



## Technology Management Network: Meeting No. 1

### Identification of Technology Needs

Date: Thursday 15 October 1998  
Times: Start: 9.30am, Finish: ~ 16.30pm  
Venue: Conoco UK Ltd, Rubislaw House, Anderson Drive, Aberdeen AB2 4AZ UK.  
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Hotel: Stakis Aberdeen, 161 Springfield Road, Aberdeen AB9 2QH, Tel: + 44 1224  
313377, Fax: + 44 1224 312028. Conoco Rate: £75.00 Bed & Breakfast - please  
mention you are attending a meeting at Conoco  
Simpsons Hotel, 59 Queens Road, Aberdeen AB15 4YP, Tel: + 44 1224 327777,  
Fax: + 44 1224 327700. Conoco Rate: £95.00 Executive Room, £85.00 Classic  
Room - Room only - please mention you are attending a meeting at Conoco  
Travel: *Taxi time from airport: Conoco's offices: 15 mins; Stakis Hotel: 20 mins;  
Simpsons Hotel: 15 mins. Taxi time to Conoco's offices: from Simpson's Hotel: 5  
mins; from Stakis Hotel: 15 mins.*

#### Proposed Agenda:

		<i>From 9.15am</i>
1.	Welcome	Tom McGovern, Conoco 9.30am
2.	Objectives, scope and format for the day	Jenny Cambers,OTM 9.40am
3.	Identification of technology needs - detailed technology management processes	Alan Burns, Elf 10.00am
	<i>Tea/ coffee</i>	<i>10.45am</i>
4.	Identification of technology needs - detailed technology management processes	Andy Tilbrook, Amerada Hess 11.00am
5.	Round-table feedback on presentations and in-house experience	11.45am
6.	Guest speaker	Keith Miller, British Nuclear Fuels Ltd 12.30pm
	<i>Lunch</i>	<i>13.00pm</i>
7.	Facilitated discussion to establish issues and problems for focus group examination	13.45pm
8.	Facilitated focus group discussions	14.15pm
9.	Feedback from focus groups	14.45pm
	<i>Tea/ coffee</i>	<i>15.30pm</i>
10.	Identification of critical success factors and update of the 'technology management cycle'	15.45pm
11.	Review of day; format, subject, date and venue for next meeting	16.15pm
	<i>Meeting closes</i>	<i>~16.30pm</i>



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### **Briefing document - Identification of Technology Needs**

For oil and gas companies, as with many other industries, one of the biggest technology management challenges is to identify and understand one's company needs. The structure of such organisations, whilst some aspects are reflected in other industries, is fairly unique: a corporate umbrella which may include central R&D, human resources, IT and other all-embracing departments, overlays a large number of business units or 'assets', which are the producing elements of the organisation. Hence, as part of the overall technology management process, there is a requirement to canvass these assets to fully understand their technology requirements and to integrate these needs with corporate long term goals and projects to make the organisation work more effectively.

On 15 October 1998, the Technology Management Network will meet in Aberdeen to discuss how each of the member companies sets about identifying these needs in a timely and efficient manner, and through structured discussion agree critical success factors which each company can employ. At this stage we shall not be considering the prioritisation of these needs nor what means should be employed to meet these needs.

The process of identifying technology needs is likely to include the following activities in some form or another:

- Communicating with and stimulating assets to think about and describe their technology needs
- Bringing assets and corporate personnel together to catalyse creative thinking
- Defining corporate and long term strategic technology/R&D requirements
- Understanding, collating and grouping technology needs prior to prioritisation

Technology needs may be aimed at the following areas, amongst others:

- Improving company knowledge and skills in key technology areas, some of which may be only emerging or conceptual technologies at the time, but have the potential to greatly add to business value in the future (eg micro/ nano-engineering, robotics/ non-metallic materials etc) - 'blue sky'
- IT requirements, such as to improve communications, financial control, learning and productivity in all areas of the business
- Technologies which will significantly improve competitive advantage through improved identification and evaluation of productive acreage
- Iterative or evolutionary technologies which will enhance productivity of existing and developing assets, through better operational practices, intervention/ workovers, downhole reservoir monitoring and flow control systems, separation technologies etc
- Breakthrough technologies such as to enable the economic exploitation of marginal fields or small pockets of reserves within existing acreage, or make step changes in the performance of current assets
- Further studies into particular strategic areas, such as deep water, HT/HP, isolated gas reserves etc

Needs should be well understood, ie well defined together with examples of the business benefit each will bring and the timescale in which the need would need to be met in order to maximise such benefit. The organisation will also need to understand whether the need is unique to one asset or can be employed across a wide range. Such information will assist in the next step, the prioritisation process.



The meeting will explore companies' existing methodologies and structures for identifying, defining and understanding needs. For instance, at the workshop on 9 June at the Petersham Hotel, some companies spoke of bringing cross-asset teams together in facilitated workshops in order to both bring people up to speed in the thinking process and to elicit their comprehensive needs. Various techniques may be employed, including brainstorming, questionnaires, widening the consultative process to more operational staff etc.

It will be beneficial to examine the perceived success or otherwise of such methods, in terms of uncovering all needs, finding creative means to combine or eradicate certain needs, and understanding the range of application and likely business benefit of those needs. We can also consider the times at which such processes are undertaken, ie annually, more regularly or on a continual basis, and whether there is greater or less value in any approach.

Success factors, some of which were mentioned at the workshop, may include the following. These can be further examined, refined, deleted and added to at the meeting:

- True involvement of assets in process
- Group thinking, rather than needs development in isolation
- Use of proactive means to stimulate/ facilitate needs development
- Making it clear to personnel involved in the decision-making process, how important the activity is to the business' future success and that their input is appreciated and required
- Defining the various headings under which technology needs should be considered

Having discussed the identification of technology needs, future meetings of the Technology Management Network will focus on:

- Prioritisation of programmes
- Execution
- Implementation/ application
- Review of value added

It is anticipated that the exact scope of the next meeting will be guided by the discussion and results of this first event.