

Improving operational efficiency with technology

Colin Black

Managing Director, Carjon-NRG Ltd

UK Partner, UK Energy Technology Platform

Vice Chairman, OGUK Led Efficiency Task Force (ETF)



Erik Nijveld

Managing Partner, TechnologyCatalogue.com

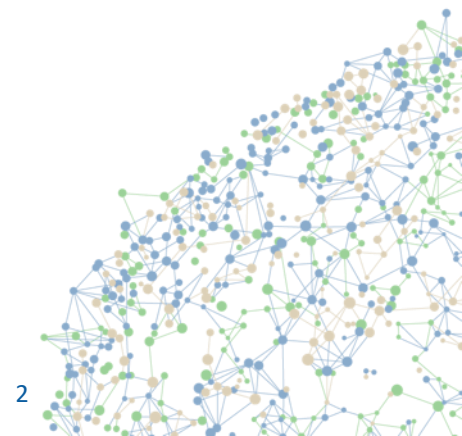


3rd December 2021

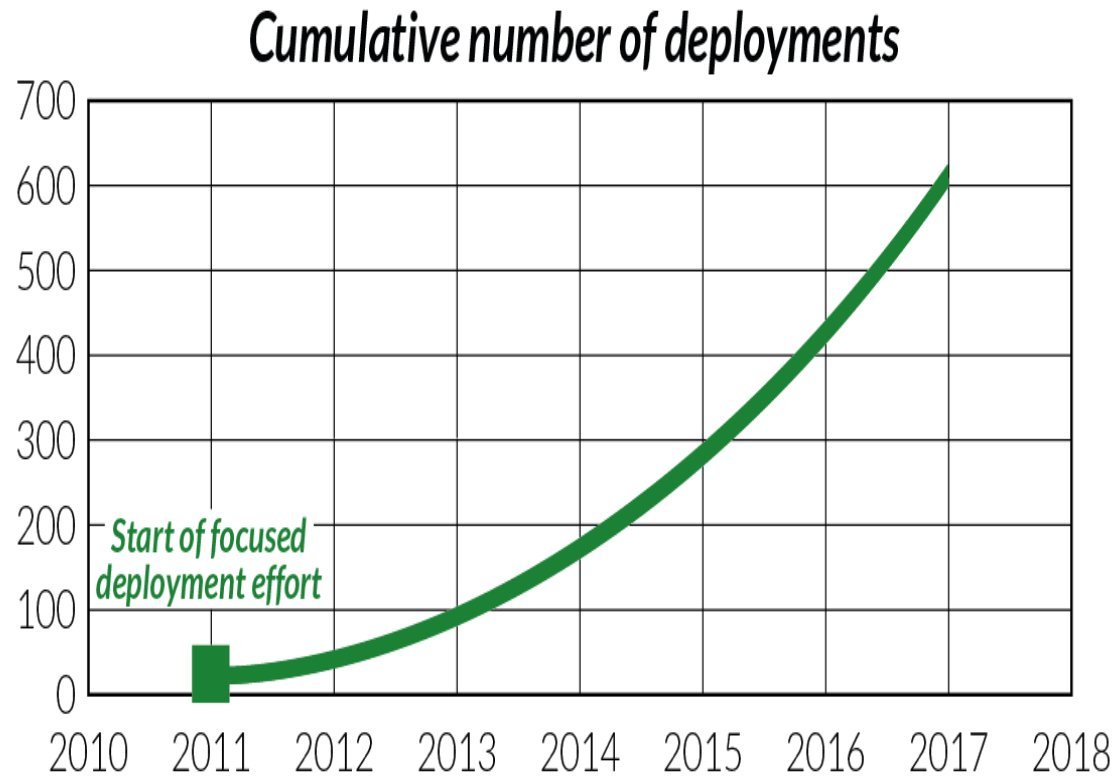
Technology deployment is challenging...

- (Perceived) risk-averseness
- End-users are keen, but simply don't know where to start with technology.
- End-users don't have the time and/or expertise to assess the available technologies.
- No incentives for contractors to introduce technologies.
- Technology competes with many other things that can be done to improve performance.
- Suppliers have difficulties to get access to the right people in the end-user company and/or struggle to make a convincing case.

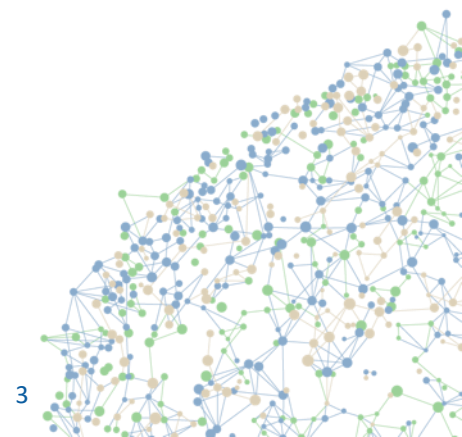
And many other challenges...



... but it can be done!

