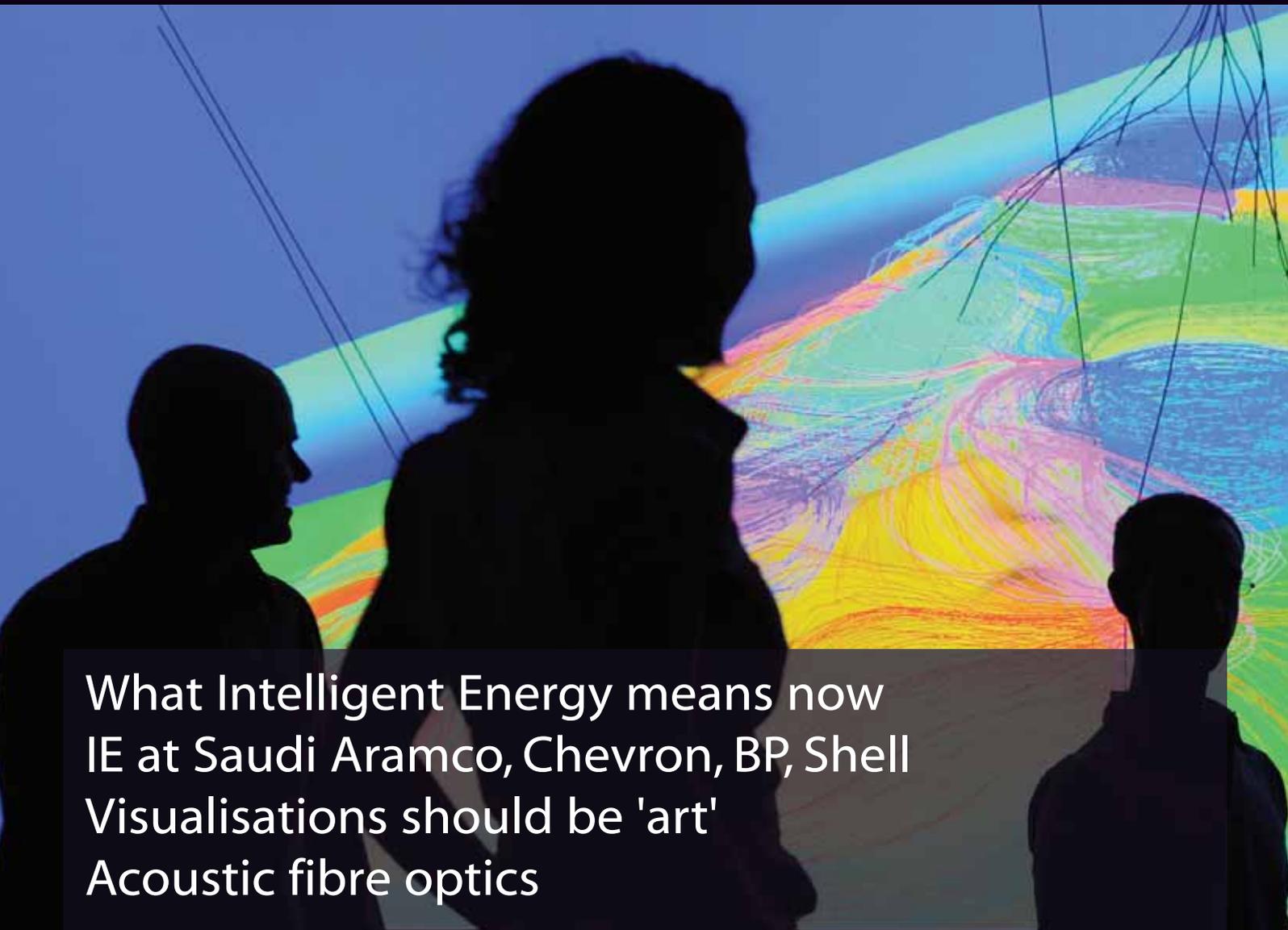


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What Intelligent Energy means now
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Visualisations should be 'art'
Acoustic fibre optics



Roxar – making reservoir modelling quicker to do

Roxar (a Norwegian company owned by Emerson Process Management), believes it is making big strides in making reservoir modeling easier and quicker to do, and end up with a model which more closely resembles the actual structure as seen from the seismic data with the latest release of its RMS reservoir modeling software (RMS 2010, launched in February 2010).

