THEIA

THEIA Mission Statement

To empower integrity teams, capture the value of data, prevent failures and optimise asset performance

THEIA is your asset integrity solution, developed by Penspen. THEIA is a new digital platform for engineering analytics and services, designed to provide timely and critical information for the safe and efficient running of oil and gas pipelines.

At Penspen, we recognise the biggest challenge our industry faces is uncertainty. Ageing pipelines mean greater risks, which are in turn set against a background of cost reductions and increased regulatory demands. Loss of skills and a lack of new talent add to the strain on existing resources. THEIA represents a new way of thinking to address these constraints, reduce uncertainty and help minimise unforeseen failure, now and in the future.

THEIA combines Penspen's years of experience, industry knowledge and quality assurance capability to provide a complete picture of pipeline assets under a range of environmental and operating scenarios. Using data analysis in tandem with computer models based on Penspen's industry-wide expertise, THEIA delivers insights into pipeline integrity within a predictive, analytical environment, for a fast and more accurate prognosis.

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THEIA

Key Benefits

• Data agnostic - THEIA accepts and compares inspection data from a range of different vendors simultaneously

• Speed to insight - the whole process is automated, from upload to report generation and is measured in seconds, rather than weeks or days

• Future proof - THEIA can fully harness industry 4.0. As a cloud-based solution, THEIA can ingest all available data (live or quasi-live) so that engineers can gain important insights and make better decisions to optimising asset performance

• Data ingestion, analysis and alignment using smart recognition

• Data and document management

• User friendly interface, which is accessible any time and any where Integration with existing ERP solutions, such as Maximo, ESRI and SAP

• E-Learning

THEIA's cloud environment allows you to draw on our expertise at Penspen in an almost exponential manner but with you in control over the execution and monitoring of your pipeline assets. Only cloud-based solutions have the capacity to handle digitised integrity analytics on this scale, as well as the advantages of potentially limitless processing capability and software that is always up to date.

With THEIA, you have a secure, accessible and user-friendly environment, where big data sets are efficiently and easily stored, analysed and shared.
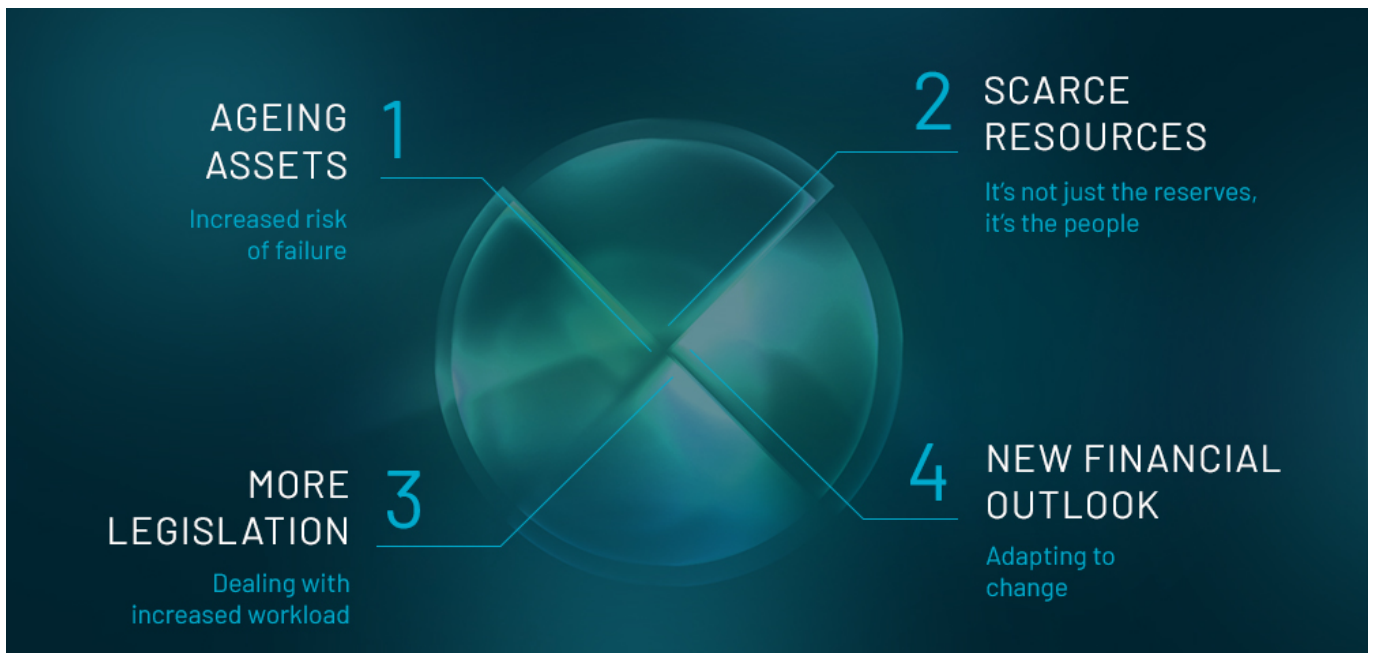
Various monthly subscription bands are available, depending upon the scale of requirements and processing capacity. There is also the option to call on Penspen's support services and independent QA verification by our engineers.

THEIA is a subscription offering, allowing our clients to select the functionality that best suits their needs and manage their on-going integrity costs.

THEIA's functionality is differentiated on the following basis:

• Rapid deployment
• Access to live data feed
• Data management services
• Assessment modules
• Remaining life modules
• Field work

• Risk management
• Visualisation
• Data administration
• User administration
• Training
• Technical support

Further information about the functionality or a demo can be arranged on request.

AGEING ASSETS 1
Increased risk of failure

SCARCE 2 RESOURCES
It's not just the reserves, it's the people

MORE 3 LEGISLATION
Dealing with increased workload

NEW FINANCIAL 4 OUTLOOK
Adapting to change

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Mainly hidden from view and traversing vast distances, pipelines can seem indeterminate structures subject to the vagaries of geographical and climatic conditions. THEIA takes inspection data to transform these into tangible frameworks that can be analysed using digital methodologies and algorithms.

With THEIA, you will be able to manage the integrity of your assets in accordance with international compliance standards to address defects and prevent failures, while at the same time ensuring maximum security for all your critical data.

Complex data collected using different software products can be easily integrated within THEIA for a seamless and comprehensive overview, generating computer simulations that can be analysed under a range of assumptions and what-if stratagems.

Reports on which to base a prognosis can then be produced in minutes, rather than weeks.

The platform also provides access to Penspen's consultancy and training resources, including an e-learning library equipped with Asset Integrity Management (AIMS) modules that we developed with Northumbria University, as well as helpful guides on using THEIA.

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