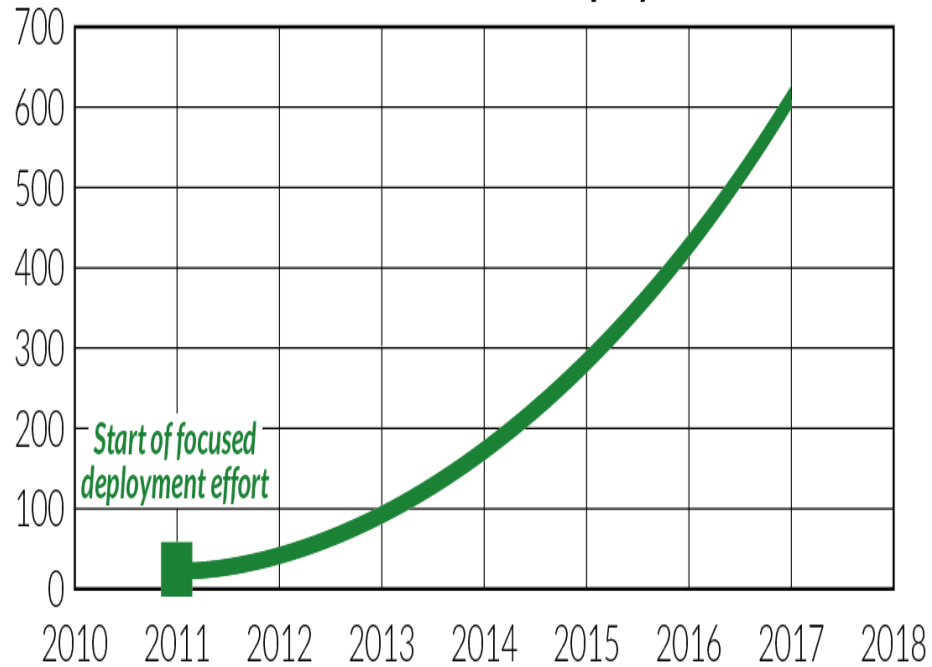


The plot shows the technology uptake as a result of the activities we led in a major Oil & Gas operating company.

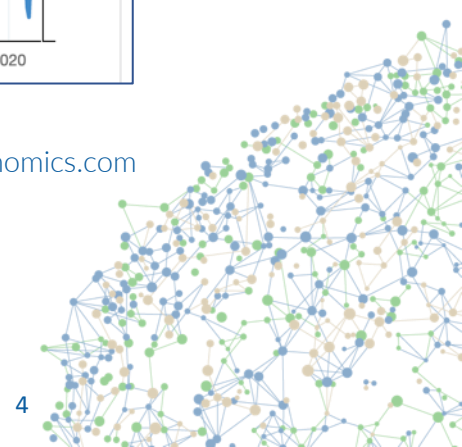


In good and bad times!

