CURRICULUM VITAE

BEN R. MARTIN

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February 2005

CURRICULUM VITAE

NAME Benjamin Raymond MARTIN

DEGREESBA (first class), Natural Sciences, University of Cambridge,

1973; MA, University of Cambridge; MSc, University of Manchester, 1976

DATE OF BIRTH 9 August 1952

NATIONALITY British

MARITAL STATUS Married with three children (born 1980, 1982 and 1985)

PRESENT POSTS

1997-2004 Director, SPRU - Science and Technology Policy Research, University of

Sussex.

1996-date Professor in Science and Technology Policy Studies, SPRU, University of

Sussex.

EDUCATION

1970 Open Scholarship in Natural Sciences at Churchill College, University of Cambridge.

1970-73 Undergraduate student at the University of Cambridge. BA first class honours degree in Part IA and Part II of the Natural Sciences Tripos (in physics). Kitchener Scholar at Churchill College, Cambridge.

MSc on 'The Structure and Organisation of Science and Technology' in the Department of Liberal Studies in Science, University of Manchester. MSc dissertation on 'The Origins, Development and Capitulation of Steady-State

Cosmology: A Sociological Study of Authority and Conflict in Science'.

1976-78 Research student in the Department of Liberal Studies in Science, University of Manchester. Research on 'British Astronomy 1945-75: A Study of the Role of

Elites in Science Policy Making'.

PREVIOUS APPOINTMENTS

1995-96	Director of	of External	Relations.	SPRU.

1992-95 Director of Graduate Studies, SPRU.

1990-96 Senior Lecturer (half-time) in Science and Technology Policy Studies, SPRU,

University of Sussex.

1986-96 Senior Fellow (half-time) at SPRU, University of Sussex.

1987 Visiting Fellow, Max-Planck-Institut für Gesellschaftsforschung, Cologne.

1986-1993 Group Leader, Science Policy and Research Evaluation Group, SPRU,

University of Sussex.

1983-90	'New Blood' Lecturer (half-time) in Science and Technology Policy Studies, SPRU, University of Sussex (the other half of the appointment being Fellow and, from 1986, Senior Fellow)
1983-84	Visiting Lecturer, Department of Economic and Social Studies, Imperial College of Science and Technology.
1978-86	Fellow at the Science Policy Research Unit (SPRU), University of Sussex.
1973-75	Graduate teacher in Nigeria under the auspices of the Voluntary Services Organisation (VSO). Taught physics, mathematics, and current affairs.

UNIVERSITY OF SUSSEX POSTS

1997-	Senate
1997-2002	Council
1997-	Court
1997-2002	Management Committee/Deans and Directors Group
1997-99	Planning and Resources Committee
1997-2003	Science Promotions and Advancements Committee
1997-98	Search Committee for a New Vice-Chancellor
1998-	Research Degree Appeals Board
1999-2001	Governance Working Group
2001-02	Strategy Committee
2002-03	Working Group on Membership of Senate
2002-	Senior Management Group
2003-	University Research Governance Committee

PRIZES AND HONOURS

Joint winner, Derek de Solla Price Medal for Science Studies, 1997.

First author of 7th most highly cited paper in Research Policy.

DIRECTORIES

Debrett's People of Today, 2003-

Dictionary of International Biography, 2005-

Who's Who, 2005-

RESEARCH RECORD

Principal Investigator or Project Leader on nearly 50 research projects and commissioned studies (see Appendix 1). These have been mostly concerned with the development of techniques for generating systematic information to aid decision-making in relation to science, engineering and technology.

Among the topics covered have been the following:

- (a) first evaluation of 'big science' facilities using 'converging partial indicators'
- (b) assessments of research performance in 'small science' and engineering
- (c) evaluation of technological 'spin-offs' and training benefits from research
- (d) analysis of position of women in science and factors affecting career development
- (e) appraisal of impact of strategic and applied research government programmes
- (f) evaluation of government support mechanisms for research
- (g) assessment of national research performance, especially the UK's performance
- (h) some of the first studies of foresight in science and technology
- (i) production of first truly comparable international statistics on government funding of academic and related research; comparison of research inputs and outputs
- (j) analysis of the factors determining research performance (e.g. economies of scale)
- (k) different approaches to university research assessment, and use of indicators
- (l) analysis of links between science and technology
- (m) nature of research collaboration
- (n) identifying users (and their long-term research needs) for environmental sciences
- (o) economic benefits of publicly funded research and rationale for public funding
- (p) evolving links between university departments and industry
- (q) changing national research systems
- (r) impact of social science research on non-academic audiences
- (s) impact of the Culyer changes on R&D in the NHS
- (t) changing 'social contract' between universities/research and the state
- (u) analysis of 'creative knowledge environments'

This research has resulted in the publication of seven books, seven monographs and official government reports, 50 articles in international journals, and numerous other articles, chapters and reports. These are listed in Appendix 2, grouped according to the nature of the publication.

Appendix 3 summarises the radio and television programmes in which the work has been discussed.

The research has also led to numerous requests to testify before official bodies; these are shown in Appendix 4.

Official and honorary positions including membership of professional associations are listed in Appendix 5.

TEACHING RECORD

	(A) Imperial College – Visiting Lecturer (half-time)
1983-84	Lecture course on 'Technology and Society' to mechanical engineering students
1983-84	Lecture course on 'Innovation and Technical Change' to chemical and electrical engineering students.
	(B) University of Sussex Lecturer/Senior Lecturer/Professor
1985-1999	Lectures on 'Science and Technology and the Modern Industrial State' to 'Science and Europe' undergraduate students.
1989-1996	Course Convenor for above.
1985-91	Tutorial Convenor for course on 'Introduction to Science and Technology Policy' for SPRU MSc students.
1989-90	Lectures on 'Policy for Scientific Research' for SPRU MSc students.
1992-95	Director of Graduate Studies – responsible for running a graduate school of 40 Masters students and 90 DPhil students.
1995-date	Lectures on course now entitled 'Political Economy of Science and Technology' for SPRU MSc students.
1997-2000	Course Convenor for above.
1998-2000	Lectures on 'Policy Analysis and the Policy-Making Process' for SPRU MSc students.
2003-date	Lectures on 'Introducing Science, Technology and Innovation Studies' for SPRU MSc students.
	(C) Supervision of Sussex MSc dissertations
1981-date	Supervised over 20 MSc dissertations on various aspects of science and technology policy.
	(D) Supervision of Sussex DPhil theses
1983-87	Andrew Barry: 'The Science of Science: Programmes of British Space Research', 1987.*
1985-88	Diana Hicks: 'Beyond Serendipity: Factors Affecting Performance in Condensed-Matter Physics', 1988.*
1985-89	Fernando Spagnolo: 'Assessment of Graduate Programmes: the Brazilian Case', 1989.
1989-93	Benoît Godin: 'The Relationship Between Science and Technology: A Bibliometric Analysis of Papers and Patents in Innovative Firms', 1994.*
1990-93	Sylvan Katz: 'Bibliometric Measures of Intranational Collaboration', 1993.*
1992-98	Susan Morrow: 'Research Strategy in UK Academic Medicine: Four Case Studies in the University of London', 1998.

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^{*} Barry, Hicks, Godin and Gabriel were all appointed to University Lectureships immediately after completing their DPhil research, and several of the others also now hold university faculty positions.

1993-97	Scott Cunningham: 'Information Retrieval Approaches to the Analysis of Scientific Databases', 1997
1993-98	Halla Thorsteinsdottir: 'International Collaboration in Small Countries: A Bibliometric Study of Iceland and Newfoundland', 1998.
1995-98	Norman Gabriel: 'Converging Partial Indicators - An Assessment of Their Contribution to Evaluative Bibliometrics in Britain', 1998.*
1997-2000	Tiago Santos Pereira: 'Changing Places? The Extension of Research Groups through European Research Collaborations', 2000.
1997-2001	Jane Calvert: 'Good-bye Blue Skies? The Definition of Basic Research and its Changing Role in the Current Funding Environment', 2001.
1997-2004	Alister Scott: 'The Application of Global Environmental Change Research', 2004.
1998-2000	Kevin Smith, 'Measuring the Effects of Organisational Factors on Research Productivity and Creativity in Selected Canadian Cardiovascular Research Institutions', 2000.
1999-2003	Alexandre Caldas, 'The Structure of Electronic Scientific Communication: Electronic Networks, Research Collaboration and the Discovery of Digital Knowledge Bases', 2003.
1999-2004	Michael Hopkins, 'Technique-Led Technological Change and the 'Hidden Research System'; Genetic Testing in the NHS', 2004.
2004-	Sandro Mendonca, 'The Evolution of New Combinations: Factors Driving British Naval Engineering Competitiveness during the 19 th Century',
2004-	Başak Candemir,

