

11th April 2018

Roadmapping and related publications

Centre for Technology Management Department of Engineering University of Cambridge

- 1. Hamilton, C., Maw, A., Gil, A., Phaal, R. and Pickard, J. (2017), 'Paediatric neurorehabilitation: finding and filling the gaps through the use of the Institute for Manufacturing strategic roadmapping method', BMJ Health IT, Systems and Process Innovations, 8 September, doi: 10.1136/bmjinnov-2017-000202.
- 2. Kerr et al (2017), 'An exploration into the visual aspects of roadmaps: the views from a panel of experts', *Journal of Technology Intelligence and Planning*, 11 (3), pp. 252-277.
- 3. Phaal, R. (2017), 'Strategic roadmapping: take control in time of uncertainty', *The Manufacturer,* 20 (7), pp. 44-46.
- 4. Farrukh et al (2017), 'Topic roadmapping & radar charts using performance dimensions to guide technology commercialisation', R&D Management Conference, Leuven, 1-5 July.
- 5. Wang, T., Tietze, F. and Phaal, R. (2017), 'Roadmapping for strategic management of intellectual property', R&D Management Conference, Leuven, 1-5 July.
- 6. Kerr, C., Phaal, R. and Thams, K. (2017), Roadmapping as a platform for developing management toolkits, PICMET 2017, *Proceedings of the Portland International Conference on Management of Engineering and Technology (PICMET)*, Portland OR, 9-13 July.
- Phaal, R., Kerr, C., Ilevbare, I., Farrukh, C., Routley, M. and Athanassopoulou, N. (2016), 'On 'selffacilitating' templates for technology and innovation strategy workshops', CTM Working Paper Series, No. 8, October, ISSN 2058-8887.
- 8. Hirose, Y. and Phaal, R. (2016), 'A retrospective visual mapping approach for understanding the emergence of technology ventures', *R&D Management Conference,* Cambridge, 3-6 June.
- 9. Kerr, C. and Phaal, R. (2015), 'Visualizing roadmaps: a design-driven approach', *Research-Technology Management*, 58 (4), pp. 45-54. Sugihara, T., Fujinami, T., Phaal, R. and Ikawa, Y. (2015), 'A technology roadmap of assistive technologies for dementia care in Japan', *Dementia*, 14 (1), pp. 80-103.
- 10. Kerr, C. and Phaal, R. (2015), 'Management tools and toolkits: the good, the bad and the ugly', Institute for Manufacturing Review, University of Cambridge, Issue 4, October, pp. 9-11.
- 11. Jeong, Y., Lee, K., Yoon, B. and Phaal, R. (2015), 'Development of a patent roadmap through the generative topographic mapping and bass diffusion model', *Journal of Engineering and Technology Management*, 38, Oct-Dec, pp. 53-70.
- 12. Phaal, R., Kerr, C., Ilevbare, I., Farrukh, C., Routley, M. and Athanasopoulou, N. (2015), 'Self-facilitating templates for technology and innovation strategy workshops', *R&D Management Conference*, Pisa, 23-26 June.
- 13. Kerr, C. and Phaal, R. (2015), 'A scalable toolkit platform: configurations for deployment in technology and innovation strategy workshops', *R&D Management Conference*, Pisa, 23-26 June.
- 14. Hirose, Y., Phaal, R. and Probert, D. (2015), 'A conceptual framework for exploring scalable integration of roadmapping and innovation system functions for industrial emergence', *DRUID Academy Conference*, Aalborg, 21-23 January.
- 15. Ilevbare, I.M., Probert, D. and Phaal, R. (2014), 'Towards risk-aware roadmapping: influencing factors and practical measures', *Technovation*, 34 (8), pp. 399-409.
- 16. Ford, S.J., Routley, M.J., Phaal, R. and Probert, D.R. (2014), 'The industrial emergence of commercial inkjet printing', *European Journal of Innovation Management*, 17 (2), pp. 126-143.
- 17. Kerr, C.I.V., Phaal, R. and Probert, D.R. (2014) 'Depicting the future strategic plans of the Royal Australian Navy using a roadmapping framework as a visual composite canvas', *Technology Analysis & Strategic Management*, 26 (1), pp. 1-22.
