

## Using DSpace at Fraunhofer - Building a Fraunhofer Open Science Cloud

### 1. Background

The **Fraunhofer-Gesellschaft** is the **leading organization for applied research** in Europe. Its research activities are conducted by 72 institutes and research units at locations throughout Germany. The Fraunhofer-Gesellschaft employs a staff of more than 26,600 who work with an annual research budget of 2.6 billion euros. Of this sum, 2.2 billion euros are generated through contract research. Around 70 percent of the Fraunhofer-Gesellschaft's contract research revenue is derived from contracts with industry and from publicly financed research projects.

- The Fraunhofer Competence Center Research Services & Open Science manages the published research output by providing an infrastructure for more than **220,000** publications, patents and research data sets.
- This includes about **2,000** publications within the scope of **EU-funded** projects (eg. Horizon2020) and enables an increasing Open Access Rate about **25%** (scientific papers).

### 3. Concept

Fraunhofer's repository landscape will be an important backbone for the new Open Science Cloud infrastructure.

- Actually, a **DSpace-CRIS 5.8 (JSPUI)** operates the internal Current Research Information System (CRIS – FIS) at the Fraunhofer Competence Center Research Services & Open Science.

- The new Research Data Repository FORDATIS is implemented on basis of **DSpace 6.3 (JSPUI)**.
- In addition, we are migrating our Open Access Repository & Bibliography PUBLICA and ePrint to a **DSpace-CRIS 7.X** installation, which will complement the Fraunhofer DSpace farm.

### 2. Objectives

Meeting Open Science demands with a good dissemination management:

- A FAIR **Fraunhofer Open Science Cloud** as a secure and trustful dissemination platform
- Supporting our **Open Access Strategy**: by 2020 half of all scientific papers are to be published Open Access

A DSpace-CRIS repository infrastructure:

- Structured and nested metadata in **CERIF**
- **User-friendly** deposit workflows
- Assisting the **dissemination & research** process
- **Open Source** preference

### 4. Challenges

- As an **Early Adopter of DSpace-CRIS 7** we expect not only to implement our special Fraunhofer requirements but also to contribute our results, design and development back to the Open Source DSpace community.

- The integration of our DSpace Repository farm into the Fraunhofer network as a main backbone for the Open Science Cloud does not only face the technical issues of **Data Integration** but also a cultural change related to the **Data Governance** for our Stakeholders.

