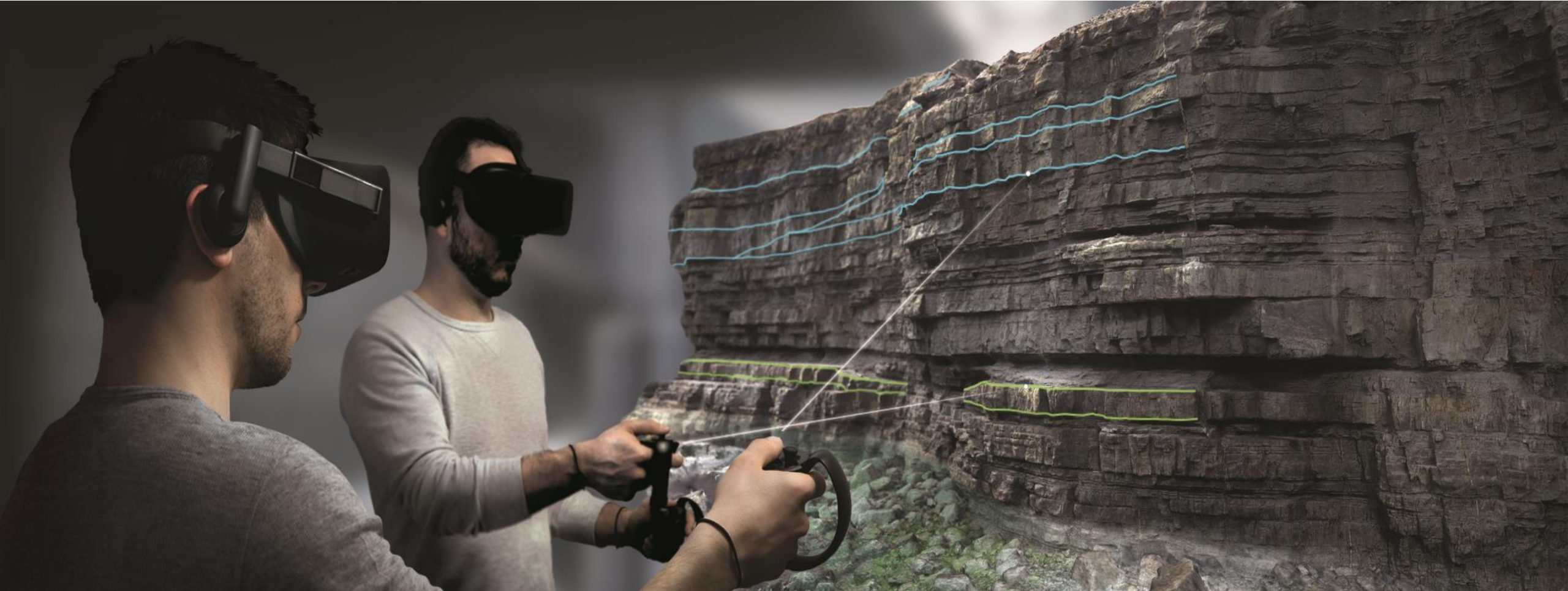


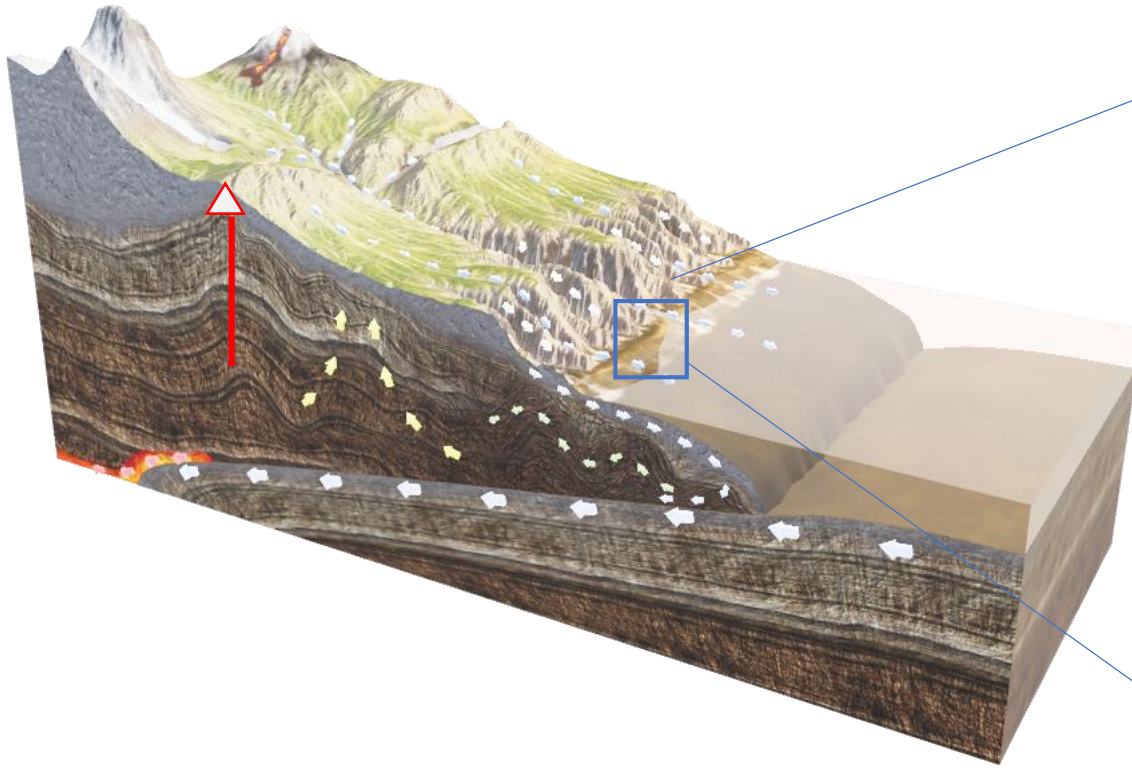
Remote Collaboration in Virtual Field Trips: application of immersive technologies to multidisciplinary team integration



Imaged Reality

Claudia Ruiz-Graham
CEO & Founder
Claudia.rg@imagedreality.com

Geoscientists have limited access to Geological field trips



Why field trips are important?

Geologists go to the field when exploring for natural resources, or when predicting geohazards in environmental assessments.

What is the problem?

