











German – Canadian Co-operation Event

**of the automotive industry focusing on
e-mobility, batteries/drives & flexible
production**

Sept., 28.-30 2021

Matchmaking

Company logo	E-mobility	Hydrogen drives	Batteries & Life cycles of batteries	Charging infrastructure	Industry 4.0	Flexible assembly lines	Digital supply chains	Digital shop floor management
	✓			✓	✓	✓		✓
	✓		✓		✓	✓	✓	✓
	✓	✓						
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	✓		✓	✓	✓			
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Dr. Jens Katzek
Managing Director
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ACOD
AUTOMOTIVE CLUSTER
OSTDEUTSCHLAND e.V.



Automotive Cluster East Germany (ACOD)

Year established: 2014

Number of employees: 6

SCHEDULE A MEETING

Website:

<https://www.acod.de/>

Type of business contacts you are seeking:

☒ Cluster & associations

☒ Sales partner

☒ Partner for R&D

☐ Others:

Company Profile:

Which products or service do you offer?

Our service is – with different tools – (1) to organise technology transfer between companies (including start-up company, supply industry and OEM) and between companies and research institutes and (2) organize an exchange of best practice experiences between all different partners having an interest in the development of the East Germany Automotive industry.

What is your target group?

Our target group are companies and research institutes in East-Germany which we would like to support in their development. This is possible by introducing to them potential cooperation partner and/ or potential customers from all over the world.

Objectives for the project

☒ Establish collaborative relationships

☒ Exchange of experience with colleagues

☐ Obtaining general and specialized industry information

☐ Others:

Topics which are most relevant to you?

☒ E-mobility

☐ Hydrogen drives

☐ Batteries & Life cycle

☒ Charging infrastructure

☒ Industry 4.0

☒ Flexible assembly lines

☐ Digital supply chains

☒ Digital shop floor management

☐ Others:

Description of the USP/What makes us unique?



Mats-Milan L. Müller
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COMAN Software GmbH

Year established: 2018

Number of employees: 21

[SCHEDULE A MEETING](#)

Website:

www.coman-software.com

Type of business contacts you are seeking:

☐ Cluster & associations

☐ Sales partner

☐ Partner for R&D

☒ Others:

Company Profile:

Which products or service do you offer?

We offer an **on-site management software** that allows our users to view all information of all processes that have been completed, are in progress or still need to be completed - all this happens based on a digital layout. With our software a project manager for example has an overview of all his projects and gets detailed information with a minimum waste of time. This has never been possible before COMAN.

What is your target group?

Currently we're targeting the automotive industry sector with all its participants who are involved in setting up a new production line – **for example Tier 1, 2 & 3 suppliers and OEMs**. As our software can also be used across industries, we're now addressing the energy service providers such as project managers, project leaders etc.

Objectives for the project

☒ Establish collaborative relationships

☒ Exchange of experience with colleagues

☒ Obtaining general and specialized industry information

☒ Others: gain new customers

Topics which are most relevant to you?

☒ E-mobility

☐ Hydrogen drives

☒ Batteries & Life cycle

☐ Charging infrastructure

☒ Industry 4.0

☒ Flexible assembly lines

☒ Digital supply chains

☒ Digital shop floor management

☒ Others: line building, press tool manufacturing, smart maintenance

Description of the USP / What makes us unique?

Our biggest USP is that **we act like a data hub** that breaks down and integrates data silos, tracks all progresses, and displays project status directly in a digital layout. We also create **data consistency** that delivers a high level of project data, and we automatically cluster a high amount of data into Smart Objects. All in all, we **reduce complexity** and **enable more transparency** in a project.

