

Groningen FAIR data expertise

What are the key requirements and main use cases for EOSC services to serve long tail research data users?

The use of Big Data gets increasingly important in all aspects of science and society. The amount of data has expanded enormously, so today's challenge for research and policy making is getting access to data rather than collecting them. Access and expertise on (Big) Data is therefore critical for the success of the European Open Science Cloud.

The Northern provinces of the Netherlands Friesland, Groningen and Drenthe are renowned for their data expertise, both in research as well as commercial activities. In this region the University of Groningen has a central role in data access and expertise, including the linked regional activities like the Fryslân Data Science Center and ASTRON the Netherlands Institute for Radio Astronomy. The University Medical Center Groningen is an international acknowledged center on health data handling, like multi-omics data, patient records, eHealth. The leading data position is further boosted by the expertise of data/IT companies that are increasingly present in the region. These are global firms like IBM, Google, Huawei, but also the wide range of SME's. An important asset to this data-ecosystem is the active collaboration between the regional partners, both public and private, among others shown by the "Samenwerking Noord" organization and "Campus Groningen" with more than 100 partners.

The University of Groningen has a longstanding experience in initiating, storing and managing complex and large data collections. In collaboration with the university medical center this has been extended into the area of human data. The university has world leading research groups in computer and data sciences, is strong in scientific disciplines that require huge and complex datasets (such as astronomy, genetics, economics), and has major research projects in European legislation of data handling. The university IT center ("CIT") has high quality datacenters to host huge amounts of data, as well as a lasting experience in Big Data management and data science.

Recently a Data Federation Hub has been established within Groningen to coordinate the huge potential of data sources, expertise and IT infrastructure facilities. The Hub is a shared center that will link, support and coordinate the activities from existing initiatives ("spokes") in different disciplines ranging from climate studies to health. Among others by maintaining a searchable knowledge base, providing training and organizing meet-ups to share best practices. There are concrete plans to extend the Hub in the Northern Netherlands beyond the university/UMCG. This will facilitate the Northern Netherlands to get involved with European Open Science Cloud.

Questions to research communities: What will the impact of Open Science be in your specific field? What would you develop first in the one-stop-shop for your discipline and Open Science?

- Enable multi-disciplinary research
- Link open data with open publications

Author(s)

Prof Ronald Stolk, CIO University of Groningen

FAIR team Groningen: Teijo Doorkamp, Morris Swertz, Salome Scholtens, Marijke Verheij