

Roberto Fontana

Professor of Applied Economics
Università degli Studi di Pavia

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Pavia, Italy

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PUBLICATIONS

Books

- Fontana R. (with Corrocher N., Malerba F., Perrone V.) (2012) *Poste Italiane. Innovation – a winning strategy*. EGEA, Milano

Articles in referred journals

- Fontana, R. (with Adams, P., Bahoo-Torodi, A., Malerba, F.) (2024). Employee spinouts along the value chain. *Industrial and Corporate Change*, 33(1), 90-105.
- Fontana, R. (with Cattani G., Malerba, F.) (2024). Entrants heterogeneity, pre-entry knowledge, and the target industry context: a taxonomy and a framework. *Industrial and Corporate Change*, 33(1), 8-39.
- Fontana R. (with Cattani G., Malerba, F.) (2024). Introduction to the Industrial and Corporate Change special issue on: “knowledge resources and the heterogeneity of entrants within and across industries”. *Industrial and Corporate Change*, 33(1), 1-7.
- Fontana R. (with Zirulia L.) (2023) How far from the tree does the (good) apple fall? Spin-out creation and the survival of high-tech firms. *Journal of Economic Behavior and Organization*, 213, 26-49.
- Fontana R. (with Arrieta J. P., Brusoni S.) (2023) On the strategic use of products modularity for market entry. *Industrial and Corporate Change*, 32(1), 155-180.
- Fontana R. (with Adams P., Malerba F.) (2022) Knowledge resources and the acquisition of spinouts. *Eurasian Business Review*, 12(2), 277-313.
- Fontana R. (with Martinelli A., Nuvolari A.) (2021) Regimes reloaded? Reassessing 20 years of research on Schumpeterian technological regimes. *Journal of Evolutionary Economics*, 31, 1495-1519.
- Fontana R. (with Greenstein S.) (2021) Platform leadership and supply chains: Intel, Centrino, and the restructuring of Wi-Fi supply. *Journal of Economics Management & Strategy*, 30(2), 259-286 (also *National Bureau of Economic Research Working Paper (WP 27754)*).
- Fontana R. (with Farronato C., Iansiti M., Bartosiak M., Denicolai S., Ferretti L.) (2020) How to get people to actually use contact-tracing apps. *Harvard Business Review*, July.
- Fontana R. (with Camerani R., Corrocher N.) (2020) It's never too late (to enter) ...till it is! Firms' entry and exit in the Digital Audio Player industry. *Technological Forecasting and Social Change*, 153, 119-142.
- Fontana R. (with Adams P., Malerba F.) (2019) Linking vertically related industries: entry by spinouts across industry boundaries. *Industrial and Corporate Change*, 28(3), 529-550.
- Fontana R. (with Adams P., Bodas Freitas I.) (2019) Strategic orientation, innovation performance and the moderating influence of marketing management. *Journal of Business Research*, 97, 129-140.
- Fontana R. (with Adams P., Marinoni A.) (2018) More 'Team' than 'Fame': Spinoff success in the U.S. television sitcom industry. *Industrial and Corporate Change*, 27(6), 957-974.
- Fontana R. (with Bodas Freitas I.) (2018) Formalized problem-solving practices and the effect of collaborations with suppliers on a firm's innovative performance. *Journal of Product Innovation Management*, 35(4), 565-587.
- Fontana R. (with Adams P., Malerba F.) (2017) Bridging Knowledge Resources: The Location Choices of Spinouts. *Strategic Entrepreneurship Journal*, 11(2), 93-121.
- Fontana R. (with Bodas Freitas I., Castellacci F., Malerba F., Vezzulli A.) (2017) Sectors and the additionality effects of R&D tax credits: A cross-country micro-econometric analysis. *Research Policy*, 46(1), 57-72.

