



## **Merging Geoscience Databases and National Data Centers**

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Within the energy industry over 30 countries have implemented a database that contain relevant information about the subsurface oil and gas resources. Several countries and provinces have moved beyond storing only seismic and log data and are now including water and mining information and geoscience data.

There are significant overlaps between storing data, information and knowledge about various subsurface resources and general geoscience information. The general feeling is that the major differentiator is in the depth of the data being stored and the granularity of the data in an area.

Finding the commonalities between the different resource requirements and geoscience will require a effort on both sides. However, it is believed that the resource database contains 70-80% of the data that is used by geoscientists. There will most likely be significant differences in standards, this can be address using various software tools that bring together data from different databases.

The people that would with subsurface resources normally come with a common fundamental educational background. It is therefore natural to assume that the data they

would have access to from both geoscience subsurface resources would enable the parties to perform better and draw better conclusions.

There are several types of technical issues need to be address: Applications, data sharing and database technologies. The applications will most likely be unique and there should not be included in a common subsurface NDR. Sharing and accessing of data between databases is now commercially available, but would require additional refinements. The database technology is well established, but each type of database normally carries all the data types required for a particular field of study, this is where improvements can be made and where several countries have merged the different data types.

Governments that have successfully combined and are considering combining their geoscience data with subsurface resource data are: Western Australia, Yamal-Russia, India and Holland.