As geologists and reservoir engineer know when looking deeper in the details of a reservoir, there are many uncertainties often crucial to reservoir performance. Roxar aims to make it easier to generate many model realisations in order to explore and understand these uncertainties – vital if you are looking at in place oil or gas volumes or looking at future production estimates.

Knut Midtveit, sales manager Scandinavia, Roxar Software Solutions, believes that the software is very good for situations where a modeller has to combine the available data with this own knowledge and experience. “He can use RMS to build the model that fits both his conceptual model and the hard data,” he says.

The company claims to be the second largest provider of reservoir modelling software in the world (after Schlumberger’s Petrel) and to provide software used to model 85 per cent of fields in Norway.

Roxar hopes to make it possible to update reservoir models from new well or production data in hours in the future, rather than spending weeks or months as is normal

today, says Ordin Husa, managing director, Roxar Software Solutions.

The latest version has a revamped well correlation system, to display well data and well markers together with the model.

It can also be used to estimate reserves, plan wells and simulate past and future production.

The RMS software is made up of 13 software modules, including mapping, reservoir modeling, well planning, reservoir simulation and uncertainty modeling tools. It runs on Linux and all versions of Windows.

An important technology enabler has been to get rid of the grid pillar concept. The system does not have any pillars at all. “Previously you had pillars going through the whole model,” Mr Midtveit says. “Pillars are restricting you.”

“If you have a complex fault you can’t do it with pillars. But now the geologist can make the model as nature is.”

“You can do models which were really impossible before. Now it’s easy,” says Mr Husa.

“Previously the models made trouble

for simulators, however the new gridding techniques makes

makes for faster ” Mr Husa says.

The software has an open structure, so people can write additional applications for it themselves, Mr



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Midtveit says. This should make it easier to integrate with other applications and also for the research departments in oil companies to develop new techniques and deploy it into their organisation..

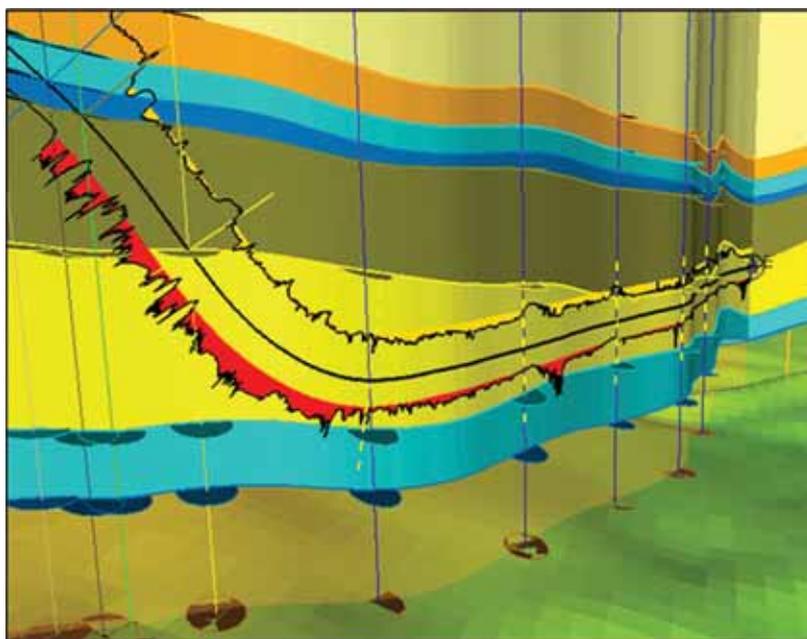
The industry trend, says Mr Midtveit, is not so much for bigger models, but for faster model updates that enable faster decisions

Companies often have many models for one field, at different scales, looking in detail at specific areas.

People usually have a deadline to work to – so the challenge is making it possible to build the best reservoir model (or models) by then.

The company changed the way the software is used to build structures 3 versions ago, and a new graphical interface 2 versions ago, Mr Midtveit says. It has then been tweaking it to make it easier and faster to use.

The aim of the past 2 releases has been to improve usability, so people can learn how to use the product faster, particularly when they have never used it before.



A horizontal well in RMS 2010 being edited in 3D with synthetic wells