Extending asset life, improving reliability, sustaining production and ensuring safety

Integrity management for upstream oil and gas facilities
We will help you secure the benefits of effective integrity management across the whole business:

- Production - avoid unscheduled outages
- Maintenance - more accurate prediction of maintenance spend
- Management - sustain safe and predictable business performance and optimise CAPEX and OPEX

ABB provides technical consulting and engineering services to improve performance in the areas of compliance, operations and engineering to upstream and downstream oil & gas installations.

We can advise, support and enhance every stage of your business-critical operations.

In ABB we have extensive experience of helping our clients set up cost effective asset integrity programmes for platforms and terminals.

The business challenge
Many of the oil and gas facilities around the world are operating beyond their nominal design life. The challenge: how to maintain production capability in a safe and cost effective way whilst preserving the integrity of those assets?

What does an effective asset integrity management approach involve?
Implementing asset integrity management requires that all aspects of ongoing operations are properly designed, constructed, tested, operated, inspected and maintained in the most effective way. It necessitates a risk based approach, to help focus limited resource and time. But it also involves appropriate attention to the ‘less critical’ assets.

Our approach
ABB’s approach encompasses structural, piping, mechanical, electrical, instrumentation, control systems and the safety critical systems.

Our clients value our capabilities in asset integrity management for a wide range of reasons including:

- A vast array of knowledge and experience on asset integrity that has been developed over many years of helping oil and gas industry clients
- Our ability to be independent and objective and apply relevant knowledge from other high hazard industries
- Our ability to view things from an operational perspective, backed up by deep technical expertise, means the solutions we provide are of immediate application and value
- Our UKAS accredited inspection teams.
- Assuring equipment integrity using a risk based methodology for inspection and monitoring
- We work with our clients as an integrated team, delivering the agreed aspects and we will routinely pass on our knowledge
- Our capability to assist with the ongoing implementation of asset integrity schemes
- Our flexibility and ability to adapt to our clients’ operational circumstances

Our technical specialists are experienced in all aspects of design, operation, maintenance and inspection not only focussing on the equipment issues, but also on the vital ‘softer’ issues of organisational and personal competence. ABB’s asset health check, asset life planning, life extension and Risk Based Inspection (RBI) methodologies have been developed over many years of practical application to provide effective support to business decision-making. These methodologies are key components of ABB’s pRIME Toolkit which is an integral part of ABB’s pRIME asset integrity framework. ABB’s pRIME Toolkit enables the consistent efficient delivery of integrity management solutions tailored to the specific needs of our clients.
Benefits
Our clients tell us that they derive the following benefits from engaging our services:

- Technical justification to support continued licence to operate
- Stakeholder confidence in continuing in reliable and safe operation
- More informed investment decision - future CAPEX and OPEX requirements
- Improvement to bottom line - avoidance of production lost, avoidance of unplanned / unnecessary expenditure and improved operation, inspection and maintenance

Key stages
Stage 1 - Strategic review
- Business review / gap analysis / auditing
- Health checks and benchmarking

Stage 2 - Problem and solution identification
- Criticality / risk assessment
- Asset life extension
- Skills and competency assessment
- System and procedures auditing
- Integrity assessment and review

Stage 3 - Implementation
- Action planning
- Risk Based Inspection (RBI) and maintenance programmes
- Knowledge and skills transfer, training and competency development
- Systems and procedures development
- Improvement projects

“We chose ABB to work with us on this strategic project because we know they can give us what other consultants cannot, a flexible approach that understands our objectives, uses experience to define the best way to tackle the problems, and delivers the key outcomes in a professional manner even though we don’t know if what we want to achieve is possible.”