

# Working Group 1: Workflows for Building and Updating

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## **Workshop Working Sheets**

- Version control
- Data
- Documentation/Maintenance of Workflows
- Project Scope/Initiation/Requirements
- Data inputs
- Use/Integration of Input Datasets
  - Geophysics
  - Drilling
- Uncertainty

### **1. Getting started**

- Planning
  - What, who, complexity (Achievable)
- Data input
  - Identify primary data
- Uncertainty
  - Primary and secondary data
- Update
  - Audit trail
  - Recovery state of 'mode'
- Workflow
  - Big first
  - First order to detail

### **2. Updating**

- Incorporates version control
- Each version of a model must have a traceable link back to its primary input data (Audit trail)
- Metadata

### **3. Key summary**

- 1. Flesh out project scope, goals and objectives
  - define region in 3D space
  - consider complexity (Number of objects in project)

- 2. Identify required data (Broad level)
  - Observable data fit for the Application
  - Refine input requirements so data is prepared for input into model
  - Important to involve both geological and geophysical expertise early in the process
- 3. Iterative process of developing 3D models, test refine etc ie repeat steps 2 and 3.
- 4. Uncertainty
  - Cannot always be measured (e.g., when the uncertainty is due to interpretation of a physical entity)
  - Controlled by disclosing primary observations, and interpreted data.
  - Use of confidence measure where possible
- Documentation
  - Data → workflow → uncertainty

### ***Final Recommendations***

1. We need to specify that models built must have input data and the processes used to create the model documented
2. We need to investigate using systems that provide unique identifiers in global name space to tag the model and the input components (e.g., DOI's, Science Commons, UUID)