Research Grants/Contracts where Principal Investigator/Project Leader¹

- 1. September 2004 November 2004. Towards a Science Strategy for the SE of England, for South East England Development Agency (SEEDA). (£14,000)
- 2. January 2004 December 2008. Policies for Research and Innovation in the Move towards the ERA (PRIME), Network of Excellence funded by the European Commission. (5,500,000 Euros)
- 3. April 2004 June 2004. Knowledge Transfer Metrics, for the Office of Science and Technology, Department of Trade and Industry. (£13,000)
- 4. January 2004 June 2004. Doctoral Conference for the PRIME Network of Excellence. (48,000 Euros)
- 5. August 2004. Postgraduate Forum on Genetics and Society Annual Conference, funded by the Economic and Social Research Council (ESRC). (£25,000)
- 6. April 2003 June 2003. The Effects of Size on Research Performance, for the Office of Science and Technology, Department of Trade and Industry. (£15,000)
- 7. October 2002 March 2004. Policies for Research and Innovation in the Move towards the ERA (PRIME), Thematic Network funded by the European Commission. (480,000 Euros)
- 8. December 2001 June 2002. International Foresight Project, for International Council for Science (ICSU). (\$50,000)
- 9. July 2000 June 2003. The Freeman Centre, new building for SPRU and CENTRIM funded by the Joint Infrastructure Fund (JIF) through the Economic and Social Research Council (ESRC). (£5,000,000)
- 10. October 2000 December 2001. Science Foresight Project, for Defence Evaluation and Research Agency (DERA). (£73,000)
- 11. October 2000 January 2001. Foresight in Asset Management and Financial Services, for Baring Asset Management (BAM), ING Group. (£20,000)
- 12. April 1999 July 1999. Resource Allocation and Research Performance: The Assessment of Research, for the Higher Education Funding Council of England (HEFCE). (£15,000)
- 13. May 1998 December 1999. Assessing Research Impact on Non-Academic Audiences, for the Economic and Social Research Council. (£132,000)
- 14. March 1998 March 1999. Evaluation of the Impact of the Culyer Reforms on NHS R&D Funding, for North Thames Region, NHS. (£120,000)
- 15. January 1998 March 1998. Value for Money from Publicly Funded Research, for the National Audit Office. (£5,000)
- 16. October 1997 June 1998. Pilot Audit of Research Exploitation in the Social Sciences, for the Economic and Social Research Council. (£32,000)

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Although I have been involved in several major research projects over recent years, these are not listed here unless I was the Principal Investigator or Project Leader.

- 17. February 1997 January 1999. Comparison of National Public Research Systems (jointly with Jacky Senker and researchers at a number of European research centres), for the Targeted Socio-Economic Research Programme of the European Union. (£77,000)
- 18. January 1996 July 1996. The Links Between University Physics Departments and Industry, for the Institute of Physics. (£35,000)
- 19. November 1995 February 1996. The Relationship Between Publicly Funded Basic Research and Economic Performance, for HM Treasury. (£9,000)
- 20. November 1995 January 1996. The Educational and Training Implications of the Technology Foresight Programme, as part of a project for the Department of Education and Employment. (£3,000)
- 21. January 1995 July 1995. Mapping Science Outputs onto User Needs, for the Natural Environment Research Council. (£65,000)
- 22. October 1992 April 1993. Critical-Mass Effects and Economies of Scale in Science An Examination of the Evidence, as part of a project on 'An Analysis of the Bases of Research Funding' for the Australian National Board of Employment, Education and Training. (£10,000)
- 23. April 1990 March 1993. The Interface Between Corporate R&D and Academic Research, supported by the Economic and Social Research Council. (£103,000)
- 24. March 1992 November 1992. Research Foresight and the Exploitation of the Science Base, for the Office of Science and Technology, Cabinet Office. (£11,000)
- 25. May 1992 September 1992. State-of-the-Art Review of Research Supported by the IEE Division of ESRC: A Bibliometric Analysis, for the Science Policy Support Group and the Economic and Social Research Council. (£5,000)
- 26. March 1990 July 1991. Canadian Government Funding of Academic and Related Research, for the US National Science Foundation. (£6,000)
- 27. October December1990. International Comparison of Human Genome Research, for the Medical Research Council (MRC).
- 28. 1989 1990. CHI/NSF Science Literature Indicators Data-Base, for a consortium of UK government departments and funding agencies. (£19,000)
- 29. February 1989 January 1992. Academic Research Performance Indicators, supported by the Advisory Board for the Research Councils and the Economic and Social Research Council. (£148,000)
- 30. April 1987 March 1990. Science Policy and Research Evaluation, supported by the Economic and Social Research Council. (£73,000)
- 31. July 1987 December 1989. International Comparison of Government Funding of Academic and Academically Related Research Extension and Update, for the Advisory Board for the Research Councils and the US National Science Foundation. (£80,000)
- 32. September 1987 July 1989. Foresight in Science A Review of Attempts to Match Current and Future Research to Tomorrow's Needs, for the Dutch Ministry of Education and Science. (£76,000)
- 33. October 1986 September 1989. Study of Emerging Areas of Biomass Research for Liquid Fuels Use, for Shell Research Laboratories. (~£100,000)

- 34. July 1986 January 1987. Production of Bibliometric Profiles of UK Universities, Polytechnics and Government Research Laboratories, for the Advisory Board for the Research Councils. (£9,000)
- 35. July 1986 October 1986. Development of Techniques for Routine Monitoring and Evaluation of Research, for the Agricultural and Food Research Council. (£1,000)
- 36. October 1983 September 1986. Programme of Work on Research Evaluation, supported by the Leverhulme Trust. (£61,000)
- 37. October 1984 July 1986. International Comparison of Government Funding of Academic and Academically Related Research, for the Advisory Board for the Research Councils. (£39,000)
- 38. July 1985 December 1985. Bibliometric Assessment of the AES Energy Research Programme, for the Swedish Energy Research Commission. (£2,000)
- 39. January 1985 October 1985. Computerisation and Update of SPRU Database on World High-Energy Physics, supported by the Economic and Social Research Council. (£8,000)
- 40. February 1985 July 1985. Methodological Feasibility Study for Evaluating SERC Support of Engineering Research, for the Science and Engineering Research Council. (£6,000)
- 41. October 1984 July 1985. Assessment of Britain's Scientific Strengths and Weaknesses, for a consortium of learned societies. (£6,000)
- 42. March 1984 October 1984. Assessment of Priorities for Building and Civil Engineering Research, for the Department of Environment and National Economic Development Office. (£1,000)
- 43. July 1983 June 1984. Bibliometric Evaluation of British Science, for the Advisory Board for the Research Councils. (£7,000)
- 44. July 1983 January 1984. Study of Techniques for Identifying Promising Areas of Science, for the Advisory Council for Applied Research and Development and the Cabinet Office. (£13,000)
- 45. September 1982 March 1983. An Evaluation of the Social and Economic Impact of the ECSC Steel R&D Programme, for the Commission of the European Communities. (£22,000)
- 46. October 1982 January 1983. An Evaluation of the Norwegian Institute for Energy Technology, for the Norwegian Ministry of Oil and Energy. (£12,000)
- 47. September 1982 November 1982. A Review of Research Evaluation Procedures Used in British Basic Science for the French Ministry of Research and Industry. (£5,000)
- 48. April 1981 July 1982. An Assessment of CERN's Past Performance and Future Prospects, supported by the Social Science Research Council. (£39,000)
- 49. December 1980 April 1981. An Evaluation of Government Support for Industrial Research in Norway, for the Royal Norwegian Commission on Government Support for Industrial Research and Technology. (£22,000)
- 50. April 1978 June 1980. An Assessment of Criteria for Capital Projects in Basic Science, supported by Social Science Research Council. (£32,000)

PUBLICATIONS

1. (a) Books

- 1.7 S. Hemlin, C.M. Allwood and B.R. Martin (eds.), 2004, *Creative Knowledge Environments: Micro and Macro Studies of R&D and Higher Education*, Aldershot and Brookfield, Vermont: Edward Elgar.
- 1.6 B.R. Martin and P. Nightingale (eds), 2000, *The Political Economy of Science, Technology and Innovation*, Aldershot and Brookfield, Vermont: Edward Elgar.
- 1.5 R. Barré, M. Gibbons, J. Maddox, B. Martin and P. Papon (eds), 1997, *Science in Tomorrow's Europe*, Paris: Economica International.
- 1.4 J. Irvine, B.R. Martin, D. Griffiths and R. Gathier (eds), 1997, *Equipping Science for the 21st Century*, Aldershot and Brookfield, Vermont: Edward Elgar.
- 1.3 J. Irvine, B.R. Martin and P.A. Isard, 1990, *Investing in the Future: An International Comparison of Government Funding of Academic and Related Research*, Aldershot and Brookfield, Vermont: Edward Elgar.
- 1.2 B.R. Martin and J. Irvine, 1989, *Research Foresight: Priority-Setting in Science*, London and New York: Pinter Publishers; also published as J. Irvine and B.R. Martin, 1989, *Research Foresight: Creating the Future*, Zoetermeer: Netherlands Ministry of Education and Science.
- 1.1 J. Irvine and B.R. Martin, 1984, *Foresight in Science: Picking the Winners*, London: Pinter Publishers.

1. (b) Monographs, Special Issues of Journals, Official Government Reports²

- 1.15 W. Harris, B.R. Martin et al., 2005, *Frontier Research: The European Challenge*, Report of the High-Level Expert Group, Brussels: European Commission.
- 1.14 B.R. Martin, A. Salter, D. Hicks, K. Pavitt, J. Senker, M. Sharp and N. von Tunzelmann, 1996, *The Relationship Between Publicly Funded Basic Research and Economic Performance: A SPRU Review*, London: HM Treasury.
- 1.13 Sir W. Stewart *et al.*, 1995, *Progress Through Partnership*, Office of Science and Technology, London: HMSO (co-author as member of the Steering Group of the Technology Foresight Programme).
- 1.12 B.R. Martin, 1995, *Technology Foresight: A Review of Recent Overseas Programmes*, Office of Science and Technology, London: HMSO.
- 1.11 B.R. Martin, 1993, Research Foresight and the Exploitation of the Science Base, Office of Science and Technology, London: HMSO.
- 1.10 P. Healey, J. Irvine and B.R. Martin (eds.), 1988, *Quantitative Science Policy Studies in the United Kingdom*, special issue of *Scientometrics*, 13 (3-4), Amsterdam: Elsevier.

