

A photograph of industrial pipes in a factory or refinery setting during sunset. The pipes are arranged in a perspective that leads towards the background. The sky is a mix of orange and blue, and the pipes are illuminated by the low sun, creating a warm glow. The foreground pipes are in sharp focus, while the background pipes and structures are blurred.

veracityCCM

# HOLISTIC CORROSION & CHEMICAL MANAGEMENT

**AIE** asset  
integrity  
engineering



## THE SPECIALISTS

AIE's services are provided by highly qualified and experienced personnel who have worked on various operations around the world, gaining valuable experiences and transferring knowledge and the lessons learned to provide an holistic approach to our services.

Our principal engineers cover all key disciplines and are considered leading industry experts with extensive experience and qualifications in their relevant fields. We regularly chair and present at educational conferences and seminars and we are proud to enhance and develop the markets we serve.

We deliver comprehensive and high quality services which bridge the gaps left by our competitors, and consistently perform above our clients' expectations.

### WE ARE

- Independent & Impartial
- Dedicated
- Responsible
- Informed
- Accredited
- Experts
- Proactive
- Innovative
- Flexible
- Efficient

## CORROSION & CHEMICAL MANAGEMENT

AIE provides a range of corrosion and chemical management services focused on increasing plant availability and reducing leakages and unplanned maintenance.



**CORROSION RISK ASSESSMENTS**

**CHEMICAL EVALUATION, TESTING & SELECTION**

**LAB TESTING & COUPON RETRIEVAL/ ANALYSIS**

**CORROSION CONTROL & CONSULTANCY**

**MONITORING AND MEASURING PERFORMANCE (KPIs/ REPORTING)**

**MATERIALS ENGINEERING SERVICE**

AIE provides quantitative, semi-quantitative or qualitative corrosion risk assessments which address all credible failure threats that may be encountered.

Our risk analysts assess failure probabilities and the associated consequences using pragmatic analyses to yield the corrosion risk for every credible corrosion threat. The failure threats and risks together with the prevention and control barriers are then aligned.

AIE has extensive capabilities in performing chemical evaluation and testing evaluations according to field conditions of both corrosion inhibitor and flow assurance chemicals. We have working relationships with some of the world's leading laboratories and our corrosion / chemical experts are regarded as some of the most experienced in the industry.

AIE works alongside our approved partners in delivering laboratory analysis and coupon / probe management services. On behalf of our clients we manage the entire service and independently analyse and report results. This strengthens the overall corrosion management service by ensuring quality and independence of data being gathered.

Our specialist engineers are highly qualified and have extensive theoretical and practical industry experience. AIE provides expert witness services to support legal insurance claims and we regularly consult on a variety of corrosion & material related issues.

AIE establishes KPIs for each essential corrosion control activity to provide a means of recognizing and understanding whether performance goals established by the duty holder, government, regulatory body etc. are being achieved. These KPIs allow continuous monitoring and review of the system as well as allowing corrective actions which would strengthen safety barriers and reduce incident risks.

AIE can cover the entire spectrum of materials engineering services, such as quality control, testing, quality assurance and infrastructure assessments.

Our engineers perform failure analysis in order to determine where improvements are needed and to identify the root cause of component failure. Solutions can then be engineered to avoid similar failures in the future.



# FROM REACTIVE TO PROACTIVE

Industry failure data tells us that corrosion is responsible for repeated and widespread mechanical integrity failures many of which are avoidable and result in significant direct and indirect consequences for operators.

Industry has historically understood integrity management as an inspection biased process. Inspection does, however, have many limitations

and is ultimately somewhat reactive, as it seeks to identify degradation once it has already occurred.

Operators often seek to mitigate corrosion and improve flow assurance by effective chemical treatment programs. Although recommended, these are often set up and managed by third-party chemical suppliers, creating a conflict of interest.