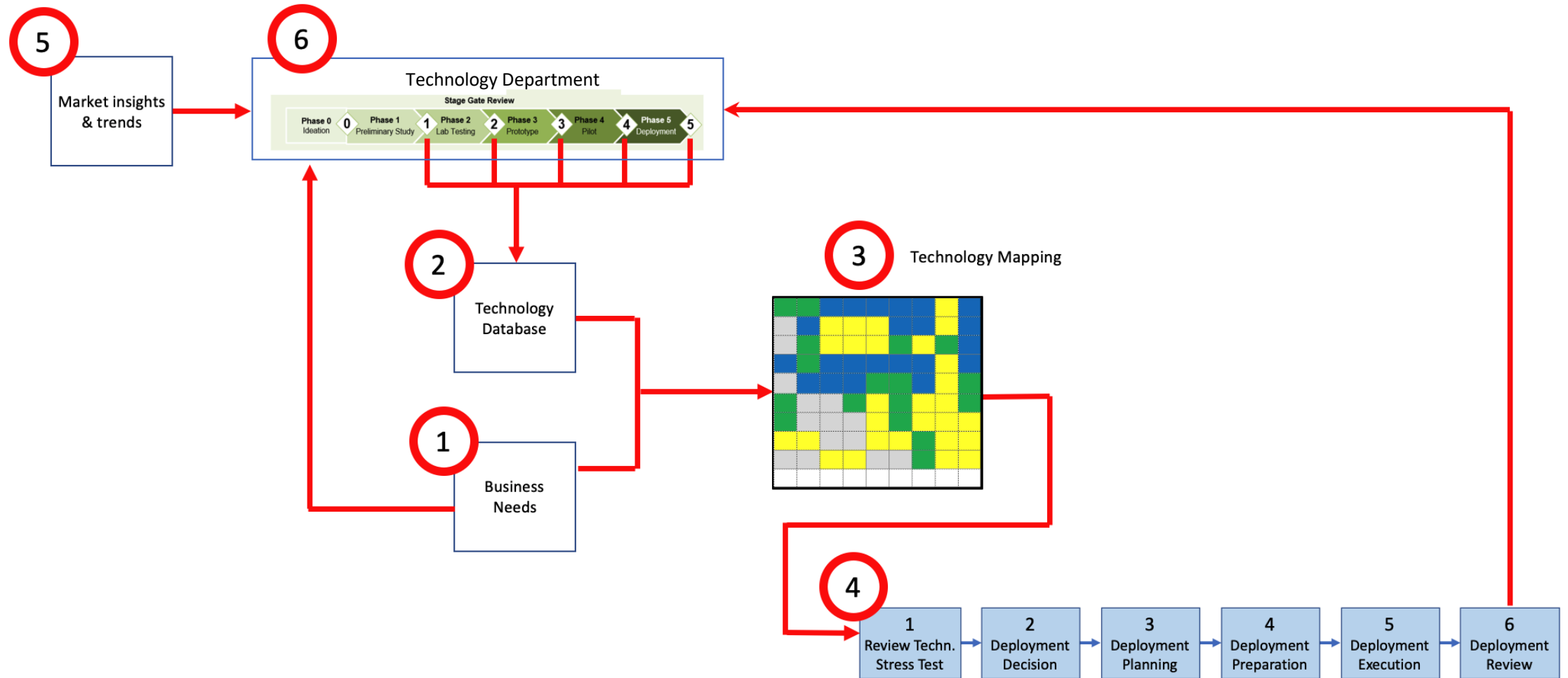
Cumulative number of deployments



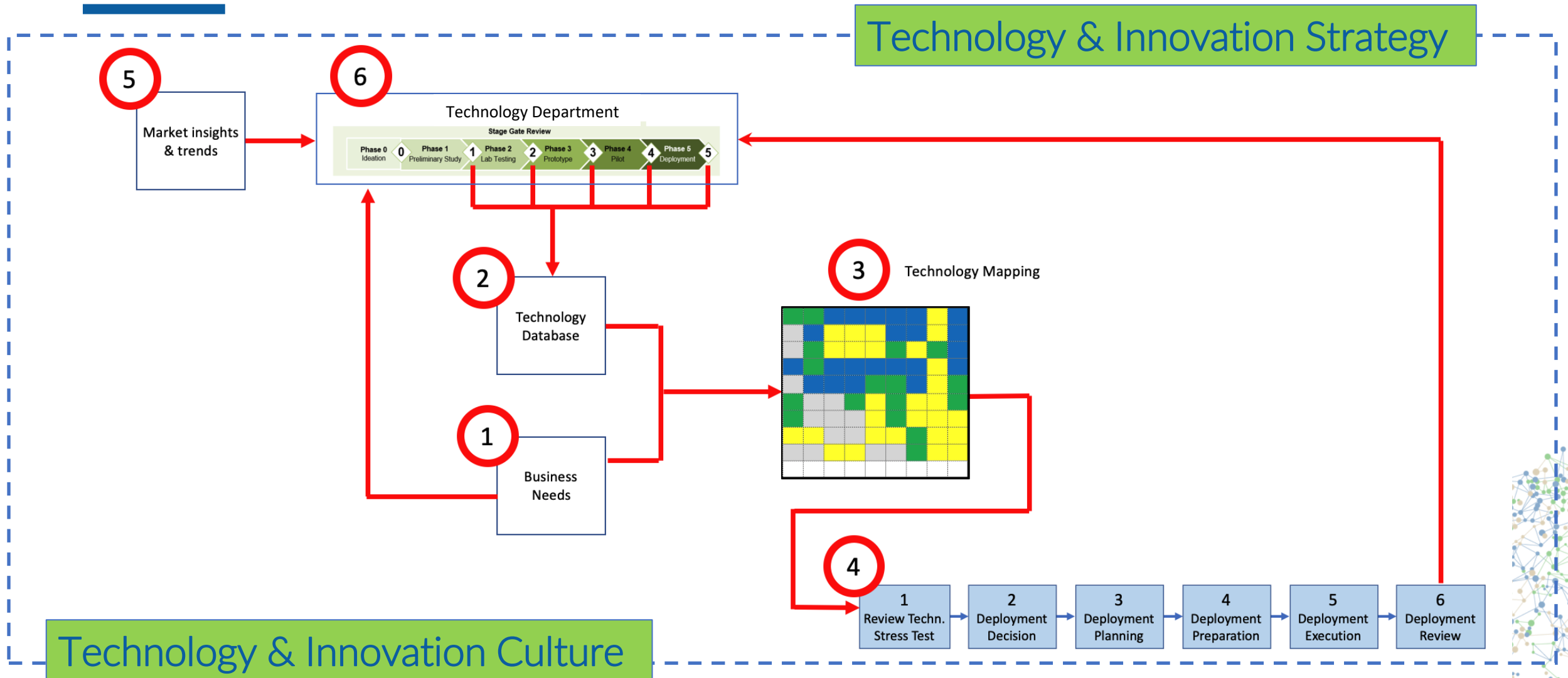
Source: tradingeconomics.com



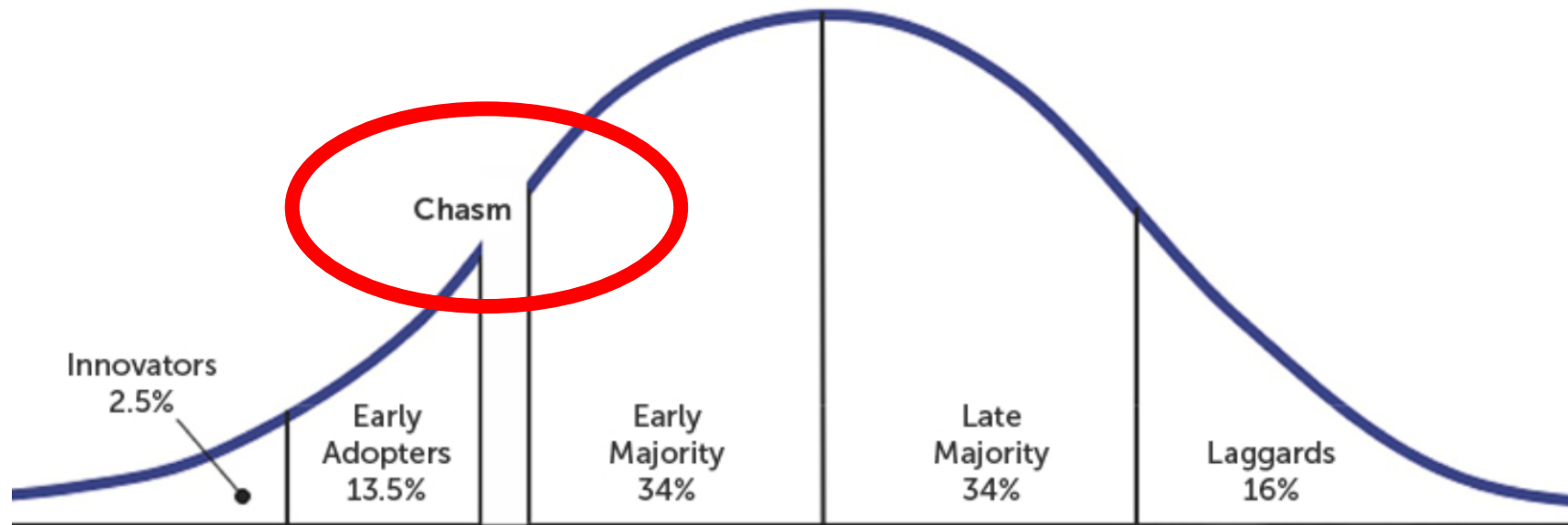