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Other published reports are listed in Section 6.

- 1.9 B.R. Martin and J. Irvine, 1986, *British Science Evaluation Methods*, Science Policy Study Hearings Volume 13, Task Force on Science Policy of the Committee on Science and Technology, House of Representatives, Ninety-Ninth Congress, First Session, October 30, 1985 [No.59], Washington, D.C.: U.S. Government Printing Office.
- 1.8 J. Irvine, B.R. Martin and M. Schwarz, with K. Pavitt and R. Rothwell, 1981, Government Support for Industrial Research in Norway: A SPRU Report, Oslo: Universitetsforlaget (Norwegian Official Publication NOU 1981: 30B).

2. Book Chapters

- 2.25 B.R. Martin, C. M. Allwood and S. Hemlin, 2004, 'Conclusions: How to Stimulate Creative Knowledge Environments', Chapter 9 in S. Hemlin, K.M. Allwood and B.R. Martin (eds.), 2004, *Creative Knowledge Environments: Micro and Macro Studies of R&D and Higher Education*, Aldershot and Brookfield, Vermont: Edward Elgar (2004).
- 2.24 S. Hemlin, C. M. Allwood and B.R. Martin, 2004, 'What is a Creative Knowledge Environment?', Chapter 1 in S. Hemlin, K.M. Allwood and B.R. Martin (eds.), 2004, *Creative Knowledge Environments: Micro and Macro Studies of R&D and Higher Education*, Aldershot and Brookfield, Vermont: Edward Elgar (2004).
- 2.23 B.R. Martin and J. Irvine, 2003, 'Valutare la Ricerca di Base: Alcuni Indicatori Parziali del Progresso Scientifico in Radioastronomia', pp.391-419 in R. Viale and A. Cerroni, *Valutare la Scienza*, Soveria Mannelli: Rubbettino.
- 2.22 B.R. Martin, 2003, 'The Changing Social Contract for Science and the Evolution of the University', pp.7-29 in A. Geuna, A. Salter and W. E. Steinmueller (eds), *Science and Innovation: Rethinking the Rationales for Funding and Governance*, Aldershot and Brookfield, Vermont: Edward Elgar.
- 2.21 B.R. Martin, 2002, 'Research Assessment in the United Kingdom and How It Might Be Improved', *Berichte und Abhandlungen der BBAW*, Vol. 9, pp.255-66 (Proceedings of the International Conference on 'Quality Assessment in Academia', Berlin-Brandenburg Academy of Sciences, Berlin, 27 November 1999).
- 2.20 J. Calvert and B. Martin, 2001, 'Science Funding: Europe', pp.13676-80 in N.J. Smelser and P.B. Baltes (eds), *International Encyclopaedia of the Social and Behavioral Sciences*, Vol. 20 (S. Jasanoff (ed.), Science and Technology Studies) Oxford and New York: Elsevier Science.
- 2.19 B.R. Martin, 2001, 'Matching Societal Needs and Technological Capabilities: Research Foresight and the Implications for Social Sciences', pp.105-15 in *Social Sciences and Innovation*, Paris: Organisation for Economic Co-operation and Development.
- 2.18 B.R. Martin and P. Nightingale, 2000, 'Introduction', pp.xiii-xlii in B.R. Martin and P. Nightingale (eds), 2000, *The Political Economy of Science, Technology and Innovation*, Aldershot and Brookfield, Vermont: Edward Elgar.
- 2.17 B. Martin, 1999, 'The Role of Foresight in Fostering Networks', Memorandum submitted to the Science and Technology Committee, published as an Appendix to the Minutes of Evidence in Volume II of the Committee's Report on *Engineering and Physical Sciences Based Innovation*, London: HMSO.

- 2.16 B.R. Martin and R. Johnston, 1999, 'Short Survey of Activities in the UK in Recent Years' (in Russian), pp.273-77 in H. Grupp, K. Blind and K. Kuhls (eds) in cooperation with J. E. Ero, S. K. Hong, R. Johnston, T. Kuvahari, G. A. Linston, B. R. Martin and T. Shin, *Management of Science in the EU Countries* (in Russian), Volume 2, Moscow: Nauka/Interperiodika.
- 2.15 B.R. Martin, 1999, 'Das britische "Technology Foresight Programme" ', pp.35-52 in G. Kaiser, K. Wetzel-Vandai and A. Claussen (eds), *Technologiebedarf im 21. Jahrhundert*, Frankfurt: Campus-Verlag (1999).
- 2.14 B. Martin, 1999, 'Evaluating Investments and Performance in UK Research', pp.155-63 in A.H. Teich, S.D. Nelson, C. McEnaney and T.M. Drake (eds), *AAAS Science and Technology Policy Yearbook 1999*, Washington D.C.: American Association for the Advancement of Science (invited presentation given at the 23rd AAAS Colloquium on Science and Technology Policy, Washington D.C., 29 April 1 May 1998).
- 2.13 B.R. Martin, 1997, 'Technology Foresight as a Tool for Strategic Management', pp.31-47 in J. Anderson, R. Fears and B. Taylor (eds), *Managing Technology for Competitive Advantage*, London: Cartermill International.
- 2.12 S. Crawford, B.R. Martin and D. Griffiths, 1997, 'Policies to Equip Science for the 21st Century', pp.563-78 in J. Irvine, B.R. Martin, D. Griffiths and R. Gathier (eds), *Equipping Science for the 21st Century*, Aldershot and Brookfield, Vermont: Edward Elgar.
- 2.11 B.R. Martin, 1997, 'Evaluating Science and Scientists: Factors Affecting the Acceptance of Evaluation Results', pp. 28-45 in M.S. Frankel and J. Cave (eds.), Evaluating Science and Scientists: An East-West Dialogue on Research Evaluation in Post-Communist Europe, Budapest: Central European University Press.
- 2.10 J.E.F. Skea, B.R. Martin and E.N. Ling, 1992, 'Assessing University Departments: Some Problems and Partial Solutions', pp.106-20 in A.F.J. van Raan, R.E. de Bruin, H.F. Moed, A.J. Nederhof and R.W.J. Tijssen (eds.), *Science and Technology in a Policy Context*, Leiden: DSWO Press.
- 2.9 B.R. Martin and D. Crouch, 1992, Science in the Federal Republic of Germany, France and the UK An International Comparison of Inputs, Outputs and Impact' (English version of 2.8), pp.13-39 in P. Weingart, R. Sehringer and M. Winterhager (eds.), *Representations of Science and Technology*, Leiden: DSWO Press.
- 2.8 B.R. Martin and D. Crouch, 1991, 'Wissenschaft in der Bundesrepublik Deutschland, Frankreich und Grossbritannien ein internationaler Vergleich anhand von Input, Output und Impact', pp.144-79 in P. Weingart, R. Sehringer and M. Winterhager (eds.), *Indikatoren der Wissenschaft und Technik: Theorie, Methoden, Anwendungen*, Frankfurt and New York: Campus Verlag.
- 2.7 B.R. Martin, 1990, 'Identifying Priorities for Strategic Scientific Research', pp. 99-111 in D.F. deAlmeida (ed.), *Science Policy Research: Implications and Applications*, London and New York: Pinter Publishers.
- J. Irvine and B.R. Martin, 1988, 'O Kierunku Naukowych Badan Podstawowych', pp. 169-90 in J. Danecki (ed.), *Polska 2000: Przeglad Zagraniczney Luteratury Prognostycznej*, Warsaw: Polish Academy of Sciences.

- 2.5 J. Irvine, B.R. Martin, J. Abraham and T. Peacock, 1987, 'Assessing Basic Research: Reappraisal and Update of an Evaluation of Four Radio Astronomy Observatories', pp. 213-27 in C. Freeman (ed.), *Output Measurement in Science and Technology*, Amsterdam: New Holland.
- 2.4 J. Irvine and B.R. Martin, 1986, 'Women in Radio Astronomy: Shooting Stars?', Chapter 5, pp. 80-81 in J. Harding (ed.), *Perspectives on Gender and Science*, Lewes: Falmer Press.
- 2.3 B.R. Martin and J. Irvine, 1986, 'Research Evaluation in Big Science: A Case-Study of CERN', in G. Statera and L. Cannavo (eds.), *Post-Industrial Society and Research Policy*, Milan: Franco Angeli.
- 2.2 J. Irvine and B.R. Martin, 1984, 'What Direction for Basic Scientific Research?', pp. 67-98 in M. Gibbons, P. Gummett and B.M. Udgaonkar (eds.), *Science and Technology Policy in the 1990s and Beyond*, Harlow: Longman.
- 2.1 B.R. Martin, 1981, 'Industrial Innovation Policy: A Comparison of Some Recent Government Formulations', pp. 55-81 in R. Rothwell and W. Zegveld: *Industrial Innovation and Public Policy*, London: Pinter Publishers.

