DRIVING PERFORMANCE IN DRILLING THROUGH SUBSURFACE DATA LIBERATION THROUGH OSDU

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who is a part of and what constitutes the well plan?
some challenges getting to the plan

Data is manually imported and exported between Subsurface and D&W applications. Poor filing and governance can increase time intensiveness of this manual process.

Multiple systems are used during well delivery and have overlap in the data that must be entered – this results in timely repeated input (compounded by dynamic design) and increased risk of error.

Data is shared both internally and externally via Outlook and SharePoint which is challenging to ensure version control, and ensure the latest correct calculations are used.

Data is stored in multiple places by different functions during closeout, including zip files and unstructured formats which results in difficulty finding and accessing data.

Daily Drilling Reports, Performance and Financial reports are manually collected and consolidated, which is time intensive.

Ensuring D&W data is archived in structured systems is limited by its ability to be accessed by external users.
...but what if something changes?

Drilling target/trajectory handover between Subsurface, OpsGeo, DrillEng and DirDriller done manually and time-consuming (e.g. Fenja: 19 revisions – 57 trajectory sign-offs)

Each time trajectory changes (e.g. 19 times for a project) the Ops Geologist has to send new data to DrillEng (PPFG, temp, formation tops). This is time-consuming and any mistake has high consequences.

Blowout & kill analysis require ≈15 input data points (about well design and reservoir), each iteration by 3rd party very time consuming

Several data types «live» in spreadsheets/silos, but should be in a central database to be managed and used (e.g. risk)
...and what is the uncertainty from the contributing sources?
need better integration to enable automation
integration through OSDU
Petrel PTS and OSDU
OSDU and Oliasoft
more cost effective

- Reduce well design iteration time
- Reduce risk of wrong input data
- Reduce non-value adding efforts
drill the well right

- Reduce well design iteration time
- Reduce risk of wrong input data
- Reduce non-value adding efforts
- Improved hand-offs
- Faster iterations
drill the right well

- Faster iterations
- Use of best available knowledge across teams
- Improved hand-offs
- Reduce well design iteration time
- Reduce non-value adding efforts
- Reduce risk of wrong input data
Collaborative environment: drill the well right

- Initial reduction well planning time
- Shorten well planning time
- Reduce NPT
- More data driven decisions

Drill the right well & the well right

- Improved decision making
- Increased drill target success rate
- Reduced NPT
- Shorter well planning time
- Collaborative environment
how we have worked together