Capture and evaluation with **COMAN**

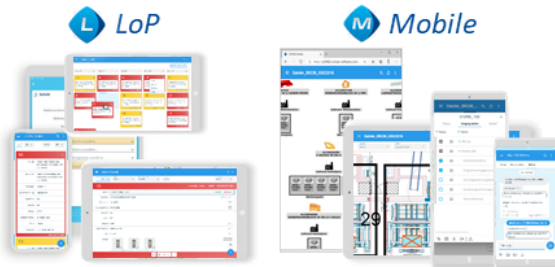
Online / Offline, Client, Browser or App



Capture

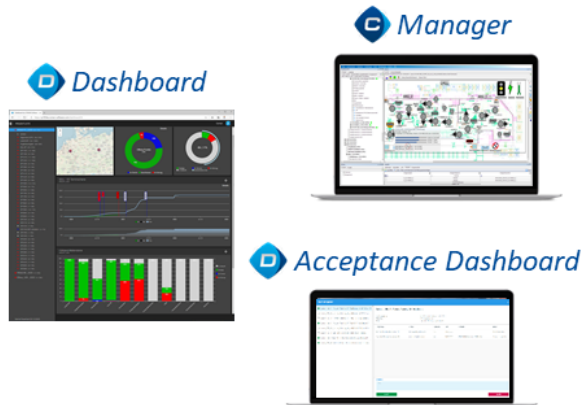
Defects,
Open points

Progress, dates, acceptances,
photos, videos, audio, ...



Evaluation

Reporting, Controlling, Analyse, Management Overview



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Dr. Nada Zamel
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Fraunhofer Institute for Solar Energy Systems ISE

Year established: 1981

Number of employees: 1200

SCHEDULE A MEETING

Website:

<https://www.ise.fraunhofer.de/>

Type of business contacts you are seeking:

- ☒ Cluster & associations
- ☒ Partner for R&D
- ☐ Sales partner
- ☐ Others:

Company Profile:

Which products or service do you offer?

Extensive **R&D services** targeted towards **material production, material/cell/stack** characterization (both begin and end of life) for low temperature PEM fuel cells

What is your target group?

OEM's in the transport industry involved in low temperature PEM fuel cells

Objectives for the project

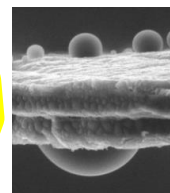
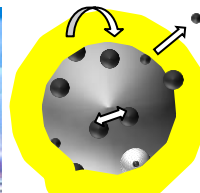
- ☒ Establish collaborative relationships
- ☐ Exchange of experience with colleagues
- ☐ Obtaining general and specialized industry information
- ☐ Others:

Topics which are most relevant to you?

- ☒ E-mobility
- ☒ Hydrogen drives
- ☐ Batteries & Life cycle
- ☐ Charging infrastructure
- ☐ Industry 4.0
- ☐ Flexible assembly lines
- ☐ Digital supply chains
- ☐ Digital shop floor management
- ☐ Others:

Description of the USP / What makes us unique?

We look at the problem of **PEM fuel cell commercialization** from micro to macro level using state-of-the-art labs and modelling tools.





Karl Lötsch
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HZwo e.V.

Year established: 2017

Number of employees: 5

SCHEDULE A MEETING

Website:

<https://hzwo.eu/>

Type of business contacts you are seeking:

☒ Cluster & associations

☐ Sales partner

☐ Partner for R&D

☐ Others:

Company Profile:

Which products or service do you offer?

The innovation cluster HZwo initiates and supports **research and development** around the topics of **fuel cells and green hydrogen** as well as the development of a comprehensive value creation network in Saxony. The production of fuel cells, ranging from material selection to distribution, should be carried out in compliance with the resource-saving, ecologically and economically sustainable management.

What is your target group?

SMEs, Component Suppliers, OEMs

Objectives for the project

☒ Establish collaborative relationships

☐ Exchange of experience with colleagues

☐ Obtaining general and specialized industry information

☐ Others:

Topics which are most relevant to you?

☐ E-mobility

☒ Hydrogen drives

☐ Batteries & Life cycle

☐ Charging infrastructure

☐ Industry 4.0

☐ Flexible assembly lines

☐ Digital supply chains

☐ Digital shop floor management

☐ Others:

Description of the USP / What makes us unique?

HZwo enables its cluster participants an early **access to future sales markets** and thus a **technology advantage** in order to sustainably secure Saxony's future as a high-tech location. In addition to the classic areas of automobile production, such as transmissions and compressors, fuel cell vehicles also offer a market potential for companies of other Saxon branches.