3. Articles in Learned International and Refereed Journals

- 3.53 S. Hemlin, C.M. Allwood and B.R. Martin, 2006, 'Creative Knowledge Environments', submitted to *Research Policy*.
- 3.52 A. Geuna and B.R. Martin, 2003, 'University Research Evaluation and Funding: An International Comparison', *Minerva*, 41, pp.277-304.
- 3.51 C. Freeman, P. Patel and B. Martin, 2003, 'Obituary: Keith Pavitt (1937-2002)', *Scientometrics*, 57, pp.5-6.
- 3.50 C. Freeman, P. Patel and B. Martin, 2003, 'Obituary: Keith Pavitt', *Social Studies of Science*, 33, pp.463-64.
- 3.49 B.R. Martin and H. Etzkowitz, 2001, 'The Origin and Evolution of the University Species', *Journal for Science and Technology Studies (Tidskrift för Vetenskaps- och Teknikstudier, VEST)*, 13, pp.9-34.
- 3.48 A.J. Salter and B.R. Martin, 2001, 'The Economic Benefits of Publicly Funded Basic Research: A Critical Review', *Research Policy*, 30, pp.509-32.
- 3.47 B.R. Martin and R. Johnston, 1999, 'Technology Foresight for Wiring Up the National Innovation System: Experiences in Britain, Australia and New Zealand', *Technological Forecasting and Social Change*, 60, pp.37-54.
- 3.46 M. MacLean, B.R. Martin and J. Anderson, 1998, 'The Identification of Research Priorities: Mapping Science Outputs onto User Needs', *Technology Analysis and Strategic Management*, 10, pp.139-55.
- 3.45 S. Katz and B.R. Martin, 1997, 'What is Research Collaboration?', *Research Policy*, 26, pp.1-18. (Paper awarded a Citation of Excellence with the highest quality rating by ANBAR Electronic Intelligence see http://www.anbar.co.uk/anbar/excellence/authors.htm)
- 3.44 B.R. Martin, 1996, 'Technology Foresight: Capturing the Benefits from Science-Related Technologies', *Research Evaluation*, 6, pp.158-68.
- 3.43 D. Hicks, P.A. Isard and B.R. Martin, 1996, 'A Morphology of Japanese and European Corporate Research Networks', *Research Policy*, 25, pp.359-78.

- 3.42 B.R. Martin, 1996, 'The Use of Multiple Indicators in the Assessment of Basic Research', *Scientometrics*, 36, pp.343-62.
- 3.41 B.R. Martin, 1996, 'Technology Foresight: A Review of Recent Government Exercises', *Science, Technology, Industry Review*, 17, pp.15-50.
- 3.40 B.R. Martin, 1995, 'Foresight in Science and Technology', *Technology Analysis and Strategic Management*, 7, pp.139-68.
- 3.39 B.R. Martin, 1994, 'British Science in the 1980s The Latest Bibliometric Evidence', *Scientometrics*, 29, pp.27-56.
- 3.38 B.R. Martin and J. Irvine, 1992, 'Trends in Government Spending on Academic and Related Research: An International Comparison', *Science and Public Policy*, 19, pp.311-19.
- 3.37 B.R. Martin, 1992, 'Big History for Big Science?', *Journal of Radioanalytical and Nuclear Chemistry Letters*, 164, pp.203-10.
- 3.36 B.R. Martin and J. Irvine, 1992, 'The Position of British Science', *Nature*, 355, p.760.
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5. (a) Published Conference Papers

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- 5.14 J. Calvert and B.R. Martin, 2001, 'Changing Conceptions of Basic Research?', Background Report prepared for the OECD Workshop on Policy Relevance and Measurement of Basic Research, Oslo 29-30 October 2001 (http://www.oecd.org/oecd/pages/home/displaygeneral/0,3380,EN-document-47-1-no-20-22489-47,00.html or http://www.oecd.org/pdf/M00022000/M00022502.pdf).
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- 5.11 B.R. Martin, 1998, 'Technology Foresight: Concepts and Practices', Keynote Lecture at the European Workshop on Technology Foresight, Oviedo, Spain, 26-27 November 1998; published (in Spanish) as 'Prospectiva Tecnologica: Conceptos y Practicas', in *Proceedings of the European Workshop on Technology Foresight*.
- 5.10 B.R. Martin, 1994, 'Establishing Science Policies and Priorities The Role of Foresight', *Proceedings of the Science and Technology Asian Policy Network (STEPAN) Policy Seminar on Priority Setting in Science and Technology*, Wellington, New Zealand, 18-20 October 1994, Wellington: Ministry of Research, Science and Technology.
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- 5.8 B.R. Martin, 1993, 'The Theory and Practice of Research Foresight in the Development of Policies for Basic Science', in Chen Chia-erh (ed.), *Proceedings of the International Seminar on Evaluation and Granting Policies for Development of Basic Disciplines*, Beijing, 26-28 November, 1991, Beijing: China Aviation Industry Press (1993), pp.1-22.

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- 5.6 B.R. Martin and J. Irvine, 1985, 'Output Indicators for Science Policy: An Evaluation of CERN's Past Performance and Future Prospects', *OECD Workshop on Science and Technology Indicators*, 10-13 June, 1985, Paris: Organisation for Economic Cooperation and Development (Ref. DSTI/SPR/85.24/17A).
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5. (b) Other Conference Presentations and Invited Lectures

- 5.76 B.R. Martin, 2004, 'The Evolution of Foresight and Its Potential Role in Relation to International Cooperation', Invited Presentation to the International Conference on 'Present Needs, Future Options: Issues and Topics for Transnational Foresight', The Hague, 2-3 December 2004.
- 5.75 B.R. Martin, 2004, 'New Rationales for Policy Intervention and the Shaping of ST&I Policies', Invited Presentation at the Workshop 'Towards Virtual Centres of Excellence?', Ministry of Trade and Industry, Helsinki, 10 November 2004.
- 5.74 B.R. Martin, 2004, 'The Changing Role of Universities and of University Research', Invited Lecture at the International Conference on 'Science in a New Situation: the Role of Basic Research', Oslo, 15-16 June 2004.
- 5.73 B.R. Martin, 2004, 'Knowledge Transfer Metrics', Introduction to the DTI Workshop on 'Knowledge Transfer Metrics', London, 14 June 2004.
- 5.72 B.R. Martin, 2003, Invited Speaker in Debate on 'Recent Attempts to Make Academic Research More User-Oriented Have Undermined its Value' at the Keith Pavitt International Conference on 'What Do We Know about Innovation?', SPRU, the Freeman Centre, University of Sussex, Brighton, 13-15 November 2003.

- 5.71 B.R. Martin, 2003, 'Welcoming Address' at the Keith Pavitt Conference on 'What Do We Know about Innovation?', SPRU, the Freeman Centre, University of Sussex, Brighton, 13-15 November 2003.
- 5.70 B.R. Martin, 2003, 'Returns to Society from Investments in Science: An International Perspective', Invited Lecture at the Conference on the 'Societal Returns from Science', The Hague, The Netherlands, 11 June 2003.
- 5.69 B.R. Martin, 2002, 'The Evolution of the University A New Triple Helix or Return to an Earlier Social Contract?', Keynote Lecture at the 4th International Triple Helix Conference on 'Breaking Boundaries, Building Bridges', held at the Copenhagen Business School, 6-9 November 2002.
- 5.68 B.R. Martin, 2002, 'Creating the Future? Current Approaches to Technology Foresight and their Limitations', Invited Presentation to the Second International Industrial Futures Conference, Moller Centre, Cambridge, 2-4 October 2002.
- 5.67 B.R. Martin, 2002, 'International Developments in the Evaluation of University Research', Invited Presentation to the International Workshop on 'Upgrading the Danish University System What Role for Benchmarking and Research Evaluation?', held at Copenhagen Business School in collaboration with Aalborg University, 25 September, 2002.
- 5.66 B.R. Martin, 2001, 'The Changing Social Contract for Science and the Evolution of the University', Presentation at the International NPRNet Workshop on 'New Policy Rationales for the Support of Public Research in the EU', Paris, 3-4 May 2001.
- 5.65 B.R. Martin, 2001, 'Technology Foresight: A Review', Invited Keynote Lecture to the International Symposium on 'Foresight for a Competitive and Sustainable Europe', Stockholm, 20 March 2001.
- 5.64 B.R. Martin, 2000, 'Recent Developments in UK Science and Technology Policy', Invited Lecture in the CRUISE Distinguished Speaker Series, Carleton Research Unit on Innovation, Science and Environment (CRUISE), School of Public Administration, University of Carleton, Ottawa, 25 October 2000.
- 5.63 B.R. Martin, 2000, 'The Role of Foresight in 'Wiring Up' the National Innovation System', Invited Lecture at the 6th Leiden International Conference on Science and Technology Indicators, Leiden, 24-27 May 2000.
- 5.62 B.R. Martin, 1999, 'Challenges Facing the Directors of UK Research Institutes', Invited Lecture at the International Colloquium on 'Public Research and Strategies of Laboratories', CNAM, Paris, 12 October 1999.
- 5.61 B.R Martin, 1999, 'Science Policy and Supporting Systems in the UK', Invited Lecture at the Symposium on 'Science and Technology Cooperation Between Korea and the UK for the 21st Century', the Royal Society, London, 24 September 1999.
- 5.60 B.R. Martin, 1999, 'Technology Foresight and Priority Setting in Science', Invited Lecture at the International Symposium on 'Frontiers of Science and NSFC Priority Setting', Beijing, 23-25 August 1999.
- 5.59 B.R. Martin, 1999, 'Foresight Wiring Up National Innovation Systems', Invited Lecture at the Australian Academy of Technological Sciences and Engineering (ATSE) Seminar on 'Mobilising National Innovation Capacity', Canberra, 24 June 1999.

