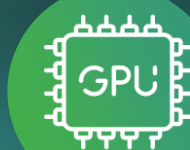


tNavigator[®]

ONE ASSET, ONE SOFTWARE: THE FUTURE OF RESERVOIR MODELLING

asktNav@rfdyn.com

WHY CHOOSE **tNavigator**®?



BUILT FOR SPEED

Super fast, scalable simulator engine –
no charges per core or GPU



ADVANCED FEATURES

Integrated fracture design, unstructured grid description,
simulation & optimisation workflow



A NEW GENERATION OF GEOSCIENCE

Low cost, no fuss replacement – full static
modelling workflow in one license



RESERVOIR TO SURFACE INTEGRATION

Fully coupled, fully implicit modelling with
integrated well design tools & PVT analysis



ADVANCED PYTHON WORKFLOWS

Integrated static & dynamic history matching analysis

2020-2021 in numbers



- +30 new clients in 10 new countries
- +60 new employees
- +600 slides of new training material
- +45 online webinars
- 12.5 million lines of code

34 Offices, 30 Countries



Many of the world's **largest energy companies** are **tNavigator** users

ExxonMobil



BHP

YPF

INPEX
INPEX CORPORATION

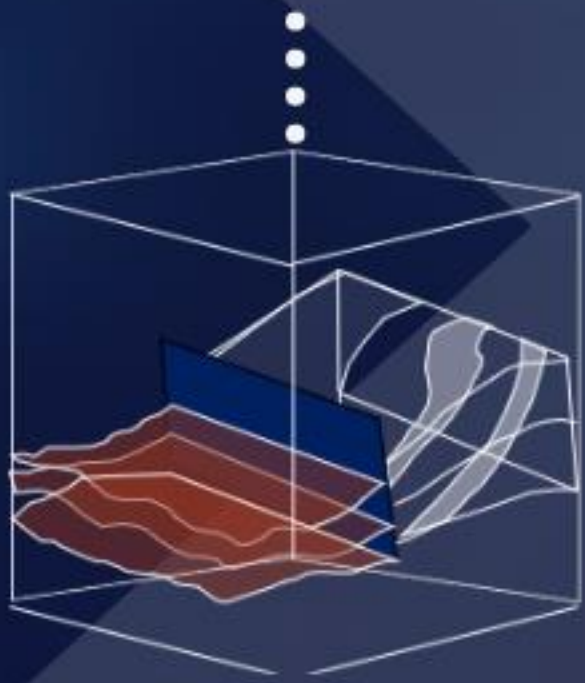


Apache

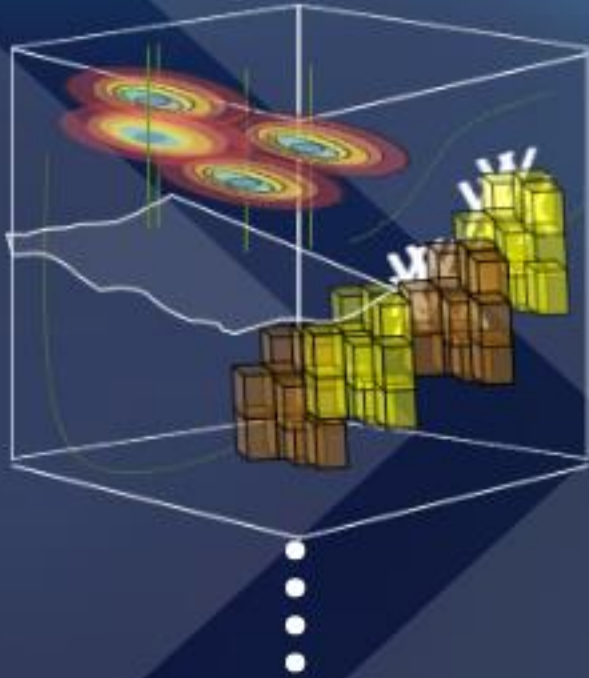


ONE ASSET, ONE SOFTWARE

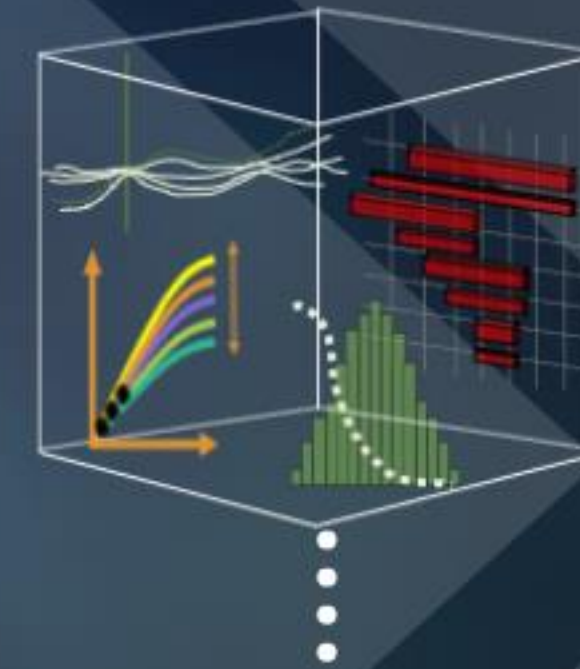
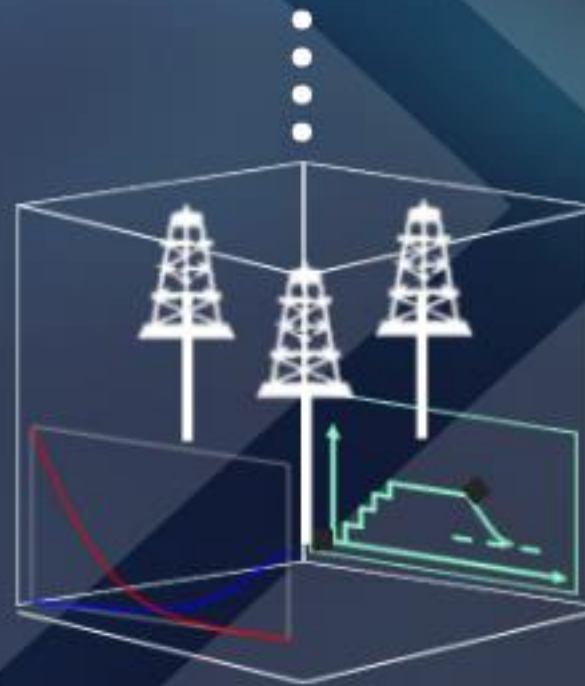
GEOLOGICAL
MODELLING