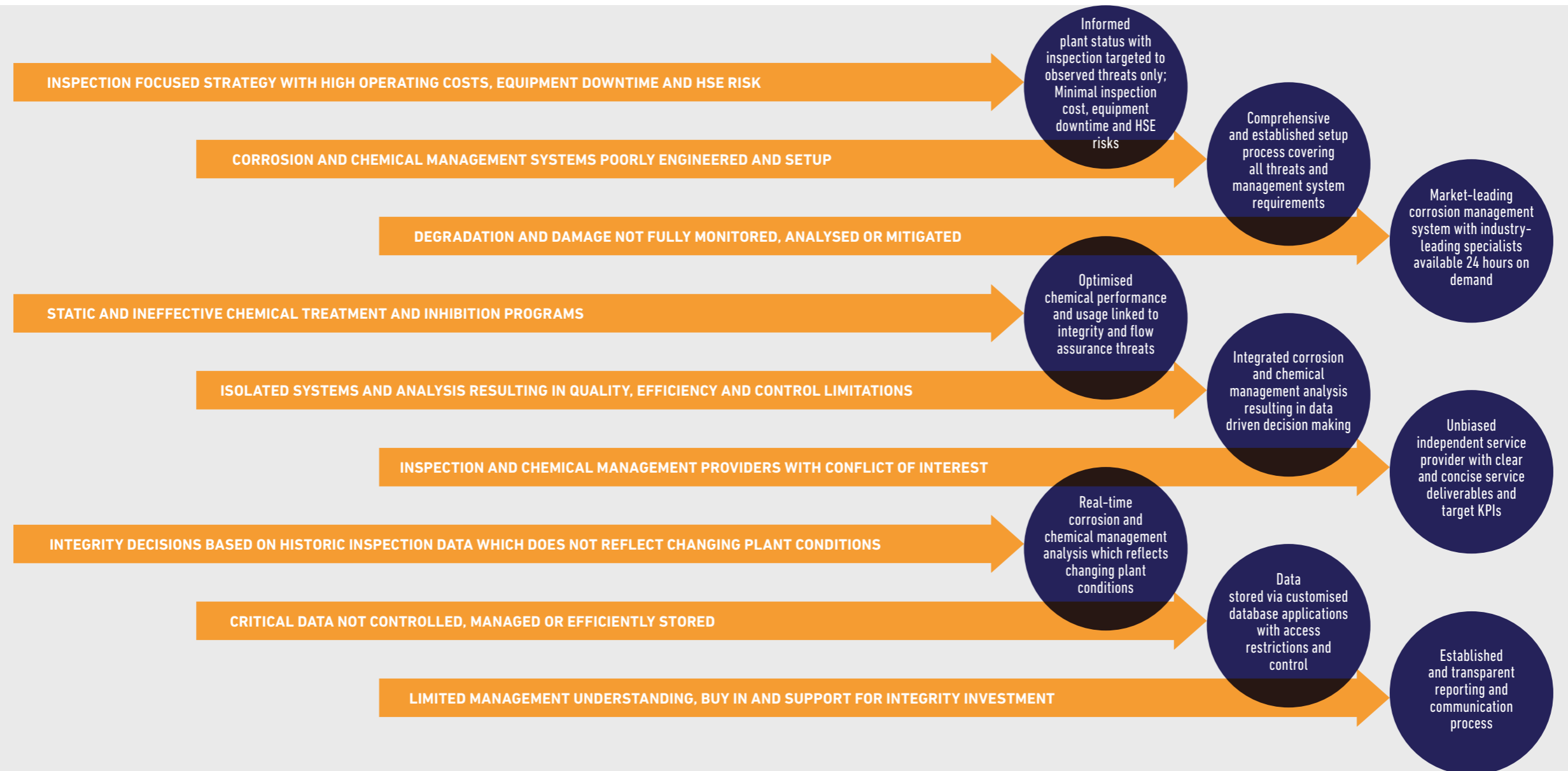
AIE considers the majority of existing integrity, inspection, corrosion and chemical management programs to be inefficient, expensive and reactive. We promote a modern, proactive and holistic strategy for managing our clients' assets.

From our wealth of industry experience and investment in forward-thinking and predictive technology, we have created an innovative service solution which delivers a broad range of opportunities for our clients' business.

The annual global cost of corrosion is estimated to be 2.5 trillion USD with the amount spend on corrosion inhibitors alone accounting for 6 billion USD.

