

**FDOF Lecture**

**FDO as International Standard**

## Speaker: Dr. Stefan Weisgerber (DIN e.V.)

**Time: Jul 21, 2022 06:30 PM Amsterdam**

**Location:** [https://us02web.zoom.us/j/83971525873?pwd=SVBYS3o5eURvNWJBbE9xKzlKQ3Awdz09](https://www.google.com/url?q=https%3A%2F%2Fus02web.zoom.us%2Fj%2F83971525873%3Fpwd%3DSVBYS3o5eURvNWJBbE9xKzlKQ3Awdz09&sa=D&source=calendar&usd=2&usg=AOvVaw0uD3eOAzt4CUkOma2ufN1h)

**Rationale for Standards**

In January 2022 FDO Forum and DIN [1], which is the German standardisation organisation contributing to the ISO efforts, agreed on a collaboration agreement. For some colleagues this might have been a surprising step, since with FAIR Digital Objects (FDO) we are often still operating in a scientific bubble and scientists often see standards as a limitation of their freedom to do what is dictated by their daily needs. For the FDO Forum, however, it is evident that a suggestion like FDOs only make a chance to be accepted as a basis for the evolving global integrated domain of digital objects if industry is joining the efforts. But industry requires trust in stability and broad uptake of suggestions before they will make investments in changing their practices. International standards are therefore at the base of industrial activities. Standards are not a guarantee for take up, but they are a necessary pre-condition.

**Developments since January 2022?**

A few developments during the last months may confirm the need for FDOs to become an international standard.

* During the last months there were a whole series of workshops organised by DIN and DKE [2] (the German branch of IEC) where industry experts involved partly in large initiatives such as Industry 4.0 [3], International Data Spaces [4], Big Data Value Association [5], eCLASS/OPC UA [6,7] etc. heard about FDOs. They realise that there are so many data spaces evolving in industry all based on differing mechanisms and technologies. They see the increasing fragmentation and the need for convergence as indicated by Wittenburg and Strawn earlier [8].
* The recent IoT Week conference in Dublin confirmed this impression. IoT experts realised now that all these smart devices create endless streams of data which will mostly be used for “off-line” optimisations and computations. Many companies are now engaged to find a share of the emerging data market by offering data solutions – again increasing the fragmentation. It should be noted that at the IoT Week the chairs of an ISO/IEC JTC immediately took initiative to bring FDOs into their roadmaps.
* The German ministry, investing in industrial data solutions since years, also realise that their current strategies are not sufficient to achieve convergence and thus drastically reduce the 80% inefficiencies in data projects and come to an “open” data market. They want to push an FDO-based initiative to drive convergence and from the reasons mentioned above, all relevant stakeholders from some of the above-mentioned large initiatives indicated their will to participate.

**Process**

The agreement between FDOF and DIN states that FDO specifications from FDO Forum will be transformed into international standards. This requires first a well-designed process at the side of FDO Forum to come to agreed specifications which is in place. As next step the collaboration will need to work out a “standardisation roadmap” which includes activities such as investigating what has already been standardised for example in this area, what is missing and what the relations are. DIN is committed to take initiative on this path since it sees the huge potential of FDOs as an integrative basic standard and since it sees itself in the position to turn specifications into standards as an effective and proven method to transfer innovative approaches into broad application. DIN and DKE will use their established networks to all sectors and global initiatives to start this standardisation process.

**Speaker**



Stefan Weisgerber had an education in physics and received a doctoral degree in theoretical physics. Having a telecommunications industry background, he is now responsible for DIN’s activities related to Digital Transformation. Amongst other functions, he is convenor of a European Working Group on ICT Standardisation Policy, alternate representative of CEN to the European Commission’s Multi-Stakeholder Platform for ICT Standardisation and one of the drivers for the collaboration agreement between DIN and the FDO Forum.