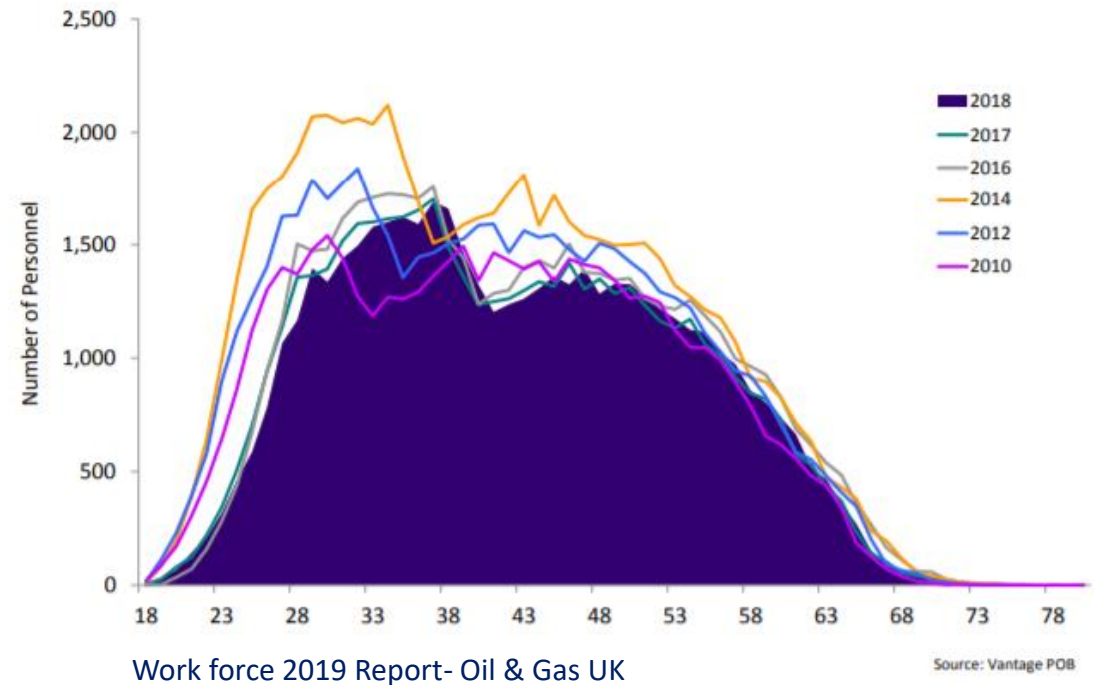
Field trips are expensive and can be hazardous. Travel is restricted and expertise is scattered

Oil price volatility and the capability cycle

Oil Price Volatility



Shift in the UK offshore work force after the 2014 downturn



Every downturn is followed by cost reduction, lay offs, loss of expertise, and subsequent **need to rebuild capability** and to **connect expertise**. Post COVID-19, this needs to be done **remotely and sustainably**. **Virtual reality & drone technology** provide an effective solution for this.