- Fontana R. (with Camerani R., Corrocher N.) (2016) Drivers of diffusion of consumer products: empirical evidence from the Digital Audio Player market. *Economics of Innovation and New Technology*, 25(7), 731-745.
- Fontana R. (with Adams P., Malerba F.) (2016) User industry spin-outs: downstream industry knowledge as a source of new firm entry and survival. *Organization Science*, 27(1), 18-35.
- Fontana R. (with Vezzulli A.) (2016) Technological leadership and persistence in product innovation in the Local Area Network industry 1990-1999. *Research Policy*, 45, 1604-1619.
- Fontana R. (with Malerba F., Marinoni A.) (2016) Pre-entry experience, technological complementarity, and the survival of de-novo entrants. Evidence from the US telecommunications industry. *Economics of Innovation and New Technology*, 25(6), 573-593.
- Fontana R. (with Zirulia L.) (2015) '...then came Cisco and the rest is history'. A history friendly model of the Local Area networking industry. *Journal of Evolutionary Economics*, 25, 875-899.
- Fontana R. (with Nuvolari A., Shimizu H., Vezzulli A.) (2013) Reassessing patent propensity: evidence from a data-set of R&D awards, 1977-2004. *Research Policy*, 42(13), 1780-1792.
- Fontana R. (with Adams P., Malerba F.) (2013) The magnitude of innovation by demand in a sectoral system: the role of industrial users in semiconductors. *Research Policy*, 42(1), 1-14.
- Fontana R. (with Nuvolari A., Shimizu H., Vezzulli A.) (2012) Schumpeterian patterns of innovation and the sources of breakthrough inventions: evidence from a data-set of R&D awards. *Journal of Evolutionary Economics*, 22(4), 785-810.
- Fontana R. (with Adams P., Malerba F.) (2012) User knowledge in high technology innovation: an empirical analysis in the semiconductor industry. *International Journal of Technology Management*, 58(3-4), 284-299.
- Fontana R. (with Balconi M.) (2011) Entry and innovation. An analysis of the fabless semiconductor business. *Small Business Economics*, 37, 87-106.
- Fontana R. (2011) Technological disequilibrium. Price indexes in hubs for Local Area Networks. *Telecommunications Policy*, 35, 64-73.
- Fontana R. (with Bodas Freitas L., Clausen T., Verspagen B.) (2011) Formal and Informal External Linkages and firms' Innovative Strategies. A Cross-Country Comparison. *Journal of Evolutionary Economics*, 21, 91-119.
- Fontana R. (with Crespi G., Geuna A., D'Este P.) (2011) The impact of academic patenting on university research and its transfer. *Research Policy*, 40(1), 55-68.
- Fontana R. (with Malerba F.) (2010) Entry, demand and survival in the semiconductor industry. *Industrial and Corporate Change*, 19(5), 1629-1654.
- Fontana R. (with Nesta L.) (2010) Pre-entry Experience, Post-entry Learning and Firm Survival. Evidence from the Local Area Networking Switch Industry. *Structural Change and Economic Dynamics*, 21(1), 41-49.
- Fontana R. (with Nesta L.) (2009) Product innovation and survival in a Hi-Tech industry. *Review of Industrial Organization*, 34(4), 287-306.
- Fontana R. (with Nuvolari A., Saviotti P.P.) (2009) Introduction to the Journal of Evolutionary Economics special issue: the product characteristics approach to innovation studies (Fontana R. Nuvolari A. and Saviotti P.P. editors). *Journal of Evolutionary Economics*, 19(4), 463-469.
- Fontana R. (with Castaldi C., Nuvolari A.) (2009) 'Chariots of Fire': the Evolution of Tank Technology 1915-1945. *Journal of Evolutionary Economics*, 19(4), 545-566.
- Fontana R. (with Nuvolari A., Verspagen B.) (2009) Mapping technological trajectories as patent citations networks. An application to data communications standards. *Economics of Innovation and New Technology*, 18(4), 311-336.
- Fontana R. (2008) Competing technologies and market dominance: standard 'battles' in the Local Area Networking industry. *Industrial and Corporate Change*, 17(6), 1205-1238.
- Fontana R. (with Guerzoni M.) (2008) Incentives and uncertainty: an empirical analysis on the role of demand upon innovation. *The Cambridge Journal of Economics*, 32(6), 927-946.
- Fontana R. (with Corrocher N.) (2008) Expectations, network effects and timing of technology adoption: some empirical evidence from a sample of SMEs in Italy. *Small Business Economics*, 31(4), 425-441.
- Fontana R. (with Corrocher N.) (2008) Objectives, obstacles and drivers of ICT adoption. What do IT managers perceive? *Information Economics and Policy*, 20(3), 229-242.

