# FAIR **DIGITAL OBJECTS** FORUM

## FDOF Lecture

# PID and FDO Service Provisioning in an evolving data landscape – a strategy view

## Speakers:

## Dr. Sven Bingert, Dr. Tibor Kalman, Prof. Dr. Philipp Wieder (GWDG)

### Time: November 17. 2022 at 6:30 PM Amsterdam time

**Location:** https://us02web.zoom.us/j/4093556900

**PID and FDO Service Provisioning**

Huge sums are currently being invested in testing infrastructure strategies and in involving researchers in the digital transformation of research. In Europe a start was made with the ESFRI infrastructures starting in 2009 and the eInfrastructure funding programs with the attempt to turn compute centres also into data centres. In 2015 the Handle System was turned into a global service based on accountable and responsible service providers. Recently, a second wave of investments has been made in Europe with the European Open Science Cloud (EOSC) and in Germany with the National Research Data Infrastructure (NFDI). In all these activities, the Gesellschaft für wissenschaftliche Datenverarbeitung mbh Göttingen (GWDG) participated as service provider node and therefore built up a great expertise in dealing with different research communities on the one hand, and with pivotal infrastructure technologies on the other hand.

Crucial for the research communities were services such as offering different repository systems respecting the requirements and demands of user communities, and virtual machines for computational needs, etc. In this respect, GWDG was one of the first setting up a Handle Service for researchers in 2005 which was extended to the Persistent Identifier Consortium for eResearch (ePIC). When the DONA Foundation was setup, GWDG became an MPA and a node in the Global Handle Root resolution system. Different PID services were developed and offered including an API access to register Handles and allocating Handle prefixes to research institutions and communities. These Handle activities made the GWDG an early partner for discussing and developing FDO related services, such as implementing registries for FDO profiles and FDO Kernel Attributes. Therefore, the GWDG also participated actively in the FDO Forum discussions to bring in its expertise and knowledge.

As an infrastructure service provider GWDG experts are faced with the various requirements of research communities and recognise the increasing heterogeneity and fragmentation in the domain of data and metadata. This heterogeneity is mirrored in the uncertainties, which can be seen at the side of the researchers as well as on the side of funders. Funders tend to prefer vertical projects that also include improved services for the end-users. While this approach is important to engage many in the

necessary transformation, it neglects the important role of horizontal projects. The initial hope in ESFRI and NFDI was that the interaction between the chosen vertical projects will automatically lead to commons. Therefore, it was difficult to get funds for approaches that are guided by IT insights. Despite its Handle services and experience, it was not possible until now to receive substantial funds for establishing a structured and professional European service system for Handles. Only recently substantial funding and a core role in the EOSC discussions could be achieved. Similarly, FDO related registry services are being tested and offered, but currently the adoption of such services is small in the various infrastructure projects, since they are under enormous pressure to deliver measurable functionality to end users and a generation of researchers and developers grew up with the web mechanisms.

In this presentation, GWDG experts will describe the landscape of requests they face, the nature of their services and the reasons why they will continue to participate in the discussions and implementations of FDO related specifications and services.

# Speakers

**Philipp Wieder**

Prof. Dr. Philipp Wieder works as a scientist in the distributed systems domain since 2000, primarily in the areas of data science infrastructures, research data management, and cloud infrastructures. He was and is contributing to European projects related to EOSC and the German national research data initiative NFDI. Philipp Wieder is deputy head of the GWDG and head of the eScience group.

**Sven Bingert**

Dr. Sven Binger is deputy head of the eScience working group of the GWDG and workpackage lead in the FAIRCORE4EOSC project. He has PhD in Physics from the University of Freiburg. Sven Bingert is involved in several activities concerning the implementation of standardized PID service for a broad range of communities. He also teaches IT at the University of Göttingen.

**Tibor Kalman**

Dr. Tibor Kálmán is Chair of EOSC's PID Policy and Implementation Task Force (PID TF), Vice-Chair of the Joint Research Committee of DARIAH-ERIC, as well as Chair of the Technical Board of ePIC. He holds a PhD in Computer Science from the University of Göttingen. Tibor Kálmán contributed at the GWDG on several international infrastructure and data management projects with the aim to build up research environments for various disciplines.

# Further contributors

**Ulrich Schwardmann**

Dr. Ulrich Schwardmann is Chair of the Management Board of ePIC, the Persistent Identifier Consortium for eResearch, and is member of the Board of Directors for DONA. He has a doctoral degree in mathematics and has a long-lasting background in parallel and high-performance computing. Ulrich Schwardmann has been working with persistent identifiers as enabling technology for research data management since more than ten years. His current research interests include Digital Object Architecture, PID Information Types and Data Type Registration.