RESERVOIR MODELLING

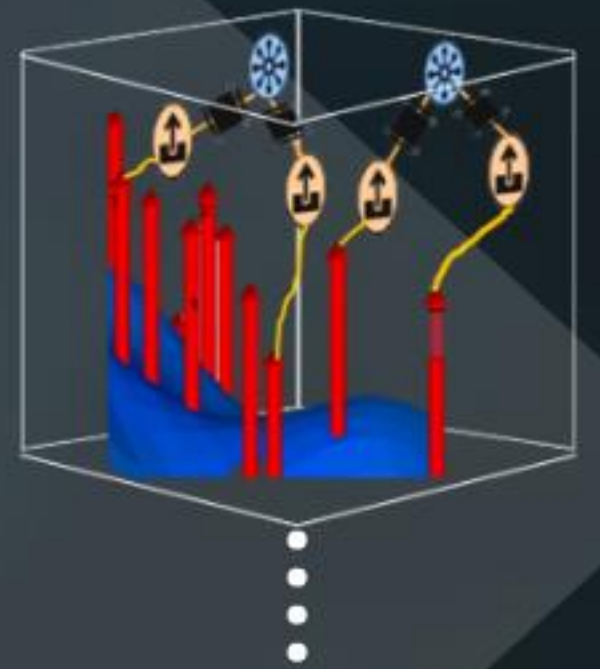
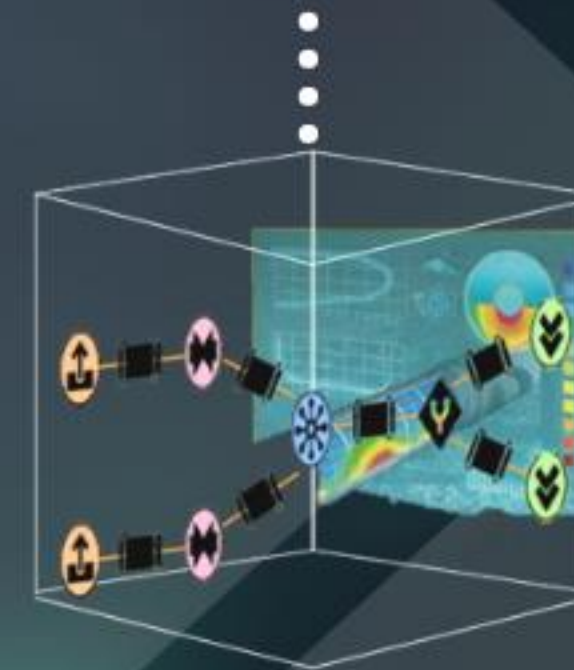


DYNAMIC MODELLING &
SIMULATION



UNCERTAINTY
QUANTIFICATION

SURFACE NETWORK
MODELLING



INTEGRATION &
COMPLETION

tNavigator® HIGHLIGHTS



No data conversion,
all standard industry formats are supported



No charge for CPU cores, 2xGPUs per box are included



A single executable, interactive user interface,
runtime visualisation, Windows/Linux compatible



Extended Python workflows support in all modules



Embedded user manuals, 120+ tutorials,
24/7 global technical support

A SIMULATION SOLUTION FOR EVERY ASSET TYPE

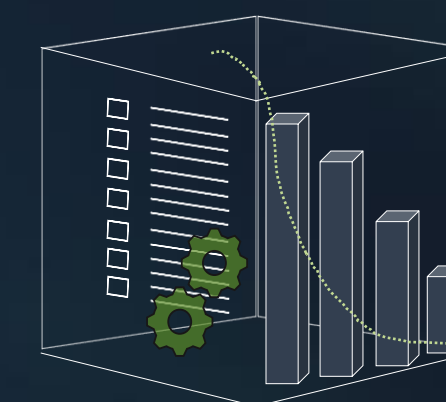
Non-conventional
Offshore
Heavy Oil
Gas condensate
CO2 Injection, CCS
Waterflood



