**Introduction to Flare Solutions**

- Consulting and information management solutions to the oil and gas industry
- Formed in 1998, by technical professionals with broad industry experience

<table>
<thead>
<tr>
<th>Consulting</th>
<th>Solutions and Applications</th>
<th>Services</th>
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<tbody>
<tr>
<td></td>
<td>Web-based Information</td>
<td>Reference Data Management</td>
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<tr>
<td></td>
<td>Management Applications</td>
<td>Process and Standards Development</td>
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<tr>
<td>Information Management Strategy, Architecture &amp; Implementation</td>
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<td>Application Development</td>
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<tr>
<td>Project &amp; Programme Management</td>
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<tr>
<td>Change Management</td>
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**Queen's Award for Enterprise Innovation, 2009**
This is the highest award that can be given to a UK based company. This award was for Flare's innovative information management solutions for the oil and gas industry.

**British Computer Society (BCS) European Awards, 2006**
- Knowledge Management Project Award – Winner (with Shell)
- Intranet Project Award – Highly commended (with Shell)
- Content Management Project Award – Highly commended (with Shell)
• Introduction

• Change Management
  – The Change Challenge
  – Information Management Change
  – How it affects the individual, team and organisation

• Case Studies
  – Knowledge Management & Procedures
    • Drilling Management System
  – Information Management
    • Global Wellfile
  – Data Management
    • Production Reporting

• Lessons

• Questions
Information Management
The Change Challenge

The Premise

- Effective E&P Information Management practice must be Institutionalised
  - Effective IM practice = Consistent and timely access to high quality information
  - Institutionalised = Part of the fabric of the organisation in terms of infrastructure, process and behaviour / culture / values

If we fail to change

- Lost investment
  - Infrastructure
  - Systems
  - Data
- Lost benefits
  - Information search time
  - Decision-making quality
  - Increased risk
Data/Information Management Challenge

User expectations

- **Publish**
  - When users publish they expect to be able to do it with minimal or no effort

- **Search**
  - When users search they expect a well structured, organised store, that is easy to navigate

Mismatch Of Expectations
Information Management

The Change Challenge

Why is it so hard to implement effective Information Management solutions in E&P organisations?

- Can we define “Effective Data and Information Management”?
  - Yes

- Can we specify and implement the right infrastructure?
  - Yes

- Can we create appropriate processes and governance models?
  - Yes

- Can we ensure appropriate behaviours, cultures and values?
  - Question

Let’s understand how process and behaviours impact the delivery of IM solutions.
Effective Information Management requires a mix of both process and collaborative dimensions.
Dimensions
The Individual Aspect

We need to be responsive to the demographics of the community and its appetite for adopting newer collaborative solutions.
Natural team dynamics play a part – and the type of team impacts the extent to which effective Information Management behaviour can emerge.
An organisation will have a **dominant metaphor** for the way it does business.

We use musicians to remind us of the metaphors.

But where does your company fit?

Where should you be heading?

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After Gareth Morgan (1986)
Where do typical E&P organisation sit in these Dimensions?

The dominant position of the organisation may constrain the kind of Information Management solution that can be achieved.
Case Study 1: Knowledge Management & Procedures - Overview

Stage Gate Processes

1. Scope
2. Select
3. Define
4. Execute
5. Assess

Policies
Procedures
Templates
Examples
External Standards

Deliverable Checklist
- Deliverable 1
- Deliverable 2
- Deliverable 3
- Deliverable 4

Metadata
Naming Standards
Publishing Architecture
Search

Lessons Learned
Incidents
Actions

Challenge One:
How do we deploy our IP; our procedures and standards, and make them easy to follow for engineering teams on the rig?

Challenge Two:
How do we capture and share knowledge as we grow?
<table>
<thead>
<tr>
<th>Change Factor</th>
<th>Initial Status</th>
<th>Change Strategy</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geography</td>
<td>Corporate centre &amp; rig sites</td>
<td>Be aware of lack of clear mandate</td>
<td>Management aware of challenge. Longer time for take-up to mature.</td>
</tr>
<tr>
<td>Corporate Culture</td>
<td>Reactive/Innovative/Flexible</td>
<td>Highlight benefits throughout T/E</td>
<td>Appreciation by users of key benefits – to encourage usage</td>
</tr>
<tr>
<td>Process Maturity</td>
<td>Medium</td>
<td>Highlight benefits throughout T/E</td>
<td>As above – pain accepted for the gain</td>
</tr>
<tr>
<td>Scope</td>
<td>Broad</td>
<td>Use as lever in training/ education</td>
<td>Everybody knows who should be doing what, and they can see results!</td>
</tr>
<tr>
<td>Benefits Gap</td>
<td>Medium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disruptiveness</td>
<td>Medium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk to Business</td>
<td>Medium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Willingness to Change</td>
<td>Poor</td>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>Change Risk</td>
<td>High</td>
<td>Embed accountability and make that accountability visible</td>
<td></td>
</tr>
</tbody>
</table>
Case Study 2: Information Management

