

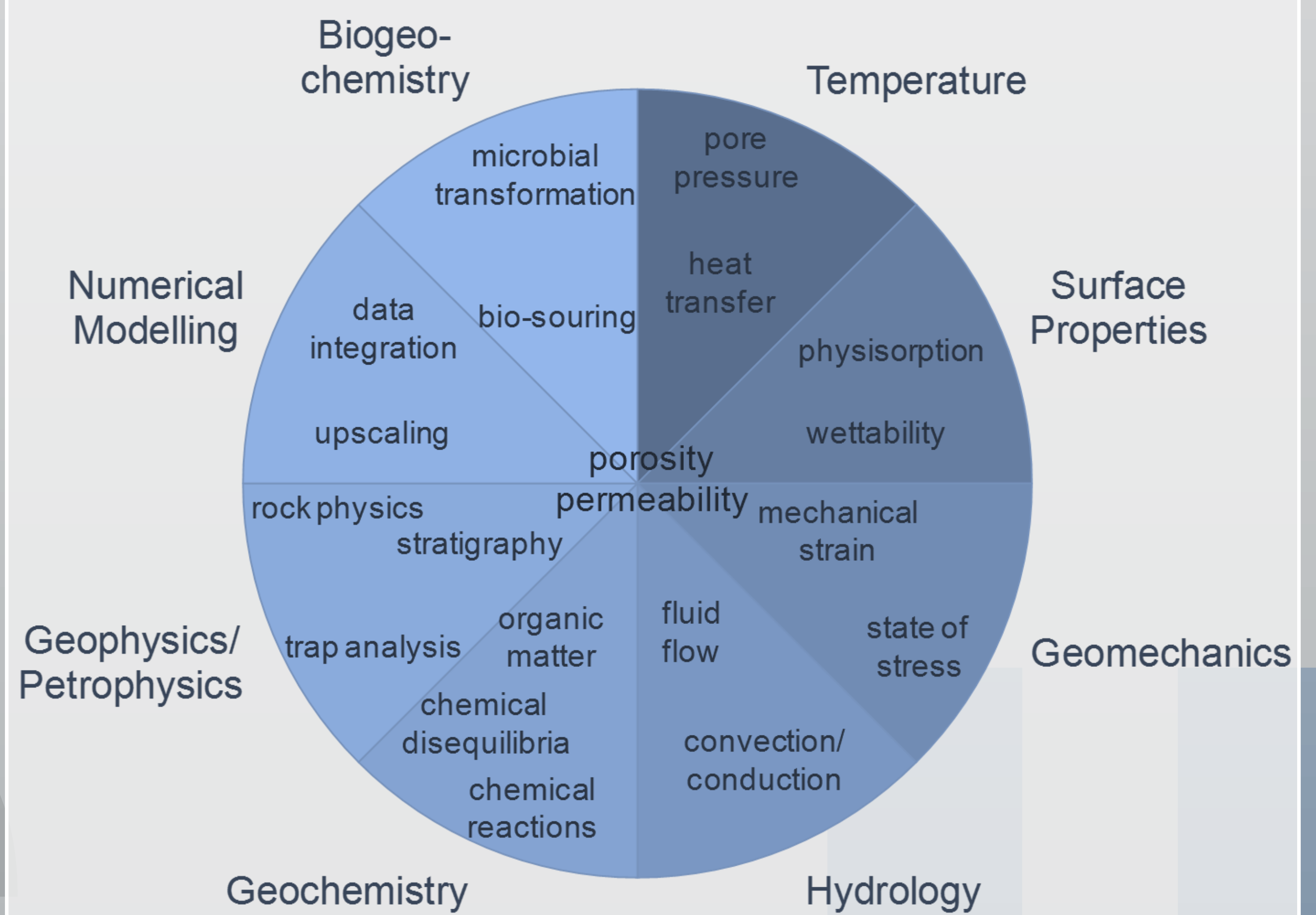
Geo-Energy from the Earth

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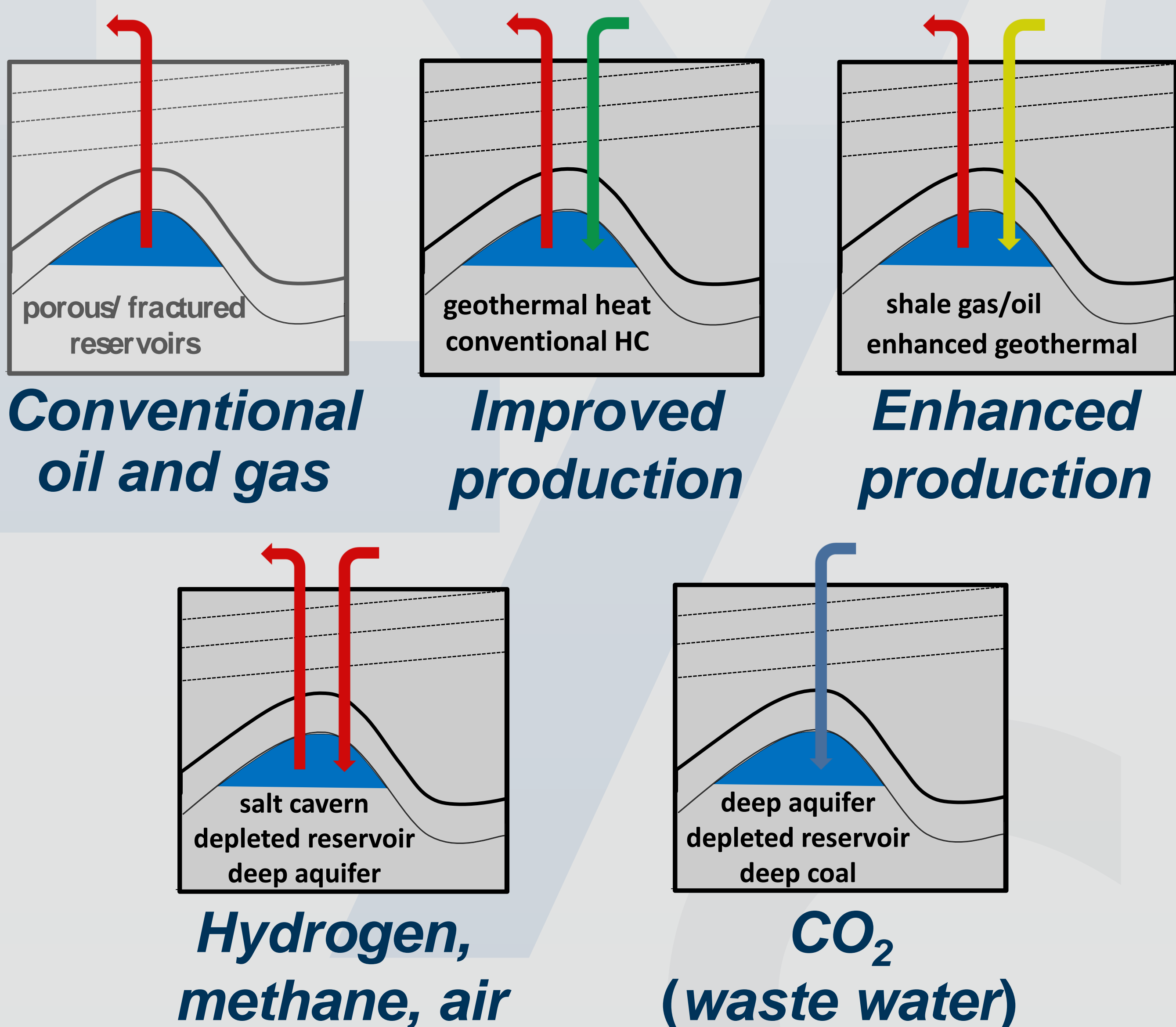
Using the subsurface for energy storage and energy production.

The Lyell Centre with its partnering institutes at HWU and BGS will integrate:

- Geomechanics, geochemistry, petrophysics, geophysics and petroleum engineering
- **Reservoir and field geology** from well, seismic and outcrop data
- **Laboratory tests** under in-situ pressure, temperature and stress conditions
- **Analytical and numerical modeling** using state-of-the-art tools
- **Risk assessment** for the different technologies as well as public dissemination



We will integrate expertise among Lyell Centre, Institute of Petroleum Engineering (IPE) and British Geological Survey (BGS) for advanced sub-surface characterization



The Lyell Centre will address current and upcoming challenges to meet the UK and worldwide energy demand in a sustainable way.

Collaborations in/outside HWU

The collaboration with IPE and BGS allows us to conduct interdisciplinary and integrated research across all upstream disciplines of oil and gas production, from exploration to appraisal, development and management of reservoirs.

The integration of field and laboratory observations coupled with numerical studies is at the core of this research.

This allows us to work on conventional and unconventional reservoirs, energy storage, geothermal energy resources and CCS.

We will closely work with a large number of academic and industrial partners all over the world.