Insights from new viewpoints...



The drone bird's eye view brings insights in a new way- Jurassic section in Kilve

Immersive learning in virtual reality



Imaged Reality

3DGaia - SaaS Enterprise Virtual Platform



Visualisation and interpretation in Google/Bing satellite imagery in 2D and 3D



Interpretation of seismic images



Direct outcrop interpretation



Import of 3D Models

- Data integration from basin scale to pore scale
- Real time remote collaboration in 3D
- Robust architecture & cloud integration with encrypted communication end to end
- Model streaming

Customers



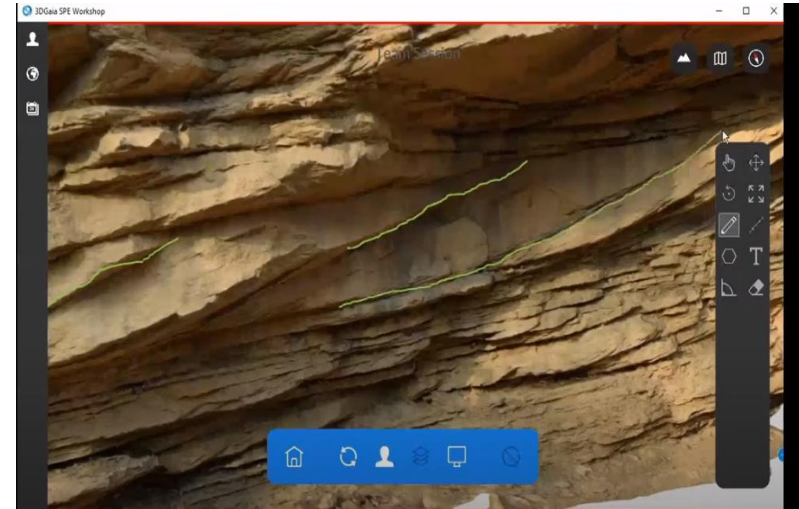
Products & Services



3D Gaia VR

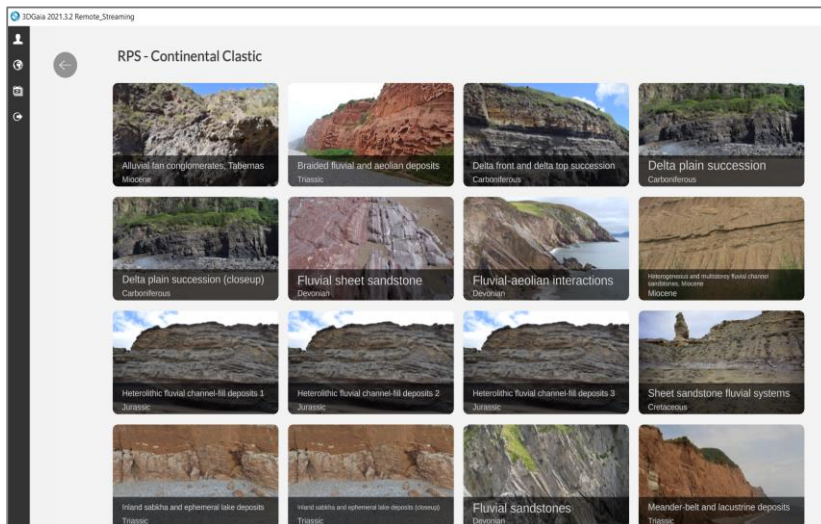
for immersive experience at real scale.

Users can **create & deliver** training & working sessions, using **real time remote collaboration**



3D Gaia Desktop

with interactive remote collaboration and model streaming from the Cloud



Outcrop Library

Access to RPS world class outcrop catalogue (streaming in Desktop)