- 18. Farrukh, C., Kerr, C., Phaal, R., Athanassopoulou, N. and Routley, M. (2014), 'Light-weighting innovation strategy: a roadmap-portfolio toolkit', *Proceedings of the Portland International Conference on Management of Engineering and Technology (PICMET),* Kanazawa, 27-31 July.
- 19. Phaal, R. and Yoshida, S. (2014), 'Architecting strategy: visual form and function of roadmaps', *Proceedings of the Portland International Conference on Management of Engineering and Technology* (*PICMET*), Kanazawa, 27-31 July.
- 20. Probert, D.R., Ford, S.J., Routley, M.J., O'Sullivan, E. and Phaal, R. (2013), 'Understanding and navigating industrial emergence', *Proceedings of the Institution of Mechanical Engineers, Part B, Journal of Engineering Manufacture*, 227 (6), pp. 781-793

- 21. Routley, M. Phaal, R. Athanassopoulou, N. and Probert D. (2013), 'Mapping experience in organizations: a learning process for strategic technology planning', *Engineering Management Journal*, 25 (1), pp.35-47.
- 22. Moehrle, M.G., Isenmann, R. and Phaal, R. (Ed) (2013), *Technology roadmapping for strategy and innovation: charting the route to success,* Springer, Heidelberg, ISBN 978-3642339226.
- 23. Lee, J.H., Phaal, R. and Lee, S-H. (2013), 'An integrated service-device-technology roadmap for smart city development', *Technology Forecasting & Social Change*, 80, pp. 286-306.
- 24. Yoon, B. and Phaal, R. (2013), 'Structuring technological information for technology roadmapping: data mining approach', *Technology Analysis & Strategic Management*, 25 (9), pp. 1119-1137.
- 25. Kerr, C., Phaal, R. and Probert, D. (2012), 'Depicting options and investment appraisal information in roadmaps', *Journal of Innovation and Technology Management*, 9 (3), pp. 1-19.
- 26. Phaal, R., Kerr, C., Oughton, D. and Probert, D. (2012), 'Towards a modular toolkit for strategic technology management', *International Journal of Technology Intelligence and Planning*, 8 (2), pp. 161-181.
- 27. Ford, S.J., Routley, M.J., Phaal, R. and Probert, D.R. (2012), 'Capturing past experience: the expert scan visual mapping process', *International Journal of Technology Intelligence and Planning*, 8(1), pp. 47-59.
- 28. Kerr, C., Phaal, R. and Probert, D. (2012), 'Addressing the cognitive and social influence inhibitors during the ideation stages of technology roadmapping workshops', *International Journal of Innovation and Technology Management*, 9 (6), pp. 1-20 (DOI: 10.1142/S0219877012500460).
- 29. Phaal, R., Routley, M., Athanassopoulou, N. and Probert, D. (2012), 'Charting exploitation strategies for early stage technology', *Research-Technology Management*, 55 (2), March-April, pp. 34-42.
- 30. Kerr, C., Phaal, R. and Probert, D. (2012), 'Cogitate, articulate, communicate: the psychosocial reality of technology roadmapping and roadmaps', *R&D Management*, 42(1), pp. 1-13.
- 31. Yoshida, S. and Phaal, R. (2012), 'Fast-start roadmapping workshop techniques', MOTの体系と実践 理工図書, Tokyo, ISBN 978-4-8446-0798-4, pp. 119-162.
- 32. Oliveira, M.G., de Freitas, J.S., Fluery, A.L., Rozenfeld, H., Chen, L.C., Phaal, R. and Probert, D. (2012), Roadmapping – uma abordagem estratégica para o gerenciamento da inovação de produtos, serviços e tecnologias, Esevier, São Paulo, ISBN-10: 85-352-6351-9.
- Probert, D., Farrukh, C., Dissel, M. and Phaal, R. (2012). 'Towards a process framework for assessing the potential value of technologies', in *Advances in Technology and Innovation Management* (Vol. 1), Ed. P. Wesling, O. Yu, X. Quan, J. Sarkis, E. Shu and G. Zheng, IEEE, ISBN 978-1-4673-3251-4.