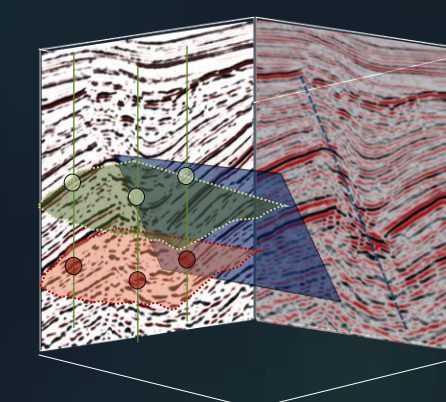
FULL STATIC MODELLING WORKFLOW

Comprehensive static modelling for a
fraction of the price

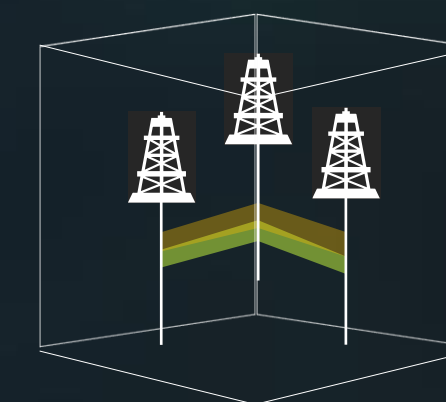
Data
Reconnaissance



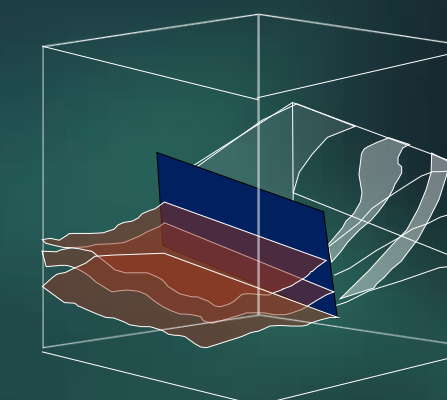
Geophysical
Interpretation



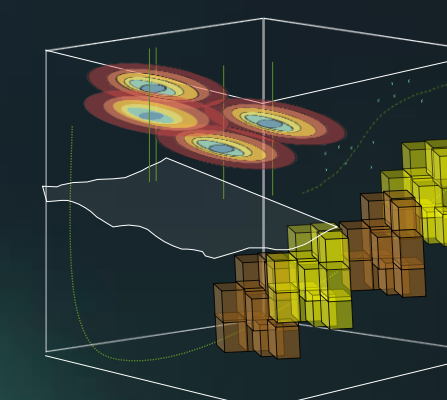
Geological
Interpretation



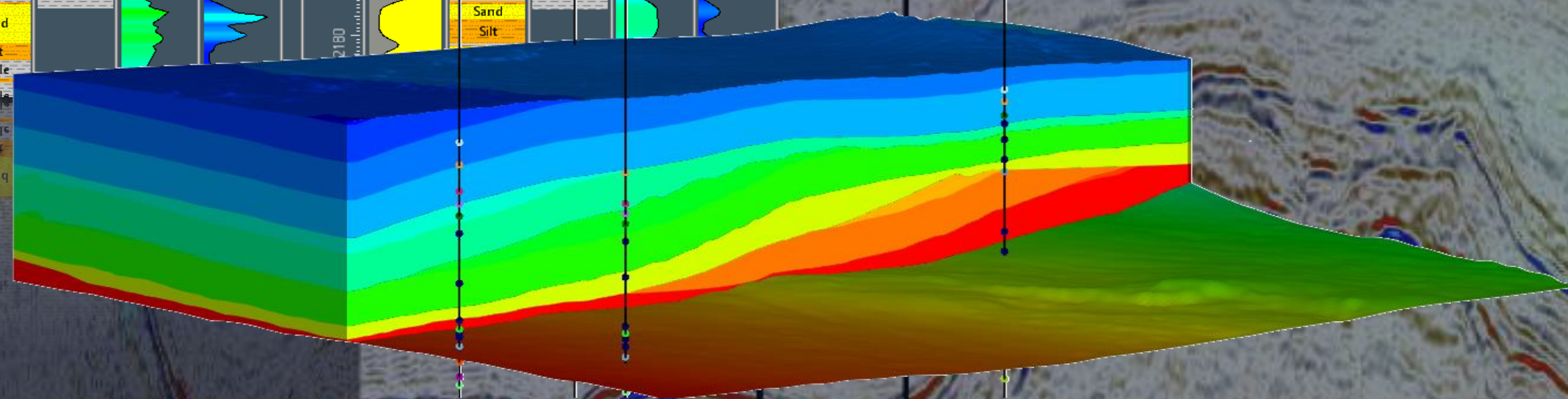
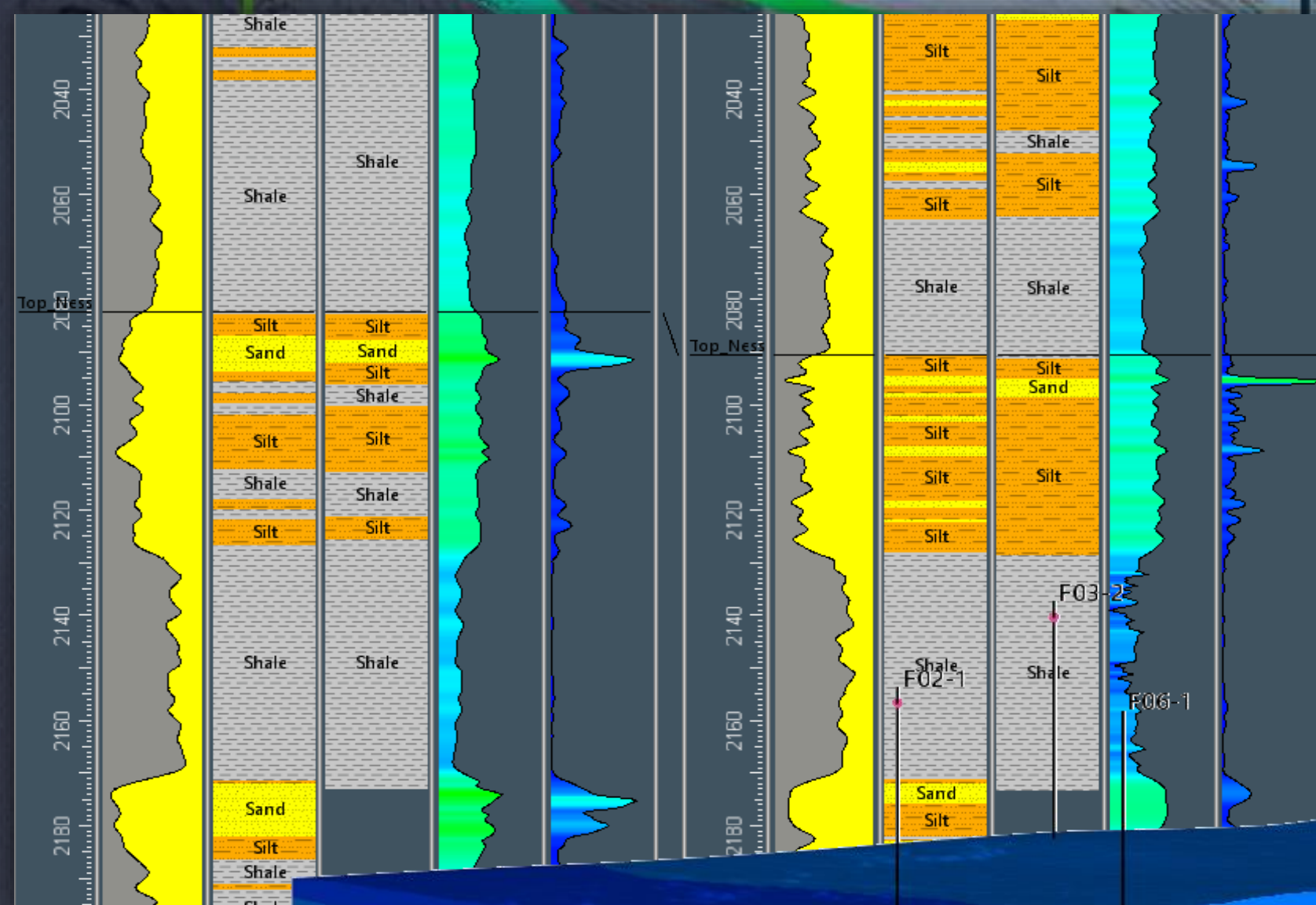
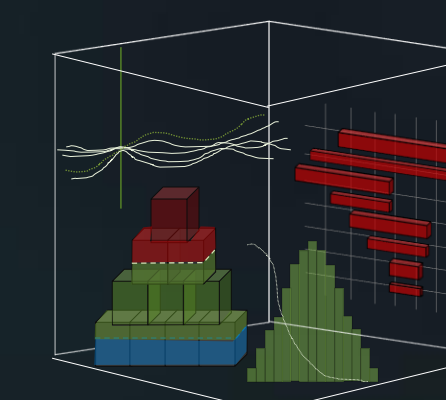
Structural
Modelling