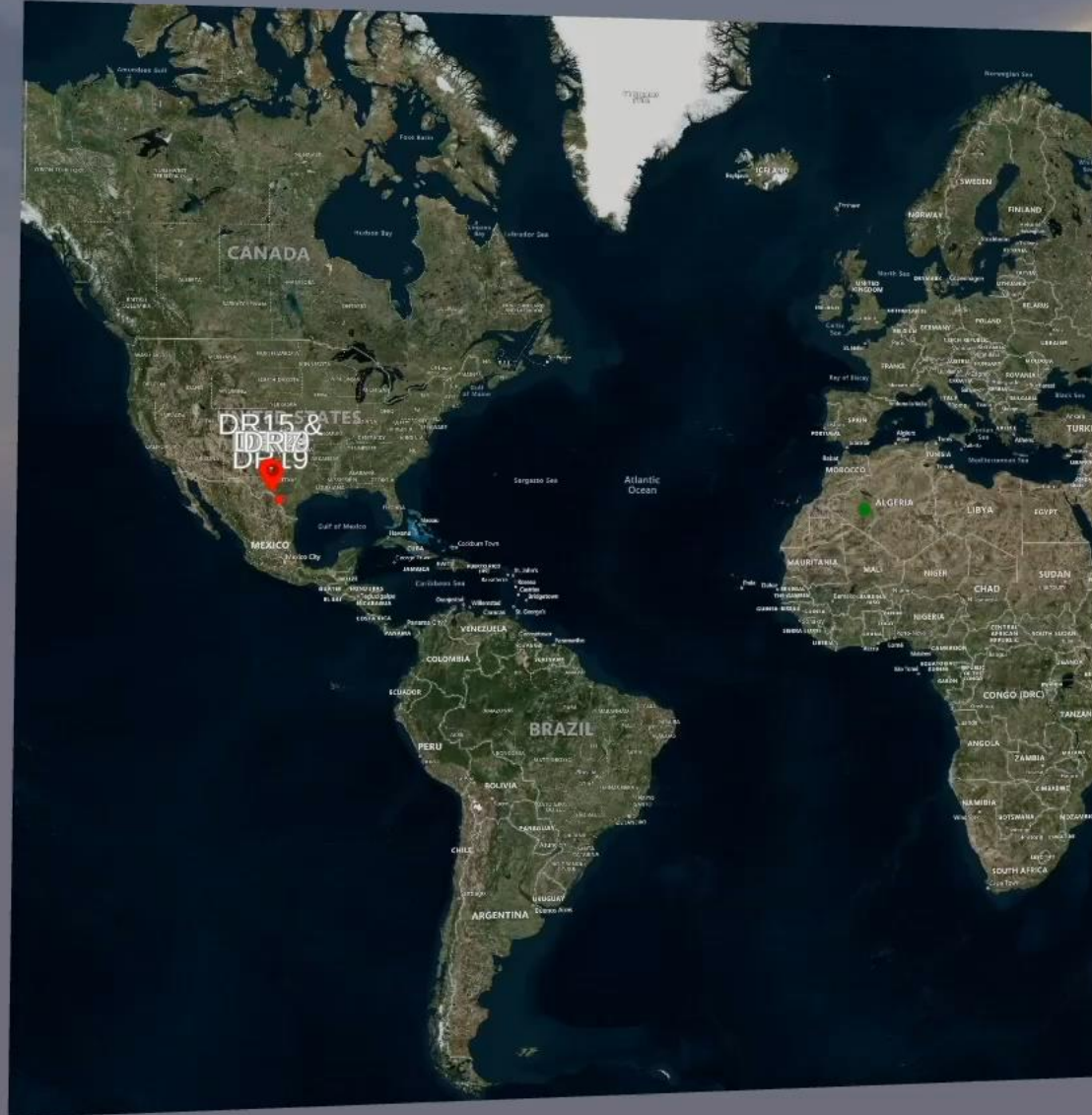
+ Partner courses

Virtual courses in partnership with RPS and industry experts



3DGAIA

P.Desjardins



Shell Pilot –Virtual field to the Eagle Ford Oil Shale in Texas



"Amazing experience in terms of learning. Learning is easier, you can see better, you can understand better"
Talal Al Mahrouqi, Well Engineer, GTL Project Oman

3DGaia helping to deliver expertise across the World



The following are examples of training/virtual field trips delivered by RPS and/or independent instructors to teams in Houston, Rio, Bogota, Sakhalin, Nigeria, and Surinam.





