[Head]

The Open Industry 4.0 Alliance is growing up

*Since its inception three years ago, the Open Industry 4.0 Alliance has grown to over 100 members. It has remained true to its "practitioner alliance" principle. Following an organisational realignment last fall, Dr. Christian Liedtke, the Alliance's newly elected CEO, and Ekrem Yigitdoel, Managing Director of the Alliance, discuss the Alliance's current priorities.*

**There are numerous associations that also deal with the topic of “Industry 4.0”. What distinguishes the Alliance from them?**

Christian Liedtke: One major difference is that we cover many industries and many disciplines. Take the area of welding robots. A manufacturer of welding robots specifies the temperature ranges in which the system operates optimally, but the user may want to know the temperature linked to the current temperature at his factory floor. This will require cooperation with partners, for example in building management, that the manufacturer may not have connections with. However, he can find these partners or suitable best-practice examples within the Open Industry 4.0 Alliance. This illustrates what is perhaps our most key differentiator: we are implementers, we proactively put things into practice based on existing standards.

Ekrem Yigitdoel: We see ourselves as a community of practitioners. We are an ecosystem of market-leading companies, working to create interoperable solutions and services.

**The Alliance actively collaborates with other bodies and associations. What does this look like in practice?**

CL: We see close cooperation with trade and industry organisations, especially the Machinery and Equipment Manufacturers Association (VDMA), as foundationally important. We are also currently in close exchange with the German Electrical and Electronic Manufacturers’ Association (ZVEI), another major industry association. In addition, we have memorandums of understanding with more specialised bodies, such as the Industrial Digital Twin Association (IDTA). With IDTA, we use their work on the standardisation of sub-models of the Asset Administration Shell. Joint trade fair appearances are also part of our cooperative network. Cooperation with committees, associations and other alliances is part of our strategy and plays an important role in our internationalisation.

**Why should a company become a member of the Alliance?**

EY: Because they can tackle the entire validation route pre-competitively thanks to the support of experts from other companies – from the initial conception of an idea for a project to implementation.

**While concrete results for projects sound tempting, what level of effort is actually required from companies when it comes to implementation?**

CL: The effort is not as high if it is distributed across many shoulders. For example, a technician is involved in the cybersecurity working group and management assigns someone to the board meetings. But, without the personal motivation of individuals within the company, the engagement certainly makes less sense.

EY: In addition, many interested parties want to implement a specific project. Our implementation alliance is the right place for that. The alliance offers a comprehensive “list of ingredients”, which is especially helpful for SME (Small and medium-sized enterprises) members, so they can access concrete knowledge about industries, technology and standards without much effort. Because one thing is clear – only with practical knowledge, a suitable toolbox and an adequate network can Industry 4.0 projects be realised. Another advantage of our alliance is that we happily involve our members' end-customers in collaboration opportunities, even if they are not members.

**How can the alliance help its members with current challenges, for example, in areas of supply chain resilience or sustainability?**

CL: We've been talking about Industry 4.0 as a digitisation initiative for about 12 years, but so far this has largely been without external pressure. Now, however, many new demands are being placed on companies. From politics, for example, when the EU brings a digital product passport into play or wants to make shared data spaces usable with the European Data Act, to supply chain management, where larger companies are increasingly demanding information about their carbon footprint from their suppliers. The implementation of these requirements requires more than digitalisation via Excel lists and USB sticks. We are in demand as real forward thinkers, and advise companies, associations and politicians with our expertise.

EY: And before we start talking about topics, such as cross-company data and information exchange, or keyword data spaces, we need to solve more fundamental issues. For example, the biggest problem on the factory floor is still connectivity and structured provision of data. Everyone talks about resilience and data spaces, but this makes no sense without connectivity on the factory floor. We started with cases on connectivity three years ago in the Alliance. We deliver concrete building blocks that use sensors and actuators at the machines to collect data. The data is then delivered to the cloud via secure connections. We have applied this many times and share our knowledge and cases within the alliance and externally.

**A number of industrial policy initiatives are currently coming out of the political arena. Following Gaia-X and Catena-X for the automotive industry, Manufacturing-X is now to form the major framework for industry in Germany. What is the Alliance's position on this?**

CL: We are already playing an active role here. At the beginning of the year, for example, we took part in a major workshop organised by the Federal Ministry of Economics and Climate Protection (BMWK). There, we worked on tender criteria for Manufacturing-X and discussed suitable transfer strategies for SMEs.

EY: The BMWK also wants to integrate existing structures and standards and, as a result, approached us as an alliance of practitioners. Politicians want us to contribute here as a neutral authority with cross-sector industry expertise. In addition, we link existing communities and consortia in Germany and, increasingly, internationally.

**Good keyword: The alliance has achieved a large increase in members from internationally operating companies, especially in Germany, over the past three years. Where do you go from here?**

CL: We want to gain a foothold in other European countries. Last year, we started with the Netherlands. We have a standardised approach there, which we worked out together with a consulting firm. As part of this strategy, we are seeking cooperation with national trade and industry organisations. In the Netherlands, the counterpart to the VDMA is the FHI, Federatie van Technologiebranches, which has existed since 1956. In addition, there is the governmental Society for Applied Scientific Research (TNO), which was established in 1930 and is essentially a counterpart to Fraunhofer. TNO is now a member of the alliance. The internationalisation strategy of the alliance takes place through "local hubs", which are local manifestations of the horizontal and vertical work organisation of the alliance in each country.

EY: We deliberately look for partners who know the structures on the ground, do the research and have access to funding. We talk to these organisations about showcases and participate in trade fairs. Over the course of the year we are also exploring possibilities for the alliance in Italy as a participant in SPS Italia in May, and in Denmark as part of Automatik Expo in September. Last but not least, alliance members may encourage involvement in certain regions because they have a strong presence in that location through subsidiaries or strong partners, for example, the automation industry in Italy or Finland. In the meantime, we are also actively approached by companies from other countries, such as Belgium. Our focus is on Europe for the time being, although we already do have members from Asia and America.