Technology & Innovation framework



Technology & Innovation framework



The chasm

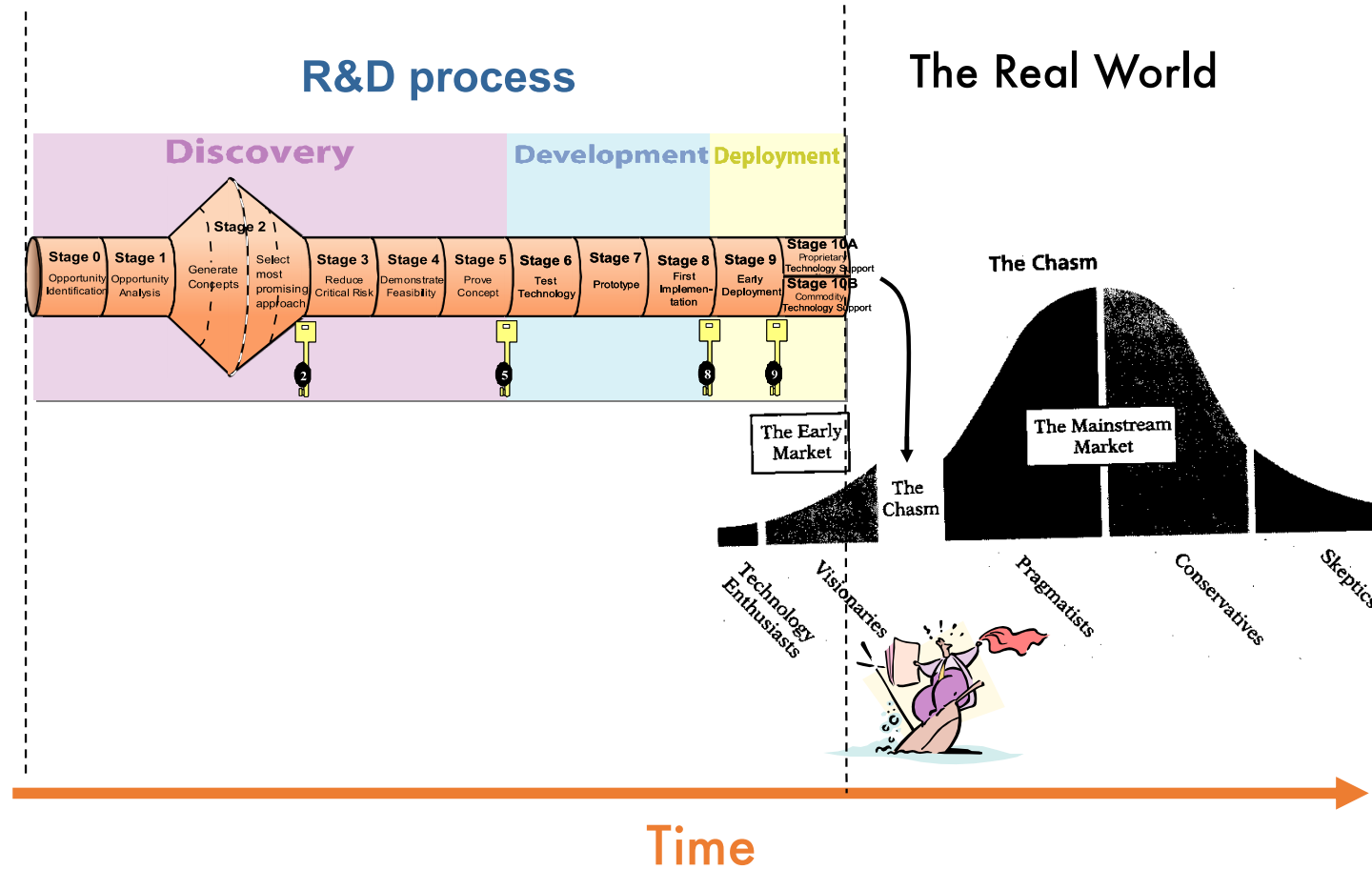


Source: "Crossing the chasm", Geoffrey A. Moore