Channel Complex, Mexico



Benjamin Kneller
Sedimentologist
Emeritus Professor at
University of Aberdeen



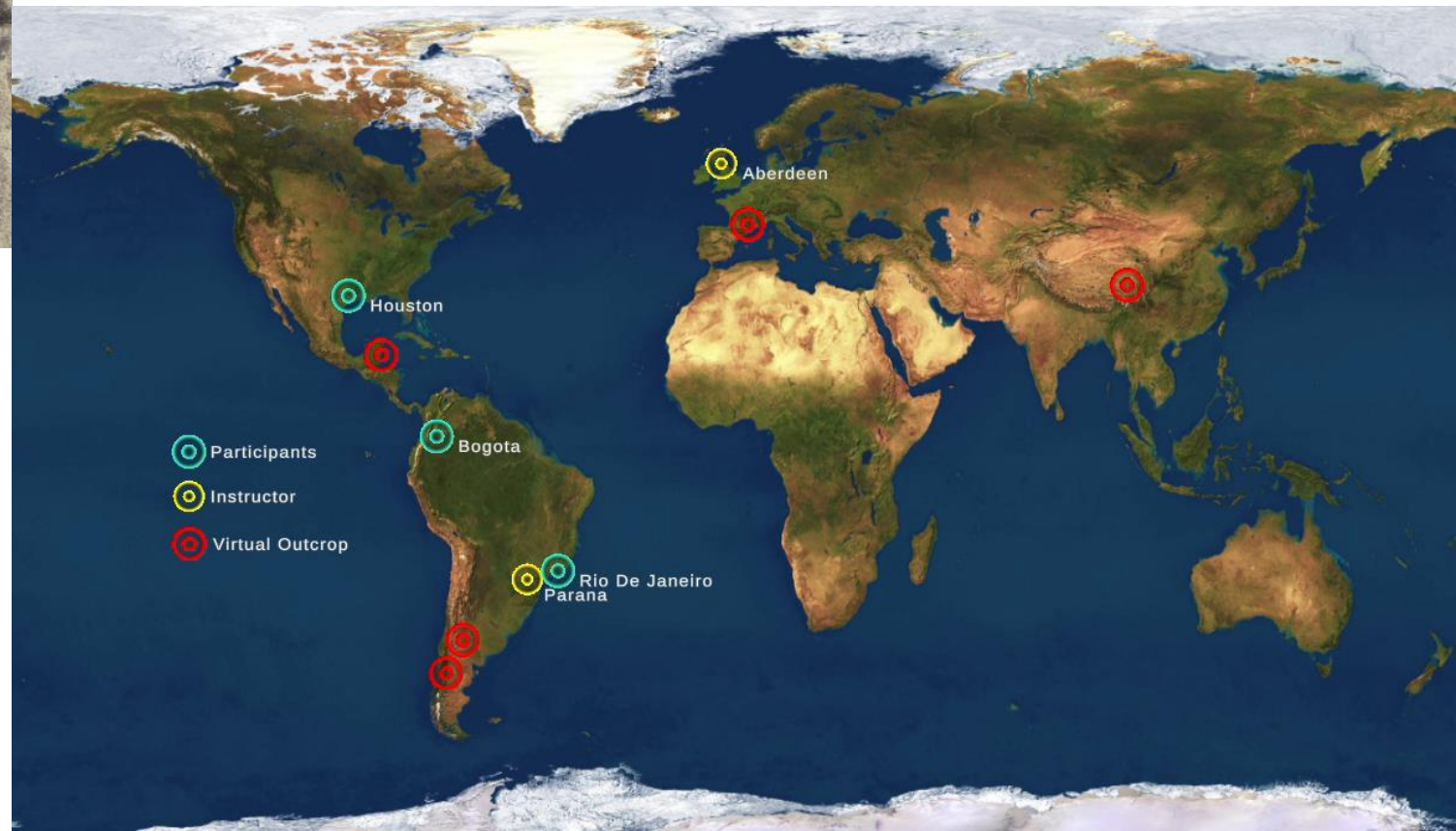
Viki Valdez Buso
Sedimentologist
Research Fellow
University of Parana