Reservoir
Modelling



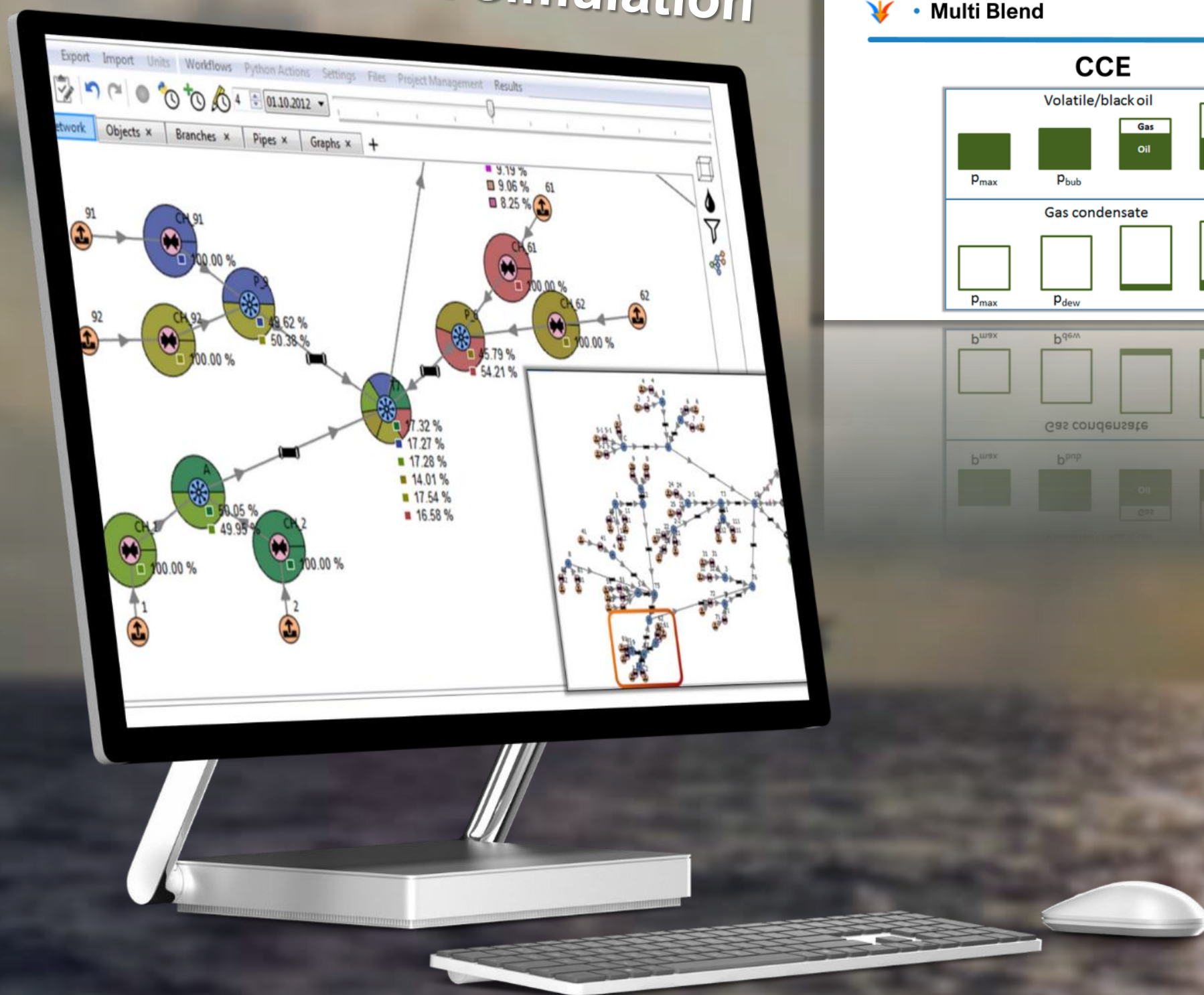
Volumetrics &
Uncertainty



WORKFLOWS FOR PRODUCTION AND NETWORK ENGINEERS

Analysis of PVT Experiments

Surface Network Simulation



Modeling Tools

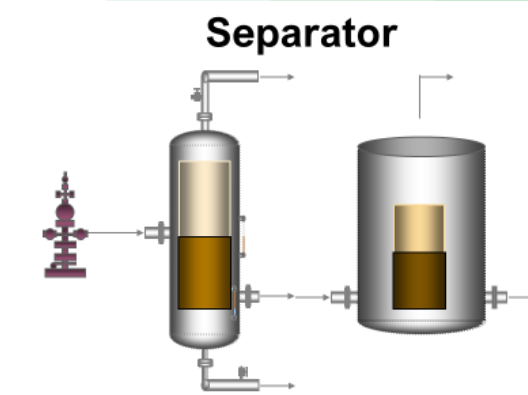
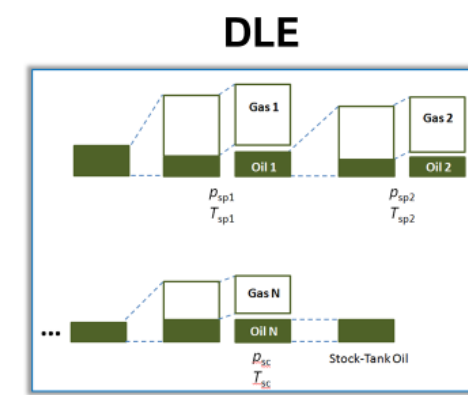
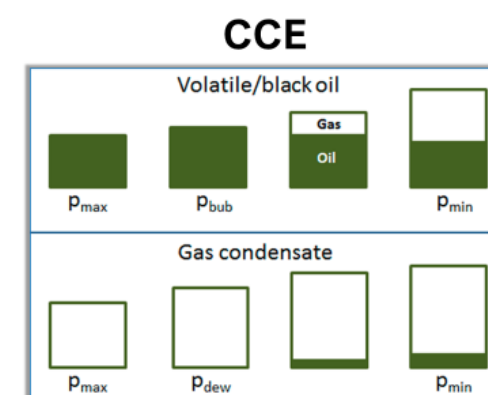
- Matching/Regression
- Splitting
- Lumping
- Decontamination
- Blend
- Multi Blend

