OPM - Development of reservoir simulation software

Alf Birger Rustad

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Objective: Predict reservoir performance
Technical gaps today
Heterogeneity and data integration

Flow unit

RMS

≈ 50 cm
Impact on reservoir flow
Research communities role
Provider’s role

Integrating software

User friendly

Customer support
Our role as customer

Provide realistic problems

Funding

Customer needs
Main challenge: Collaboration
Open development model necessary
Strategy summary

• Clearification of the *different roles* of different players.

• Ensure multilateral collaboration and contact between all categories of players

• Open development model necessary for collaboration with all players
What’s in it for Statoil

• No "black-box" software. Anyone can do quality assurance of all code.
• No vendor monopoly on maintenance and further development
• It encourages other parties (academia in particular) to contribute independently to our involvement
• Possibility to build on existing (rapidly increasing) code bases
• Vendors typically attempt to strengthen their code quality, as badly written code now will be exposed for others to see.
What about the software vendor?

• From previous slide:

  "value is transferred from shareholders to programmers (human capital)"

• Software vendors typically have to change their business model from a license-based income to support-and-maintenance-based income.

• Large vendors with existing valuable proprietary software unlikely to be willing to switch

• Small and upcoming vendors for R&D projects seems to have little or no chance today on a license based business
Thank you