

# Project Proposal: Expression of Interest Form

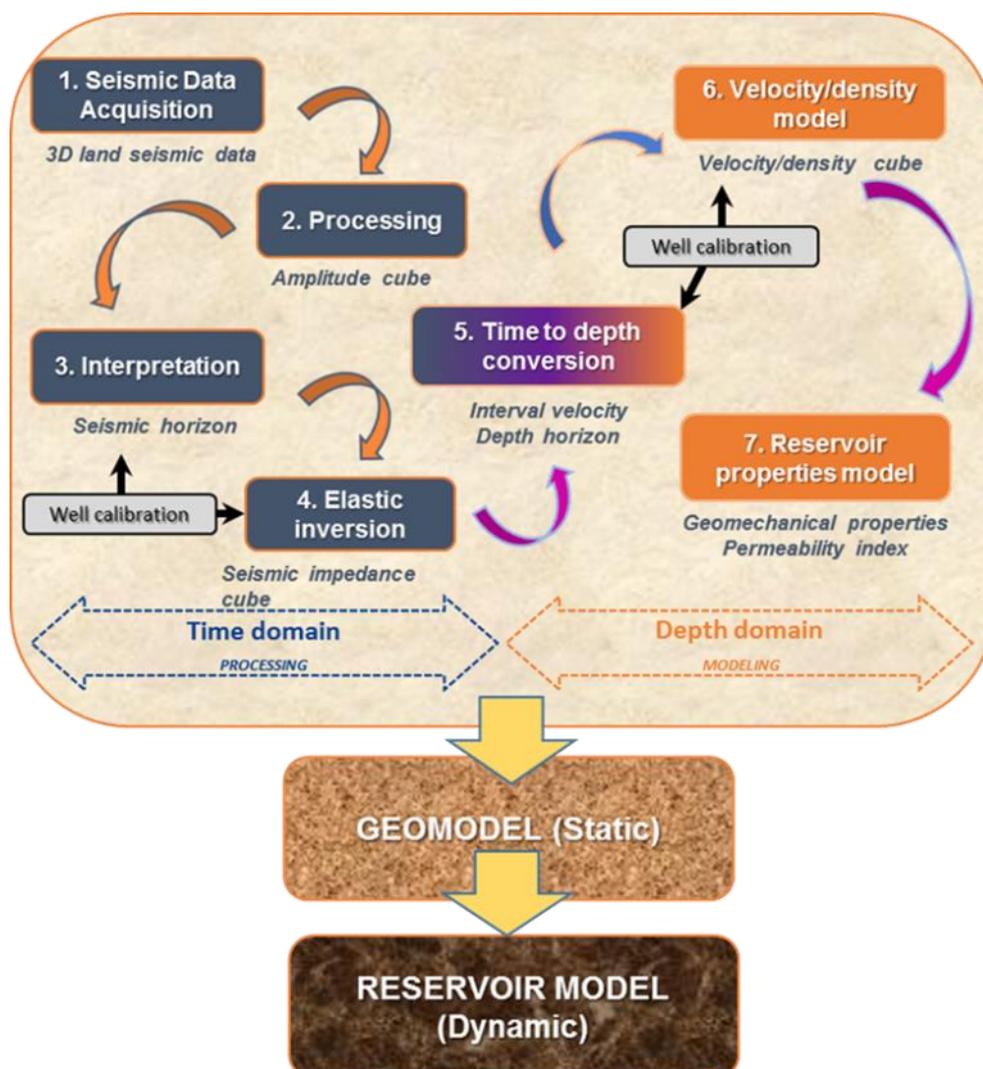


<b>Project</b>		<b>PUBLIC DOMAIN *</b>
<b>Theme/ Call:</b>		
<b>ITF Ref No:</b>	<b>Date Received</b>	
<b>Full Title</b>	UDOMORE software for integrated and optimized reservoir structure modelling workflows	
<b>Acronym</b>	UDOMORE	
<b>Organisation</b>	Seisquare Holding SA	
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## Abstract PUBLIC DOMAIN \*

### Industry problem:

Current E&P processing and subsurface modelling workflows are segmented and empirical, leading to complexities, dependencies and unbearable turnaround times. In some cases, they lead to flawed subsurface predictions, and poor capital allocation decisions.



For example: in Petrel, the leading commercial E&P software platform, only 5-10 % of users are able to design and program their own customized workflows. Even when a workflow is built, major underlying issues remain, such as: dependency towards experts; poor traceability of data sets and assumptions; lock-in to deterministic approaches (which fail to consistently characterize uncertainties). Similar challenges arise within the other commercial and in-house software platforms.

**Seisquare mission:**

Seisquare’s core mission is to develop and market integrated and optimized E&P workflows. Our workflows will drastically reduce turnaround times and bring consistent uncertainty quantification and propagation throughout the E&P cycle. This, in turn, brings a rational understanding of the predictive capability of subsurface models and supports optimal E&P capital allocation decisions.