PVT experiments

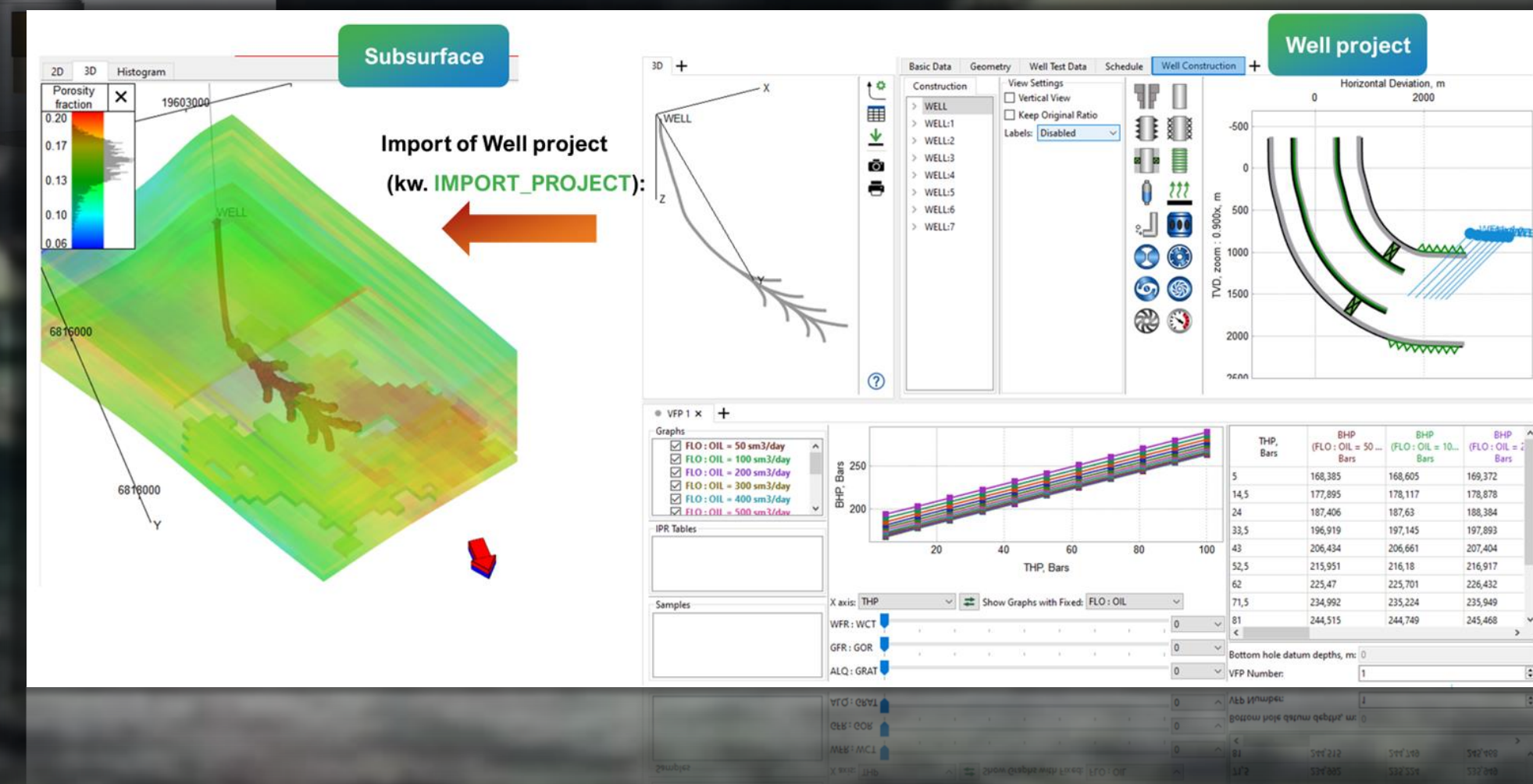
- CCE/DLE/CVD
- Separator Test
- Grading Test
- Swelling Test
- MMP

