Operating a National Data repository while building a new one

Stephan Gruijters and Rob van der Krogt

TNO - Geological Survey of the Netherlands, Utrecht, The Netherlands (stephan.gruijters@tno.nl)

The Dutch National Data Repository (NDR) holds data and geological models related to E&P, groundwater and the shallow subsurface that has been collected during the last century. All the information stored in the NDR is free for anyone to use (open data policy) and is available via a public webportal dinoloket.nl. The importance of this database has been recognized by the Dutch government, leading to the upgrade of this system to a key register. This means that a new law has been issued in 2015 making it mandatory for governmental parties in the Netherlands to use the data in the key register whenever their activities involve the subsurface, and furthermore deliver newly acquired subsurface data to the register.

Over the last four years this system has been designed, built and tested, featuring fully automated data exchange between the key register and other (data)systems via web services. During an intense standardization process with both data providers and data users the data model and the exchange formats have been finalized for the first two out of 26 data types. Along with the standardization the main requirements and functionalities for the key register have been developed, built and tested. As a result the main components of the new system are now ready and the transition of the first data type from the existing NDR to the new key register is in operation. This involves extensive mapping between the old and the new system, trying to improve the quality of the data in the old system to maximize the number of objects that will be merged. Furthermore the web portal now provides access to both the data in the NDR as in the Key register. Business rules in the web service guaranty consistency of the data of each object delivered to the system, while the owner of the data has to make sure the data is correct. This means that applications have been built to support new data management processes focusing on managing transactions between systems rather than managing (the quality of) the data itself.

As of Q1 2016, the key register will be operational for the first data type, starting a transition period of 5-10 years for all 26 data types to be transformed to the new key register. During this transition period both systems will have to be fully operational. This Key Register will be used to create INSPIRE web services for the related data themes and as such is the national hub for international data exchange and use.