



Department of Trade and Industry

NATURAL
ENVIRONMENT
RESEARCH COUNCIL

An Evaluation of the LINK Programme on Hydrocarbon Reservoirs

**Final Report to the
Department of Trade and Industry
and the Natural Environment**

Research Council

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Summary

1. The LINK Hydrocarbon Reservoir programme can be judged to have been a success. It met most of the specific objectives defined in the ROAME statement, a partial exception being that it did not generate projects which were significantly more interdisciplinary than was the norm in this area. Additionality was very high in that 80% of those interviewed claimed they would not have undertaken any project in the absence of LINK funding. A scientific review panel convened by NERC concluded that about 25% of the projects were at the cutting edge of their respective scientific fields. When innovation was considered, particularly with respect to transfer of research, skills and experience to industry, about 75% of the programme projects were concluded to be internationally competitive science at the forefront of the field.
2. The vast majority of service company participants were SMEs and around half employed 20 or less. Around half of participants had not previously collaborated with other members of the consortium. Eight of the 11 service companies in this category had or planned to continue links in the future and six of the universities in this category continued collaborations after the project. The programme therefore promoted technology transfer from the HE sector to SMEs, one of its major objectives. Participants from both higher education and industry considered much of the research to be highly applied. The universities were keen to participate in the programme but several considered that the Research Assessment Exercise provided an incentive to undertake more basic research.¹
3. Oil companies sponsored 23 of the 25 projects. In some cases their financial contribution was significant and amounted to around 20% of project costs in total. As well as funding they played a major role in providing data and information and, in fewer cases, guidance on market requirements.
4. Although most participants surveyed were initially doubtful about their chances of success, participants and the Programme Management Committee (PMC) subsequently found almost all projects met all or most of their technical objectives. Around a third of those interviewed also classed the project as a commercial success.

¹ Note that the Programme was launched in 1991 since when there have been changes in the RAE. Further modifications are planned for the 2001 exercise with the intention that applied research should not be discriminated against.

5. Many of the service companies we interviewed could identify commercial benefits arising directly from participation in one or more of the LINK projects. Unfortunately the majority of these outputs are utilised as just one part of the company's armoury of products or procedures for reservoir interpretation or management. This means that precise quantification of the commercial benefits derived from the project is not possible. However:
- 16 of the 24 projects have generated some commercial benefits for the service companies involved
 - 13 of the 22 projects with oil company sponsors are believed to have generated some benefits for the sponsors
 - one single project has generated very substantial benefits for both the service company and oil companies in the form of cost savings. The benefits attributable to this project alone far outweigh the cost of the programme as a whole. .
 - all service companies we consulted claimed to be active in markets outside the UK.
 - seventeen (77%) believed their competitiveness had been enhanced as a result of the project.
6. The management of the programme by the DTI, NERC and the Project Officers enjoyed a great deal of positive feedback from those consulted. The Hydrocarbons programme was the first to introduce a two stage application procedure and management of funds from the two sponsors as a single budget so that the PMC effectively decided on whether a proposal would receive funding. Both are now considered elements of best practice management in LINK programmes. Other general recommendations relating to LINK programmes which emerged from the study are:
- more publicity at the start of the programme involving all participants to try to increase the potential for cross fertilisation of ideas and synergies between projects
 - the need to brief PMC members about the importance of addressing additionality when assessing proposals.

7. Specific recommendations relating to the Hydrocarbons programme are:

- NERC should collect output and performance measures for university research
- dissemination activities after the end of the programme involving participants and representatives of the oil and service companies. This would both allow researchers to market their ideas directly to key members of the industry and also provide the opportunity for scoping exercises for future programmes which may or may not build upon the results of the terminating programme. The feeling was that such an exercise might still be worthwhile.

8. Discussions with the service companies showed that they had difficulty marketing ideas to the oil companies not involved in the project, which could produce long-term benefits in terms of increased revenue from a given field or reduced environmental effects. This was especially true if their implementation required any changes in current practice. The dissemination activities mentioned in the previous paragraph could help to address this issue but there may also be scope for a more detailed study of why project outputs were not more fully utilised.