- Fontana R (with D'Este P.) (2007) What drives the emergence of entrepreneurial academics? A study on collaborative research partnerships in the UK. *Research Evaluation*, 16(4), 257-270.
- Fontana R. (with Nesta L.) (2007) Innovation et selection des firmes de l'industrie des équipements en réseaux locaux, *Revue de l'OFCE*, 100(1), 121-142.
- Fontana R. (2007) Technical change, prices and communications technology: insights from the Local Area Networking industry, *Technological Forecasting & Social Change*, 74(3), 313-330.
- Fontana R. (with Geuna A., Matt M.) (2006) Factors affecting University-Industry R&D projects: the importance of searching, screening and signalling, *Research Policy*, 35(2), 309-323
- Fontana R. (with Nesta L.) (2006) Product Entry in a fast growing industry: the LAN switch market, *Journal of Evolutionary Economics*, 16(1-2), 45-64

Chapters in books

- Fontana R. (with Cavalli G., Wang F. L.) Using hedonic price estimations to construct indicators of product location in the product space. An application to the action camera industry. In U. Cantner U., Guerzoni M., Vannuccini S. (eds.) *Handbook of research methods and applications in industrial dynamics and evolutionary economics*, Springer (forthcoming).
- Fontana R. (with Malerba F., Marinoni A.) (2015) Knowledge intensive entrepreneurship in different sectoral systems: a taxonomy. In Malerba F., Caloghirou Y., McKelevey M., Radosevic S. (eds.) *Dynamics of knowledge intensive entrepreneurship: business strategy and public policy*, Routledge.
- Fontana R. (with Camerani R., Corrocher N.) (2015) Competing for product innovation in knowledge intensive industries. The case of the Digital Audio Player industry. In Malerba F., Caloghirou Y., McKelevey M., Radosevic S. (eds.) *Dynamics of knowledge intensive entrepreneurship: business strategy and public policy*, Routledge.
- Fontana R. (with Malerba F.) (2014) Innovation Diffusion. In Teece D., Augier M. (eds.), *Palgrave Encyclopedia of Strategic Management*, Palgrave.
- Fontana R. (with Nuvolari A., Shimizu H., Vezzulli A.) (2013) Schumpeterian patterns of innovation and the sources of breakthrough inventions: evidence from a data-set of R&D awards. In Andersen, E.S., Pyka A. (eds.) *Long Term Economic Development*, Springer.
- Fontana R. (with Brusoni S.) (2010) Incumbents strategies for platform competition: shaping the boundaries of creative destruction. In Leoncini R., De Liso N. (eds.) *Internationalization, Technological Change and the Theory of the Firm*, Routledge.
- Fontana R. (with Corrocher N., Parlanti C.) (2008) Adoption of VoIP applications in public and private organizations. In Lee I. (ed.) *Handbook of Research on Telecommunications Planning and Management for Business*, IGI Global Publications.
- Fontana R. (with Geuna A., Matt M.) (2006) Firm size and openness: the driving forces of University-Industry collaboration. In Caloghirou Y., Constantelou A., Vonortas N.S. (eds.) *Knowledge Flows in European Industry: Mechanisms and Policy Implications*, London, Routledge.

Manuscripts submitted to journals and/or currently under review (May 2024)

- Fontana R. (with Kim D.Y., Greenstein S.) Supply chain slices and devices: evidence from Wi-Fi equipment. *R&R in Management Science*.

Recent papers presented at conferences, workshops, and work in progress

- Fontana R. (with Bahoo Torodi A., Malerba F.) Knowledge resources, entry strategies, and performance of spinouts in nascent industries.
- Fontana R. (with Chang G.L, Malerba F.) When do friends become foes? the role of complementarity and recombinant capabilities in market entry.
- Fontana R. (with Chang G.L, Malerba F.) Gaining advantages from legacy: the role of prior market experiences in incumbents' adaptation to technological discontinuities.
- Fontana R. (with Lee S.H., Malerba F.) Who enters and when? Knowledge relatedness, entrant heterogeneity, and industry characteristics.
- Fontana R. (with Lee S.H., Malerba F.) Knowledge modularity, knowledge relatedness, and firm entry.
- Fontana R. (with Adams P., Capone G., Malerba F.) Entry, competition and survival in vertically-related industries.