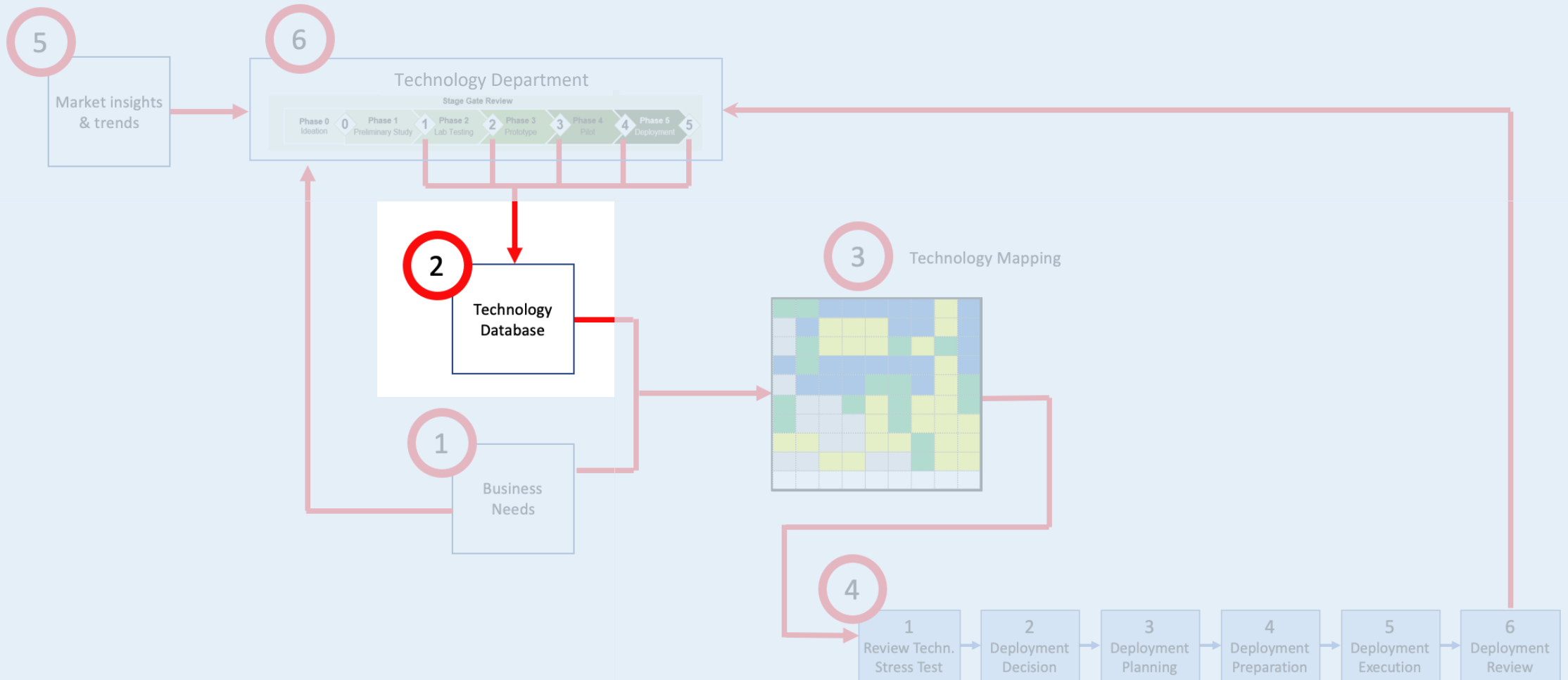


The chasm

Avoid that technologies fall into the chasm



Technology & Innovation framework



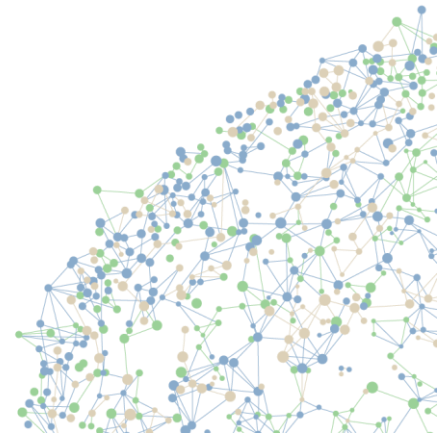
Finding the right tech...