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INNOVATION
LAB

thinking
works

InnovationLab GmbH

Year established: 2008

Number of employees: 42

SCHEDULE A MEETING

Website:

<https://www.innovationlab.de/ihr-experte-fuer-flexible-gedruckte-sensoren/>

Type of business contacts you are seeking:

- ☒ Cluster & associations
- ☒ Partner for R&D
- ☒ Sales partner
- ☒ Others: Clients

Company Profile:

Which products or service do you offer?

InnovationLab is the expert for **printed and organic electronics** with a focus on flexible printed pressure sensors. We provide tailored print solutions for our customers' R&D challenges. Our expertise relies on a solid understanding of materials, processes and printing technologies which are essential for the development of flexible and hybrid electronic systems. We offer services in the field of research & development, pilot and industrial production as well as consulting and facility management. Here, the main focus is on accompanying customers from their first idea to the industrial production of their product - from LAB-2-FAB. We are able to take over at any stage of development and will lead our customers' products to success in compliance with their individual needs. For industrial production, we have a strong partner on our side in Heidelberger Druckmaschinen AG, which prints sensors in 3-shift operation at its production site. Our products include printed sensors, for example pressure sensor matrices for various applications such as battery monitoring, furthermore temperature sensors, printed batteries, flexible conductor paths and more.

What is your target group?

Clients and cooperation partners in the automotive sector for development and production.

Objectives for the project

- ☒ Establish collaborative relationships
- ☒ Obtaining general and specialized industry information
- ☐ Exchange of experience with colleagues
- ☐ Others:

Topics which are most relevant to you?

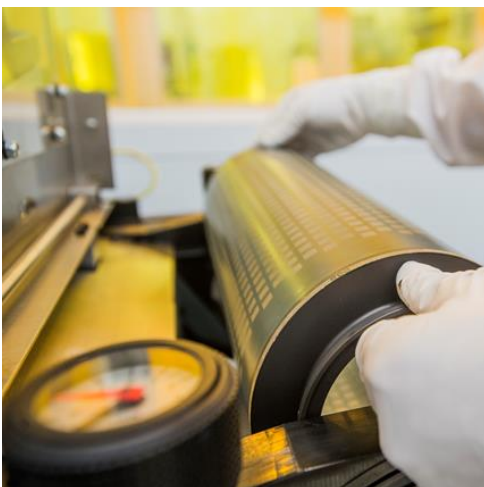
- ☒ E-mobility
- ☐ Flexible assembly lines
- ☐ Hydrogen drives
- ☐ Digital supply chains
- ☒ Batteries & Life cycle
- ☐ Digital shop floor management
- ☒ Charging infrastructure
- ☐ Others:
- ☒ Industry 4.0

Description of the USP/ What makes us unique?

InnovationLab is a One-Stop-Shop for Printed and Organic Electronics and we provide both development and industrial production of customized integrated sensor solutions from a single partner. **We start with an idea or a problem set and eventually bring your individual functional print product to large-scale production** at one of our two industrial printing machines, whereas we are open to start at any point in-between. Supported by strong shareholders from both academia (University of Heidelberg and KIT) and industry (SAP, BASF and Heidelberger Druckmaschinen), we create unprecedented printing technology and turn the latest science into mass products.



Printed Sensors for Automotive



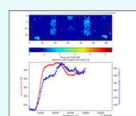
Opportunities for Printed Electronics in E-Mobility



MATERIAL
LOCTITE Force Sensitive Resistor (FSR) Inks:
LOCTITE ECI 7004LR, LOCTITE ECI 7004HR
and LOCTITE NCI 7002

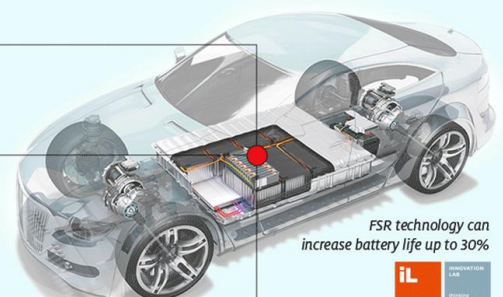


APPLICATION
Production of **Pressure Sensor Foils**:
Measure the expansion and pressure
distribution of the cells in the battery
while charging