- Fontana R. (with Bodas Freitas I.M., Negro B.) Beyond the signal! voluntary standards, external linkages, and eco-innovation.
- Fontana R. (with Camerani R., Corrocher N.) Were they pushed or did they jump? An empirical analysis of forced and unforced replacement of high-tech products.

PERSONAL INFORMATION AND PROFESSIONAL EXPERIENCE

Education

- October 2002, PhD in Science and Technology Policy Studies, Science and Technology Policy Research Unit – University of Sussex (UK)
- October 1998, MSc in Science and Technology Policy Studies (with distinction), Science and Technology Policy Research Unit – University of Sussex (UK)
- April 1996, Degree in Economics (Laurea), Università degli Studi di Pavia, Italy.

Professional positions at Universities

- January 2022 – present: Full Professor of Applied Economics at University of Pavia, Department of Economics and Management
- January 2012 – December 2021: Associate Professor of Applied Economics at University of Pavia, Department of Economics and Management
- December 2008 – December 2011: Tenured Assistant Professor of Applied Economics at University of Pavia, Department of Economics
- January 2005 – November 2008: Assistant Professor ('Non tenured') of Applied Economics at University of Pavia, Department of Economics
- October 2002 – December 2004: Post-doc Fellow at CESPRI – Bocconi University, Milano, Italy

Temporary academic appointments

- May 2017 – July 2017: Visiting Researcher at Harvard Business School (USA), Technology and Operations Management (TOM) Unit
- May 2014 – June 2014: Visiting Researcher at Telecom Ecole de Management (France)
- September 2012 – September 2013: Deputy director, Doctorate Research in Economics and Management of Technology (DREAMT), University of Pavia.
- November 2007 – June 2012: representing Italy in the Management Committee of the EU research project "ACTION ISO605" A Telecommunications Economics COST Network.
- October 2007 – January 2008: Visiting Fellow at Technical University of Eindhoven (The Netherlands)

Positions in academic organizations

- December 2004 – present: Research Fellow at ICRIOS (Invernizzi Center for Research on Innovation, Organization, Strategy and Entrepreneurship) (formerly KTeS-CESPRI) – Bocconi University, Milano, Italy

Membership in Academic Organizations

- Strategic Management Society
- Academy of Management
- International Joseph A. Schumpeter Society
- Società Italiana di Economia e Politica Industriale (SIEPI)

Board Service/Conference Organization

- January 2013 – present: Advisory editor, *Journal of Evolutionary Economics*
- January 2017 – present: Evaluator of *European Research Council (ERC) ERC Proof of Concept Grant Scheme*
- August 2021: Academy of Management 2021, Annual Conference: Organizer of the Paper Development Workshop (PDW) on 'Knowledge Contexts of Entrepreneurship, Pre-entry Capabilities, and New Ventures' Outcomes'
- Member Scientific committee of the *International Joseph A. Schumpeter Society*, Jena, July 27-30, 2014

- Guest editor, Special issue of *Journal of Evolutionary Economics* on “The product characteristics approach to innovation studies”
- May 2010: DIME Workshop: ‘Measuring, Mapping and Modelling Technical Change’, Sant’Anna School of Advanced Studies, Pisa, Italy, 6-7 May, 2010;
- December 2009: DIME Workshop: ‘Industrial Dynamics and Sectoral Systems in Developing Economies’, Università Bocconi, Milano, 9-10 December, 2009;
- October 2008: DIME Conference: ‘Demand, Innovation and Industrial Dynamics’, Università Bocconi, Milano, 23-24 October, 2008;
- October 2007: DIME Workshop: ‘Demand, Product Characteristics and Innovation’, Friedrich Schiller University, Jena, 18-19 October, 2007;
- June 2007: Conference: ‘Knowledge Based Entrepreneurship: Innovation, Networks, and Systems’, Università Bocconi, Milano, 4-5 June, 2007;
- April 2007: DIME Workshop: ‘Demand and Innovation’, GREDEG – Sophie Antipolis, Nice, 26-27 April, 2007.

