

EVALUATION OF TCS

Final report to the Small
Business Service -
Executive summary

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EVALUATION OF TCS

FINAL REPORT TO SBS – EXECUTIVE SUMMARY

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Executive summary

Introduction

1. This is the Final Report of an evaluation of TCS commissioned by the Small Business Service (SBS) and undertaken by SQW Limited. The evaluation was commissioned to support the 2001 Quinquennial Review of TCS.

TCS

2. TCS was established in 1975. It involves graduates (TCS 'Associates') working within a firm for (usually) 2 years on specific knowledge transfer projects (TCS 'Programmes') that are central to the company's development. The technology being transferred originates within a qualifying Knowledge Base Partner¹. During a Programme the Associate(s) is jointly supervised by company staff and members of staff from the partner organisation. From a solely large company focus in the early days, the shape of TCS has been modified under DTI influence so that about 90 percent of current Programmes involve SMEs. DTI is the lead sponsor but ten other government organisations² are also currently sponsors of TCS. Public expenditure over the period 1996 to 2000 amounted to almost £90 million.
3. The day-to-day administration and delivery of TCS is handled by an external organisation known, until October 2002, as the Teaching Company Directorate (TCD). As well as a small central staff, TCD comprises a team of regionally based "TCD Consultants" who broker the partnerships between the knowledge base and companies and who guide and monitor the progress of the individual TCS Programmes. Many universities have also established TCS "Centres" that act as a local focal point for the promotion of TCS, in particular to SMEs.
4. The main rationale for public support is:
 - that firms, especially SMEs, have difficulty exploiting technological developments that are outside their established capabilities
 - that insufficient use is made by industry of the wealth of expertise and technology available from the UK knowledge base.
5. The Scheme also contributes to resolving other problems such as:

¹ The term "knowledge base partner" includes universities and other HEIs, Government research institutes and independent RTOs.

² EPSRC, ESRC, DEFRA, IRTU, BBSRC, NafW, Scottish Executive, NERC, DoH, PPARC

- too few graduates with industrially relevant training and experience and firms' (particularly SMEs) reluctance to employ industrially inexperienced graduates
- major disconnects which exist between the knowledge base and business (particularly SMEs); both have difficulty accessing and communicating with the other.

The current evaluation

6. The main body of the research encompassed three core surveys of: Knowledge Base Partners; Company Partners, and Associates. A range of other consultations and additional tasks were also specified, designed to gather input from a range of stakeholders, including sponsors and business support organisations such as Business Link. The evaluation was mainly concerned with TCS Programmes which were completed between 1 April 1997 and 31 March 2001. There were 1,045 such Programmes in total.

Key findings

Participants

7. Company Partners perceive themselves as forward-looking and innovative both compared to their UK competitors and compared to global competition. For 38 percent of Company Partners, the technology/knowledge transferred during the Programme was new to the company, and a further 45 percent of respondents suggested that whilst they had knowledge of the technology, the work to be carried out in the Programme represented a considerable advance. The Programme was seen as strategic to the business by 75 percent of Company Partners.
8. Knowledge Base Partners tend to have relatively low Research Assessment Exercise ratings with 60 percent attaining 3 or lower. However, a significant minority (12 percent) attained 5 or 5*.

Awareness of TCS

9. Awareness of TCS among businesses that could potentially benefit appears to be low: Company Partners had mixed views about the effectiveness with which the Scheme was promoted, but almost 40 percent believed promotion was not very effective. It is worth emphasising that the promotional budget has increased significantly since the majority of Programmes reviewed were launched. Almost two-thirds of Associates had not heard of TCS before they applied.

Reasons for participation in TCS

10. Companies were attracted to the Scheme, in particular, by access to a higher education institution's skills and expertise and access to the skills and knowledge of the Associate. The principal motivations of Knowledge Base Partners were: first, a wish to see knowledge and technologies generated within the HEIs transferred to industry; and second a wish to work with business in order to enhance teaching and research.
11. Associates were interested because of the potential to enhance their skills and positioning in the labour market, and also because of the intrinsic interest of the Projects. Salary was important, but was viewed as part of a broader package, which included commercial experience, training and the opportunity to register for a higher degree.

Programme development

12. Links between the Lead Academic and the Company Partner is the key to defining and establishing the Programme: TCD Consultants became a central part of the process once the overall objectives had been set. They played an important role in guiding the content and structure and ensuring fit with TCS requirements.
13. Partners frequently felt that they had only a limited choice of candidates for Associate who were appropriately qualified. In the majority of cases, Programmes were able to recruit an Associate of sufficient calibre but many were also concerned that had the offer not been accepted there would have been no substitutes.