Google

remote surveillance

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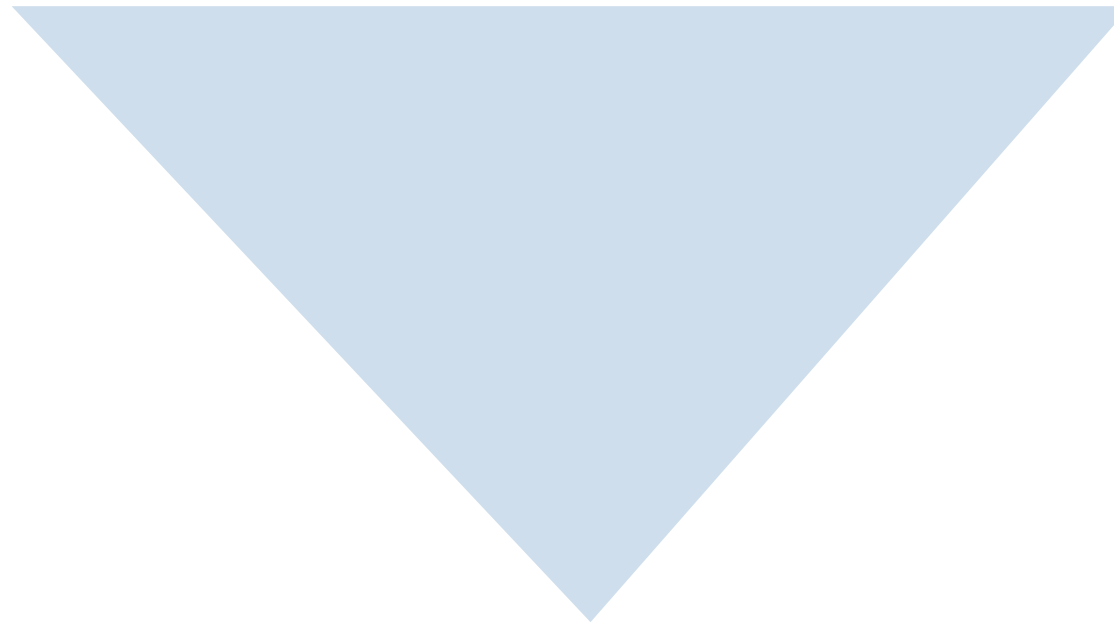
About 259.000.000 results (0,93 seconds)



Transparency in the market is important

Suppliers

*Attract
buyers*



End-Users

*Select and deploy the
right technologies*

Tech Experts

Deliver support to select & deploy tech



Search for technology

Key Words
"Safety"
"Asset Integrity"
"Emissions Reduction"
Etc



SEISMIC AND EXPLORATION



WELL DRILLING AND COMPLETIONS



SUBSEA SYSTEMS



INSTALLATIONS AND TOPSIDES



RESERVOIR AND WELL MANAGEMENT



FACILITIES MANAGEMENT



WELL PLUG AND ABANDONMENT



FACILITIES DECOMMISSIONING



HEALTH SAFETY AND ENVIRONMENT



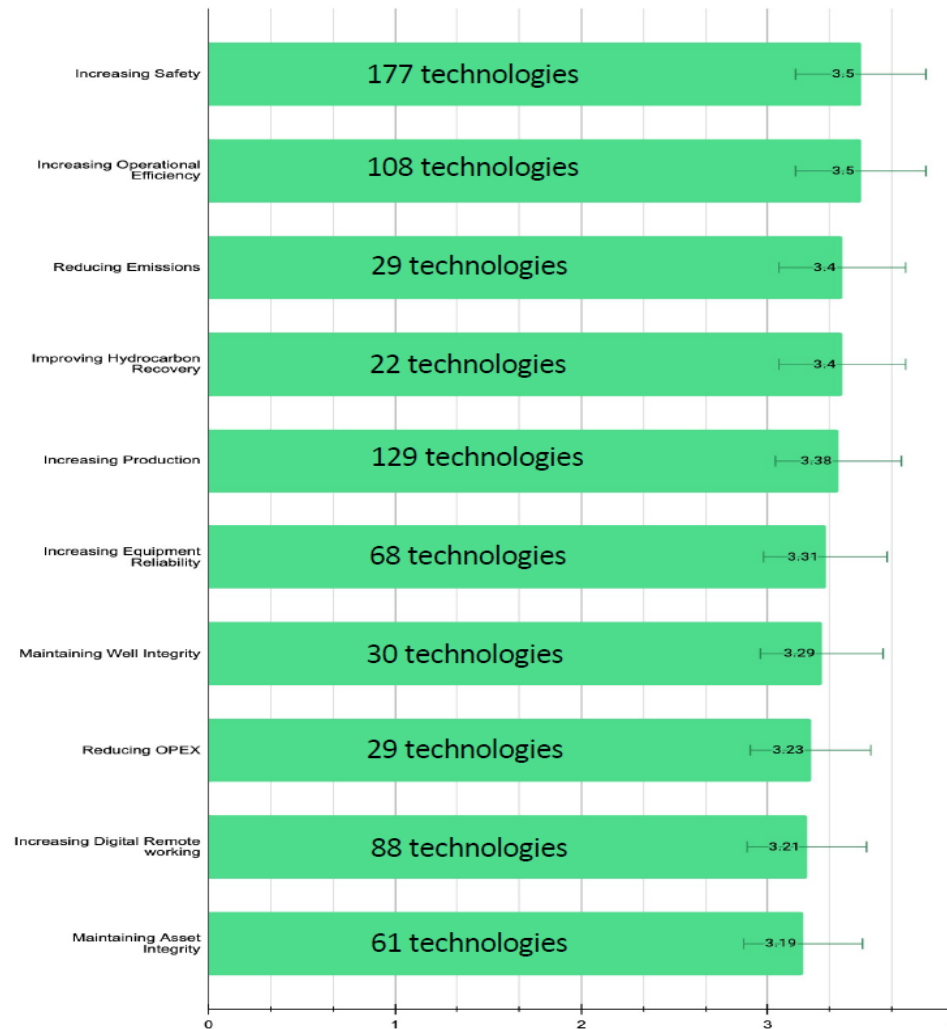
ENERGY TRANSITION



OFFSHORE WIND

Industry Report: Operator Survey

Top 10: Interest in Operational Challenges (# of technologies present per module on the platform)



Survey Summary

- 264 senior professionals from **Operators and Contractors across the globe** were interviewed by the **UK Energy Technology Platform** about the energy industry.
- They rated their interest in >20 **operational challenges** on a scale of 1 (*not interested*) to 4 (*very interested*) – on the left is the top 10 based on the average score of interest.
- The numbers per bar show the **amount of technologies per category** present on the platform.

