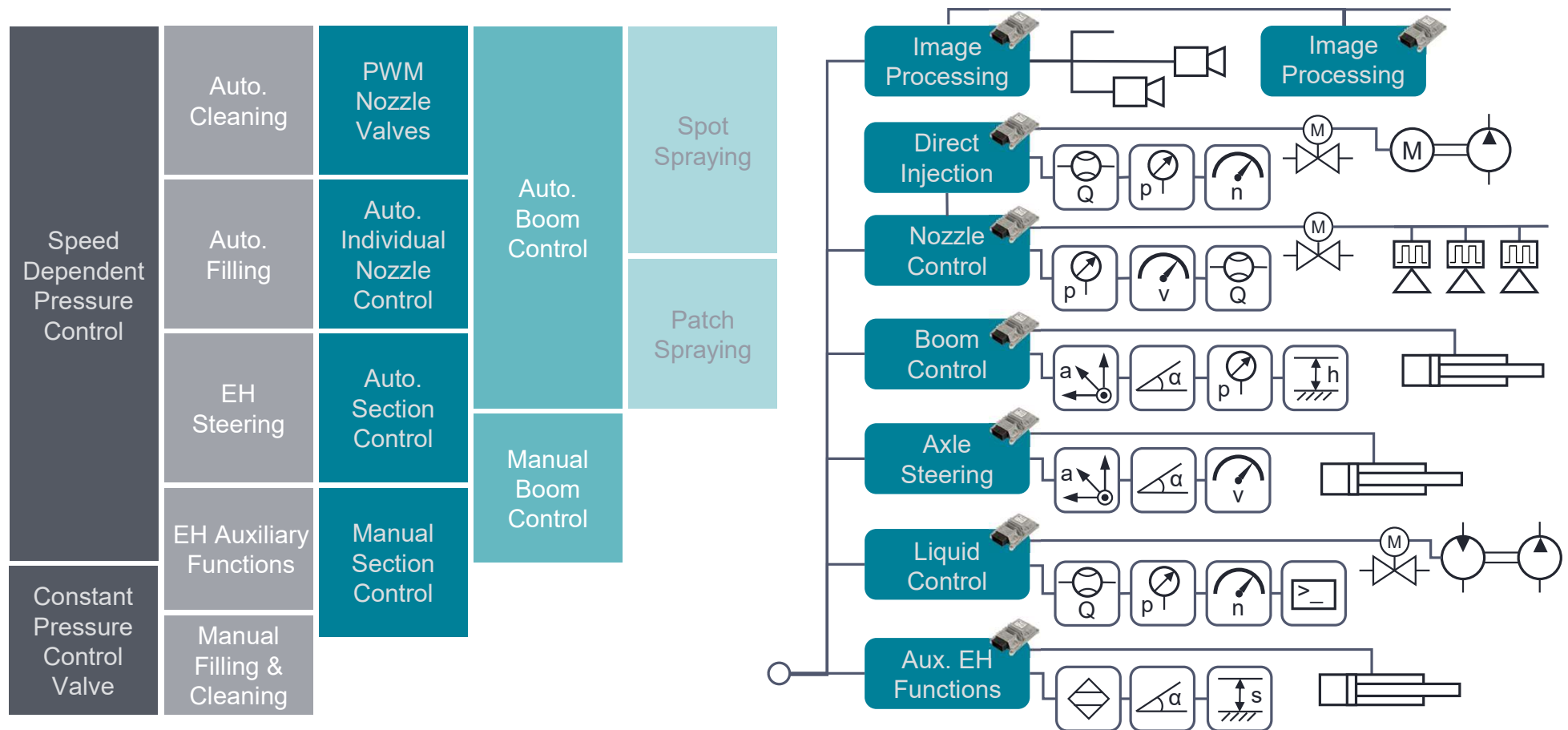
Automation – Technology Development Sprayers