- 5.58 B.R. Martin, 1999, 'Foresight and Innovation', Invited Lecture at the Australian Academy of Technological Sciences and Engineering (ATSE) Seminar on 'Mobilising National Innovation Capacity', Victoria University of Technology, Melbourne, 22 June 1999.
- 5.57 B.R. Martin, 1999, 'Technology Foresight Wiring Up the National System of Innovation', Invited Lecture at the APEC Center for Technology Foresight, Bangkok, 21 June 1999.
- 5.56 B.R. Martin, 1999, 'Management of Change in S&T Policy', Invited Presentation at the International Workshop on 'Strategic Analysis of Specific Policy Issues' (STRATA), DG XII, European Commission, Brussels, 22 March 1999.
- 5.55 B.R. Martin, 1999, 'The Future of S&T Policy Research', Opening Presentation at the International Conference on 'Restructuring and Reintegration of S&T Systems in Central and Eastern Europe: Restructuring Patterns and Policy Experiences', University of Sussex, Brighton, 12 March 1999.
- 5.54 B.R. Martin, 1999, 'The Future of Science and Technology Policy Research', Invited Lecture at National Institute of Science and Technology Policy (NISTEP), Tokyo, 26 January 1999.
- 5.53 B.R. Martin, 1999, 'Lessons from Science and Technology Policy in the UK', Invited Lecture at the Tokyo Institute of Technology, 21 January 1999.
- 5.52 B.R. Martin, 1999, 'The UK Technology Foresight Programme', Invited Lecture at National Institute of Science and Technology Policy (NISTEP), Tokyo, 18 January 1999.
- 5.51 B.R. Martin, 1998, 'UK Experiences with Technology Foresight', Invited Lecture at the International Workshop on 'Foreign Experiences with Technology Foresight', Copenhagen, 1 December 1998.
- 5.50 B.R. Martin, 1998, 'Technology Foresight: Constructing the Future', Keynote Lecture at the International Conference on 'Constructing Tomorrow: Technology Strategies for the New Millennium', Bristol University, 14-15 September 1998.
- 5.49 B.R. Martin, 1998, 'The Emergence and Impact Of Technology Foresight', Invited Lecture to the Strategic Planning Society, London, 17 March 1998.
- 5.48 B.R. Martin, 1998, 'The Evolving Links Between UK Universities and Industry', Invited Presentation given at the American Association for the Advancement of Science (AAAS) Meeting, Philadelphia, 12-17 February 1998.
- 5.47 B.R. Martin, 1998, 'Technology Foresight International Experiences', Invited Presentation given at the American Association for the Advancement of Science (AAAS) Meeting, Philadelphia, 12-17 February 1998.
- 5.46 B.R. Martin, 1998, 'The Future of S&T Policy Research', Invited Presentation to the National Academy of Engineering and the National Research Council, Washington D.C., 10 February 1998.
- 5.45 B.R. Martin, 1997, 'The Emergence and Impact Of Technology Foresight', Invited Lecture to the Global Business Network, Business Design Centre, London, 29 October 1997.
- 5.44 B.R. Martin, 1997, 'University Physics/Industry Links', Keynote Lecture at the Physics Research for Britain Conference on 'Highlights of Physics Research and R&D', Rutherford Appleton Laboratory, Didcot, 2 October 1997.

- 5.43 B.R. Martin, 1997, 'The Transformation of S&T and Implications for Science Policy Research', Invited Presentation at the NATO Advanced Research Workshop on Institutional Transformation of S&T Systems and S&T Policy in Economies in Transition, Budapest, 28-30 August, 1997.
- 5.42 B.R. Martin, 1997, 'Technology Policy over the Next 25 Years Emerging Research Needs', Keynote Lecture at the International Symposium on Technology, Economy and Policy, celebrating the 25th Anniversary of Fraunhofer ISI, Karlsruhe, 3-4 June 1997.
- 5.41 B. Martin, S. Katz and D. Hicks, 1997, 'The Global Positioning of UK Science', Invited Lecture to the *new*IMAGES Science Policy Workshop at the University of Sydney, 23-24 April 1997.
- 5.40 B.R. Martin, 1997, 'International Developments in Technology Foresight', Invited Presentation to the Energy Sector Panel of the UK Technology Foresight Programme, London, 9 January 1997.
- 5.39 B.R. Martin, 1996, 'The Links Between University Physics and Industry', Invited Lecture to the Standing Conference of Physics Professors, Institute of Physics, London, 22 November 1996.
- 5.38 B.R. Martin, 1996, 'Technology Foresight and the Changing Social Contract for Science', presentation at the International Conference on 'Signatures of Knowledge Societies' organised by the European Association for Studies of Science and Technology and the Society for Social Studies of Science, Bielefeld, 10-13 October 1996.
- 5.37 B.R. Martin, 1996, 'The Provision of Science Policy Advice to Governments', presentation at the International Conference on 'Signatures of Knowledge Societies' organised by the European Association for Studies of Science and Technology and the Society for Social Studies of Science, Bielefeld, 10-13 October 1996.
- 5.36 B.R. Martin, 1996, 'The Benefits of Technology Foresight', Invited Lecture at the International Conference on Partnership in Polymers, Churchill College, Cambridge, 1 October 1996.
- 5.35 B.R. Martin, 1996, 'The Historical Emergence and Development of Foresight Activities', Invited Presentation at the International Workshop on Technology Foresight held by the ASTPP Network in Rovaniemi, Lapland, Finland, 26-27 September 1996.
- 5.34 B.R. Martin, 1996, 'Technology Foresight Evolution and Lessons', Invited Presentation at the University of Iceland, Reykjavik, Iceland, 17 May 1996.
- 5.33 B.R. Martin, 1996, 'Physics and Industry: Links and Benefits', Invited Lecture to the Standing Conference of Physics Professors, at the Geological Society, Burlington House, London, 26 April 1996.
- 5.32 B.R. Martin, 1996, 'The UK Foresight Programme', and 'The Benefits of Foresight', two invited presentations in the Workshop on 'Technology Foresight Creating the Future?' held in SET 1996 Week (i.e. Science, Engineering and Technology 1996), Department of Trade and Industry, London, 18 March 1996.
- 5.31 B.R. Martin, 1996, 'Technology Foresight and the Implications for Social Sciences', Invited Presentation at the DORCISS Workshop on 'Directing Research in the Social Sciences: Future Imperatives', University of Warwick, 5-6 February 1996.

- 5.30 B.R. Martin, 1996, 'Technology Foresight and the Nurturing of the UK Skills Base', Invited Lecture at the Technology Foresight Conference organised by the National Council for Industry Training Organisations and the Science, Technology and Mathematics Council, London, 18 January 1996.
- 5.29 B.R. Martin, 1995, 'Technology Foresight Recent International Experiences', Invited Presentation at the R&D Dynamics Network Meeting on 'Capturing the Economic and Social Benefits from Science-Related Technologies', NUTEK, Stockholm, 7-9 November 1995.
- 5.28 B.R. Martin, 1995, 'Technology Foresight A Tool for Strategic Research Policy?', Invited Presentation at the OST/SPRU/Nature Conference on 'Research Policies for Europe's Future: Strategies and Perspectives', Ministry of Education and Research, Paris, 28-29 September 1995.
- 5.27 B.R. Martin, 1995, 'Technology Foresight Why? How? What Does It Mean for Universities?', Invited Presentation at the Technology Foresight Day, University of Essex, 18 July 1995.
- 5.26 B.R. Martin, 1995, 'Technology Foresight: What Is It? And Why Is It Important?', Keynote Lecture to the Corporate Affiliates of the Institute of Biology, Institute of Biology, London, 8 June 1995.
- 5.25 B.R. Martin, 1995, 'Measuring the Linkages Between Basic research and Application: The Value and Limitations of Bibliometrics', Invited Presentation at the International Workshop on 'Basic Research and National Science Strategies', University of Wollongong and the Australian National University, 19-21 June 1995.
- 5.24 B.R. Martin, 1995, 'National Approaches to Priority-Setting: The UK Technology Foresight Programme', Invited Presentation at the International Workshop on 'Basic Research and National Science Strategies', University of Wollongong and the Australian National University, 19-21 June 1995.
- 5.23 B.R. Martin, 1995, 'Evaluation Dilemmas Interpreting Data and Drawing Conclusions', presentation at the Workshop on 'Evaluation of Research and Technological Development', Athens, 29-30 March 1995.
- 5.22 B.R. Martin, 1995, 'Two Case Studies of the Evaluation of Research and Technological Development', presentation at the Workshop on 'Evaluation of Research and Technological Development', Athens, 29-30 March 1995.
- 5.21 B.R. Martin, 1995, 'Tools and Techniques for Evaluating Research and Technological Development', presentation at the Workshop on 'Evaluation of Research and Technological Development', Athens, 29-30 March 1995.
- 5.20 P.A. Isard and B.R. Martin, 1992, 'The Interface Between Corporate R&D and Academic Research: A Look at European Company Publications, 1980-89', presentation at the EASST/4S Joint Conference on 'Science, Technology and Development', Gothenburg, Sweden, 12-15 August 1992.
- 5.19 B.R. Martin, 1992, 'The Relative Standing of UK Science What the Bibliometric Evidence Reveals', Invited Lecture at the Symposium on 'Can We Measure the UK's Research Success?' at the Annual Meeting of the British Association for the Advancement of Science, University of Southampton, 25 August 1992.