- Phaal, R., Farrukh, C. and Probert, D. (2012), 'Strategisches Roadmapping Die Verknüpfung von Management, Technologie und Markt', Translated by M. Eppler, In Werkzeuge des Wandels – Die 30 wirksamsten Tools des Change Managements, Ed. H. Roehl, B. Winkler, M. Eppler and C. Fröhlich, Schäffer-Poeschel, Stuttgart, ISBN 978-3-7910-3124-8, pp. 132-140.
- 35. Ringland, G., Lustig, P. and Phaal, R. (2012), *Here be dragons navigating in an uncertain world,* The Choir Press, UK, ISBN 978-0-9562190-5-3.
- 36. Oliveira, M.G., Rozenfeld, H., Phaal, R. and Probert, D. (2012), 'Proposal of a method to clarify and enhance decision-making at the front-end of innovation', *Proceedings of the Portland International Conference on Management of Engineering and Technology (PICMET)*, Vancouver, 29 July 2 August.
- Sugihara, T., Phaal, R. and Ikawa, Y. (2012), 'Gaps between assistive technologies and dementia care', Proceedings of the Portland International Conference on Management of Engineering and Technology (PICMET), Vancouver, 29 July – 2 August.
- 38. Lee, J.H., Kim, H. and Phaal, R. (2011), 'An analysis of factors improving technology roadmap credibility: a communications theory assessment of roadmapping processes', *Technological Forecasting & Social Change*, 79, pp. 263-280.
- 39. Keltsch, J.-N., Probert, D.R. and Phaal, R. (2011), 'A process for configuring technology management tools', *International Journal of Technology Intelligence and Planning*, 7(3), pp. 181-200.
- 40. Lee, J.H., Phaal, R. and Lee, C. (2011), 'An empirical analysis of the determinants of technology roadmap utilization', *R&D Management*, 41(5), pp. 485-508.
- 41. Thorn, V., Hunt, F., Michell, R., Probert, D. and Phaal, R. (2011), 'Internal technology valuation: real world issues', *International Journal of Technology Management*, 53(2-4), pp. 149-160.
- 42. Phaal, R., O'Sullivan, E., Routley, M., Ford, S. and Probert, D. (2011), 'A framework for mapping industrial emergence', *Technological Forecasting & Social Change*, 78, pp. 217-230.
- 43. Phaal, R. (2011), 'Building a shared vision', *The Manufacturer*, December, pg. 10.
- 44. Kerr, C.I.V., Phaal, R. and Probert, D. (2011) 'Mapping platform transformations', in *Complex engineering service systems: Concepts and research,* Ed. I. Ng, G. Parry, P.J. Wild, D. McFarlane and P. Tasker, pp. 375-393. London, Springer-Verlag. ISBN: 978-0-85729-188-2.
- 45. Ford, S., Routley, M. and Phaal, R. (2011), 'The expert scan: a visual mapping process for interviewing', *Proceedings of the 5th European Conference on Management of Technology (EuroMOT),* Tampere, Finland, 18-20 September.
- 46. Routley, M., Phaal, R., Ford, S., O'Sullivan, E., Athanassopoulou and Probert, D. (2011), 'Tools to assist with navigating industrial emergence', *Proceedings of the 5th European Conference on Management of Technology (EuroMOT)*, Tampere, Finland, 18-20 September.

- 47. Kerr, C.I., Phaal, R. and Probert, D.R., (2011), 'A toolkit for the strategic planning of fleet transitions and upgrades in complex product-service systems', 9th International Conference on Manufacturing Research (ICMR), 6-8 September, Glasgow. In Advances in Manufacturing Technology XXV, Ed. D.K. Harrison, B.M. Wood and D. Evans, Glasgow Caledonian University, ISBN 9781905866564 pp. 87-92.
- 48. Ford, S.J., Routley, M.J., Phaal, R., O'Sullivan, E. and Probert, D.R. (2011), "The Dynamics of Industrial Emergence: Insights from Commercial Inkjet Printing", *Emerging industries: Theory and Evidence Showcase Symposium, Academy of Management Annual Meeting,* San Antonio, TX, 12-16 August.