Programme experience

14. Knowledge Base Partners are key to the success of the Programme, and in the majority of cases they are seen as committed partners delivering the role very effectively. Associates also valued the Academic Supervisor highly.
15. Over three-quarters of the Company Partners felt that their management of the Programme and the Associate had been effective. However, only around a quarter of Associates felt that staff in the company, other than the Company Supervisor and key directors, had a clear idea of the Associate's role.
16. There was a high level of satisfaction with the Associates, with two thirds of Company Partners rating their performance as either 'good' or 'excellent'. Knowledge Base Partners also cited high levels of satisfaction.
17. The TCD Consultants emerge from this evaluation very positively, being regarded widely as useful and effective across a range of different roles by the majority of the Company Partners interviewed.

Programme impacts

18. Sixty three percent of companies believed that the technical objectives of the Programme were fully, or almost fully, met, but only 39 percent felt this had been achieved in relation to the commercial objectives. Significant minorities of firms believed that the objectives had not been met, or only to a marginal degree: 17 percent for the technical objectives, 37 percent for the commercial objectives.
19. Company Partners reported strongly positive results in relation to: improved technical understanding; improvements in the firm's skill base; improved understanding of how to access Knowledge Base Partners; and improvements in the management of the innovation process.
20. The Lead Academics believed that involvement in TCS had made a significant contribution to their research. This did not come primarily through formal outputs – refereed papers - but in shaping their research agenda through providing opportunities to test ideas and identify issues for further research. Despite this enthusiasm, academics believed that there were significant constraints on the expansion of TCS in its present form, relating to organisational inflexibilities and limited personal incentives.
21. Salaries for the Associate were comparable to/somewhat below the average paid to graduates but there is some evidence that Associates subsequently obtain pay at above average rates for their length of experience. Associates recognised that they gained personal and organisational skills, and believed that the experience was valuable to them and well regarded by potential employers.

Economic impacts of TCS

22. After allowing for non-additional outputs and displacement of UK competitors we estimate that over the period covered TCS generated: around 470 extra jobs; and between £70 million and £73.5 million in extra turnover. Total grants provided over the period were £84.5 million implying:
 - grants per job created of £182,300
 - £1.15 in grants led to increased turnover of £1.
23. These estimates compare poorly with the impacts achieved by some other schemes. However, such comparisons need to be treated with caution because:
 - many of the Programmes were completed recently and some impacts will not have fed through at the time of the evaluation
 - 53 percent were aiming at process improvements which will only feed indirectly into turnover

- a significant proportion of Associates will find employment with other firms and TCS is thus generating wider economic benefits
- the many 'softer' benefits which respondents reported have not been quantified.

Views of sponsors

24. There are fundamental differences in views between the sponsors as to the usefulness and value for money of TCS and these differences are a close reflection of basic strategies and priorities. The EPSRC, in particular, has serious doubts over the value of TCS since the Scheme is perceived as having a limited role in transferring knowledge generated by its research programmes and also as being administratively costly. Similar concerns are shared by the BBSRC, but to a lesser degree. Virtually all the other sponsors consider TCS to be at least good value for money although there are differences between individual organisations.

Management of the Scheme and operating costs

25. There are concerns amongst sponsors over the speed with which information on spend against their budgets is communicated. Some also expressed unease over the system whereby TCD Consultants are both involved in the generation and the submission of proposals and advise whether they should be supported or not.
26. Although difficult to track specific cases, several consultees had experienced delays in decision-making and were unclear about eligibility for TCS funding. They attributed these difficulties to SBS's operational involvement in the Scheme which was seen to overlap with the role of TCD.
27. The management costs presented include a considerable proportion which covers the cost of delivery elements of TCS. If these are excluded, the cost of managing the Scheme represented just over 8 percent of TCS's total funding for 2000/01.
28. We believe that there is only limited scope for cost reduction through either bringing the management of TCS in-house into SBS or awarding the contract to a different contractor. The current costs do include a sum to cover NPL Group administration costs and management fees which may not be charged by a contractor operating a different organisational structure, although arguably the activities covered by these administration and management costs would need to be covered under a different system.
29. The costs associated with the production of promotional materials are considerable, but more important the promotional materials are widely considered not to be very effective. We recommend that the materials be reviewed and redesigned to reinforce the benefits delivered to the different stakeholders by participating in TCS, and to emphasise the knowledge transfer aspects of the Scheme.