- 5.18 B.R. Martin, 1991, 'The Internationalisation of Science Policy Research and the Contribution of Science to International Relations', Invited Lecture at the International Seminar on Evaluation and Granting Policies for Development of Basic Disciplines, Beijing, 26-28 November, 1991.
- 5.17 B.R. Martin, 1991, 'Non-Technical Acceptance Problems in Science Policy Evaluation', Invited Presentation at the SPRU International Conference on Science and Technology Policy Evaluation, London, 2-3 October 1991.
- 5.16 B.R. Martin and J. Irvine, 1985, 'Uses of Citation Analysis: An Assessment of CERN', Invited Lecture at the Annual Meeting of the British Association for the Advancement of Science, University of Strathclyde, Glasgow, 26-30 August 1985.

6. Published Reports

- 6.18 A. Salo, B.R. Martin et al., 2005, *Evaluation Report on Futur The German Research Dialogue*, Report of the International Evaluation Panel, Karlsruhe: Institute for Systems and Innovation Research.
- 6.17 A. Teixeira, B. Martin and N. von Tunzelmann, 2002, *Identification of Key Emerging Issues in Science and Society: An International Perspective on National Foresight Studies*, Paris: International Council for Science (ICSU).
- 6.16 D. Gann, A. Salter, J. Molas-Gallart, B. Cleasby, J. Senker, T. Sinclair and B. Martin, 2002, 'Underpinning Analysis: The Review in Context', pp.39-81 in Sir J. Fairclough, *Rethinking Construction Innovation and Research*, London: Department of Transport, Local Government and Regions.
- 6.15 A. Salter, P. D'Este, B. Martin, A. Geuna, A. Scott, K. Pavitt, P. Patel, and P. Nightingale, 2000, *Talent, not Technology: Publicly Funded Research and Innovation in the UK*, Committee of Vice-Chancellors and Principals (CVCP), London.
- 6.14 G.J. Wijers, J.C. Burgelman, B. Martin, L. Soete, 2000, External Technology Audit: TNO Strategy, Technology and Policy, Delft: TNO.
- 6.13 E. Arnold, S. Morrow, B. Thuriaux and B. Martin, 1999, *Implementing the Culyer Reforms in North Thames*, London: NHS London Region Office.
- 6.12 K. Sequeira and B. Martin, 1997, *The Links Between University Physics and Industry*, London: Institute of Physics.
- 6.11 B.R. Martin, 1996, *Technology Foresight in Europe: Results and Perspectives*, Brussels: European Commission Directorate General XII.
- 6.10 B.R. Martin, 1996, *Technology Foresight: The Nurturing of the UK Skills Base*, Bristol: Science, Technology and Mathematics Council and National Council for Industry Training Organisations.
- 6.9 J.S. Katz, D. Hicks, M. Sharp and B.R. Martin, 1995, *The Changing Shape of British Science*, STEEP Special Report No. 3, Brighton: University of Sussex.
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- 6.5 B.R. Martin, 1994, *Technology Foresight: A Review of Recent Government Experiences*, Paris: OECD (DSTI/STP/TIP (94) 17).
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- J. Irvine, B.R. Martin, T. Peacock and D. Crouch, 1986, 'A Bibliometric Analysis of the Research Output and Impact of the Swedish Energy Systems Studies (AES) Programme', pp. 169-93 in *The Need for Energy Systems Studies*, Stockholm: Energy Research Commission (EFN Report No. 22).
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- 6.1 B.R. Martin, J. Irvine and D. Crouch, 1985, *Science Indicators for Research Policy: A Bibliometric Analysis of Ocean Currents and Protein Crystallography*. Science Policy Research Unit Occasional Paper No. 23, Brighton: University of Sussex.

7. Project Reports

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- 7.48 B.R. Martin et al., 2004, *Changing Rationales for Public Intervention in ST&I*, Report to the European Commission on Work-Package 1 of the PRIME Thematic Network, Brighton: SPRU.
- 7.47 B.R. Martin et al., 2004, Evaluation of the Austrian Research Council, FWF: Report of the Expert Panel, Brighton: Technopolis.
- 7.46 N. von Tunzelmann, M. Ranga, B. Martin and A. Geuna, 2003, *The Effects of Size on Research Performance: A SPRU Review*, Report to the Office of Science and Technology, Department of Trade and Industry, Brighton: SPRU.
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- 7.42 J.S. Katz and S. Stewart with T.A.K. Gow and B. Martin, 2002, *Science Foresight Project: Final Report*, Defence Science and Technology Laboratory (DSTL/TR1697), Farnborough: DSTL (restricted).
- 7.41 Arnold, E., Kuhlman, S., Van der Meulen, B., Rip, A., Drenth, P., Flodstrom, A., Godet, J., Laredo, P., Martin, B., Meyer-Krahmer, F. and Ormola, E., 2001, *A Singular Council: Evaluation of the Research Council of Norway*, Brighton: Technopolis.

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- 7.36 B. Martin, J. Molas-Gallart, P. Tang, T. Sinclair, S. Morrow and V. Russell, 1999, *Assessing Research Impact on Non-Academic Audiences*, Report prepared for the Economic and Social Research Council, Brighton: SPRU.
- 7.35 A. Geuna, D. Hidayat and B. Martin, 1999, *Resource Allocation and Research Performance: The Assessment of Research*, Report prepared for the Higher Education Funding Council of England (HEFCE), Brighton: SPRU.
- 7.34 J. Calvert and B. Martin, 1998, *Value for Money from Publicly Funded Research*, Report prepared for the National Audit Office, London.
- 7.33 B.R. Martin and J. Anderson, 1995, *Mapping Science Outputs onto User Needs*, Report of a Study for the Natural Environment Research Council, Swindon: NERC.
- 7.32 J.S. Katz, D. Hicks, M. Sharp, B.R. Martin and N. Ling, 1995, *The Bibliometric Evaluation of Sectoral Scientific Trends*, Final Report to the Sponsors of the BESST Project (DoH, DTI, ESRC, MRC, OST, SERC), Brighton: Science Policy Research Unit.
- 7.31 B.R. Martin, 1993, *Report on UK Value of Medicines Study*, Report to MEDTAP, Battelle Europe, Battelle Institute Ltd, London (restricted).
- 7.30 B. Martin, 1993, *Comments on Technology Foresight Project Plan*, Report to the Office of Science and Technology, Office of Public Service and Science, Cabinet Office, London (restricted).
- 7.29 B.R. Martin, D. Hicks and P. A Isard, 1993, *The Interface Between Corporate R&D and Academic Research*, End-of-Award Report to the Economic and Social Research Council, Swindon: ESRC.
- 7.28 B.R. Martin, D. Hicks E.N. Ling and J.E.F. Skea, 1993, *The Effects of Size and Other Factors on the Research Performance of University Departments*, Report to the Australian Centre for Innovation and International Competitiveness as part of a contract for the Australian National Board of Employment, Education and Training 'Innovative Projects Program', Brighton: Science Policy Research Unit.
- 7.27 B.R. Martin and J.E.F. Skea, 1992, *Academic Research Performance Indicators: An Assessment of the Possibilities*, Report to the Advisory Board for the Research Councils and the Economic and Social Research Council, Swindon: ESRC.

- 7.26 B.R. Martin, 1992, *The Identification of Emerging Technologies A Review of Overseas Experiences*, Report to the Department of Trade and Industry and the Office of Science and Technology, London.
- 7.25 B.R. Martin, 1992, *Research Foresight A Tool for Science Policy?*, Report to the Research Foresight Committee of the German Science Council, Frankfurt.
- 7.24 B.R. Martin, 1992, *Research Foresight and Priority-Setting in Science*, Report to the Research Foresight Commission of the Netherlands Ministry of Education and Science, Zoetermeer.
- 7.23 B.R. Martin, J.E.F. Skea and E.N. Ling, 1992, *Performance Indicators for Academic Scientific Research*, End-of Award Report to the Advisory Board for the Research Councils and the Economic and Social Research Council, Swindon: ESRC.
- 7.22 B.R. Martin, 1991, *The Demand for Macro-Level Bibliometric Indicators*, Leiden: CWTS, Leiden University.
- 7.21 B.R. Martin, 1991, Canadian Data on Government Funding of Academic and Academically Related Research, Washington, D.C.: National Science Foundation.
- 7.20 B.R. Martin and G. Oldham, 1991, *Report on a Visit to Moscow*, Brighton: British Council.
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- 7.18 B.R. Martin, 1990, *Science Policy and Research Evaluation*, Swindon: Economic and Social Research Council.
- 7.17 J. Irvine and B.R. Martin, 1990, Computerization and Analysis of the Updated CHI/NSF Science Literature Indicators Data-Base for 1973-86, Report to ABRC, AFRC, DES, DTI, ESRC, MRC, NERC and SERC, Brighton: Science Policy Research Unit.
- 7.16 B.R. Martin, J. Irvine and P.A. Isard, 1989, Recent Trends in Government Expenditure on Academic and Related Research: An International Comparison, London: Advisory Board for the Research Councils.
- 7.15 J. Irvine, B.R. Martin and P.A. Isard, 1989, *An International Comparison of Trends in Academic and Related Research*, Washington, D.C.: National Science Foundation.
- 7.14 B.R. Martin, 1988, Report on a Visit to Brazil, April 1988, London: British Council.
- 7.13 B.R. Martin and J. Irvine, 1987, *Bibliometric Profiles for UK Universities and Research Institutions*, London: Advisory Board for the Research Councils.
- 7.12 B.R. Martin and J. Irvine, 1986, *Final Report on the Three-Year SPRU Programme on Research Evaluation*, London: The Leverhulme Trust.
- 7.11 B.R. Martin and J. Irvine, 1986, Computerization and Update of a Bibliometric Data-Bank on World Experimental High-Energy Physics, London: Economic and Social Research Council.
- 7.10 J. Irvine, B.R. Martin, T. Peacock and D. Crouch, 1986, A Bibliometric Analysis of the Research Output and Impact of the Swedish Energy Systems Studies (AES) Programme, Stockholm: Swedish Energy Research Commission.
- 7.9 J. Irvine and B.R. Martin, 1985, Assessing the Impact of SERC Support for Engineering Research, Swindon: Science and Engineering Research Council (restricted).