- 49. Kerr, C., Farrukh, C., Phaal, R. and Probert, D. (2011), 'A philosophical stance on developing industrially relevant strategic technology management toolkits', *Portland International Conference on Management of Engineering and Technology (PICMET)*, 31 July 4 August, Portland OR.
- 50. Routley, M., Phaal, R. and Probert, D. (2011), 'Exploring the impacts of the interactions between lifecycles and other dynamics that influence the development of technology-based industries', *Portland International Conference on Management of Engineering and Technology (PICMET '11), Portland, 31 July 4 August.*
- 51. Goenaga, J.M. and Phaal, R. (2010), 'El roadmapping en la industria: experiencias', *Dyna Mayo*, 85 (4), pp. 331-340.
- 52. Phaal, R. and Palmer, P.J. (2010), 'Technology management: structuring the strategic dialogue', *Engineering Management Journal*, 22(1), pp. 27-37.
- 53. Kerr, C., Phaal, R. and Probert, D. (2010), 'Ranking maritime upgrade options', *Proceedings of the Institution of Mechanical Engineers, Part M: Journal of Engineering for the Maritime Environment,* 224(1), pp. 47-59.
- 54. Mitchell, R. and Phaal, R. (2010), 'Roadmapping at Printco: one company's experience', in *Managing innovation driven companies approaches in practice,* Ed. H. Tschirky *et al.,* Palgrave MacMillan, pp. 125-136.
- 55. Kerr, C.I.V., Phaal, R. and Probert, D.R. (2010), 'Inserting innovations in-service', *Innovations in Defence Support*
- 56. Phaal, R. (2010), 'Technology roadmapping', Chapter 7 in *IProfit: moving science and scientists from concept to commercialization, Yorkshire Enterprise Fellowship,* pp. 91-102.
- 57. Phaal, R., Farrukh, C. and Probert, D. (2010), *Roadmapping for strategy and innovation aligning technology and markets in a dynamic world,* Institute for Manufacturing, University of Cambridge, ISBN 978-1-902546-82-7.
- 58. Cetindamar, D., Phaal, R. and Probert, D. (2010), *Technology management activities and tools,* Palgrave Macmillan, Basingstoke.
- 59. Ford, S, Routley, M and Phaal, R. (2010), 'The dynamics of industrial emergence', *Portland International Conference on Management of Engineering and Technology (PICMET '10),* Phuket, 18-22 July.
- 60. Ilevbare, I., Probert, D. and Phaal, R. (2010), 'Strategic planning for uncertain futures: an integration of scenario planning, roadmapping and options thinking', *R&D Management Conference*, 29-30 June, Manchester.
- 61. Kerr, Phaal, Probert (2010), 'Depicting options and investment appraisal information in roadmaps', 19th *International Conference on Management of Technology (IAMOT),* Cairo, 8-11 March.
- 62. Ha, H., Yoon, B. and Phaal, R. (2010), 'Investigation of evolution and link patterns in technology roadmapping', 19th International Conference on Management of Technology (IAMOT), Cairo, 8-11 March.
- 63. Dissel, M.C., Phaal, R., Farrukh, C.J. and Probert, D.R. (2009), 'Value roadmapping: a systematic approach for early stage technology investment decisions', *Research Technology Management*, Nov-Dec, pp. 45-53.
- 64. Goenaga, J.M. and Phaal, R. (2009), 'Agile strategy: lessons from the Basque Country', *Research Technology Management,* July-August, 52 (4), pp. 9-12.
- 65. Farrukh, C., Dissel, M., Jackson, K., Phaal, R. and Probert, D. (2009), 'Valuing technology along a timeline of technological maturity', *International Journal of Technology Management*, 48 (1), pp. 42-55.
- 66. Phaal, R., Farrukh, C.J.P. and Probert, D.R. (2009), 'Visualising strategy: a classification of graphical roadmap forms', *International Journal of Technology Management*, 47 (4), pp. 286-305.
- 67. Phaal, R. and Muller, G. (2009), 'An architectural framework for roadmapping: towards visual strategy', *Technology Forecasting & Social Change*, 76 (1), pp. 39-49.