Survey Impact



For **suppliers**, this research allows the **UK Energy Technology Platform** to support them in identifying the right target markets as well as connect them to potential clients (**12k visitors/month**).



For **End-Users**, this report will help to grow the portfolio (**800+ technologies**) according to the most relevant challenges. Furthermore, the **UK Energy Technology Platform** is able to provide customized recommendations based on indicated challenges to each End-User.



Innovative UK Technology Companies already on the Platform include :-



Innovative Asset Integrity Technology Examples:-

3D Laser Surveys and 3D Digital Twin Creation

Technology Readiness Level [9/9]
 Development Technology demonstration Mature / Proven

1 Review 0 Favorites 0 Likes 8 Deploys

Surveying sites in days not years

Page last modified: Friday, October 29, 2021 - 13:44

Using 3D laser scanning technology, A3D is able to survey entire sites in days as opposed to years at a fraction of the cost compared to traditional methods. Laser scanning technology produces can produce an as-built survey of your entire facility at an accuracy of +/-1mm, without site disruption or the need for scaffolding.

With the point cloud data, A3D has specialist techniques for producing piping and instrumentation diagrams, in a smart database-driven format without the need for specialist software, whilst benefiting from faster P&ID creation and updating whilst producing a huge range of metadata including line and asset lists.

Detailed spec-driven 3D process models, for use with project updates, design work, clash detection, and your first step towards digitizing your terminal. Cost-effective creation of API570 NDT inspection packs, with live updates from the 3D process model.

General arrangement drawings, tank tilt/verticality analysis, and a huge range of other outputs from a single survey.

Laser Scanning records everything allowing a single survey to be used for multiple projects, including the creation of a 3D Digital Twin.

Client Savings:

- 47% - Reduction in required on-site visits
- 75% - Projects re-used the survey data

Download the A3D Brochure here.

Article on Using 3D Laser Technology to Capture and Manage Assets

Book a Demo

TODAY November 17, 2021

6am 7am 8am 9am 10am 11am 12pm 1pm 2pm

BOOK A DEMO

About Advanced 3D Laser Solutions

[VISIT WEBSITE UP](#)

AssetVoice

Technology Readiness Level [9/9]
 Development Technology demonstration Mature / Proven

0 Reviews 0 Favorites 0 Likes 1 Deploy

Automated and real-time asset tracking to cut costs and maximize productivity

Page last modified: Friday, October 29, 2021 - 13:47

An award-winning automated change management software, utilizing RFID technology and sensors to monitor, track, and manage mobile and critical assets in the most effective and efficient way possible.

Pro/con

- AssetVoice™ is compatible with any CMMS, ERP or EAM so that changes are automatically updated in real-time
- Meet your objectives with less effort by relying on automation
- Ensure your asset register is kept up to date and accurate
- Be alerted on asset movement to track your most valued assets in real-time
- Be notified on critical equipment requirements, e.g. certification is due to expire
- Save money by avoiding unnecessary purchases of inventory you already have in stock
- Reduce workload and human induced error associated with master data updates and change
- Understand the status of your assets and where they are located, anywhere, at any time
- Have immediate access to key information related to assets, such as certification and technical specifications
- Requires physical tagging of equipment before AssetVoice™ can be implemented

Book a Demo

TODAY November 17, 2021

6am 7am 8am 9am 10am 11am 12pm 1pm 2pm

BOOK A DEMO

About Add Energy - AssetVoice

[VISIT WEBSITE UP](#)

Procedure Genius / Pro-G Connect

Technology Readiness Level [9/9]
 Development Technology demonstration Mature / Proven

1 Review 0 Favorites 0 Likes 1 Deploy

Procedure management, execution, and scheduling solution

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Tienovix Oilfield Technologies (ToT) is an augmented reality software developer revolutionizing the oil and gas industry through augmented reality (AR) solutions. Our product line offers groundbreaking remote communication and virtual procedural guidance to companies of varying scope and scale. We are committed to enhancing productivity and accelerating competence, while reducing employer costs and eliminating worker error. Our mixed reality team designed the Pro-G Connect™ as a powerful learning tool that aspires to cultivate a new wave of expert operators at a fraction of the time and resources it currently takes.