THE OPPORTUNITY

- Monitor the charging status in real-time
- Learn about the battery capacity and behavior
- Understand battery life-cycle and status of the battery health





Angela Grimmer
Chief Financial Officer
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ligenium GmbH

Year established: 2018

Number of employees: 9

SCHEDULE A MEETING

Website:

<https://hzwo.eu/>

Type of business contacts you are seeking:

- | | |
|---|--|
| <input type="checkbox"/> Cluster & associations | <input type="checkbox"/> Partner for R&D |
| <input type="checkbox"/> Sales partner | <input type="checkbox"/> Others: |

Company Profile:

Which products or service do you offer?

Sustainable logistics solutions, especially special load carriers and other applications made of wooden materials.

What is your target group?

Manufacturers

Objectives for the project

- | | |
|---|---|
| <input checked="" type="checkbox"/> Establish collaborative relationships | <input type="checkbox"/> Obtaining general and specialized industry information |
| <input type="checkbox"/> Exchange of experience with colleagues | <input checked="" type="checkbox"/> Others: new customers |

Topics which are most relevant to you?

- | | |
|--|---|
| <input type="checkbox"/> E-mobility | <input type="checkbox"/> Flexible assembly lines |
| <input type="checkbox"/> Hydrogen drives | <input checked="" type="checkbox"/> Digital supply chains |
| <input type="checkbox"/> Batteries & Life cycle | <input type="checkbox"/> Digital shop floor management |
| <input type="checkbox"/> Charging infrastructure | <input checked="" type="checkbox"/> Others: sustainability in logistics |
| <input type="checkbox"/> Industry 4.0 | |

Description of the USP / What makes us unique?

Wooden mechanical engineering.
With our sustainable lightweight logistic solutions our customers save costs, energy and reduce CO2 emissions which helps improving their ecological footprint.



Nikhil Rathnagiri Venkateshan
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oculavis GmbH

Year established: 2016

Number of employees: 62

SCHEDULE A MEETING

Website:

<https://oculavis.de>

Type of business contacts you are seeking:

☒ Cluster & associations

☐ Partner for R&D

☒ Sales partner

☐ Others:

Company Profile:

Which products or service do you offer?

oculavis SHARE enables the digital transformation of cross-locational processes in maintenance, service, production, or quality tasks. The solution unites industrial-grade **Augmented Reality (AR) technology**, remote support, and standardized work instructions in one modular platform. Vehicle component suppliers such as Brose, ThyssenKrupp Bilstein and Webasto use oculavis SHARE to **connect worldwide production sites**, for example in worker assistance or in cross-locational collaboration for production ramp-ups, equipment commissioning, parameter configurations, maintenance tasks and quality-related processes. The AR platform unleash the potential to enhance the productivity of machinery, equipment and systems, design more efficient processes, decrease costs by avoiding global travel. At the same time, valuable **CO2 emissions are reduced**. Deep dives about use cases and benefits are shown in the joint success story with ThyssenKrupp Bilstein at <https://oculavis.de/en/blog/20200429-thyssenkrupp-Bilstein-connects-production-sites-with-Augmented-Reality-remote-assistance/>.

Further insights about the solution can be found on our video platform at <https://oculavis.de/tube/?lang=en>

What is your target group?

Machinery and equipment manufacturers use oculavis SHARE externally: after sales services for customers during pre-acceptance, commissioning, training, troubleshooting; remote inspections with suppliers, remote support of service partners and many other use cases; but also, to support their own technicians who are on site with the customer.

Manufacturing companies with worldwide production sites use oculavis SHARE internally: Worker assistance and cross-locational collaboration for production ramp-ups, equipment set-ups, parameter configurations, maintenance tasks and quality-related processes.

