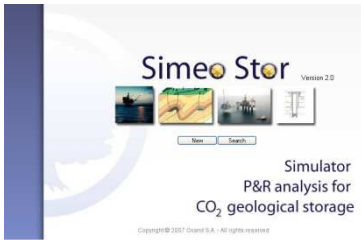
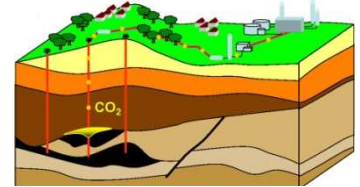


## **SIMEO™ - STOR: Performance and Risks P&R™ software associated to well integrity and storage containment for acid gases or CO<sub>2</sub>-EOR**



### **Context**

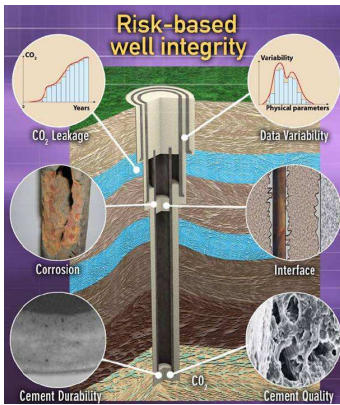
Industrial projects management based on risk approaches is an efficient manner to demonstrate and to promote acceptance for the projects viability, in particular to the safety authorities. The Performance and Risks (P&R™) methodology has been implemented in SIMEO™-STOR which is an efficient technology for long term risk assessment towards leakages of an acid gas geological storage solution and offers decision-making elements leading to relevant and adapted recommendations to mitigate the risks.



*Schematic of acid gases geological storage*

### **Sector**

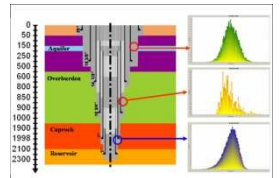
Oil&Gas



### **Quantify acid gases leakage risks**

The SIMEO™-STOR technology aims at a quantitative risk assessment associated to wells integrity towards potential acid gases leakages. Modeling is based on:

- A static representation of the well and its nearest environment (well components geometry and properties (casings, cement ...), geological context).
- A dynamic modeling comprising a porous media flow model coupled to well elements degradation phenomena (poro-mechanical characteristics variations).
- An uncertainty assessment associated to system parameters.
- A scenario approach which represents possible well integrity states and possible limit or initial conditions.



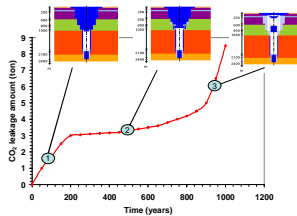
### **Characteristics**

- Wells performance management by risk-based approach in CO<sub>2</sub> or acid gases geological storage context
- Methodology P&R™
- Wells components (casings, cement...) ageing modeling for long-term perspectives
- Fluids transport modeling along the wellbore

### **Value added of SIMEO™-STOR technology**

SIMEO™-STOR proposes:

- A well integrity modeling taking into account uncertainty associated to the system's describing parameters,
  - A quantitative assessment of risk levels associated with well integrity towards potential leakages,
    - A risk mapping gathering the risks levels of the simulated scenarios and enabling a scenarios sorting out as a decision-making support to treat the risks identified,
    - The integration of the Performance and Risk™ evolution processes towards wells confinement,
    - The visualization of the risks mitigations solutions impact.



### **OXAND**

Internet : [www.oxand.com](http://www.oxand.com)  
 E-mail : [contact@oxand.com](mailto:contact@oxand.com)