The Permitting Workflow: How to get it operational ?

F. Kalaydjian (IFPEN) – moderator

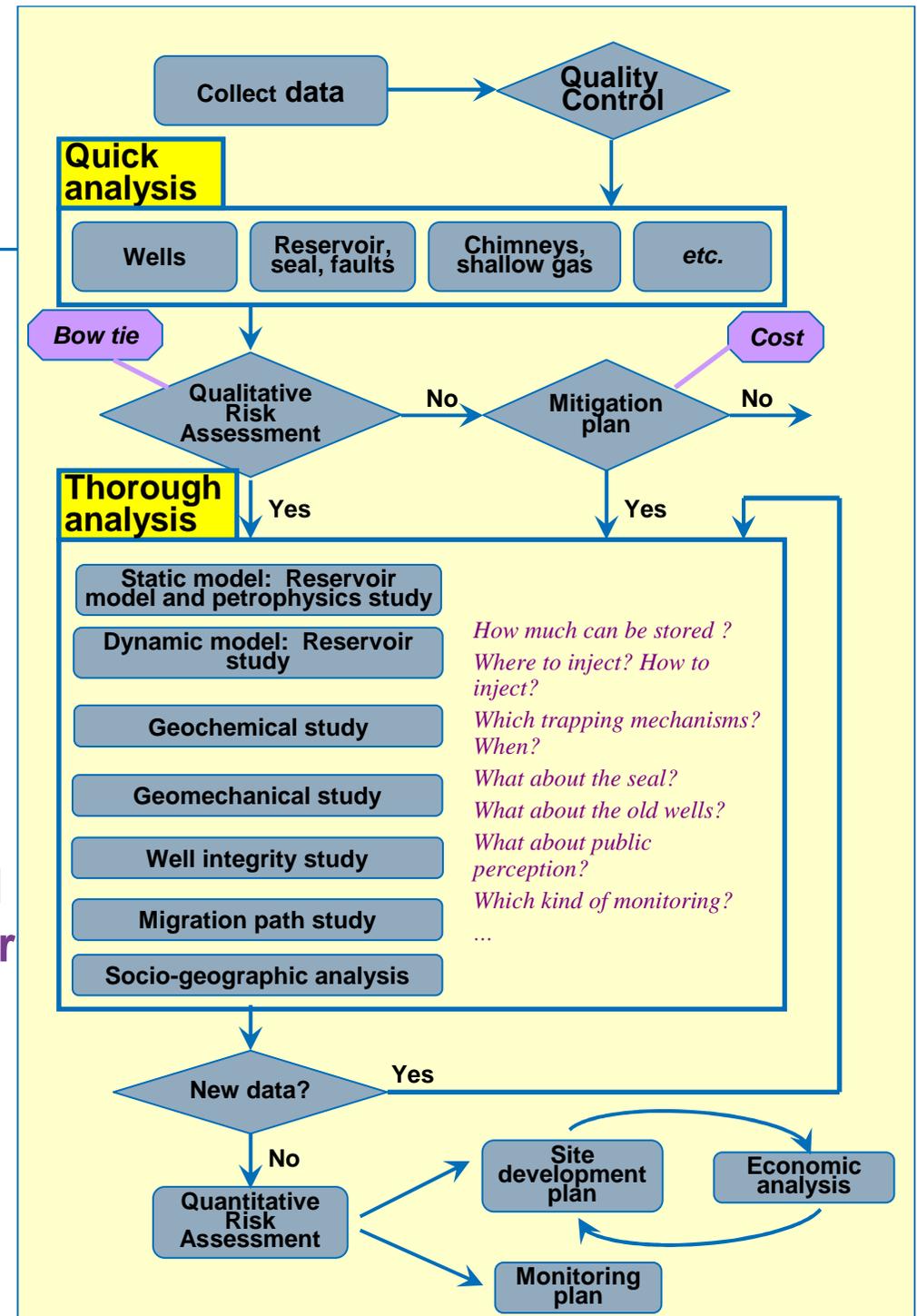<u>*Panel*</u>
O. Tucker (Shell), F. Recreo-Jimenez (Ciuden),
F. Delprat-Jannaud (IFPEN), F. Neele (TNO), J. Pearce (NERC-BGS)

The Permitting Workflow
How to get it operational ?

- **Questions**
  - **What are the most sensitive issues to pay attention to ?**
  - **How could we resolve them ?**
  - **What are the lessons learned with regards to permitting issues, smoothness of the worflow that was used ?**
  - **What recommendations could be made for smoothing further the permitting workflow and making it more operational ?**

The Permitting Workflow
How to get it operational ?

- **Other issues**
  - **How to properly define the storage complex ?**
  - **Is that possible to integrate some risk analysis elements in the Permitting Workflow ?**
  - **How could we address at the permitting stage the long-term containment of a selected CO2 storage ?**

Collect **data** → Quality Control

Quick analysis

| Wells | Reservoir, seal, faults | Chimneys, shallow gas | *etc.* |

Bow tie

Qualitative Risk Assessment — No → Mitigation plan — No → *Cost*

Thorough analysis — Yes

Yes

Static model: Reservoir model and petrophysics study

Dynamic model: Reservoir study

Geochemical study

Geomechanical study

Well integrity study

Migration path study

Socio-geographic analysis

How much can be stored ?
Where to inject? How to inject?
Which trapping mechanisms? When?
What about the seal?
What about the old wells?
What about public perception?
Which kind of monitoring?
…

New data? — Yes

No

Quantitative Risk Assessment → Site development plan → Economic analysis

Monitoring plan