The global oil price downturn has hit many areas of the hydrocarbons industry with varying degrees of severity. High cost, high complexity projects have been hard hit, so high pressure, high temperature (HPHT) drilling projects have seen more of an adverse reaction than more conventional developments.

In the following infographic, we have collated the findings of a wide-ranging survey of our community of professionals working in the HPHT space to gauge where the industry finds itself in the current moment and where the potential kicks may come down the line.

Which regions will see the biggest growth in HPHT wells in the next three to five years?

- 28% Slow Down
- 16% Postponement
- 13% Cancellation

Has a softened oil price impacted your company in terms of HPHT well development?

- 85% YES
- 15% NO

What has the effect been?

- New projects: 25%
- Planning: 20%
- Personnel: 17%
- Equipment: 15%
- Execution: 11%
- Control: 9%
- Cost-efficiency: 7%
- Downtime: 5%

What are the most important factors for robust well design?

- Planning: 25%
- Control: 11%
- Personnel: 20%
- Cost-efficiency: 17%
- Equipment: 15%
- Execution: 11%

What are the biggest challenges faced by HPHT operators?

- Casing: 37%
- Tubulars: 35%
- Polymers and metallurgy: 28%
- Cement design and formation: 16%
- Seals: 13%
- Safety measures: 13%
- Testing: 13%
- Other: 13%

What do the knowledge gaps lie?

- Casing: 22%
- Tubulars: 19%
- Polymers and metallurgy: 18%
- Cement design and formation: 11%
- Seals: 10%
- Safety measures: 7%
- Testing: 4%
- Other: 4%

What are the main health and safety challenges for HPHT well practitioners?

- Risk assessment: 35%
- Equipment requirements: 28%
- Management systems: 16%
- Lack of regulatory clarity: 13%
- Stakeholder cooperation: 8%

Pressures in order of magnitude

- 45 kpsi: Woman in Stiletto Heels
- 15,000 kpsi: Saltwater Crocodile Bite
- 10,000 kpsi: HPHT (Tier 1)
- 20,000 kpsi: Marianas Trench
- 25,000 kpsi: Pressure inside Polyethylene Reactor
- 30,000 kpsi: HPHT (Tier 3) Extreme