Sprayer Component Overview & Location



Future Perspectives and Technical Challenges in Mobile Machines

Automation – Technology Development Sprayers



TIControl
HYDAC INTERNATIONAL



TTControl Fusion	300	422	622	622S	844	844S	844 AI	844S AI
Processor	NXP i.MX8 QuadPlus		NXP i.MX8 QuadMax					
AI-Accelerator Hailo 8	-						y	
Functional Safety AgPI b	-		optional					
Ethernet 100BASE-TX	-		2x					
Ethernet 100BASE-T1	2x		4x		6x			
Ethernet 1000BASE-T1	1x	2x						
CAN-Bus	3x CAN FD 2x CAN (1x ISOBUS)							
Display Interface FPDiii	-		2x		4x			
Camera Interface GMSL2	-		2x		4x			
USB 2.0	2x							
Serial Interface RS232	1x							
Ingress Protection	IP67 IP6K9K							

Great opportunity: DIGITALISATION



Electrification

Automation

Digitalisation

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Future Perspectives and Technical Challenges in Mobile Machines

Conclusion – Opportunities and challenges

Electrification

Automation

Digitalisation

Cyber Security

Safety

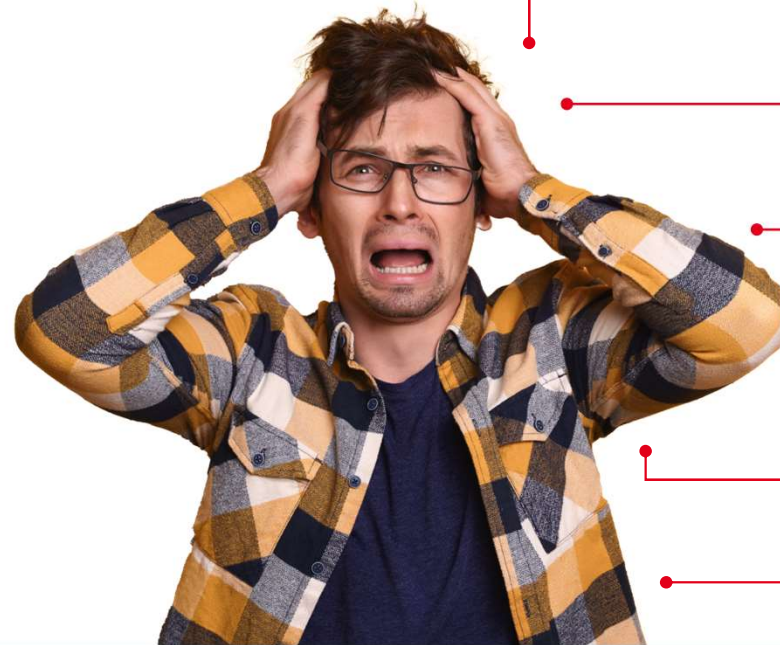
Telematics

New Drive Train Technology

Interoperability

Energy Efficiency

Cloud Computing



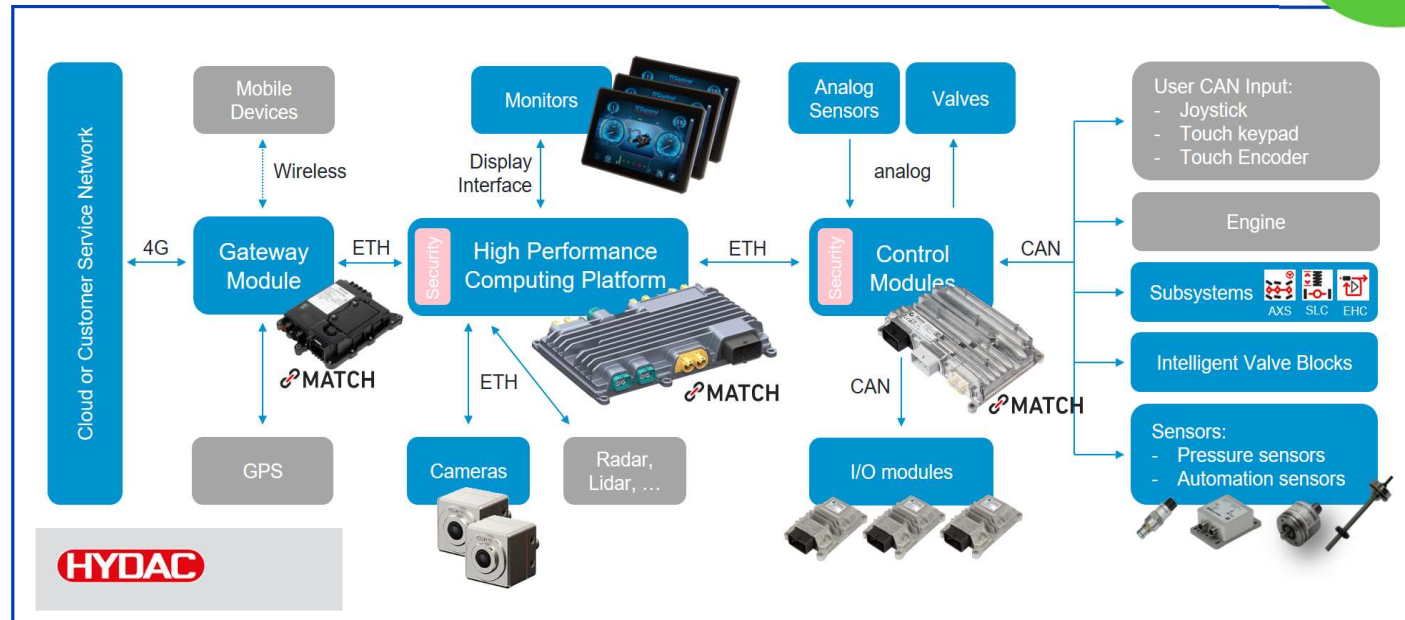
Future Perspectives and Technical Challenges in Mobile Machines

