

Research Review 2000

ANALYSIS OF COMMENTS RECEIVED AND ACTION PLANNED

Eleven detailed written responses were received and a number of oral comments made; many making personal comments or expressing views that they did not want attributed or released. Feedback on the consultation is, therefore, provided in the form of a summary giving the range of views expressed and the consensus of opinion on each recommendation. For each recommendation this is followed by the intended Agency action, taking into account the comments received. The general view was that the review had been a fair and thorough assessment of the current situation and that the main recommendations were rational and should lead to a better focused and managed programme.

Framework Recommendations:

- 1 **"The National Radio Propagation Committee (NRPC) should be replaced by a broader, advisory committee - The Radio Research Advisory Committee (RRAC)".**

Comments Received

This recommendation was strongly supported. It was felt that the NRPC should be replaced by a broader and more accessible committee that could play a more central role in formulating research policy. The definition of the committee's role, membership and working methods was seen as critical to its success. The balance of members would need to be kept under regular review. It was suggested that there should be a tie-up between the research programme and the work of the Spectrum Management Advisory Group.

Action Planned

The RRAC will be set up and the issues identified above will be taken into account.

- 2 **"The main thrust of the research programme should be to make greater use of existing spectrum".**

Comments Received

This recommendation was supported. It was suggested that attention should be given to solving common problems faced by the radio industry in the medium and long term and that although the emphasis should be on making greater use of existing spectrum it was also important to promote new services and extend the spectrum. There was strong support for sharing studies noting that existing sharing arrangements were no longer adequate to meet the increasing demands on the spectrum. The effect that the introduction of new systems might have on existing spectrum users was considered an important question to address at an early stage in the development of new technology.

Action Planned

The RRAC will be tasked with developing a research strategy, taking into account the above comments.

- 3 "The research programme should include funding related to the development of efficient technology in support of making better use of existing spectrum. The RRAC should decide on the scope of this work".**

Comments Received

There were mixed views on this recommendation. Some believed that the development of efficient technology should be left to manufacturers and operators who were best placed to meet the commercial pressures in a fast changing market place. Others welcomed a wider outlook. It was suggested that expert groups such as the Mobile VCE could have an advisory role. Research activities suggested included techniques for improving spectrum efficiency, agile systems, automated frequency selection processes, adaptive and dynamic channel assignment systems and ways of reducing radio transmission power requirements.

Action Planned

Research relating to the development of technology will need to be undertaken in close collaboration with Industry so it would be more appropriate to fund this activity from the planned Spectrum Efficiency Scheme.

- 4 "The Agency should give priority to identifying a method of measuring the cost benefit of radio propagation research with the main objective of establishing the appropriate level for associated funding".**

Comments Received

There was general agreement that this recommendation had a worthy aim but that measuring the cost benefit of research was very difficult, especially for long term programmes in support of future system developments. There were mixed views on the value of long term propagation research, ranging from strong support for increased expenditure to a view that propagation research had been of little or no benefit to the wider radio community. The rationale of the cost/benefit case studies justifying specific propagation research was questioned and it was suggested that any attempt to apply similar cost benefit exercises to other aspects of propagation would be likely to fail.

Action Planned

The RRAC will need to address this issue with a view to developing a justified and supported programme of propagation research that can then be evaluated against the agreed aim.

- 5 "For 2000/2001, we confirm the need to maintain a Core propagation programme at RAL, at a funding level of £1.8M. This work should be the subject of an agreement between RA and RAL, in which the programme objectives and associated performance measures are clearly identified. Over a 5 year period there should be a move away from a Core programme towards tendered project work".**

Comments Received

There were mixed reactions to this recommendation. Some considered it a tight time scale others considered that it should be done in 2 rather than 5 years. The additional burden of contract management, lack of continuity and the effects on morale were considered to be negative points. It was also suggested that not all research was suitable to be handled on a short-term contract basis. Positive aspects cited included the need to introduce a cultural change, building a broader base of expertise, making results more open, introducing competition and achieving better value.

Concerns were also expressed regarding funding levels so it needs to be stressed that this recommendation relates only to the way in which the money is spent, it is not suggesting a reduction in the overall funding of propagation research.

Action Planned

A 5-year plan has been agreed with RAL to run down the core funded project work and move to individual tendered contracts. A rolling contract is proposed for RAL facilities – see supporting Recommendation D.

- 6 "Further propagation research projects to the value of £0.8M should be placed by competitive tender in 2000/2001".**

Comments Received

The majority view supported this recommendation. The spend was considered small but realistic. Once again competitive tendering was not seen as always producing the most cost-effective solution especially when the research could only be fully developed by discussions between the Agency and the contractor or when there was only one source of expertise. One respondent saw no justification for a further spend of £0.8M.

Action Planned

Further propagation research projects will be considered for 2000/2001. Competitive tendering will be used unless there is a justifiable reason to consider single tender action.

7 "The RRAC should identify suitable measures of performance for all aspects of the research programme".

Comments Received

This recommendation was supported although it was recognised that suitable measures would be difficult to identify and that a single set of measures was not likely to be appropriate for all research projects.

Action Planned

The RRAC will be asked to address this issue and suitable measures of performance will be addressed at the approval stage of each project.

8 "The Scope of the RRAC should include making proposals with respect to both R&D and External Training aspects of the Spectrum Efficiency Scheme".

Comments Received

This recommendation was supported and it was seen desirable that all research activities were within the purview of a single committee. The addition of external training, with its university related consideration was also considered appropriate. The need for increasing the supply of suitably trained staff could not be divorced from the research programmes, which effectively fund staff training. The scope and objectives of External Training needed to be clarified and a measure of success quantified.