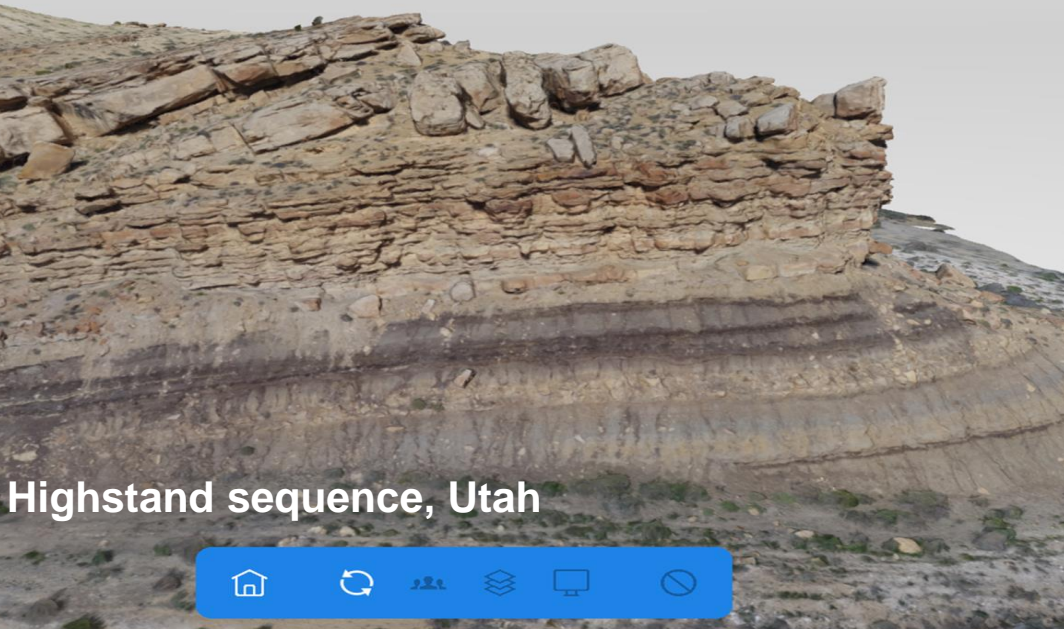
Virtual field trip to Deep water depositional systems

Course for



Outcrops from Mexico, Chile, Argentina and Tibet





Highstand sequence, Utah



Phil Hirst
Sedimentologist
Visiting Professor at
Royal Holloway



Stephanie Kape
Sedimentologist

Delta Plain to Base of Slope Reservoir Systems: Outcrop Seismic, and Production Analogues in a Sequence Stratigraphic Context

Course for



Outcrops from Utah & Wyoming in the US, Spain, Ireland, Algeria and Norway



3DGaia helping to deliver expertise across the World

The screenshot displays a user interface for 3DGaia, a 3D visualization tool for geological data. On the left side, there is a vertical navigation bar with icons for a user profile, a globe, a calendar, and a refresh symbol. The main content area is organized into sections. At the top, a large 3D model of a canyon is shown with the text "Crooked Canyon Wyoming" and "Transgressive Systems Tract" below it. Below this, a section titled "Session 03: Highstand Systems Tract" contains four 3D models: "Trinidad Mayaro Highstand Systems Tract" (a complex multi-view model), "Gentile Wash 1 Utah Highstand Systems Tract", "Gentile Wash 2 Utah Highstand Systems Tract", and "Ivie Creek South Utah Highstand Systems Tract". The next section, "Session 04: Highstand Systems Tract", features four more models: "Ivie Creek North Utah Highstand Systems Tract", "Ivie Creek South Utah Highstand Systems Tract", "Ivie Creek East Utah Highstand Systems Tract", and "Muddy Creek Utah Highstand Systems Tract". The bottom row shows the beginning of another set of models. Each model is a 3D perspective view of a geological formation, often with a dark overlay at the bottom containing its name and tract type. A mouse cursor is visible on the right side of the interface.