We provide technology solutions to do the following:

1. Connect workers through Augmented Reality Video Communication
2. Digital Interactive procedural guidance
3. 3D holographic procedural guidance
4. Implementation, Training and Support of this technology

Pro/con

- Import your procedures or utilize the custom authoring tools
- Organizes standard operating procedures digitally into the cloud database
- Supervisor workflow control for procedure assignments
- Individual or real-time group collaboration on the procedure
- Add on and complement existing company's maintenance programs, i.e. SAP/Oracle/IBM Maximo, etc.
- Import your procedures or utilize the custom authoring tools
- Organizes standard operating procedures digitally into the cloud database
- Supervisor workflow control for procedure assignments
- Wi-Fi Connection is the biggest challenge that we face as an organization and it depends greatly on the facility - we have Wi-Fi/Satellite solutions that we can offer, once we understand the current connection situation

About Tienovix Oilfield Technologies

[VISIT WEBSITE UP](#)

T IENOVIX

Tienovix™ was founded in 2019 by former NASA contractors to commercialize cutting edge technologies refined from NASA over the last 20 years. Utilizing the power of augmented reality, Tienovix™ has launched a multi-function software system for Microsofts HoloLens 2 that transforms the device into a powerful learning tool that spans across multiple fields and industries from medical to oil and gas. With deep-machine learning and forward-leading procedural guidance, Tienovix™ aspires to cultivate a new wave of expert operators at a fraction of the time and resources it currently takes.

+1 832 953 6686

UK ENERGY Technology PLATFORM

UK ENERGY Technology PLATFORM

UK ENERGY Technology PLATFORM

Innovative Asset Integrity Technology Examples:-

LOBO Advanced Work Platform System

1 Review | 0 Favorites | 0 Likes | 6 Deploys

10 times faster to assemble compared to traditional scaffolding

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An Engineers Efficient & Effective Maintenance Tool!

The LOBO System is a safe alternative to scaffolding, a versatile work platform that combines the flexibility and strength of traditional scaffolding with the simplicity and mobility of tower systems. This provides an alternative to scaffolding which is used in facility maintenance applications.

LOBO can be reconfigured and adjusted, without the need for tools, into any shape or size, it is easy to use and fast to assemble. Applications include confined spaces, escalators and plant rooms. Assembled by anyone, legs and components can be flat packed and transported for storage and utilization elsewhere.

Multiskilled maintenance crews are can be deployed to assemble the LOBO System quickly, easily and safely around, under or above pipework, machinery and conveyors, which increases asset integrity.


Case Study Lobo System

Click here to download the LOBO brochure for your industry.

Pro/con

- Reduces Cost: Scaffolding labour costs can be reduced without compromising safety.
- 10 times faster than scaffolding
- LOBO reduces the Personnel On Board (POB) dynamic and assists with the efficient reduction to the Safety Critical Region

Technology Readiness Level [9/9]
 Development Technology demonstration Mature / Proven



Book a Demo

TODAY November 17, 2021

6am 7am 8am 9am 10am 11am 12pm 1pm 2pm

BOOK A DEMO

About LOBO Systems

LOBO advanced platform system

VISIT WEBSITE

High Temperature Inspections


0 Reviews | 0 Favorites | 0 Likes | 1 Deploy

The solution for your corrosion mapping and weld inspections while your plant is in operation!

Page last modified: Friday, October 29, 2021 - 13:45

Execution of your wall thickness and weld inspections at high temperature up to 485 °C (905 °F), while your plant is in operation! Inspections will be accurately executed with the high temperature UT & TOFD (Time of Flight Diffraction) and high temperature PA (Phased Array) technology. Our high temperature inspections do improve your cost and production performance significantly.

Technology Readiness Level [9/9]
 Development Technology demonstration Mature / Proven



Pro/con

- Opportunity to revise your maintenance and inspection strategy, based on on-line non-intrusive inspections
- High detection and accurate sizing capability
- Also available for partially filled welds at pre-heat temperature ("Golden welds")
- Mobile flexible teams
- Standardised and readily available up to 350 °C (662 °F). For high temperatures up to 485 °C (905 °F) and non-standard configurations testing is needed on a sample
- Safe operation meeting the highest safety standard
- Non-standard configurations to be tested on a sample before deployment

About SonolnSpec

SonolnSpec

VISIT WEBSITE

SonolnSpec has over twenty years of experience in advanced non-destructive testing (ANDT). SonolnSpec specialised in high temperature weld and corrosion mapping inspections. Up to 350 °C (662F) the weld and corrosion mapping inspections services are readily available for full continuous scanning. Inspections up to 485 °C (905F) are available as bespoke inspections.


Aqua Milling

1 Review | 0 Favorites | 0 Likes | 8 Deploys

Flow remediation specialists

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A remotely operated hose delivered cleaning technology designed to remove blockages, scale build up, wax formation, corrosion and even concrete from the internals of various onshore and offshore processing systems over an extended reach. Ideally suited for the cleaning of risers, produced water caissons, pipelines etc., prior to UT inspection.



Pro/con

- Safer due to operators being remote
- Fully enclosed system, leading to no spilled waste
- Higher consistency of clean
- Greater reach (600m)
- Ability to navigate more directional changes
- Negotiate T-pieces
- More efficient
- Less downtime required
- Small POB required (Typically 3)
- Requires a runway space at least 10m for the system to be deployed

Specification

ATF certified

Equipment complies with ATF standards

About Pipetech

VISIT WEBSITE

Pipetech is an independent process system cleaning specialist with bases in Aberdeen, Stavanger and Norway serving major oil operators and service companies primarily in the UK and Scandinavia. Formed in 2001 Pipetech was acquired in 2014 and forms part of the Ramco Tubulars Group with Aberdeen being the Headquarters.

+44 (0) 1224 782278



Get in touch!



EMAIL

Colin Black:- colinb@carjon-nrg.com

Erik Nijveld :- eriknijveld@technologycatalogue.com

WEBSITE

www.technologycatalogue.com

www.uk.energytechnologyplatform.com

www.carjon-nrg.com