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## THE CHALLENGE



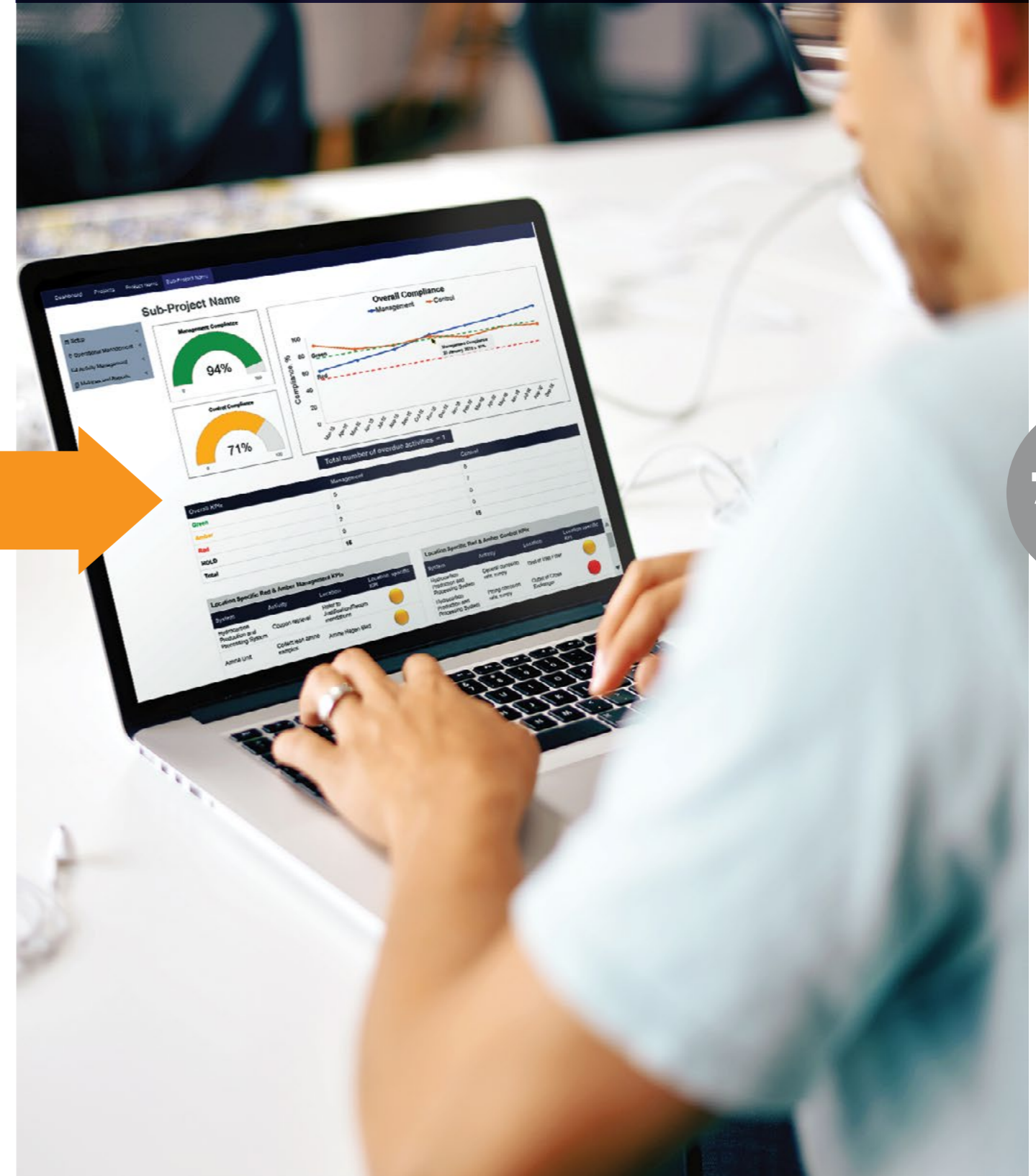
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## THE OPPORTUNITY



# THE OPTIMUM SOLUTION

Veracity CCM provides a user-friendly interface which facilitates a wholly integrated and holistic approach to be taken. Decision making is more readily facilitated, allowing operators to translate key data into readily assimilated information.



