Operational Readiness

We're ready, are you?
Amec Foster Wheeler
Operational Readiness

Founded 1848
165 Years History

40,000 exceptionally talented people worldwide

KEY:
- Operational readiness centres of expertise
- High value execution centre
- Areas of operations
20+ years of Operational Readiness

99.9% accuracy from award winning Track & Trace technology

10 years of AttView, our customisable EDMS (Electronic Document Management System)

>40 CMMS systems since 1996

20 years of OperatorSuite™ and Competency Assurance

250,000 people trained

Training more than 1,400 projects since 1986

in over 60 countries

including 50,000+ hours of e-Learning

50+ years of Information and Asset Data Management
We know what ‘good’ looks like. We are great at helping companies set-up to deliver ‘good’.
Our Operational Readiness expertise is based upon our long and worldwide asset management experience. We understand how to set up and deliver operations for our customers. Our expedience across upstream, midstream and downstream, both onshore and offshore, from consultancy to duty holder, and on to late life and decommissioning, gives us the edge when it comes to Operational Readiness.

Whatever your asset, we can drive both efficiency improvement and continuous improvement, bringing the best of our multi-industry experience to bear.
Operational Readiness
We’re ready, are you?

Amec Foster Wheeler has an amazing track record of supporting customers in the challenging transition between design and operations.

For more than 20 years we have supported our customers onshore and offshore, upstream and downstream, for new and existing assets.

We have the unique ability to seamlessly link design, completions, commissioning and operations. That seamless link is provided by our people, an unrivalled group of really experienced professionals backed up by our high value delivery centres.

Seamless integration
Our capability stretches from consultancy at the front end of a project, through Operations Implementation Planning (OIP), operational readiness assurance, maintenance system build, spares management, training and competence assurance services, information and document management (Attric), completions and commissioning (qed’s GoTechnology® and expertise) and through to operations and maintenance.

More 4 Less
We have developed an approach to efficient modifications to deliver more, for less.

Technical integrity
Our commissioning group is an important element in the care of the entire asset from procurement through to operation including:

► completions and commissioning certification
► commissioning management
► preservation
► quality delivery
► verification of readiness
► statement of fitness
“Build it safe, tight, clean and right”
Operational Readiness assurance

The process of assuring that all the required operational deliverables are complete, available and tested so that they will perform as expected at the time of project handover to the operator/owner.

Typical operational readiness activities undertaken by us include:

► Operator training, competency assurance
► Reliability, Availability and Maintainability (RAM)
► Opex studies & manning studies
► Design reviews & operational changes
► Operations manuals and operating procedures
► Spares analysis & equipment suitability
► Operational readiness review
► CMMS build
► Performance standard assurance
► Maintenance scheduling

Statement of fitness

Our robust approach means that we can ensure that all testing is successfully completed, and the statement of fitness certificate for your asset is signed ready for start-up.

RAM models can be developed at any stage during the operate phase of the life cycle. However, if applied during the design process, it can be used to maximise reliability and availability in the design. The information can also be used to develop life cycle costs for the plant. This type of information is critical when comparing alternative design options or equipment choices. The cheapest to purchase may have significantly increased operate and maintenance costs.
Life of asset services
Amec Foster Wheeler

We deliver projects, from concept to start-up and beyond.
For any development, we start adding value from day one, helping our customers to evaluate the opportunity, screen options, select the right option, and then realise the revenue as quickly as possible.

We deliver value at the front end, then can bring our global EPC (engineer, procure, construct) skills and experience to bear, developing the right execution strategy, and then delivering on time, safely, cost effectively, and right first time. Right through the life of your asset we can provide the right support, from turnarounds and brownfield projects through to long term asset support, performance improvements, through to late life planning and decommissioning.

Consultancy services
► Environmental
► Marine and coastal
► Geotechnical
► Permitting and regulatory
► Community and social affairs
► Water and wastewater
► Transportation

Project delivery
► Feasibility studies, concept and pre-FEED (front end engineering design)
► Cost and schedule planning and control
► Technology integration
► FEED design
► Engineering and procurement
► Fabrication and construction
► Project management
► Start-up and commissioning
We provide full life cycle services to offshore and onshore oil and gas (conventional and unconventional, upstream, midstream and downstream) for greenfield, brownfield and asset support projects.

Our asset management capability aims to extend asset field life through enhanced production, recovery and reduced operating costs. This is achieved by offering a variety of flexible commercial and business models:

- Operations & maintenance
- Operational Readiness
- Asset integrity
- Duty holder
- Production optimisation
- Modifications

We add value at every stage.

**Late life and decommissioning:**

We have a comprehensive capability for all aspects of decommissioning and restoration including integrated in-house services and relationships with strategic partners. Our core capability in-house encompasses for planning, engineering, management and supervision for late life optimisation, decommissioning, disposal and restoration.

We have innovative tools and work practices in place to support cost efficient planning, design and execution. In addition to our core capability in-house, additional specialist services include:

- Laser scanning and 3D modelling for cost-effective development of ‘de-construct’ strategies and designs
- Commissioning and decommissioning software and specialist manpower
- Environmental – comprehensive, integrated consultancy services
Maintenance Information Management System (MIMS)

Maintenance system build is just one of a suite of services Amec Foster Wheeler provides as part of our operational readiness assurance.

MIMS is Amec Foster Wheeler’s proprietary software specifically developed for the management, structuring and delivery of Computerised maintenance management system (CMMS) data to our clients. MIMS allows for increased confidence in satisfying CMMS operability readiness requirements against other alternative data management services.

“We offer a unique service from early consultation through definition of operations readiness, delivery of operations readiness and on to asset support.”
MIMS has been in use since 1996 in the successful delivery of more than 40 CMMS systems for various clients.