Service in professional community: request to referee

Management Science, Organization Science, Strategic Management Journal, Research Policy, Journal of Business Venturing, Industrial and Corporate Change, Small Business Economics, Journal of Evolutionary Economics, Economic Inquiry, Industry & Innovation, Science and Public Policy, Information Economics and Policy, Economics of Innovations and New Technology, Structural Change and Economic Dynamics, Telecommunications Policy, Technovation, Regional Studies, Journal of Business Survey, Telematics & Informatics, International Journal of Technology Management, Technology Analysis and Strategic Management, Academy of Management Conference (2005-present), Danish Research Unit for Industrial Dynamics (DRUID) Summer Conference (2005-present).

Active participation in funded research projects

- 2023 – present: PI of the project: “Data Driven Innovation. Measuring its effects on industries, firms, and business models”. This is a two-year long project funded by the Italian Ministry of University (MUR).
- 2019 - 2023: active research in the project: “Technological change, industry evolution and employment dynamics”. This was a three-year long project funded by the Italian Ministry of University (MIUR). Principal investigator: Franco Malerba (Bocconi University, Italy)
- 2013 – 2016: active researcher in the project: “Cre8tv – Unveiling Creativity”. This was a three years long EU funded research project. Principal investigator: Bruce Tether (Manchester University, UK)
- 2013 – 2015: active researcher and Work Package co-ordinator in the project: “R&D Policy by Sector: A Cross-Country Investigation”. This was a two-year long research project funded by the Norwegian Research Council. Principal Investigator: Fulvio Castellacci (Norwegian institute of International Affairs, Norway)
- 2009 – 2012: active researcher in the project: “AEGIS – Advancing Knowledge-Intensive Entrepreneurship and Innovation for Economic Growth and Social Well-being in Europe “. This was a three-year long EU funded research project. Principal Investigator: Franco Malerba (Bocconi University, Italy);
- 2007 – 2010 DG Research, European Commission, member of Management Committee “ACTION ISO605” A Telecommunications Economics COST Network.
- 2007 – 2010: active researcher and deputy co-ordinator of the project: “Cultural and Innovation Dynamics (CID): Explaining the Uneven Evolution of Human Knowledge “. This was a three-year long EU funded research project within the programme “New and Emerging Science and Technology” - Call identifier: FP6-2005-NEST-PATH Proposal No 043345. Principal Investigator: Stefano Brusoni (Bocconi University, Italy);
- 2005 – 2010 : active researcher and assistant co-ordinator for the Research Activity Line (RAL) 2 of the EU network of excellence DIME (Dynamics of Institutions and Markets in Europe). This was a five-year long network of excellence funded by the EU within Framework Programme 6. Principal Investigator: Franco Malerba (Bocconi University, Italy);
- 2007-2009, PRIN 2006, active researcher at Pavia University within the research project, “Microeconomics and microelectronics: innovation, demand and vertical disintegration in the semiconductor industry”. This was a two-year long research project funded by the Italian Ministry

- of University (MIUR). National Coordinator: Franco Malerba (Bocconi University, Italy); Local Coordinator: Margherita Balconi (University of Pavia, Italy);
- 2006-2009, FIRB 2007, active researcher at Pavia University within the research project: "Research and entrepreneurship in the knowledge society." (RBNE039XKA). This was a two-year long research project funded by the Italian Ministry of University (MIUR). National Coordinator: Franco Malerba (Bocconi University, Italy); Local Coordinator: Margherita Balconi (University of Pavia, Italy);
 - 2004-2006: PRIN 2005, active researcher at Bocconi University within the research project: "Demand, Innovation and Industrial Dynamics". This was a two-year long research project funded by the Italian Ministry of University (MIUR). National and Local Coordinator: Franco Malerba (Bocconi University, Italy);

Invited seminars

- Società Italiana di Economia e Politica Industriale – SIEPI (Italy), ETH-Zurich (Switzerland), Telecom Ecole de Management (France), Grenoble Ecole de Management (France), UNU-MERIT, Maastricht University (The Netherlands), Universitat Autònoma de Barcelona (Spain), BETA – University of Strasbourg (France), SPRU – University of Sussex (UK), INGENIO – Polytechnic University of Valencia (Spain), ISEG – University of Lisbon (Portugal), CIRCLE – Lund University (Sweden), Hitotsubashi University (Japan), Technical University Eindhoven (The Netherlands), Utrecht University (The Netherlands).