# INTEGRATED CORROSION & CHEMICAL MANAGEMENT

## VERACITY CCM

The software provides a user-friendly and systematic solution for Corrosion and Chemical Management.

Veracity CCM is a multi-platform, web-based service thereby allowing access from anywhere, anytime

## DATA MANAGEMENT

Veracity CCM includes customised databases for all corrosion and chemical monitoring requirements.

Users are given pre-determined access rights to enable secure global data access on demand.

Data can be linked to multiple documents which are then securely stored against visual KPI summary boards, allowing users to easily target areas of concern and efficiently access key information.

## MATRIX SETUP

Veracity CCM ensures operators setup corrosion and chemical management systems via a controlled and engineered work-flow process.

The software follows a segmentation philosophy whereby a facility is divided into systems according to the different process and environmental conditions.

The matrix setup tool then assigns monitoring and mitigation techniques with appropriate thresholds to selected threat categories.

Matrix setup is pre-populated but can also be customized to suit any industry or operating requirement.

## DATA ACQUISITION & ANALYSIS

Veracity CCM is configured for immediate data upload to conserve operator resources.

The software provides a user-friendly platform for cross-disciplinary representatives to evaluate data against pre-defined thresholds.

Veracity CCM is flexible and allows graphical representation of data enabling users to compare trends and make efficient data-driven decisions.

## PLANNING & MANAGEMENT

Veracity CCM includes a planning module which links activities to assigned action owners. The software also communicates overdue tasks and directs reminder notifications to users when actions are not completed in time. An action tracking system is also included for non-routine activities.

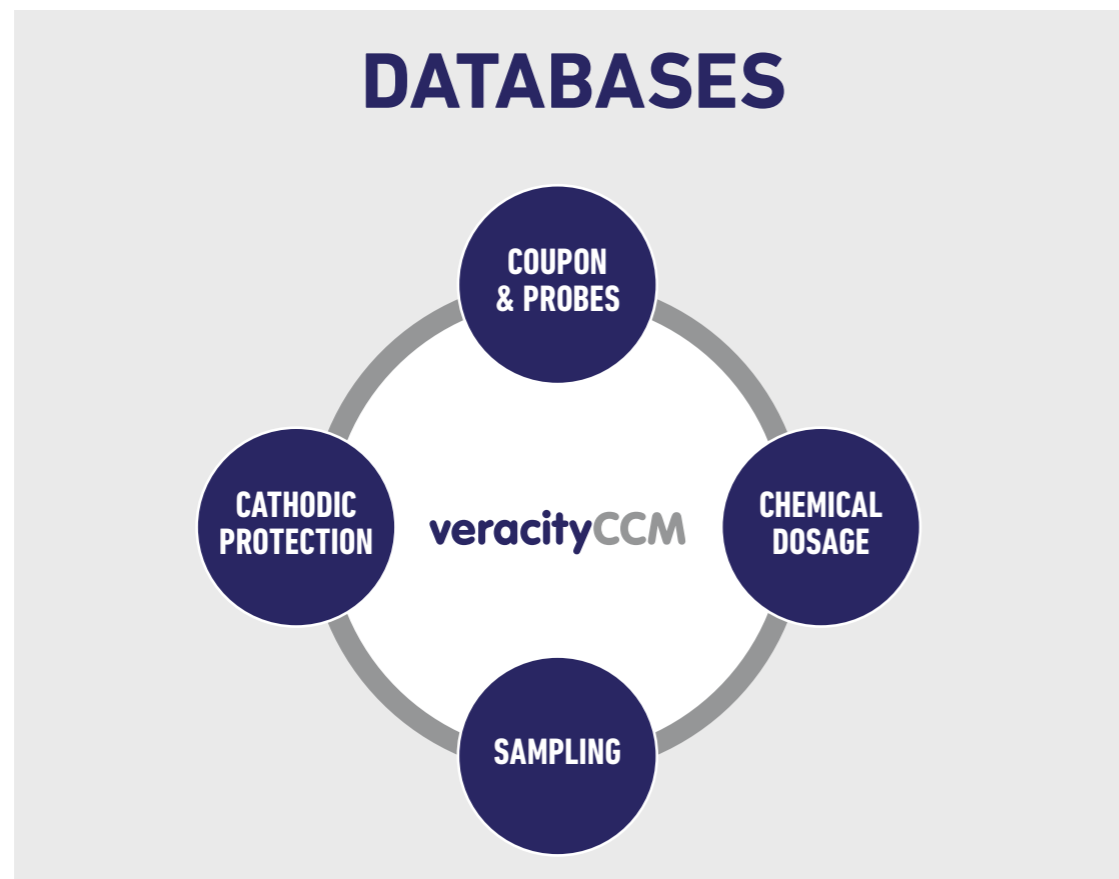
If the operators choose to alternatively use their existing centralised maintenance management system to drive the integrity management program then the software can be customised to integrate with the asset specific CMMS.