Global Wellfile - Overview

Challenge One:
How do we capture wellfile information in a standard way around the world?

Challenge Two:
How do we ensure user take-up?

Partner Reporting
Legislative Reporting
HSE
Ownership
Case Study 2: Information Management

Global Wellfile – *Change Challenge*

### Change Factor
- Geography
- Corporate Culture
- Process Maturity
- Scope
- Benefits Gap
- Disruptiveness
- Risk to Business
- Willingness to Change
- Change Risk

### Initial Status
<table>
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<tbody>
<tr>
<td>Global</td>
<td>Process oriented</td>
</tr>
<tr>
<td>Process oriented</td>
<td>High</td>
</tr>
<tr>
<td>All types of well file</td>
<td>Medium</td>
</tr>
<tr>
<td>Benefits Gap</td>
<td>Medium</td>
</tr>
<tr>
<td>Disruptiveness</td>
<td>Minimal</td>
</tr>
<tr>
<td>Risk to Business</td>
<td>Low</td>
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<tr>
<td>Willingness to Change</td>
<td>Medium</td>
</tr>
<tr>
<td>Change Risk</td>
<td>Low</td>
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</table>

### Change Strategy
- Develop online education programme
- Reduce scope to two key well file types
- Highlight in T/E
- Put a momentum programme in place

### Outcome
- All users can access educational material when they need it
- Manageable scope, clear message, chance to build momentum
- Easier user uptake – not that much difference to way things were done
- Ensure users don’t ‘forget’

Managing Scope
Case Study 3: Data Ops Reporting - Overview

Challenge One:
How do we manage production and injection nominations across a complex multi-site operation?

Challenge Two:
How do we roll-out to a disparate team, working 24x7?
### Change Factor
- Geography
- Corporate Culture
- Process Maturity
- Scope
- Benefits Gap
- Disruptiveness
- Risk to Business
- Willingness to Change
- Change Risk

### Initial Status
- Primarily: Field base and rigs
- NOC: Low
- Tight: Production reporting
- High: High
- Highly disruptive: High
- Varied: High?

### Change Strategy
- Examine local (site) requirements early in the design phase
- Engage with users as early as possible
- Review processes as part of design
- Use in T/E programme
- Prepare roll-out plan well in advance
- Use in T/E programme
- Target known individuals for additional education
- Use in T/E programme

### Outcome
- Solution designed to be easy to use
- Early engagement helped with definition and meeting requirements
- Required processed embedded in solution. Part of the way they work.
- Users understood the need for change
- Disruption minimised.
- Users understood the need for change
- Reduced negativity at launch
- Lot of upfront effort to mitigate start-up and ongoing maintenance
Change Management Lessons Learned

Systems Development Life Cycle (SDLC)
Life-Cycle Phases

- Ensure that Change Management is an intrinsic part of your project
- Make sure that your D/IM initiatives connect with the business
- Design - design for simplicity, rather than functionality
- Develop awareness of the project
- Reinforce using metrics, feedback and awareness sessions
- Maintain effective communication with all stakeholders
- Prepare for change!

Ineffective change management is a major cause of failure in IM projects.

You can mitigate this risk by following a structured approach

- Awareness of the need for change
- Desire to support and participate in the change
- Knowledge of how to change
- Ability to implement required skills and behaviours
- Reinforcement to sustain the change

Deliver Change in Three Phases:

1. **Develop the Change Strategy**
   
   *A plan accounting for organisational style and the working style of stakeholders, teams and individuals affected*

2. **Assess Change Readiness**
   
   *An iterative approach to ensure barriers are removed*

3. **Deliver targeted interventions to build the Momentum for Change**
   
   *Combining: Communications, Sponsorship, Coaching, Resistance Management & Training to ensure sustainable change*
FAQs

QUESTIONS
Using intelligence to pinpoint your oil and gas information

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