Special features

- Non-equilibrium flash
- 3-phase flash
- Gas hydrates



Complex Wellbore Modelling

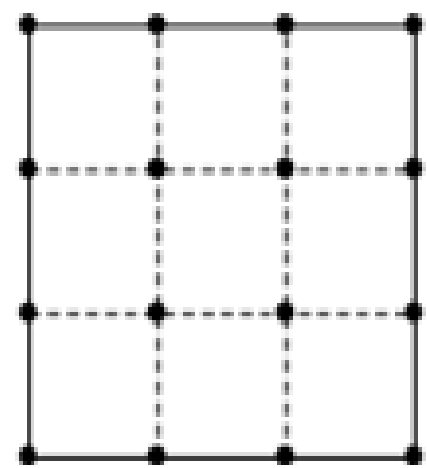


UNIVERSAL UNCERTAINTY ENGINE

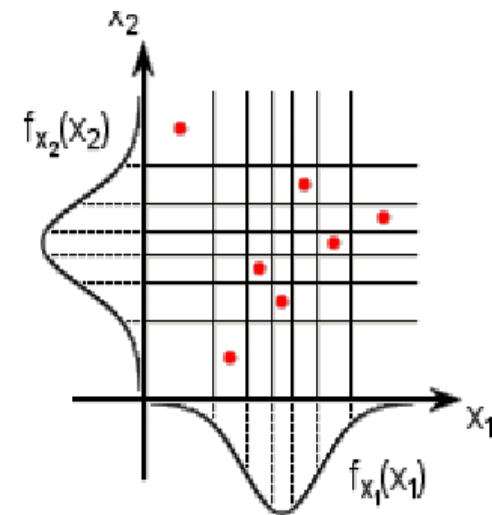
EXPERIMENTAL DESIGN

Variables range screening, variables ranking

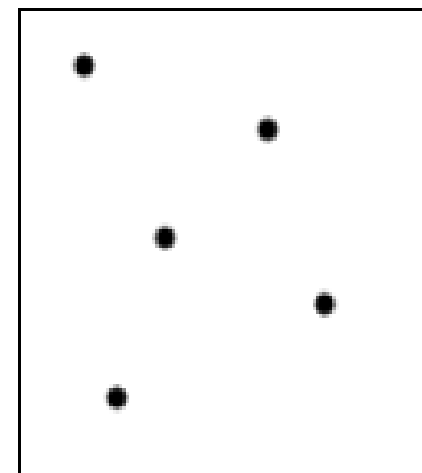
Grid Search



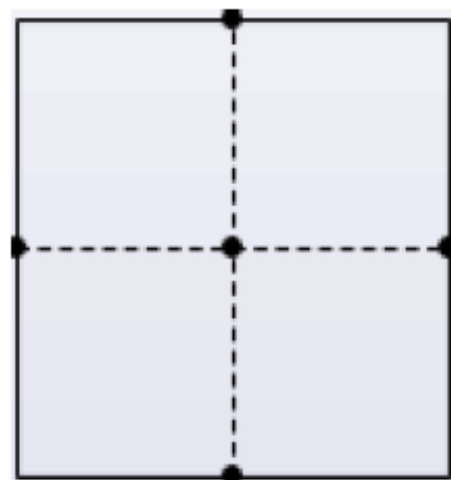
Latin Hypercube



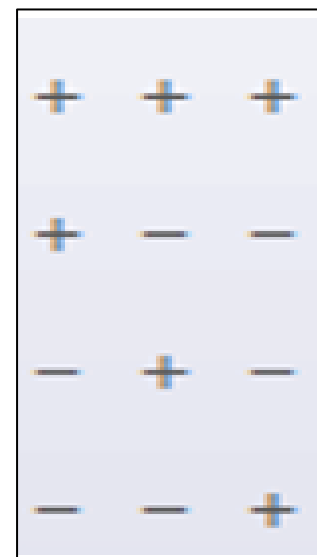
Monte Carlo



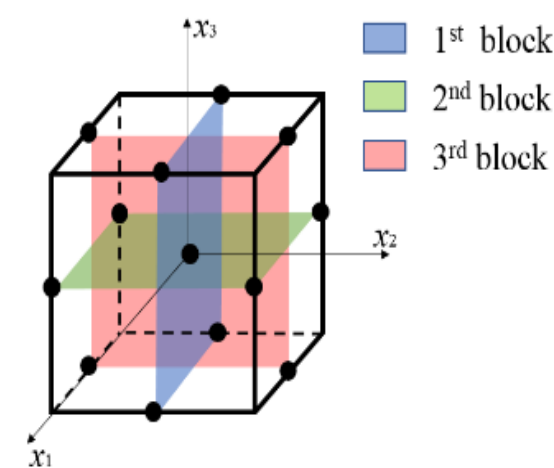
Tornado



Plackett-Burman



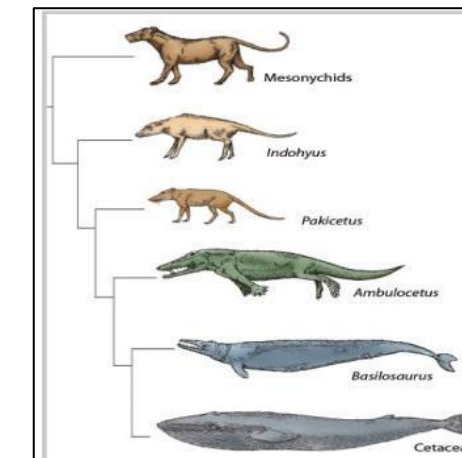
Box-Behnken



AUTOMATED HISTORY MATCHING, ENSEMBLE MODELLING, OPTIMISATION UNDER UNCERTAINTY

Minimizing or maximising objective function

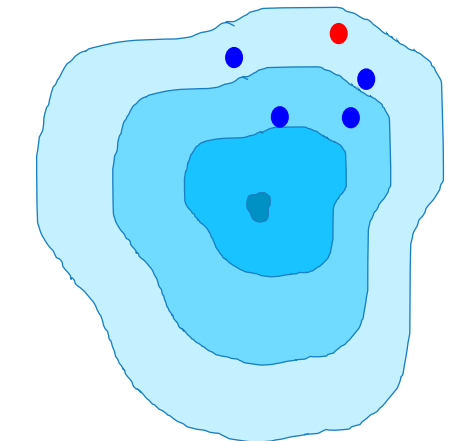
Differential Evolution



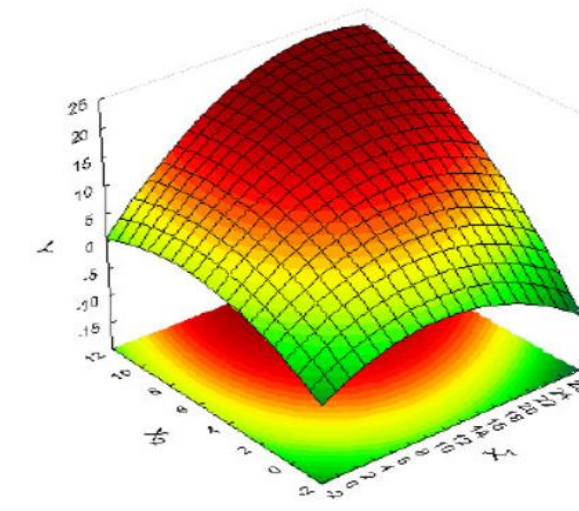
Particle Swarm Optimisation



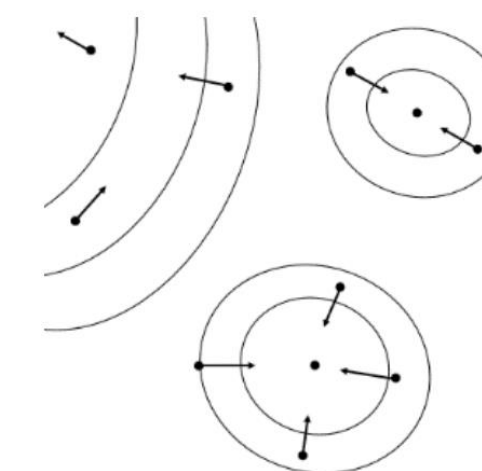
Simplex Method



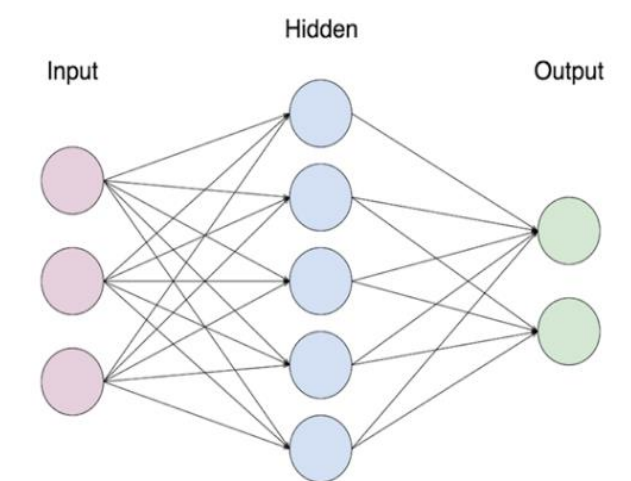
Response Surface (Proxy-Models)