Crooked Canyon Wyoming
Transgressive Systems Tract

Session 03: Highstand Systems Tract

Trinidad Mayaro
Highstand Systems Tract

Gentile Wash 1 Utah
Highstand Systems Tract

Gentile Wash 2 Utah
Highstand Systems Tract

Ivie Creek South Utah
Highstand Systems Tract

Session 04: Highstand Systems Tract

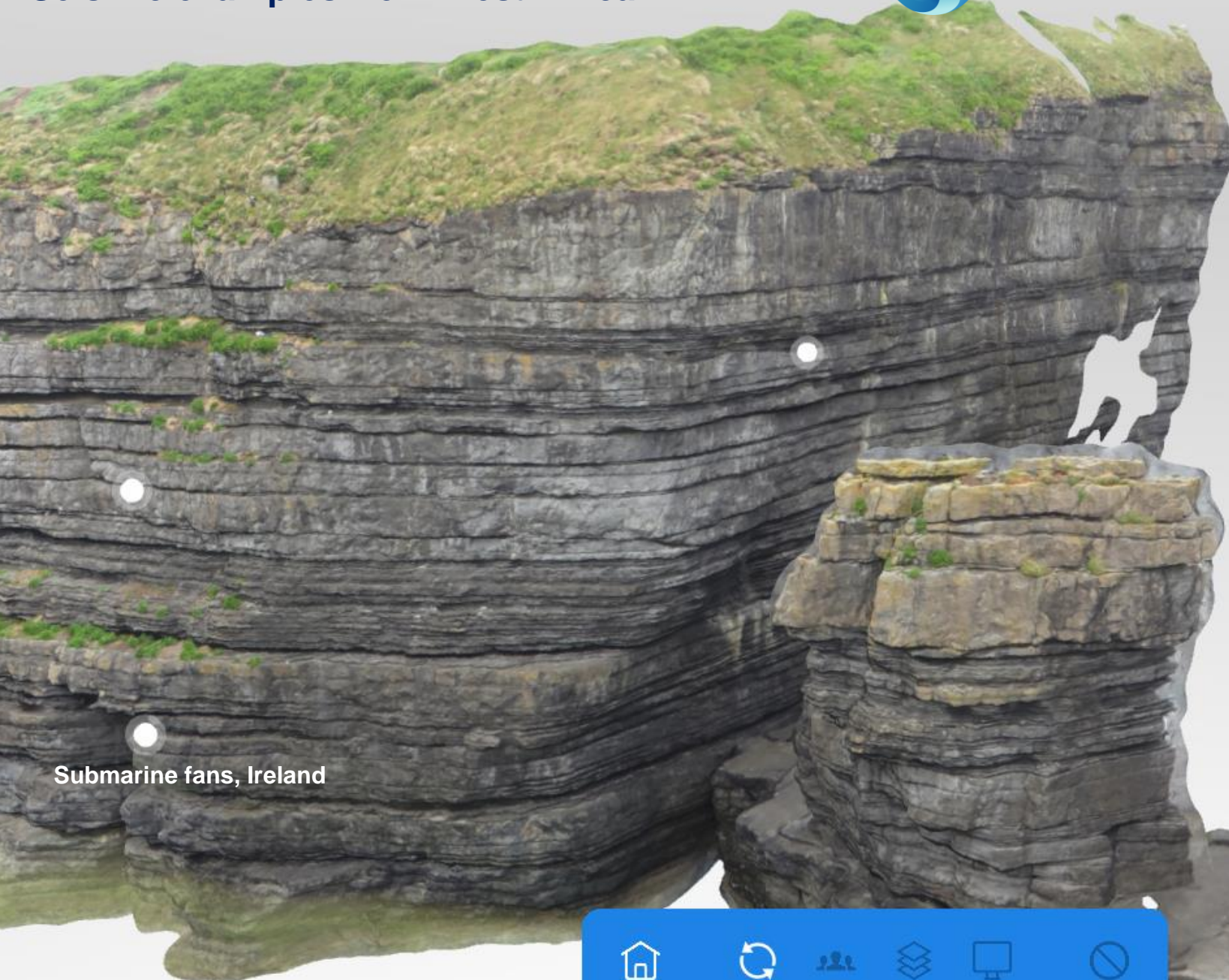
Ivie Creek North Utah
Highstand Systems Tract