- 68. Kerr, C.I.V., Phaal, R. and Probert, D. (2009), 'Addressing the cognitive and social influence inhibitors during the ideation stages of technology roadmapping workshops', *Portland International Conference on Management of Engineering and Technology (PICMET '09),* Portland, 2-6 August.
- 69. Phaal, R., O'Sullivan, E., Farrukh, C. and Probert, D. (2009), 'Developing a framework for mapping industrial emergence', *Portland International Conference on Management of Engineering and Technology (PICMET '09)*, Portland, 2-6 August.
- 70. Kerr, C.I.V., Phaal, R. and Probert, D. (2009), 'Cogitate, articulate, communicate: the psychosocial reality of technology roadmapping and roadmaps', *R&D Management Conference*, Vienna, 21-24 June.
- 71. Beeton, D.A., Phaal, R. and Probert, D.R. (2008), 'Exploratory roadmapping for foresight', *International Journal of Technology Intelligence and Planning*, 4 (4), pp. 398-412.
- 72. Remo, R., Andrienko, G., Andrienko, N., Blackwell, A., Börner, K., Brodbeck, D., Dykes, J., Eppler, M., Fekete, J.-D., Grün, A., Herr, B., Huang, J., Kienreich, W., Koutamanis, A., Lang, S., Meagher, M., Perrin,

D., Phaal, R., van de Moere, A. and Weber, W. (2007), 'Visualization Summit 2007: ten research goals for 2010', *Information Visualisation Journal*, 6 (3), pp. 169-188.

- 73. Phaal, R., Simonse, L. and van Ouden, E. (2008), 'Next generation roadmapping for innovation planning', *International Journal of Technology Intelligence and Planning*, 4 (2), pp. 135-152.
- 74. Yoon, B., Phaal, R. and Probert, D.R. (2008), 'Morphology analysis for technology roadmapping: application of text mining', *R&D Management*, 38 (1), pp. 51-68.
- 75. Blackwell, A.F., Phaal, R., Eppler, M. and Crilly, N. (2008), 'Strategy roadmaps: new forms, new practices', in *Diagrammatic representation and inference, Lecture notes in computer science,* Ed. G. Stapleton & J. Howse, Springer-Verlag, Berlin-Heldelberg.
- 76. Blackwell, A.F., Phaal, R., Eppler, M. and Crilly, N. (2008), 'Strategy roadmaps: new forms, new practices', *Diagrams 2008 – 5th International Conference on the theory and application of diagrams*, Herrsching, 19-21 September.
- 77. Kerr. C.I.V., Phaal, R. and Probert, D.R. (2008), 'Aligning R&D with changing product requirements in an evolutionary acquisition environment', *R&D Management Conference 2008 Emerging methods in R&D management*, Ottawa, 18-20 June.
- 78. Yoon, B., Phaal, R. and Probert, D. (2008), 'Structuring technological information for technology roadmapping: data mining approach', 7th World Scientific and Engineering Academy and Society (WSEAS) International Conference on Artificial Intelligence, Knowledge Engineering and Data Bases (AIKED '08), Cambridge, 20-22 February.
- 79. Phaal, R., Farrukh, C.J. and Probert, D.R. (2007), 'Strategisches roadmapping: die verknüpfung von technologie, management und markt', *OrganisationsEntwicklung*, Nr. 2, pp. 81-86.
- 80. Phaal, R., Farrukh, C.J.P. and Probert, D.R. (2007), 'Strategic roadmapping: a workshop-based approach for identifying and exploring innovation issues and opportunities', *Engineering Management Journal*, 19 (1), pp. 16-24.
- 81. Laube, T., Phaal, R. et al. (2007), Praxishandbuch technologie roadmapping, Fraunhofer Institut Produktionstechnik und Automatisierung.
- 82. Phaal, R. and Muller, G. (2007), 'Towards visual strategy: an architectural framework for roadmapping', *Portland International Conference on Management of Engineering and Technology (PICMET '07),* Portland, 5-9 August.
- 83. Phaal, R., Farrukh, C.J.P. and Probert, D.R. (2006), 'Technology management tools: generalization, integration and configuration', *International Journal of Innovation and Technology Management*, 3 (3), pp. 1-19.