Conclusion – Flexible/Modular Platform Approach Off-Highway

Electrification

Automation

Digitalisation



Cyber Security

Safety

Telematics

New Drive Train Technology

Interoperability

Energy Efficiency

Cloud Computing

Conclusion

- It's never the machine only
- What is the endcustomer benefit?
- Nobody can do it all alone

**High elasticity and flexibility in
modular system architecture (HW & SW)**



Thank you for your interest

Contact

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Communication
HYDAC International GmbH

www.hydac.com



SYSTEMS & COMPONENTS[®]

2025 9. - 15. NOVEMBER
HANNOVER

**SYSTEMS & COMPONENTS Trophy –
Engineers' Choice**

**Nominees 2025 - Shortlist of the 16
nominated innovations**

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TECHNICA[®]**
THE WORLD'S NO. 1

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SYSTEMS & COMPONENTS Trophy - Shortlist 2025



	Product name	Company	Product category
1	Bosch Rexroth Power and Motion Control eLION Platform	Bosch Rexroth AG	Drivetrain technologies
2	Rexroth MPR Performance Motor	Bosch Rexroth AG	Hydraulics
3	Casappa Smart Data System	Casappa S.p.A.	Hydraulics
4	MK5 Stereo Camera	CLAAS E-Systems GmbH	Electronics
5	Flexxaire Infinite Variable Pitch Fan	Flexxaire	Spare & replacement parts
6	SUSTAINMICRON® - the new standard filter element technology	HYDAC	Spare & replacement parts
7	Increased precision and safety: HYDAC LX Load-Sensing valves with Intelligent Control Unit (ICU)	HYDAC International GmbH	Hydraulics
8	ReBeL cobot	igus GmbH	Electronics
9	RadX	Mach, Inc.	Electronics
10	AGRI-SONIC	MOBA Mobile Automation AG	Electronics
11	MHD09 - The Dual technology	Poclain	Hydraulics
12	SAFETY TOUCH®	RAFI GmbH & Co. KG	Electronics
13	multiScan100-S	SICK AG	Electronics
14	Visionary AI-Assist	SICK AG	Electronics
15	Safety Assist	STW - Sensor-Technik Wiedemann GmbH	Electronics
16	ZF eTD	ZF Friedrichshafen AG	Drivetrain technologies

SYSTEMS & COMPONENTS beyond AGRITECHNICA



- SYSTEMS & COMPONENTS to launch forestry-focused edition at **INTERFORST 2026** in Munich, international trade fair for forestry & forest technology organized by Messe München
- New platform for suppliers of systems & components for forestry machinery
- **SYSTEMS & COMPONENTS Forestry** will offer forestry equipment manufacturers direct access to suppliers of increasingly sophisticated systems & components for intelligent forestry machinery
- Special show area & participation in INTERFORST's technical program

For further details, please see digital press kit

SYSTEMS & COMPONENTS Forestry by DLG

Interforst 2026 | 15. bis 18. Oktober 2026
München



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