Ensemble

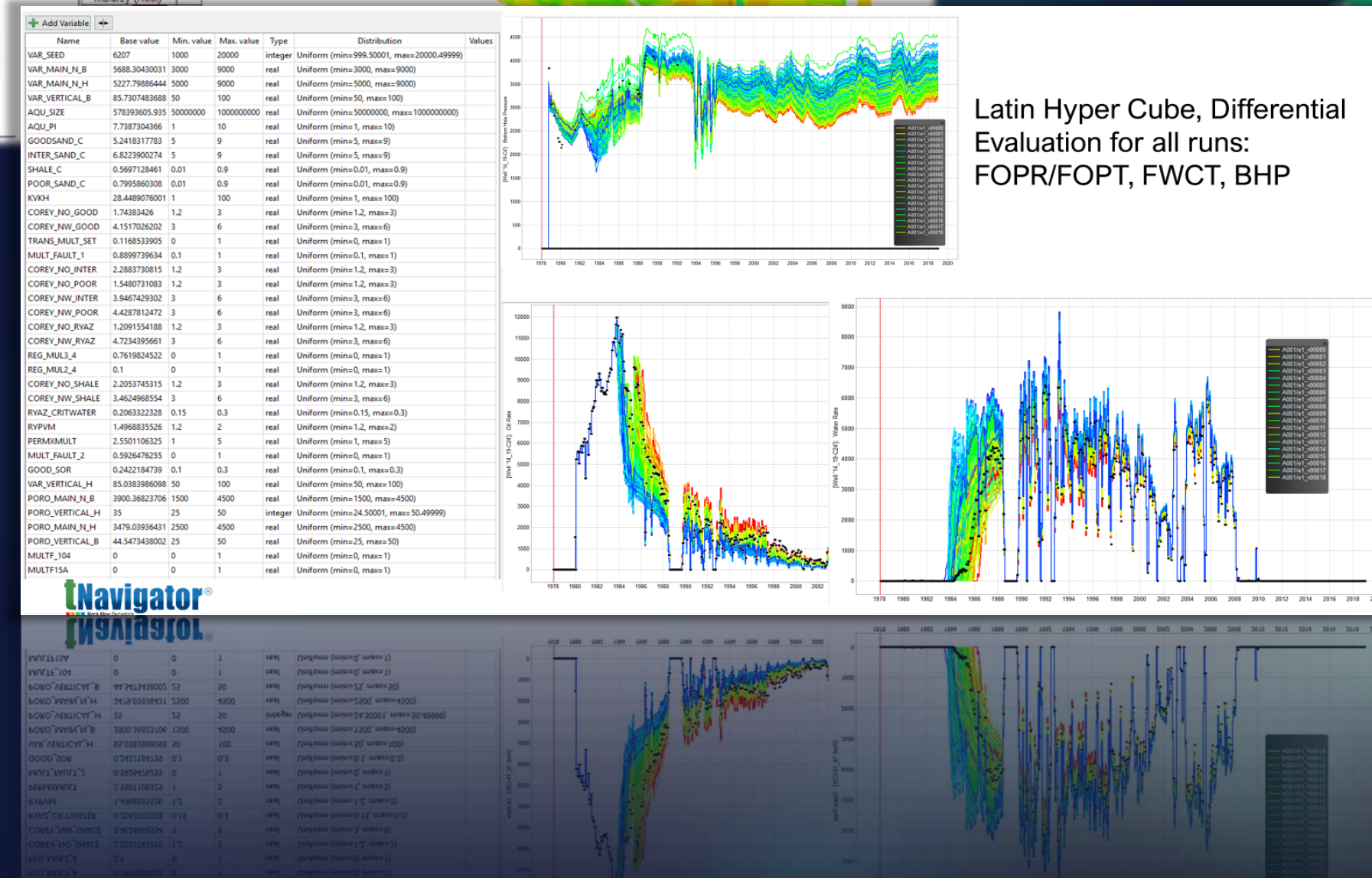
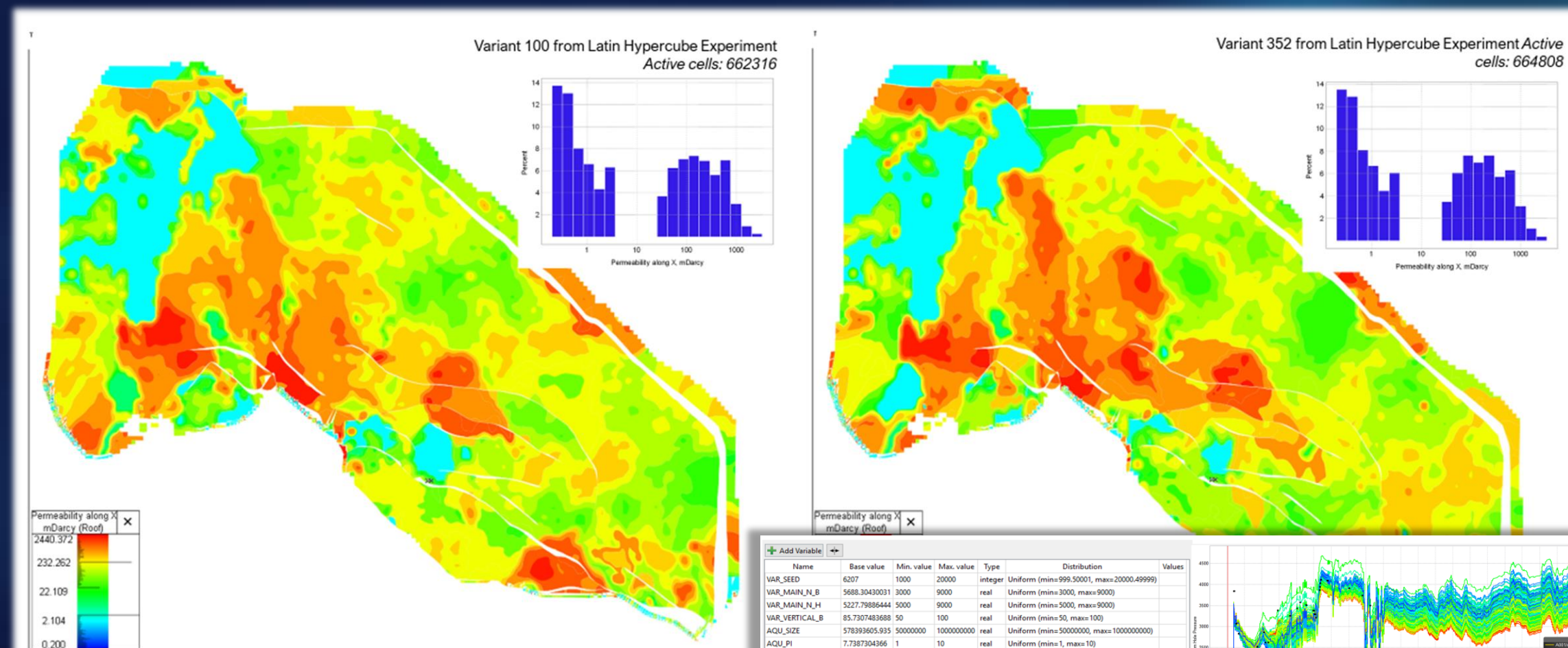