Active participation in conferences (most recent 5 years)

- *International J. Schumpeter Society Conference 2024*, Gothenburg, Sweden;
- *Industrial Studies Association Conference 2024*, Sacramento, USA;
- *DRUID Summer 2023 Conference*, Lisbon, Portugal
- *Industrial Studies Association Conference 2023*, Columbus, USA
- *21st Annual International Industrial Organization Conference 2023*, Washington, USA;
- *DRUID Summer 2022 Conference*, Copenhagen, Denmark;
- *Academy of Management Conference 2022*, Seattle, USA;
- *Industrial Studies Association Conference 2022*, Philadelphia, USA
- *International J. Schumpeter Society Conference*, 2021, Rome, Italy;
- *Academy of Management Conference 2021*, Philadelphia, USA;
- *Industrial Studies Association Conference 2021*, Boston, USA;
- *Academy of Management Conference 2019*, Atlanta, USA;
- *Industrial Studies Association Conference 2019*, Nashville, USA:
- *Società Italiana di Economia e Politica Industriale (SIEPI) 2019*, Roma, Invited Speaker;

Participation in Doctoral dissertation committees

Name	University/Dept	Year complete	Duties
Chang Liu	Bocconi University	2023	Reading member
Sung Hoon Lee	Bocconi University	2022	Reading member
Francesca Rubiconto	MERIT-Maastricht University	2022	Principal
Elena Romito	Sant'Anna School of Advanced Studies	2019	Reading member
Niloofar Abolfathi	Bocconi University	2018	Reading member
Federica De Stefano	Bocconi University	2018	Reading member
Svetlana Khimina	Bocconi University	2018	Reading member
Anusha Sirigiri	Bocconi University	2018	Reading member
Paola Zanella	Bocconi University	2018	Reading member
Fabio di Silvio	Polytechnic University of Marche	2017	Reading member
Nadine Marmai	University of Turin	2017	Reading member
Lydia Christina Reichensperger	University of Pavia	2017	Principal
Alessandro Caiani	University of Pavia	2012	Reading member
Eugenio Caverzasi	University of Pavia	2012	Reading member
Antoine Jean Godin	University of Pavia	2012	Reading member
Gianluca Capone	Bocconi University	2011	Reading member

TEACHING

Doctorate level

- September 2016 – present: faculty member of PhD in Economics organized by Sant'Anna School of Advanced Studies, Pisa.
- January 2013 – June 2014: 'Economics and Management of Innovation' (10 hours). PhD in Economics and Management, University of Pavia, Italy.
- May 2011: 'Economics and Management of Innovation' (15 hours). PhD in Economics and Management of Technology, University of Bergamo, Italy.

Master level

- September 2020 – present: 'Innovation in the sharing economy: the role of platforms and business models' (24 hours = 3 credits). Master in Economics and Management of Innovation and Technology, Bocconi University, Milano, Italy
- September 2010 – present: 'Economics of Innovation and Industrial Dynamics' (44 hours = 6 credits). Master in International Business and Economics, University of Pavia, Italy
- February 2015 – September 2019: 'Innovation and firms' strategy in ICT sectors' (48 hours = 6 credits). Master in Economics and Management of Innovation and Technology, Bocconi University, Milano, Italy
- September 2012 – September 2022: 'Economics for the Digital Society' (44 hours = 6 credits). Master in Computing Engineering, Faculty of Engineering, University of Pavia, Italy
- February 2008 – June 2010: 'Econometric Methods for Innovation Studies' (24 hours = 3 credits), Master in Economics and Management of Innovation and Technology, Bocconi University, Milano, Italy

Undergraduate level

- February 2022 – present: 'Microeconomics' (66 hours = 9 credits) (in Italian), Department of Economics and Management, University of Pavia, Italy
- June 2004 – September 2022: 'Economics' (44 hours = 6 credits) (in Italian), Faculty of Engineering, University of Pavia, Italy
- February 2003 – June 2004: Microeconomics (64 hours = 8 credits) (in Italian), Bocconi University, Milano, Italy
- March 2003 – March 2005: Industrial Economics (44 hours = 6 credits) (in Italian), Libera Università Cattaneo, Castellanza, Italy
- October 2002 – December 2002: Teaching assistant in Industrial Economics (in Italian), Bocconi University, Italy

Pavia, May 13th 2024

ROBERTO FONTANA