Action Planned

The RRAC will take on the role of advisory committee for the Spectrum Efficiency Scheme and will liaise closely with the committee leading on the training aspects.

9 "The Agency's Engineering and Research Unit (ERU) should establish formal contacts with OST and other research related areas of DTI in order to ensure that the research programme is fully in line with Departmental policy".

Comments Received

This recommendation was not fully supported. It was seen as desirable that the Agency's research spend was in line with long term Departmental policy and that it should be co-ordinated with other Agencies. However, the main thrust of DTI activities was for joint funding of short-term studies, which were not compatible with the long-term studies needed to ensure the future availability of spectrum. The Agency should, therefore, retain its independence and not go for too close an integration.

Action Planned

The Agency will monitor developments in other parts of DTI, in order to identify best practice, and will make appropriate contacts where there may be mutual benefit.

Supporting Recommendations

A "Research Contracts should normally be subject to Competitive Tendering procedures".

Comments Received

This proposal was supported, although it was noted that competitive tendering was not appropriate for all contracts and did not guarantee the most cost-effective solution.

Action Planned

Research contracts will normally be subject to competitive tendering but, if justified, single tender action will be permitted.

B "In relation to spectrum sharing, the RRAC should consider funding studies into both specific and broad scenarios".

Comments Received

The proposal was supported.

Action Planned

The RRAC will be asked to cover this issue in the development of its research strategy.

C "The RRAC should develop a European Co-operation strategy for its research programme, particularly with respect to COST and Framework V".

Comments Received

This recommendation was supported, in principle, but it was noted that although there were merits in collaboration, it should be done on a selective basis, as there was a substantial overhead to European co-operation. Projects needed to be identified where there was a good expectation of quality research. The practice of an individual Administration taking the lead on a research topic within an ITU-R study group or CEPT project team required clarification. The preferred use of ITU-R methods and procedures in all relevant studies was stressed. The need for continuity and authoritative experts at ITU-R meetings was noted. COST was recognised as a research mechanism that brought together a broad range of scientific and technical expertise with effective collaborative working arrangements that added value to the research topics. It was also noted that the recommendation should refer to the Framework programme rather than Framework V.

Action Planned

The RRAC will be asked to address the issue of European co-operation with an emphasis on selective involvement in areas that have high potential.

D "The RRAC should consider the future role of national facilities for radio research and develop a strategy".

Comments Received

This recommendation was supported. It was agreed that the cost of funding facilities such as the Chilbolton rain radar needed to be justified. Where a facility is a national resource used by different researchers for various purposes a stable long-term joint funding arrangement needed to be developed. The complexities of running a facility, collaborating with others, and competing for contracts were noted.

Action Planned

Starting in 2001/2002, it is proposed to have a rolling contract to fund the facilities at RAL. The continuation of this contract would need to be justified and the RRAC would be consulted on this issue at the appropriate time.

E "The Agency should issue a clear statement on its position on IPR in relation to the research programme".

Comments Received

This recommendation was supported, however, it was noted that the position on IPR might vary with the type of research. In principle, work funded by the Agency should be placed in the public domain but in some cases IPR might be retained by the research organisation with a contract requirement to make it available on an equitable bases to all other organisations, in addition to free use for government purposes. For software the position was seen as complex because if it were needed for international purposes it would have to be made freely available whereas the Agency should expect royalties from any external sale of the software by the contractor.

Action Planned

Research contracts will cover IPR issues, which will be focused on placing the results in the public domain and may be tailored to cover individual requirements.

F "RRAC should consider whether the performance measurement and dissemination activities could be strengthened by the appointment of an external contractor".

Comments Received

This recommendation was not supported. The wider dissemination of the research work was supported and an annual forum suggested. It was noted that contractors were unwilling to fully report on their work on the basis that it would hinder their ability to gain further contracts. It was considered that the Agency already has good links through its various committees and industry/user groups, which could be used to obtain greater visibility of the research programme and make more effective dissemination of research reports. The use of an external contractor, who would not have these contacts, was not supported.

Action Planned

The Agency will undertake this work, in house, with a view to achieving a wider dissemination of results.

G "RA should identify a non-Agency person to chair the RRAC".

Comments Received

Feedback on this recommendation was mixed. Some wanted the chairmanship to be retained by the Agency, others said they had no strong views, but the majority agreed that it called for a person with a background in spectrum management, and an understanding of research methods and the university process.

Action Planned

The Agency intends to appoint a non-Agency person as the first chairman of the RRAC.

H "There should be three categories of RRAC Membership, namely Physical Members, E-Members and Associate Members".

Comments Received

This recommendation was not supported because the membership categories were seen as too complicated. Two categories were suggested - those who attend meetings (representative members) and those who were on the circulation list for documents (corresponding members). The RRAC should be kept small and have the freedom to modify its working arrangements if experience showed them to be impractical.

Action Planned

The committee will be set up with two classes of membership – representative members and corresponding members.

I "The Manager, ERU should regularly monitor the contributions to the RRAC Open-Forum and reflect them at Meetings".

Comments Received

This recommendation was supported as an effective way of ensuring that the views expressed by the wider radio community were represented.

Action Planned

The views of corresponding members will be reflected at RRAC meetings.

J "Each of the current TWP of the NRPC should become a RRAC Task Group".

Comments Received

This recommendation was supported but the continued need for a Task Group should be kept under review. The Task Group Chairman should report progress at each meeting of the RRAC.

Action Planned

The existing NRPC TWPs will become Task Groups reporting to the RRAC. The continued operation of new or adopted task groups will be kept under review by the RRAC.