Company size: SME & enterprises

Industries: Mechanical and plant engineering of automotive machines, equipment, and systems as well as vehicle component suppliers with or without an internal special machine engineering unit

Personas: Managing Director; Service Manager; Head of Technical Customer Service; Head of Maintenance & Repair; Sales Manager; Head of Digitization, Head of Innovation; Production Manager; Experts, Innovators and practitioners from automotive industry

Objectives for the project

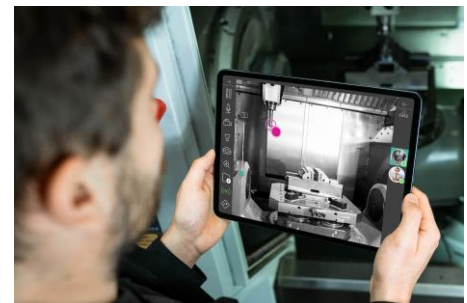
- ☐ Establish collaborative relationships
- ☒ Exchange of experience with colleagues
- ☒ Obtaining general and specialized industry information
- ☐ Others:

Topics which are most relevant to you?

- ☐ E-mobility
- ☐ Hydrogen drives
- ☐ Batteries & Life cycle
- ☐ Charging infrastructure
- ☒ Industry 4.0
- ☐ Flexible assembly lines
- ☐ Digital supply chains
- ☐ Digital shop floor management
- ☒ Others:

Description of the USP/ What makes us unique?

oculavis SHARE **covers the entire life cycle of machinery and equipment**, such as acceptance tests, commissioning, ramp-ups, audits, training and troubleshooting. oculavis SHARE works seamlessly on PCs, smartphones, tablets and smart glasses. Hosting the solution on the cloud or on-premises suit the needs of an enterprise of any size. The solution maps organizational structures to the installed base of machinery and provides a simple approach to get in touch with assigned asset managers. The entire application can completely be white labelled enabling industrial companies to become the full-service provider of their own AR remote solution. Fast service, less travel costs, increases machine availability and new digital business models in service are some of the many benefits.



Britta Hilt
Managing Director
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IS Predict GmbH

Year established: 2010

Number of employees: ca.
1,000 (holding)

SCHEDULE A MEETING

Website:

<http://ispredict.com/>

Type of business contacts you are seeking:

☐ Cluster & associations

☐ Sales partner

☐ Partner for R&D

☒ Others: Contact to our target group
for potential projects

Company Profile:

Which products or service do you offer?

We realise **Artificial Intelligence solutions** for production and logistics companies.

Clients: Opel, Daimler, ZF, Nemak, Bosch, Siemens, German Rail, BASF, Knauf, NTT-Facilities

Topics:

- Reducing minor quality in production
 - Assess quality of high frequency production steps
 - Predict quality
 - Discover reasons for minor quality, also in complex variant production
 - Predictive control: Either as recommendation for machine operator or by machine-to-machine control.
- Reducing shut down times of complex machinery by predictive maintenance
- Reducing energy / CO2 by predictive control

What is your target group?

Larger production companies, like automotive / supplier, discrete manufacturing, process industry, energy producer, logistics

Target people are:

Innovation manager, IoT manager, Chief Digital Officer, Production Manager, Plant Manager, Maintenance Manager, Energy Manager

Objectives for the project

☒ Establish collaborative relationships

☐ Exchange of experience with colleagues

☐ Obtaining general and specialized
industry information

☐ Others:

**Topics which are
most relevant to you?**

- | | |
|--|---|
| <input type="checkbox"/> E-mobility | <input checked="" type="checkbox"/> Flexible assembly lines |
| <input type="checkbox"/> Hydrogen drives | <input checked="" type="checkbox"/> Digital supply chains |
| <input type="checkbox"/> Batteries & Life cycle | <input type="checkbox"/> Digital shop floor management |
| <input type="checkbox"/> Charging infrastructure | <input type="checkbox"/> Others: |
| <input checked="" type="checkbox"/> Industry 4.0 | |

**Description of the
USP/ What makes us
unique?**

- Automation of time-intensive Data Science tasks. Consequently, **faster and less expensive** and scalable solution.
- Adaptiveness = AI solution adapts itself to changed production without having to engage Data Scientists, again. This is possible due to **self-learning**. (We have won many innovation awards for this.)
- Explainability = In contrast to Deep Learning with Neuronal Network, our Deep Learning uses Semantic Networks. In this way, AI is not a black box. Our AI gives the reasons why decisions / recommendations are given. This **transparency** is important to understand why things are better / worse. It helps process engineers to understand complex influences.