## REPORTING

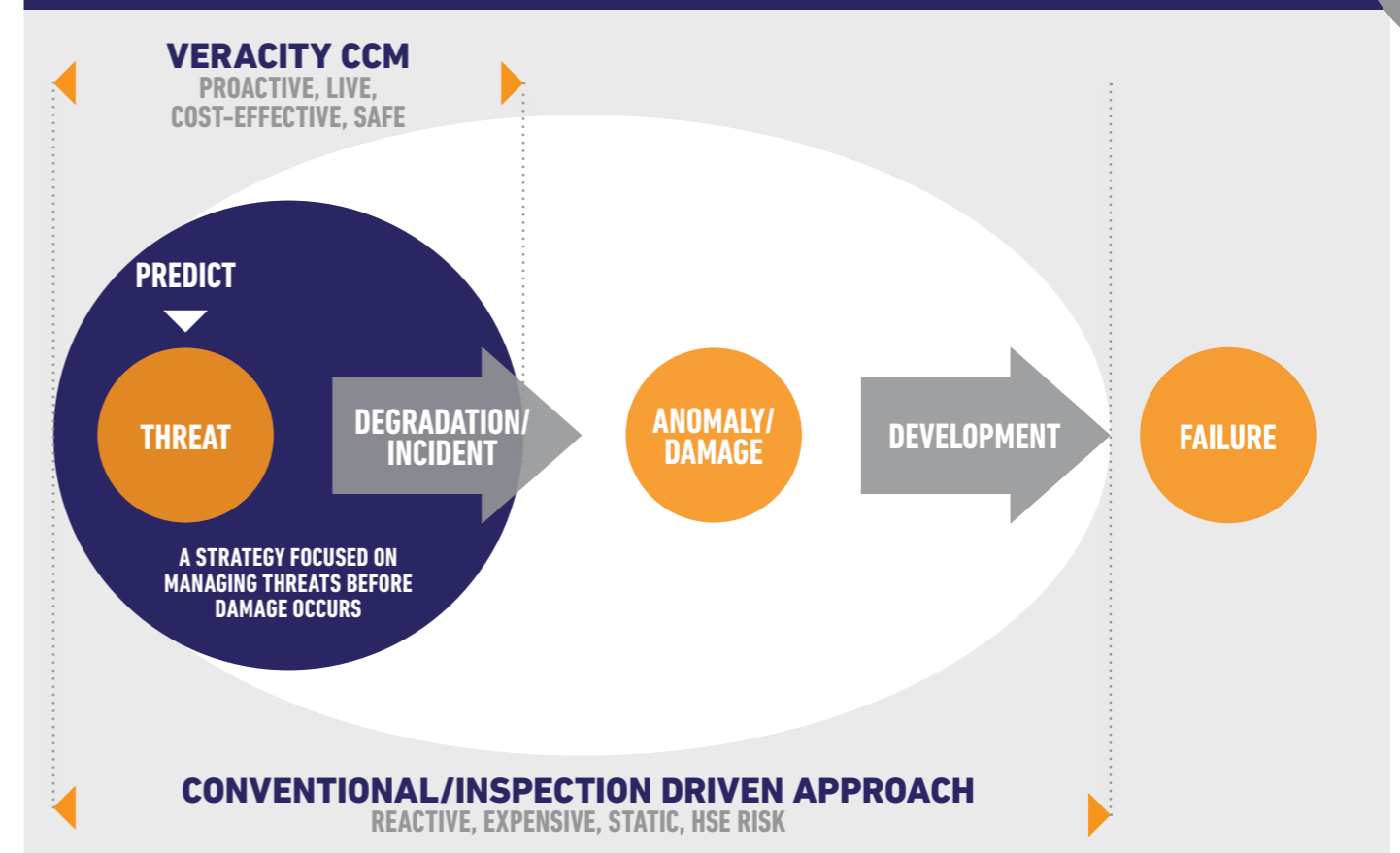
The software includes multiple reporting options which can be further tailored to meet client requirements

