

Integrated Upstream Operations

Conquering the industry challenges of upstream oilfield operations through the progressive integration programmes.

SAIC has a track record of helping our customers realise the maximum return from their investments in technology. Over the past five years, SAIC has enabled some of the industry's leading integrated upstream operations (IUO) programmes for three of the major industry players.

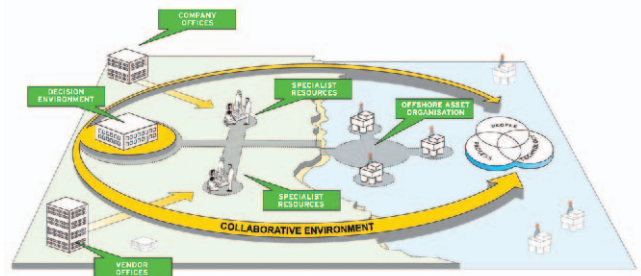
The Challenges

The upstream oil and gas industry faces new challenges as conventional reserves decline and environments become more environmentally hostile and complex. A further challenge is that experienced personnel are retiring. An industry study prepared in January 2007 by Booz Allen Hamilton stated that "the average employee working for a major operator or service company is 46 to 49 years old; with 55 the average retirement age, the industry faces a crisis over the next decade as more than half of the employee base leaves the work force." There is an increasingly common view that industry practices and technologies need to change significantly over the next few years to meet these challenges.

In light of these challenges, improved hydrocarbon recovery rates and reduced operating costs can be achieved. By improving the operational awareness of assets and enabling decisions through deployment of the right skills, tools and work processes, marked benefit can be achieved in real-time within a highly collaborative working environment. This concept is widely recognised as "digital oilfield of the future (DOFF)" (Cambridge Energy Research Associates (CERA)-hosted industry forum), or referred to as "Smart Fields[®]", "i-fieldSM", "field of the future" and "integration upstream operations."

The Solution

IUO opportunities vary by company, operating unit, individual asset, and reservoir characteristics, depending on the company's stage in development, current level of technology, and organisation. SAIC is cognisant of the fact that successful approaches to implementation are unique to each company, rather than a single one-size-fits-all.



Companies need pragmatic solutions that build on previous technology investments. The solutions need to show an understanding of organisational culture and to provide flexibility in design and delivery, as well as enabling maximum return on investment with minimal interference to day-to-day business. SAIC has enabled customers' IUO programmes by providing services and qualified personnel with critical upstream oil and gas experience.

SAIC's Portfolio of Services includes:

- IUO asset assessments
- Advanced collaboration work environments (ACWEs)
- Enterprise information management
- Process re-engineering

each underpinned by our strategic programme and change management.

Overleaf we expand on just two of these: IUO Asset Assessment and ACWEs...

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IUO Asset Assessments

SAIC's asset assessment approach is a proven methodology that looks at the key issues faced by an asset or operating unit and generates a series of recommendations on how IUO could return value to the asset.

Think... IUO assessments help assets to understand how IUO can improve their business and assist managers in building a comprehensive programme plan that acknowledges the assessment recommendations.

SAIC has conducted over 30 IUO asset assessments in Europe, the Americas and Middle East.

Projects arising from the SAIC assessments are delivering value:

- Production increases of 4.8 percent from a project looking at improving access to real-time data, early identification and prioritisation of problems, and improvements to operational processes.
- Efficiency increases of almost 20 percent for a project focusing on better management of generators across a business unit.

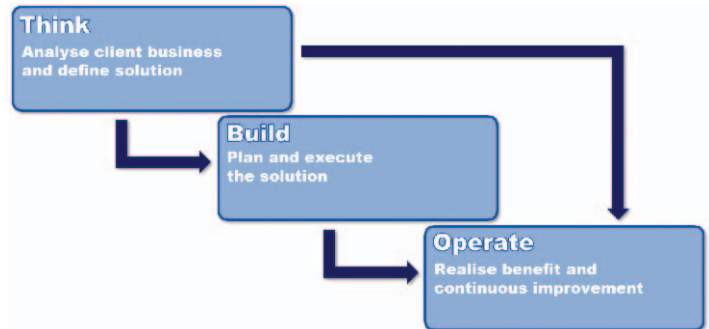
Advanced Collaborative Work Environments

SAIC is an industry leader in supporting major oil companies and their service partners design, implement and operate advanced collaborative work environments (ACWEs) across the globe.

ACWEs enable the processes of real-time data acquisition, analysis and production optimisation by overcoming the discipline silos that characterise most organisations, connecting key personnel physically, and virtually enabling enhanced decision making in near-real time.

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Build... design and implementation of tools for real-time data acquisition, analysis and video communications.

SAIC and our teammates offer a proven end-to-end capability in the design and delivery of successful ACWEs, which have been developed to facilitate efficient management of the oilfield of the future.

Operate... collaboration between key stakeholders round critical operational workflows as the vehicle for rapid and informed decision making and, thus, sustained production optimisation through IUO.

Early projects are beginning to deliver measurable results:

- An initial operations-focused project in Mid Continent is showing a production increase of circa. 5 percent.
- An asset decision environment project aiming to improve steam generation has delivered an increase in generator performance of between 10 percent and 20 percent in the first six months.
- A project aimed at improving operations logistics and planning has delivered streamlined processes, more effective working, an increase in work orders completed and a reduction in backlog.

For more information please visit our Web site at www.saic.com or contact SAIC in Europe on +44 (0)845 366 7242

SAIC
From Science to Solutions