

# CASE STUDY

## International O&G Operator Australian Assets – Production Data Management System



### The Case

The Australian CSG client had invested USD \$8 million in the implementation of Tieto Energy Components (EC), to manage the Upstream hydrocarbon accounting of their well stocks. The project had been completed by a Big Five consultancy organisation. The implementation had been carried out over a 12 month period in consultation with the business.

After the system had been signed off and gone live, the system was still not in use by the Production and Well Engineers. Upon investigation by the Management Team, Engineers complained that EC did not work correctly, was slow, data was not represented, it was inaccurate and could not be used.

The project had been accepted by the business as operational and signed off with the Consultancy, so there was little recourse. The Production and Well Engineers had reverted to their manual processes of excel and access to manage and track hydrocarbon across the asset, for allocation of JV splits based on ownership.

### Elite's Solution

As part of the Midstream Hydrocarbon Implementation, an Elite Associate responsibilities were extended to resolve the issues with the Upstream implementation.

### Discovery

The Associate carried out an assessment of the implementation.

It emerged that the Upstream Team were not fully competent with using EC, in addition to EC performance issues.

Group workshops and 1:1 sessions provided further information;

1. The training had been delivered prior to a system being available via PowerPoint presentations – the team had not received demonstrations or hands on practice with the new system.
2. The training was purely technical – ie how to navigate the system. The training was delivered by IT and therefore it lacked business context and sponsorship for use. It was difficult for the Upstream Team to understand how the system should be used in context of other daily activities and production processes or indeed why they should use it.
3. There was an assumption that the Upstream Team would provide training to the field counterparts. The Upstream Team did not believe or understand the business process required for the Field Team. They also knew the communication to the Field Team would be difficult and would meet with resistance. The training was therefore never provided for Field Teams.
4. The Upstream Sponsors had not agreed or communicated a decommissioning plan for existing systems to the IT Project or the Upstream Team. As a result, the Upstream Team knew they could deliver the whole process and required outputs using their old systems and therefore they didn't convert – they reverted to using spreadsheets and access databases.

The EC performance issue related to the allocation process. EC took several hours to run the allocation for less than 60 wells.

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### Resolution Plan

The resolution plan had three focus areas:

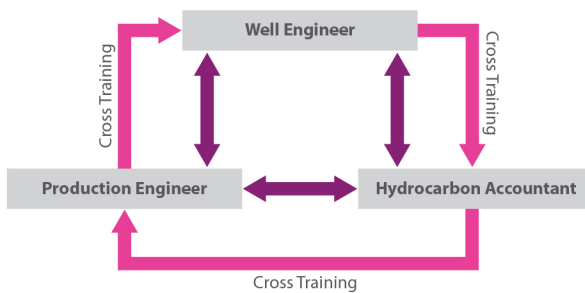
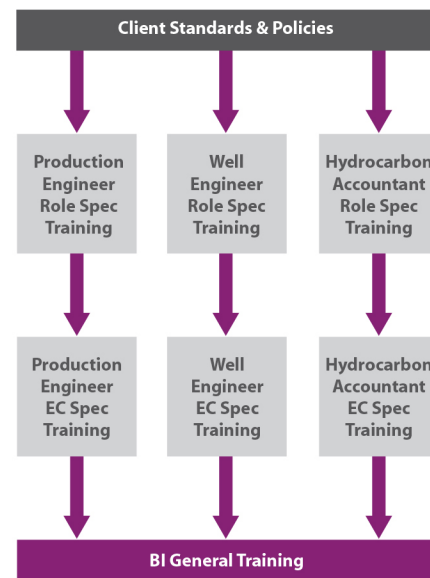
1. Training based on role in line with Client Standards and Policies for Production Excellence.
2. Resolution of EC Performance issues.
3. Modification of Business Processes in line with new Collaborative Working Environment being implemented.

### Part 1

The Associate developed a training plan for Production and Well Engineers and Hydrocarbon Accountants in line with the client's Production Excellence standard. This meant that the training was role based and covered the entire stack of skills needed.

The training had the following areas which were covered:

1. Company Standard
2. Role Specific Requirements
3. EC General Training
4. EC Role Specific training
5. Business Objects training for reporting



The training was owned, developed (with Elite Associate support) and delivered by Subject Matter Experts in the Upstream Team.

The material included more demonstration, relevant worked examples and the SME actually attended training on how best to deliver training.

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### Part 2

The issue related to the performance of EC

The Associate engaged the wider organisation that included the internal IT department and Tieto to help resolve the issue. The solution included a mix of infrastructure and software enhancements that improved the performance of the overall systems.

The changes meant that the processes were now taking under 1 hour to complete which provided a greater degree of confidence and credibility for use by the Upstream Team. In fact they could begin to see how they could use it in their daily routine.

### Part 3

The final part of the resolution plan was the redefining the Hydrocarbon Accounting business processes in line with the changes in organisation structure and operations.

The client had moved the organisation from a department based structure for operations to a multidisciplinary Collaborative Working Environment structure. There were five separate CWE's within the operational group managing three geographical areas, a Network CWE for pipeline and infrastructure and a Water CWE.

In order to support this new "Ways or Working" the Associate modified the role structure and business processes to support the new organisation.

This meant that the Production, Well and HCA's in each CWE were cross trained to be able to carry out each other function and role, this added to the flexibility of the production team and allowed for resiliency where the loss of a key person did not affect the overall performance of the group.

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### Business Outcomes

The Associate established a trained and effective team with each CWE, which were able to use the tools provided (EC and Business Objects) to effectively manage the day to day operations and make real time efficient decisions to enhance the performance of the well stock and meet the business production forecast.

This improved efficiency allowed the CWE teams to focus on exceptions and release them to work collectively on overall improvements with the business such a Loss Management, Well Performance and Improvements, Forecasting and Planning.

The benefits also included the following:

- > Reduction of manual processing e.g. The Well Engineers now back allocate well production to JV ownership in EC, which takes 3hrs system time to complete. This was previously being done manually in excel and access and was taking 1.5 days (12hrs) for a Well Engineer to completed working full time on this one task.
- > Increase data for identification of Well not achieving their LMPP. Due to the correct data flow from OSIsoft PI to EC, the data in EC was use to identify under performing Wells against LMPP. This was presented on a web screen in the CWE to the Well Engineers allowing them to manage Wells by exception.
- > Due to the cross training of Well Engineers from multiple CWE's this added to the resilience of the overall team where a loss in one member (due to holiday, sickness or resignation) could be accommodated with no interruption to productivity of the team. This eliminated the dependency of single individuals.

Improved efficiency allowed the CWE teams to focus on exceptions and release them to work collectively on overall improvements with the business such a Loss Management, Well Performance and Improvements, Forecasting and Planning.