Ivie Creek South Utah
Highstand Systems Tract

Ivie Creek East Utah
Highstand Systems Tract

Muddy Creek Utah
Highstand Systems Tract

Outcrops from Ireland, Spain and Texas Seismic examples from West Africa



Submarine fans, Ireland

Deep Water Clastic Reservoirs

Virtual Course for



Instructors



Mike Mayall
Sedimentologist
Visiting Professor at
Imperial College



Phil Hirst
Sedimentologist
Visiting Professor at
Royal Holloway

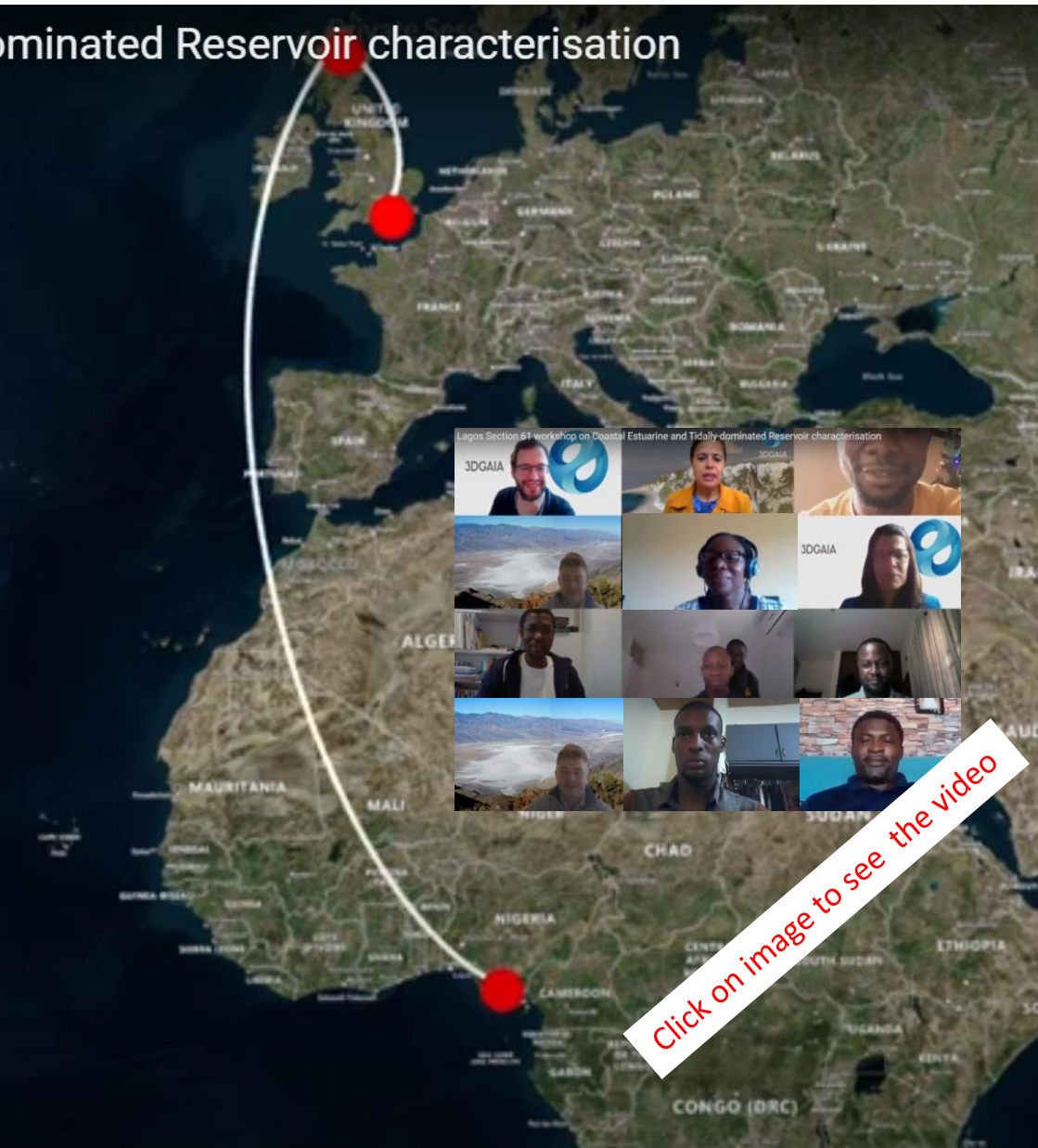
Delivered in 3DGAIA by



Imaged Reality

Nigerian workshops with the SPE and NAPE

dominated Reservoir characterisation



Workshop on Virtual Outcrops : Coastal, Estuarine and Tidally-dominated Reservoir Characterisation

Date: Thursday November 26th, 2020,
09:00 - 12:00 WAT



Lagos Section



Gary Nichols, Ph.D.
Head of Technical
Development



Stuart Archer, Ph.D.
Chief Geoscientist



Ogechi Ekwenye, Ph.D.
Sedimentologist
University of Nigeria,
Nsukka

Workshop delivered in partnership with RPS: Using 3DGaia Desktop, 25 geologists and engineers in Nigeria connected with instructors in England, Scotland and Nigeria



Unconventional Reservoir Characterisation Core Value workshop

May 5th, 17:45 – 19:45 (BST)

May 6th, 18:00 – 20:00 (BST)

May 7th - 7th, 17:50 – 19:50 (BST)



Patricio Desjardins
Senior Geologist



Anton Padin
Senior Reservoir Engineer



Participants studied cores from Vaca Muerta, Permian and Eagle Ford, using the 3D Gaia Virtual Platform by



User testimonials from young professionals



PhD student at Imperial College



Benefits of VR

- **Immersion** increases **cognition and retention**
- Get faster **insights**
- Real time **remote collaboration**
- **Safe access** to hazardous areas
- Wider **outreach** of training
- Preview field trips
- Revisit field trips
- **Immersive** multidisciplinary team **integration**



Imaged Reality



3DGAIA

**Virtual Platform
for Geoscience**

Questions?

Claudia Ruiz-Graham

Email:

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www.imagedreality.com

@imagedreality