"We can cover large areas with a general survey to support exploration. However, we also see that our deep penetration and sharper lateral resolution appeal to oil companies who want more narrow targeted mapping and ranking of identified seismic anomalies. They believe it offers better derisking and a more attractive cost/ benefit ratio.

"Even more dramatic potential cost/benefit may be reaped in the appraisal phase. A dense targeted grid, covering for example 400 - 800 km², would provide valuable 3D insights into the extension of the potential reservoir," Helge explains. The 3D profile helps the oil companies position the delineation wells more optimally and potentially save costly wells. The analysis of the results should be performed before commencing the drilling of delineation wells as they can cost anything from \$30 million to \$100 million per well to drill. By conducting an effective Electro Magnetic (EM) survey using a dense grid of receivers, it is possible for operators to gain an invaluable insight into the location of

exploitable hydrocarbons and to eliminate the need to drill such a high number of delineation wells. The overall cost of surveying a potential field is valued at around \$3 million to \$7 million, which gives a dramatic payback if you can save one or more wells. "In addition, you might even cut time to first oil," Helge says. "Our immediate strategy is to penetrate further into the local North Sea and northwards where oil companies have a very well developed understanding and experience in working with EM. We have also started working with representatives in West Africa, South America and Brazil where operations have remained relatively active," Helge concludes.

"Our newly reengineered technology certainly represents a new dawn for PetroMarker. We have invested a significant amount of effort in demonstrating the system and its benefits to increase interest from oil and gas operating companies across the world." The need to cut cost and increase drilling success rates cater for an exciting future for the young company.



The key benefit of the vertical CSEM method over horizontal scanning technologies is that we are able to penetrate significantly deeper below the ocean floor

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