- 84. Phaal, R., Farrukh, C.J.P. and Probert, D.R. (2006), 'Technology management tools: concept, development and application', *Technovation*, 26(3), pp. 336-344.
- 85. Phaal, R. (2006), 'Strategic roadmapping: linking technology resources to business objectives', Pure Insight best practice case study, November, www.pure-insight.com.
- 86. Phaal, R. (2006), 'Technology roadmapping', IET Management Key, Institute of Engineering and Technology, www.theiet.org.
- Phaal, R., Farrukh, C. and Probert, D. (2006), 'Strategic roadmapping: linking technology to markets', Cutter Consortium Business Technology Trends & Impacts Advisory Service Executive Update, Vol. 7, No. 6.
- 88. Dissel, M.C., Phaal, R., Farrukh, C.J. and Probert, D.R. (2006), 'Value roadmapping: a structured approach for early stage technology investment decisions', *Portland International Conference on Management of Engineering and Technology (PICMET '06),* Istanbul, 8-13 July.
- 89. Damrongchai, N., Phaal, R. and Probert, D.R. (2005), 'Roadmapping biofuel as a contribution to the sustainable economy: developing a practical foresight approach', *R&D Management Conference*, Pisa, 6-8 July.
- 90. Beeton, D.A., Phaal, R. and Probert, D.R. (2005), 'Integrating supply chains with technology roadmapping', *R&D Management Conference*, Pisa, 6-8 July.
- 91. Beeton, D.A., Phaal, R., Probert, D.R. (2005), 'Using Roadmapping to Improve Business Interfaces in New Product Development', *European Institute for Advanced Studies in Management Conference (EIASM)*, Copenhagen, 12-14 June.
- 92. Phaal, R., Farrukh, C.J.P. and Probert, D.R. (2005), 'Developing a technology roadmapping system', *Portland International Conference on Management of Engineering and Technology (PICMET '05),* Portland, 31 July – 4 August.
- 93. Holmes, C.J., Ferrill, M.B.A. and Phaal R. (2004), 'Reasons for roadmapping: a study of the Singaporean SME manufacturing sector', *Proceedings of the IEEE International Engineering Management Conference (IEMC)*, 18-21 October, Singapore.
- 94. Hunt, F.H., Mitchell, R., Phaal, R. and Probert, D.R. (2004), 'Early valuation of technology: real options, hybrid models and beyond', *Journal of Instrument and Control Engineers*, 43(10) pp. 730-735.
- 95. Farrukh, C., Fraser, P., Hadjidakis, D. Phaal, R., Probert, D. and Tainsh, D. (2004), 'Developing an integrated technology management process', *Research Technology Management*, 47(4), pp. 39-46.

- 96. Phaal, R., Farrukh, C.J.P. and Probert, D.R. (2004), 'Collaborative technology roadmapping: network development and research prioritisation', *International Journal of Technology Intelligence and Planning*, 1 (1), pp. 39-55.
- 97. Phaal, R., Farrukh, C.J.P. and Probert, D.R. (2004), 'Customizing roadmapping', *Research Technology Management*, 47 (2), pp. 26-37.
- 98. Wells, R., Phaal, R., Farrukh, C.J.P. and Probert, D.R. (2004), 'Technology roadmapping for a service organization', *Research Technology Management*, 47 (2), pp. 46-51.
- 99. Phaal, R., Farrukh, C.J.P. and Probert, D.R. (2004), 'A framework for supporting the management of technological knowledge', *International Journal of Technology Management*, 27(1), pp. 1-15.
- 100. Phaal, R., Farrukh, C.J.P. and Probert, D.R. (2004), 'Technology roadmapping a planning framework for evolution and revolution', *Technological Forecasting & Social Change, 71*(1-2), pp. 5-26.
- 101. Phaal, R (2004), 'Technology roadmapping', Chapter in *Foresight methodologies text book*, United Nations Industrial Development Organization (UNIDO) Technology ForeSight Initiative, pp. 129-151.
- 102. Probert, D.R., Farrukh, C.J.P. and Phaal, R. (2004), 'Structuring a systematic approach to technology management: processes and framework', in *Bringing technology and innovation into the boardroom strategy, innovation and competences for business value,* Palgrave, pp. 76-91.