Reports can be generated at different levels according to the intended audience. From high level management summary reports to detailed status updates which include long-term trends and in-depth analysis for each KPI.

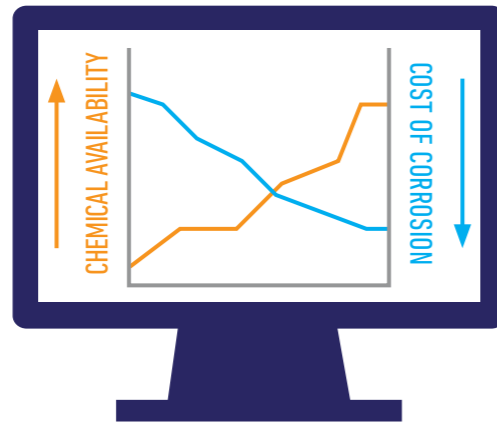
Veracity CCM offers an immediate reporting solution aimed to minimise resources and deliver quality.



# A MODERN APPROACH TO INTEGRITY MANAGEMENT



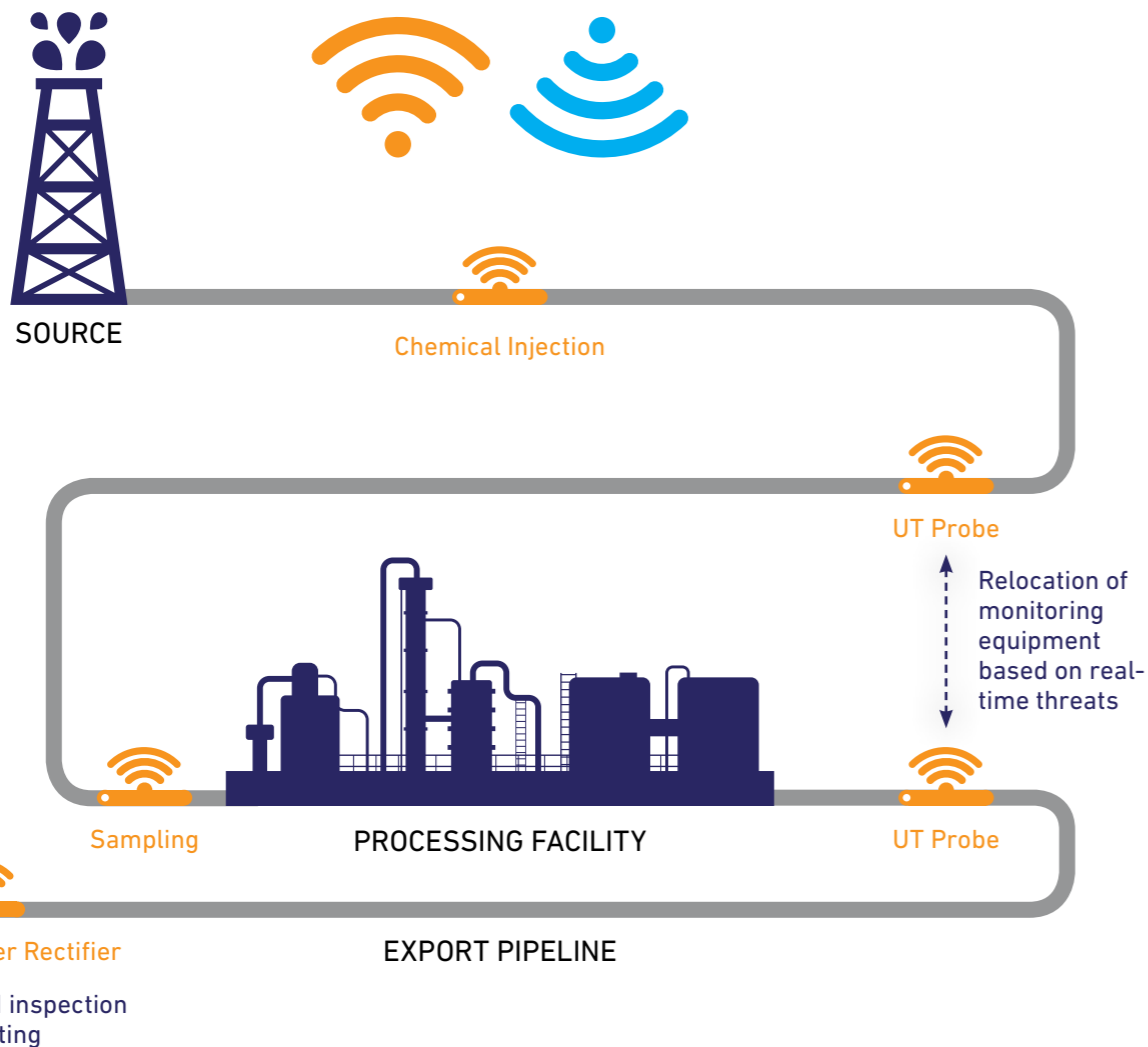
# REAL-TIME PLANT INTEGRITY



Flexibility to accommodate multiple data platforms

**veracityCCM**

Optimised chemical consumption and performance.



Minimised field inspection and testing

# CORROSION MANAGEMENT TRAINING COURSE

AIE's talented and experienced trainers deliver training to multi-disciplinary teams working across various industries such as Oil and Gas, Power Generation and Nuclear.

Our 3-day Corrosion Management Training Course is designed to provide a detailed understanding of corrosion as a key threat to industry. This is accomplished by establishing the fundamentals of corrosion in the first module and then building on this knowledge throughout the 3-day interactive course.

The modules have been developed using literature reviews, and standards and codes that are compliant with the latest industry related best engineering practices.

This enables the course to cover the different corrosion threats in addition to introducing state-of-the-art technology for monitoring and mitigation techniques.

*Our course aims to challenge the delegates to collaborate and implement knowledge gained from the modules through attempting to solve case studies with guidance from our leading industry experts.*