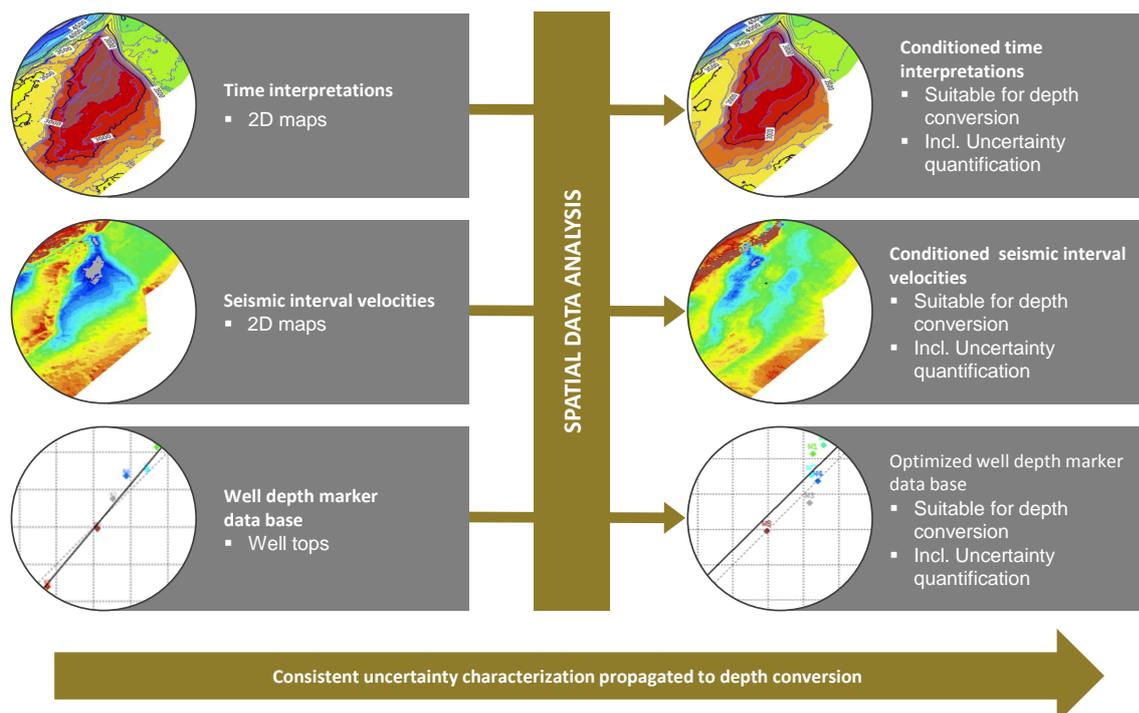
Seisquare workflows are implemented using UDOMORE software. Our software makes stochastic technology seamlessly accessible to non-experts and enables Geoscientists to:

- Interactively customize workflows to specific E&P project needs
- Update project 1P, 2P, 3P scenarios in quasi real time
- Consistently quantify and propagate uncertainties
- Deliver accurate subsurface predictions with quantified confidence intervals

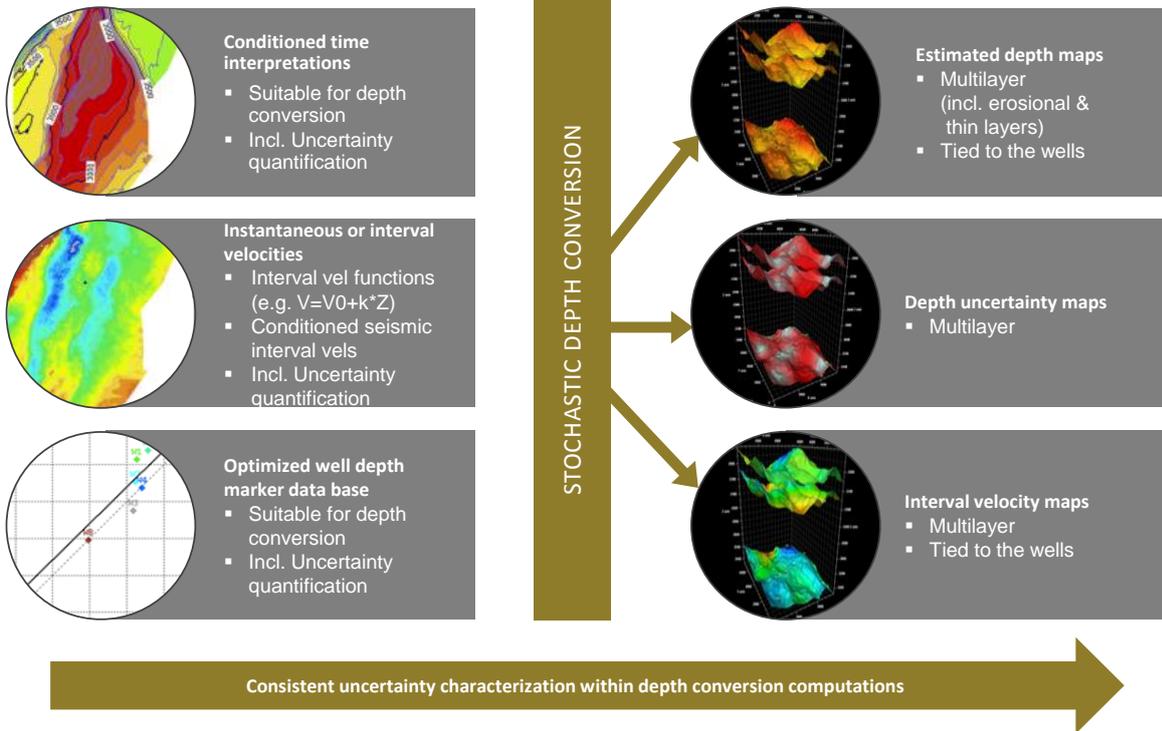
**Seisquare ITF project proposal:**

Deliver software products underlying the stochastic reservoir structure modelling workflow described below:

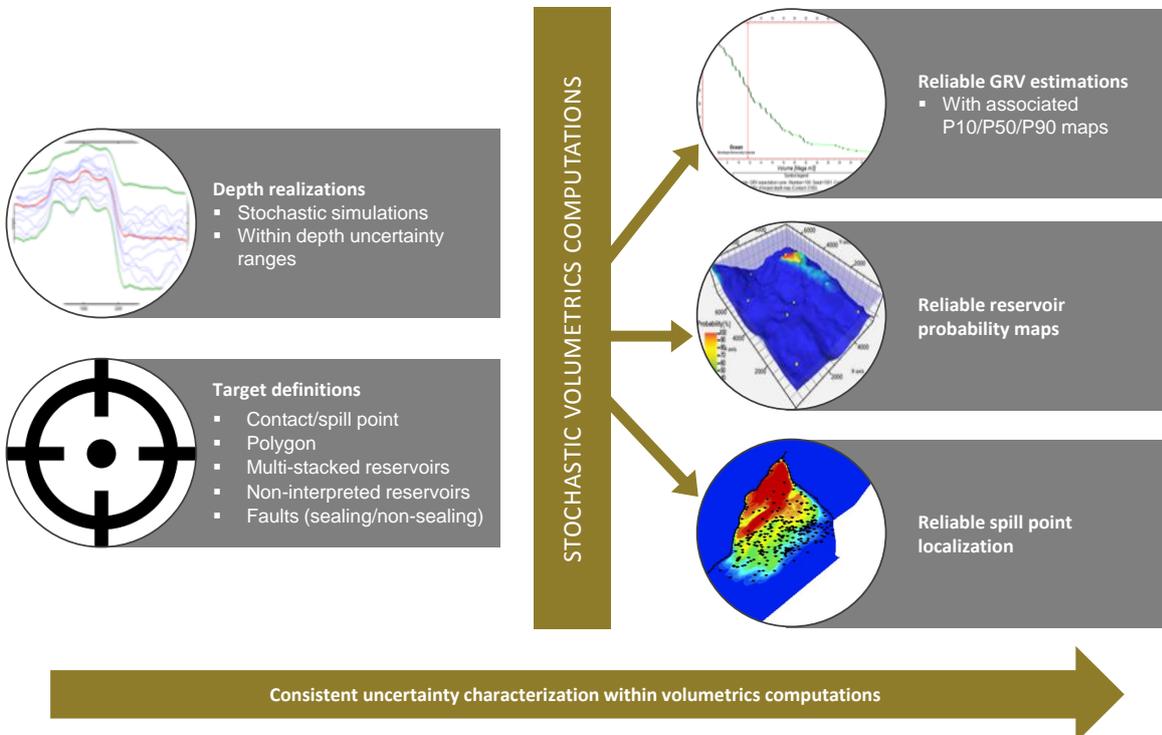
## STEP 1: SPATIAL DATA ANALYSIS



## STEP 2: STOCHASTIC DEPTH CONVERSION



## STEP 3: STOCHASTIC VOLUMETRICS COMPUTATIONS



Seisquare has been applying its stochastic reservoir structure modelling workflow as consultants on a wide range of projects (Norway, UK, Middle-East, South Atlantic, North Africa) with excellent feedback from operations in terms of speed of execution and accuracy of predictions.

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Seisquare is also receiving powerful feedback from users of the commercially available UDOMORE Depth Ocean plug-in to Petrel, which is a cornerstone to the workflow (it covers “Step 2 – Stochastic Depth Conversion”). Engie, Noreco, Suncor, Talisman and Wintershall are recommending UDOMORE Depth for its strong added value within Petrel. Users have been telling us: “this is the best software I have seen in many years”; “I was able to build my velocity model with UDOMORE Depth in a day, instead of one month with Petrel”; “I am super impressed and the software is easy to use”.

Building on its experience with the commercially available UDOMORE Depth Ocean plug-in to Petrel, as well as powerful validation by the software user community, Seisquare aims to roll out the full suite of software products that underly the stochastic reservoir structure modelling workflow (Steps 1 to 3) in the form of UDOMORE plug-ins to Petrel.

Important note: Seisquare UDOMORE technology is fully independent from any host software platform. This leaves the door open to deploying UDOMORE technology within other any host software platform (i.e. outside of the Petrel platform), according to possible needs expressed by ITF sponsors.