1. Oil Sands programme for Imperial Oil Canada’s suite of projects
2. LNG plant for ExxonMobil Papua New Guinea
3. onshore plant for ExxonMobil Chad
4. offshore facility for Talisman UK
5. offshore facility for ConocoPhillips UK
6. offshore facilities for CNR Ivory Coast
7. year term contact for BG UK (multi-facilities)
6. year term contract for Nexen UK (multi-facilities)
1. FPSO (floating production offloading and storage) for EnQuest UK
1. offshore facility for ConocoPhillips UK
1. offshore facility for TAQA UK
28. offshore facilities for Maersk Qatar
1. Marine Well Containment Project, Gulf of Mexico
Information, knowledge and document management

Operations
Our in house information and document management team (Attric) works in partnership with clients to develop, publish and control operating procedures and operations manuals, to ensure fit-for-purpose and consistent procedures for Operations review, approval and use. We also update and control documentation through its entire lifecycle to guarantee the safe, cost-effective and competent operation of plant and equipment.

Maintenance
Having the correct maintenance procedures is essential for the safe, efficient and economical maintenance of plant equipment. We can review all design and construction documentation to produce both maintenance strategies and preventative maintenance routines that are logical, easy-to-follow, illustrated and in compliance with international and national standards, regulations and local conditions.

Health, Safety & Environment
Development and publication of HSE documentation, such as Safety Cases and Emergency Response Procedures.
Having the right spares, their availability and then tracking them is vital. We can offer a range of services to make sure your asset is ready. These include a review of your operations & maintenance philosophies & strategy, and of your asset business plan. We can identify safety critical and business critical equipment, and the impact of failure as well as conducting Failure Modes, Effects and Criticality Analysis (FMECA) on critical equipment.

Our knowledge and experience, including prior knowledge of equipment types/manufacturer, will deliver your mitigation strategy, sparing requirements stock holding and location.

Innovation: Track & Trace
We apply innovative technology to make sure you can track all your spares and equipment with accuracy, keeping down costs and improving efficiency.

Operations delivery system (ODS)
ODS was developed to bring together all aspects of operations delivery – the what, who, how, when, and why of activity for an asset. The model describes what needs to be, to who responsibility is assigned and how, with links to the information and software tools. It defines when both in the sequencing of the workflows and where appropriate through the meetings calendar and provides further explanation of why things matter in the performance support and applicable regulations layer.

ODS is designed to provide day-to-day support as a single portal access to all the data required to make decisions and monitor performance. In ODS you can get information about the whole range of an Operations’ activity from how the annual plan is created down to what information should be shared at shift handover.

Ready for operations
The smart technology we adopt, as well as our consistent approach to projects, means our customers truly achieve a ready for operations (RFO) status.
Training & development services

Our training & development services team is an international full-service training solutions provider. Our primary focus is designing, developing and delivering site-specific operations and maintenance training programs. We offer blended training solutions incorporating awareness training, knowledge based web training, skills training and knowledge management and retention.

We have executed major training projects throughout the world. Our goal is to help customers mitigate risks and maximise returns, while training a confident, competent, and safe workforce.

Our dedicated team of professionals include project managers, training specialists, engineers, technical writers, technical illustrators, editors, publishers, and computer programmers. We are able to draw on our vast expert bank to design, develop and deliver flexible, scalable site-specific operations and maintenance training, procedure development, orientation and learning and competence management for any process industry.

Connected excellence in all we do
Expertise
Our competency assurance and training programmes prepare your workforce to perform their job safely and with confidence.

Support
As a global company we have the ability to support you anywhere in the world.

Technology
Our learning and competence management system OperatorSuite™ provides a way to monitor and manage workforce training so you can easily track progress and show training compliance.

ExxonMobil PNG LNG
Papua New Guinea
Training modules, operation and maintenance procedures, competence assessment guides, instructor led (classroom) guides, Learning Management System (LMS) support, virtual 3D project overviews.

BP Caspian
Azerbaijan
Training and competency services for onshore and offshore assets – training around 1,400 local employees in core skills such as welding, pipefitting, plating and rigging, all of which are transferable to other industries in Azerbaijan.

Chevron Wheatstone Upstream
Australia
Design, development and delivery of training to Wheatstone operating personnel.
Completions and commissioning services

Through qedl, our world-leading completions and commissioning company, we provide:

► Consultancy, early input into design, preparing for success
► Provision of highly qualified completions and commissioning personnel across all disciplines
► Full management of completions and commissioning work scope
► Specialised systems, processes, plans and procedures
► Innovative GoTechnology®, a suite of tools designed to assist with critical areas of commissioning management and technical integrity including: GoCompletions, GoPlan, GoProcedures, GoPreserve
Quality project delivery

We have our own quality project delivery process to help us deliver a quality controlled handover. This process helps to identify and mitigate deficiencies, flaws and related risks in order to successfully deliver the agreed technical scope.

Verification of readiness

Preparing the production organisation to support safe and stable operations, verification of readiness address:

- Assurance
- Project readiness
- Asset integrity
- Start-up readiness
- Operations Readiness

...Go!
Amec Foster Wheeler (www.amecfw.com) designs, delivers and maintains strategic and complex assets for its customers across the global energy and related sectors.

With pro-forma 2014 scope revenues of £5.5bn and over 40,000 people in more than 55 countries, the company operates across the whole of the oil and gas industry - from production through to refining, processing and distribution of derivative products - and in the mining, clean energy, power generation, pharma, environment and infrastructure markets.

Amec Foster Wheeler shares are publicly traded on the London Stock Exchange and its American Depositary Shares are traded on the New York Stock Exchange. Both trade under the ticker AMFW.

connected excellence in all we do

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