- 7.8 B.R. Martin and J. Irvine, 1984, Assessment of Priorities for Building and Civil Engineering Research, London: Department of the Environment.
- 7.7 J. Irvine and B.R. Martin, 1984, *Project Foresight: An Assessment of Approaches to Identifying Promising Areas of Science*, London: Cabinet Office and Advisory Council for Applied Research and Development.
- 7.6 B.R. Martin, J. Irvine and D. Crouch, 1984, *Bibliometric Analyses of Ocean Currents and Protein Crystallography: A Report for the ABRC Science Policy Study*, London: Advisory Board for the Research Councils.
- 7.5 J. Irvine and B.R. Martin, 1983, *The Economic and Social Impact of the ESRC Steel Research Programme: A SPRU Evaluation*, Brussels: Commission of the European Communities (restricted).
- 7.4 B.R. Martin and J. Irvine, 1983, *Perspectives on the Norwegian Institute for Energy Technology*, Oslo: Ministry of Oil and Energy (restricted).
- 7.3 K.L.R. Pavitt, B.R. Martin and J. Irvine, 1982, *Final Report of the Project on 'CERN: Past Performance and Future Prospects'*, London: Social Science Research Council.
- 7.2 J. Irvine, B.R. Martin and G. Oldham, 1982, *Research Evaluation in British Science: A SPRU Review*, Paris: Ministry of Industry and Research.
- 7.1 N. Dombey, J. Irvine, B.R. Martin, R. Turner and K. Pavitt, 1980, *Final Report of the Project on 'Criteria for Capital Projects in Basic Science*', London: Social Science Research Council.

RADIO INTERVIEWS AND TELEVISION APPEARANCES

- 20. Interview on international and British experiences with technology foresight on 'The Marketplace' on Program 1 on Danmarks Radio (Danish Broadcasting Corporation) on 4 December 1998.
- 19. Interview on industrial R&D funding on 'Wake up to Money' on BBC Radio 5 on 19 March 1998.
- 18. Studio discussion on the state of British science on 'Science Now' on BBC Radio 4 on 9 February 1997.
- 17. Interview on the reputation of scientists broadcast on 'Probe' on BBC Radio 4 on 2 October 1996.
- 16. Studio debate on British science broadcast on 'World Business Today' on the BBC World Service, 24 March 1996.
- 15. Live interview on 'Morning Report' (on Radio New Zealand) on identifying priorities in science and technology, 17 October 1994.
- 14. Interview for BBC 1 'Business Breakfast' programme on technology foresight, broadcast on 16 August 1993.
- 13. Interview for BBC Radio 4 'Talking Politics' programme on technology foresight and the British scientific community, broadcast on 5 June 1993.
- 12. Interview for 'Newsnight' on BBC 2 Television on technology foresight and the Government White Paper on science and technology, broadcast on 25 May 1993.
- 11. Interview on 'The Morning Programme' on 2CN/ABC on academic research performance indicators on 9 December 1992.
- 10. Interview for BBC World Service 'Network UK' programme on the future of pure research, broadcast on 28 May 1990.
- 9. Interview for BBC Radio 4 'Science Now' programme on the funding of British academic research, broadcast on 5 May 1990.
- 8. Participated in a Danish popular science TV programme on the evaluation of research and science indicators, recorded on 6 November 1989.
- 7. Contributed to the 'This Week, Next Week', programme on BBC 1 on the state of British science in April 1987.
- 6. Interview for BBC Radio 4 programme entitled 'Mothers of Invention', broadcast on 3 September 1986.
- 5. Interview for Australian Broadcasting Corporation 'Science' programme, recorded on 28 November 1984.
- 4. Interview for and studio appearance in BBC 2 'Horizon' programme entitled 'Picking Scientific Winners', broadcast on 12 November 1984.
- 3. Interview for Channel 4 News broadcast on 6 November 1984.
- 2. Interview for the Canadian Broadcasting Corporation radio science programme 'Quirks and Quarks', recorded on 27 July 1983.
- 1. Interview for BBC 2 'Horizon' programme entitled 'British Science On The Right Tracks?', broadcast on 28 February 1983.

TESTIMONY/PRESENTATIONS TO OFFICIAL BODIES

- 41. 'Science, Technology and Education Policy', briefing of Chinese Premier, Wen Jiabao, London, 9 May 2004.
- 40. 'Strategic Research: What? Why? How Much? How?', presentation to the German Science Council, Cologne, 8 January 2002.
- 39. 'Foresight for Scientific Research: Towards a Long-Term Vision', presentation to the Flemish Council for Science Policy, Brussels, 14 December 2000.
- 38. 'Recent Developments in UK Science and Technology Policy', presentation to senior Ontario government officials and scientists, Ministry of Energy, Science & Technology, Toronto, 24 October 2000.
- 37. 'Talent, not Technology: Publicly Funded Research and Innovation in the UK', presentation (with A. Salter) to the UK Science Base Co-ordinating Committee, 28 March 2000.
- 36. 'The UK Foresight Programme: Experiences and Lessons', presentation to senior Japanese government officials and industrialists, British Embassy, Tokyo, 9 March 2000.
- 35. 'Key Issues in UK Science and Innovation Policy', a briefing of Lord Sainsbury, Minister for Science and Technology, and senior officials of the Department of Trade and Industry, London, 16 November 1999.
- 34. 'S&T Policy Developments in European Countries', presentation to the Australian Academy of Technological Sciences and Engineering (ATSE), Melbourne, 23 June 1999.
- 33. 'The Economic Benefits of Publicly Funded Research', presentation to Canadian Government officials, Ottawa, 17 February 1999.
- 32. 'The Research Assessment Exercise and Science Policy', presentation to the Science and Technology Taskforce (of Members of Parliament), House of Commons, London, 15 December 1998.
- 31. 'The UK Technology Foresight Programme', presentation to North Rhine-Westphalia Government officials, Düsseldorf, 19 May 1998.
- 30. 'The Changing Nature and Context of UK Science Policy', presentation to CNRS and French Government officials, Paris, 11 May 1998.
- 29. 'Current SPRU Research', presentation to Transdepartmental Group of Office of Science and Technology (OST), London, 15 December 1997.
- 28. 'Technology Foresight', presentation to Mexican Government and World Bank officials, CONACYT, Mexico City, 11 November 1997.
- 27. 'The Relationship Between Publicly Funded Basic Research and Economic Performance', presentation to Dutch politicians and scientists, 23 May 1997.
- 26. 'The Relationship Between Publicly Funded Basic Research and Economic Performance', presentation to Irish Members of Parliament and scientists, Royal College of Physicians, Dublin, 10 April 1997.

- 25. 'The Relationship Between Publicly Funded Basic Research and Economic Performance', a briefing of William Waldegrave (Chief Secretary to HM Treasury) and senior Treasury officials, 3 July 1996.
- 24. 'Evaluating Research and Technological Development: Tools and Impact', invited presentation to the Research Council of Iceland, Reykjavik, Iceland, 17 May 1996.
- 23. 'The Use of Delphi Surveys in Technology Foresight', Keynote Speech to the German Technology Foresight Committee, Science Centre, Bonn, 24 April 1996.
- 22. 'The UK Technology Foresight Programme', speech to the Association of Independent Research and Technology Organisations (AIRTO), Leatherhead, 28 June 1995.
- 21. 'International Experiences with Technology Foresight', presentation to the Australian Science and Technology Council (ASTEC), Canberra, 22 June 1995.
- 20. 'International Experiences with Research Foresight', presentation to Dr Baldwyn Ngubane, South African Minister of Arts, Culture, Science and Technology, at the Office of Science and Technology, Cabinet Office, London, 5 January 1995.
- 19. 'Technology Foresight: An International Review', presentation to national representatives at the International Energy Agency, Paris, 21 November 1994.
- 18. 'Establishing Science Policies and Priorities The Role of Foresight', presentation to officials of the New Zealand Ministry of Research, Science and Technology and to representatives from similar government departments in a dozen South-East Asian nations, Wellington, New Zealand, 18 October 1994.
- 17. 'Technology Foresight: A Review of Recent Government Exercises', presentation to OECD Working Group on Innovation and Technology Policy, OECD, Paris, 16 September 1994.
- 16. 'The Aims and Potential Impact of Foresight: Experience from Overseas', presentation to CEO, Chairman and other senior officials of Engineering and Physical Sciences Research Council (EPSRC), 15 July 1994.
- 15. 'International Experiences with Research Foresight', presentation at the 'Focus on Foresight' seminar organised by the Office of Science and Technology as part of the Government's Technology Foresight Programme, held at the Royal Society, London 25 October 1993. (Similar presentations were also given at other 'Focus on Foresight' seminars held in Swindon on 14 October 1993 and at Newport on 3 November 1993.)
- 14. 'Technology Foresight', a briefing of William Waldegrave (Chancellor of the Duchy of Lancaster), Robert Jackson (Minister for Science), William Stewart (Government Chief Scientist) and other senior UK Government officials, London, 1 March 1993.
- 13. 'Research Foresight A Tool for Science Policy?', presentation to the Research Foresight Committee of the German Science Council, Frankfurt, 16 July 1992.
- 12. 'Research Foresight and Priority-Setting in Science', presentation to the Research Foresight Commission of the Netherlands Ministry of Education and Science, Zoetermeer, 19 May 1992.
- 11. 'The Structure and Organization of Science and Technology in the UK', presentation to the USSR State Committee for Science and Technology, Moscow, 16 July 1991.
- 10. 'International Scientific Programmes', evidence presented at hearings of the House of Lords Select Committee on Science and Technology (Subcommittee II International Scientific Programmes), London, 22 November 1990.