- 103. Phaal, R., Farrukh, C.J.P. and Probert, D.R. (2004), 'Technology in strategy and planning', in *Bringing technology and innovation into the boardroom strategy, innovation and competences for business value,* Palgrave, pp. 99-123.
- 104. Probert, D.R., Farrukh, C.J.P. and Phaal, R. (2003), 'Technology roadmapping developing a practical approach for linking resources to strategic goals', *Proceedings of the Institute of Mechanical Engineers,* Vol. 217, Part B: J. Engineering Manufacture.
- 105. Farrukh, C., Phaal, R. and Probert, D.R. (2003), 'Technology roadmapping: linking technology resources into business planning', *International Journal of Technology Management*, 26 (1), pp. 2-19.
- 106. Phaal, R., Farrukh, C.J.P., Mitchell, R. and Probert, D.R. (2003), 'Starting-up technology roadmapping fast', *Research Technology Management*, 46(2), pp. 52-58. Republished in IEEE Engineering Management Review (2003), 31 (3).
- 107. Phaal, R., Farrukh, C.J.P, Mills, J.F. and Probert, D.R. (2003), 'Customizing the technology roadmapping approach', *Portland International Conference on Management of Engineering and Technology (PICMET '03)*, Portland, 20-24 July.
- 108. Phaal, R., Shehabuddeen, N.T.M.H. and Assakul, P. (2002), 'Technology roadmapping: charting the route ahead for UK road transport', *Proceedings of the IEEE International Engineering Management Conference,* Cambridge, 18-20 August.
- 109. Phaal, R., Farrukh, C.J.P. and Probert, D.R. (2001), *T-Plan: the fast-start to technology roadmapping planning your route to success*, ISBN 978-1-902546-09-4, Institute for Manufacturing, University of Cambridge.
- 110. Phaal, R., Farrukh, C.J.P. and Probert, D.R. (2001), 'Characterisation of technology roadmaps: purpose and format', *Proceedings of the Portland International Conference on Management of Engineering and Technology (PICMET '01),* Portland, 29 July 2 August, pp. 367-374.
- 111. Farrukh, C.J.P., Phaal, R. and Probert, D.R. (2001), 'Industrial practice in technology planning implications for a useful tool catalogue for technology management', *CD Proceedings of the Portland International Conference on Management of Engineering and Technology (PICMET '01)*, Portland, 29 July - 2 August.
- 112. Brown, R. and Phaal, R. (2001), 'The use of technology roadmaps as a tool to manage technology developments and maximise the value of research activity', *IMechE Mail Technology Conference (MTC 2001)*, Brighton, 24-25 April 2001.
- 113. Phaal, R., Farrukh, C.J.P. and Probert, D.R. (2000), 'Tools for technology management structure, organisation and integration', *Proceedings of the IEEE International Conference Management of Innovation and Technology (ICMIT)*, 12-15 November, Singapore.
- 114. Farrukh, C.J.P., Phaal, R. and Probert, D.R. (2000), 'Technology roadmapping linking technology resources into business planning', 4th International Conference on Management Innovative Manufacturing (*MIM2000*), 17-19 July, Aston Business School, UK.
- 115. Farrukh, C.J.P., Phaal, R. and Probert, D.R. (2000), 'Technology management integrating technology into business planning', *Proceedings of the 11th Annual Conference of the Production and Operations Management Society (POM2000),* 1-4 April, San Antonio, TX.
- 116. Phaal, R., Farrukh, C.J.P. and Probert, D.R. (2000), 'Fast-Start Technology Roadmapping', Proceedings of the 9th International Conference on Management of Technology (IAMOT 2000), 21-25 February 2000, Miami. Published in Khalil, T.M., Lefebvre, L.A. and Mason, R.M. (Ed.) (2001), Management of technology: the key to prosperity in the third millennium, Selected papers from IAMOT 2000, Pergamon Press, Amsterdam, pp. 275-284.
- 117. Phaal, R., Paterson, C.J., Probert, D.R. and Hughes, D.J. (1997), 'Linking technology to the market: a topdown appraisal within a multi-business organisation', *Proceedings of the 7th International Forum on Technology Management (IAMOT),* Kyoto, 3-7 November.