Artificial Intelligence

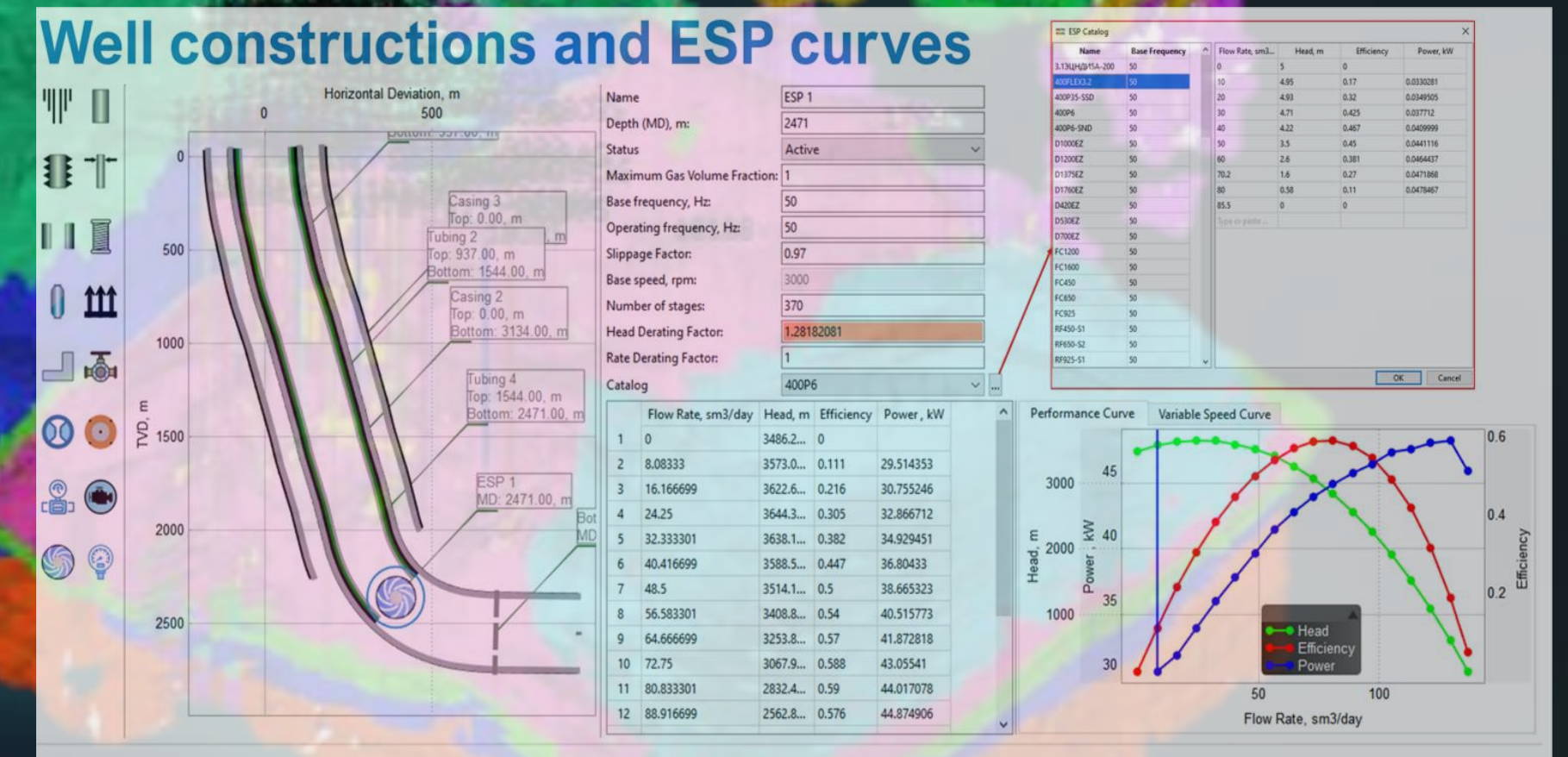


INTEGRATED UNCERTAINTY WORKFLOWS

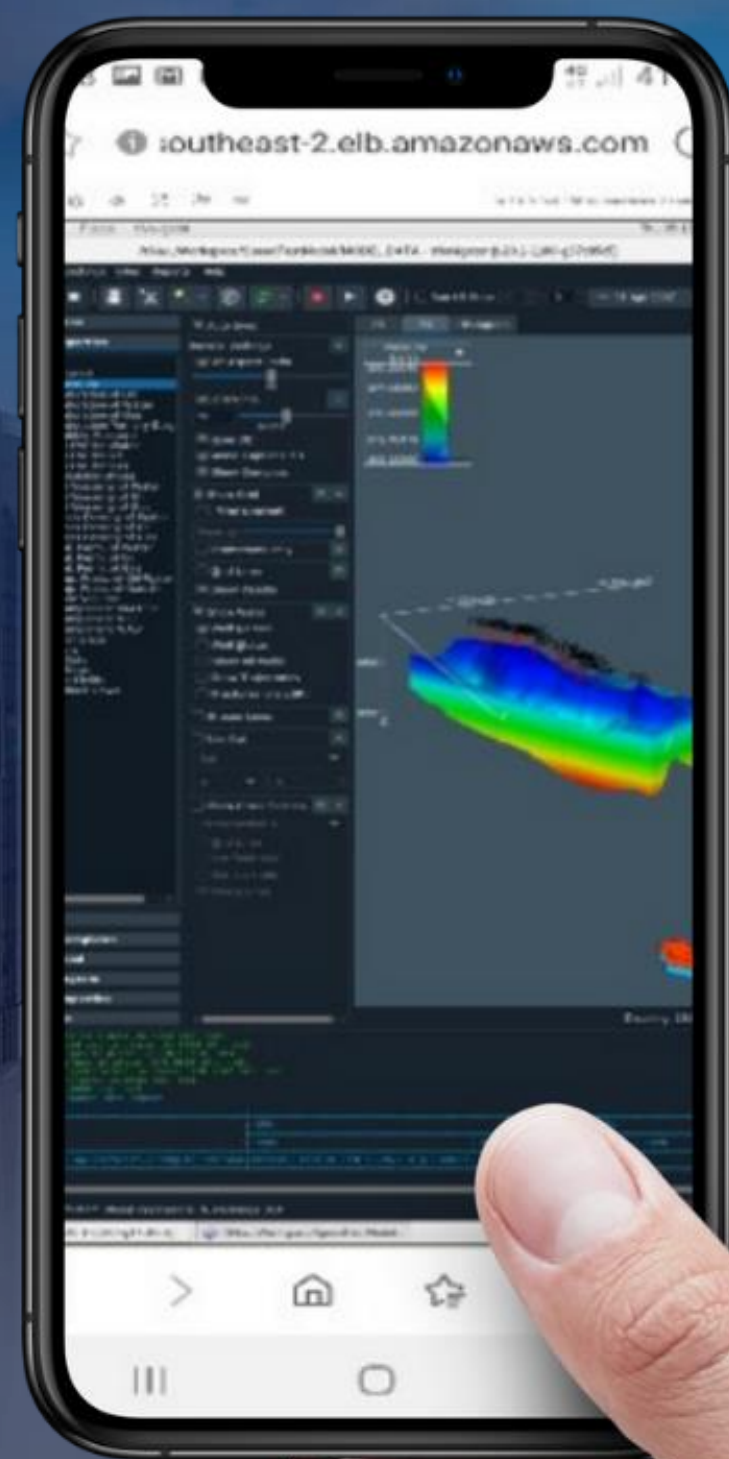
Static & Dynamic Uncertainty



Surface Network, Well Design & Reservoir



BROWSER BASED CLOUD SOLUTION

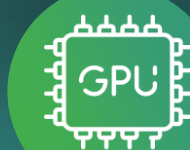


“pay as you go” software-hardware access models

configure and use virtual multi-node clusters in minutes

large simulation models, massive history matching/optimisation is reality

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