- 9. 'Peer Review', evidence presented at hearings of the ABRC Working Group on Peer Review, London, 22 June 1990.
- 8. 'Research Foresight Techniques', presentation at the meeting of the MRC Strategy Committee on 'The Year 2000 and Beyond', Monkey Island, 3 March 1990.
- 7. 'Recent SPRU Work on Research Evaluation', presentation at the Ministry of Science and Technology, Brasilia, 13 April 1988.
- 6. 'International Comparison of Government Funding of Academic and Academically Related Research', address to the Parliamentary and Scientific Committee, House of Lords, London, 28th April 1987.
- 5. 'Quantitative Science Policy Research', testimony to the Task Force on Science Policy of the Committee on Science and Technology, U.S. House of Representatives, Washington D.C., 30 October 1985.
- 4. 'Performance Indicators for University Research', presentation to senior officials of the Department of Education and Science at a meeting organised by the Society for Research into Higher Education, London, 11 July 1985.
- 3. 'CERN and the Future of World High-Energy Physics', evidence presented to the Group set up by the ABRC and SERC to review UK participation in the study of high-energy particle physics (the 'Kendrew Committee'), 25 January 1985.
- 2. 'Establishing Research Priorities', presentation to the Research Strategy Committee of the NEDO Economic Development Committee for Building and Civil Engineering, Civil Service College, Sunningdale, 14 July 1984.
- 1. 'The Assessment of CERN', evidence presented to the Particle Physics Committee of the Science and Engineering Research Council, University of Bristol, 17 April 1984.

OFFICIAL AND HONORARY POSITIONS HELD

- 57. Co-Chair, Organising Committee, SPRU 40th Anniversary Conference, Brighton, 2006.
- 56. International Programme Committee, 9th Science & Technology Indicators Conference, Leuven, 2006.
- 55. Evaluation Committee, CSIC Social Science Institutes (Spain), 2005.
- 54. Chair, EPSRC Conference on Upstream Public Engagement in Science, 2005.
- 53. Evaluation Committee, German 'Futur' Programme, 2004-05.
- 52. Deputy Chair, European Commission High-Level Expert Group on the proposed European Research Council, 2004-2005.
- 51. Executive Committee, PRIME Network of Excellence, 2004-date.
- 50. Editor, Research Policy, 2003-date.
- 49. EPSRC 'Ideas Factory' Steering Group, 2003-date.
- 48. OECD Expert Group on 'The Future of the University', 2003-date.
- 47. Editorial Advisory Board, Technological Forecasting and Social Change, 2003-date.
- 46. Chair, International Assessment Panel, Austrian Basic Research Council (FWF), 2003.
- 45. International Advisory Group, evaluation of Norwegian Research Council, 2002-04.
- 44. International Assessment Panel, the Swedish Institute for Studies of Education and Research (SISTER), 2002.
- 43. Technical Opportunities Panel (TOP) of the Engineering and Physical Sciences Research Council (EPSRC), 2001-2004.
- 42. Steering Group for Monitoring and Evaluating the Research Funding Schemes (MESG) of the Medical Research Council, 2001-date.
- 41. UK Government Quinquennial Review of the Research Councils Working Group on Scientific Priorities, 2001.
- 40. International Scientific Committee for the European Commission Conference on 'The Contribution of European Socio-Economic Research to the Benchmarking of RTD Policies in Europe', European Commission, Brussels (15-16 March 2001), 2000-01.
- 39. International Advisory Committee for the OECD Workshops on 'Re-inventing the Social Sciences', 2000.
- 38. Audit Committee of the TNO Science and Technology Policy Institute (STB), 2000.
- 37. International Advisory Board for CIPRE, the Centre for Innovation Policy Research in Budapest, 1999-date.
- 36. Monitoring and Evaluation Group for the UK Foresight Programme, 1999-2000.
- 35. Knowledge Pool Group for the UK Foresight Programme, 1998-2000.
- 34. International Advisory Committee on the Centres of Excellence, Ministry of Energy, Science and Technology, Government of Ontario, 1998-2001.
- 33. Organising Committee for the Fifth International Conference on Science and Technology Indicators on 'Use of S&T Indicators for Science Policy and Decision-Making', Hinxton, Cambridge, UK (4-6 June 1998), 1997-98.
- 32. Editorial Advisor, *Technology Analysis and Strategic Management*, 1997-date.

- 31. Foresight 2000 Working Party (for the UK Foresight Programme), 1997.
- 30. Chair of International Conference on 'Experiences with Technology Foresight in Different Countries', Department of Trade and Industry, London, 18 November 1997.
- 29. Organiser of the event on 'Technology Foresight Creating the Future?' held in SET 1996 Week (i.e. Science, Engineering and Technology 1996), Department of Trade and Industry, 18 March 1996.
- 28. Food and Drink Panel of the UK Technology Foresight programme, 1996-98.
- 27. Chairman of Opening Session of International Symposium on 'Evaluating R&D Impact' organised by Canadian Natural Science and Engineering Research Council and Natural National Science Foundation of China, Ottawa (13-15 September), 1995.
- 26. Technology Foresight Implementation Group, NERC, 1995.
- 25. International Programme Committee for Conference on 'Science and Technology Indicators: Performance at the National, Regional and Institutional Level', Antwerp (5-7 October), 1995.
- 24. Organising Committee for International Conference on 'Research for Europe's Future: Research Policies and Perspectives', Paris (28-29 September 1995), 1994-95.
- 23. International Advisory Panel for Project on 'Research Outputs Database', Centre for Policy Research in Science and Medicine (PRISM), the Wellcome Trust, London, 1993-96.
- 22. Editorial Advisory Board, Social Studies of Science, 1993-date.
- 21. Steering Group for the (Technology) Foresight Programme, Office of Science and Technology (OST), 1993-2000.
- 20. Fellow of the Royal Society for the Encouragement of Arts, Manufactures and Commerce (FRSA), 1993-2001.
- 19. International Advisory Panel for Project on 'Engineering Research in US Higher Education, Center for Technology Assessment and Policy, School of Engineering and Applied Science, Washington University, US, 1992-1995.
- 18. Co-Chairman & Keynote Lecturer, International Seminar on Evaluation and Granting Policies for Development of Basic Disciplines, Beijing, 25-30 November, 1991.
- 17. Programme Committee, Joint EC-Leiden Science and Technology Indicators Conference, Leiden University, 23-25 October 1991.
- 16. Consultant to the Spanish Government on Spanish science and technology policy, 1991.
- 15. Council Member, European Association for Studies of Science and Technology, 1991-1994.
- 14. International Advisory Board of the Analytical Centre for Science and Industrial Policy of the USSR/Russian Academy of Sciences, 1991-1995.
- 13. Expert Adviser, IIASA Programme on the Restructuring of the Russian Science, Technology and Innovation System, 1990-1996.
- 12. Editorial Committee, *R&D Evaluation Newsletter*, 1990-1994.
- 11. Subcommittee on University Performance Indicators of the Universities Funding Council and the Committee of Vice-Chancellors and Principals, 1990-1992.
- 10. Scientific Committee for the ORSTOM/CNRS International Conference on 'Science Indicators for Developing Countries', Paris, October 1990.

- 9. British Geological Survey Task Force on Performance Indicators, 1990.
- 8. Advisory Editor, *Research Evaluation*, 1989-date.
- 7. Science Policy Support Group Working Party on 'The Re-structuring of Academic Science', 1988-89.
- 6. Editorial Advisory Board, *Scientometrics*, 1988-2000.
- 5. Consultant to the Sao Paulo Research Foundation (FAPESP), April 1988.
- 4. Organiser of SPSG Conference on University Performance Indicators, November 1987.
- 3. Consultant to the West German Federal Ministry of Research and Technology (BMFT), December 1986.
- 2. Chairman of two-day session on 'Quantitative Methods to Evaluate the Outputs from Academic Research' at the OECD Workshop, Paris, 10-13 June, 1985; also International Consultant to OECD for the Workshop.
- 1. Advisory Editor, *Research Policy*, 1985-2003; Acting Editor, 2003; Editor, 2004-date.

END