## OUTCOMES

- **ANALYSE** the crucial components of a functioning Corrosion Management System
- **REVIEW** major incidents and target learning to real-life scenarios
- **LEARN** key corrosion threats and how to identify and mitigate them
- **IMPLEMENT** core corrosion management services
- **UNDERSTAND** the latest corrosion monitoring and control methods
- **COMPLETE** a series of case studies and gain hands-on experience
- **NETWORK** with a variety of influential personnel

## WHO SHOULD ATTEND?

The course is intended for Managers, Engineers, Inspectors and Technicians in the fields of:

- **CORROSION**
- **CHEMICALS**
- **LABORATORY SERVICES**
- **INTEGRITY & INSPECTION**
- **ENGINEERING**
- **PROCESS & OPERATIONS**

**TRAINING HANDOUT:** Upon completion of the course we provide our Corrosion Management literature to reinforce the subjects that have been covered and to provide a clear and comprehensive reference for future learning.

## FLEXIBLE TO MEET YOUR REQUIREMENTS

AIE provides training courses tailored to our clients' unique operating environments. We also offer a comprehensive range of corrosion and chemical integrity services. Please contact us with your enquiry at [training@aiegroup.org](mailto:training@aiegroup.org) or [info@aiegroup.org](mailto:info@aiegroup.org)



AIE operates from our headquarters in Sharjah, United Arab Emirates.

Our geographically central location, situated just 20 minutes from Dubai, allows us to promptly serve our core service regions of the Middle East, Africa and Asia.



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