Università Commerciale L. Bocconi Dept of Management and Technology and ICRIOS Via Sarfatti 25 20136 Milan (Italy) $\begin{array}{l} +39(02)58363365~{\rm (tel)}\\ +39(02)58363399~{\rm (fax)}\\ {\rm stefano.breschi@unibocconi.it}\\ {\rm http://faculty.unibocconi.eu/stefanobreschi/} \end{array}$

Stefano Breschi

Curriculum vitae, June 2021

1 Biographical details

- Birth place: Genova (Italy).
- Birth date: August 1 1963.
- Citizenship: Italian.

2 Education and training

- PhD in Economics, Università degli Studi di Pavia, Italy (September 1994).
- MSc in Technology Policy and Innovation Management, University of Limburg, Maastricht, The Netherlands (March 1993).
- B.A. in Economics. Università Commerciale L. Bocconi, Italy (July 1989).

3 Academic appointments

- Full professor of Applied Economics, Department of Management and Technology, Università Commerciale L. Bocconi, Milan, Italy (October 2011-).
- National (Italian) habilitation to full professorship (February 2007).
- Associate professor of Industrial Economics, Department of Economics, Università Commerciale L. Bocconi, Milan, Italy (November 2001-September 2011).
- Assistant Professor (*Ricercatore*), Department of Economics, Università C. Cattaneo, Castellanza, Varese, Italy (October 1996-October 2001).
- Research fellow (*assegno di ricerca*), Department of Economics, Università Commerciale L. Bocconi, Milan, Italy (November 1993-September 1996).

4 Areas of interest

Industrial dynamics. Microeconomics of technical change. Economics of patent system. Economics of science. Economic geography. Social network analysis. Venture capital and entrepreneurship.

5 Working papers and journal submissions (recent)

- The Differential Impact of Intra-Firm Collaboration and Technological Network Centrality on Employees' Likelihood of Leaving the Firm, *Organization Science* R&R (3rd round), with Daniel Tzabbar and Bruno Cirillo.
- Overtime work and women's career progressions (R&R: American Economic Review), with Luisa Gagliardi, Myriam Mariani and Dirk Hovy.
- Startup Accelerators as Providers of Complementary Resources: Exploring Knowledge Complementarity between Entrepreneurial Actors (R&R: *Strategic Management Journal*), with Simone Santamaria.
- Levelling the playing field. Dissecting the gender gap in the funding of start-ups, OECD Science, Technology and Industry Policy Papers, June 2019 No. 73, with Julie Lassébie, Sahra Sakha, Tomasz Kozluk, Carlo Menon, and Nick Johnstone. https://www.oecd-ilibrary.org/ science-and-technology/levelling-the-playing-field_7ddddd07-en

6 Publications (international refereed journals)

- Breschi, S., Johnstone, N., Menon, C. (2021) Are Start-ups Funded by Public Venture Capital Different? New Cross-Country Evidence from Micro-Data, *Industrial and Corporate Change* (forthcoming).
- Breschi, S., Lawson, C., Lissoni, F., Morrison, A., Salter, A. (2020). STEM migration, research, and innovation. *Research Policy*, vol. 49(9).
- Breschi, S., Cirillo, B., Prencipe, A. (2018). Divide to connect: Reorganization through R&D unit spinout as linking context of intra-corporate networks, *Research Policy* 47(9): 1585-1600.
- Breschi, S., Lissoni, F., Miguelez, E. (2017). Foreign inventors in the US: Testing for Diaspora and Brain Gain Effects, *Journal of Economic Geography* 17(5): 1009-10038.
- Breschi, S., Lenzi C. (2016). Co-invention Networks and Inventive Productivity in U.S. Cities. *Journal of Urban Economics*, 92(3): 66–75.
- Breschi, S., Lenzi, C. (2014). The role of external linkages and gatekeepers for the renewal and expansion of U.S. cities' knowledge base, 1990-2004. *Regional Studies*, 49(5): 782-797.

- Breschi, S., Maggioni, M., Panzarasa, P. (2013). Multiplexity, Growth Mechanisms and Structural Variety in Scientific Collaboration Networks, *Industry and Innovation*, 20(3): 185-194.
- Breschi, S. & Tartari, V. (2012). Set them free. Scientists' perception of benefits and costs of university-industry research collaboration, *Industrial and Corporate Change*, 21 (5): 1117-1147.
- Breschi, S. & Malerba, F (2011). Assessing the scientific and technological output of EU Framework Programmes: evidence from the FP6 projects in the ICT field, *Scientometrics*, 88(1): 239-257.
- Breschi, S. & Catalini, C. (2010). Tracing the links between science and technology: An exploratory analysis of scientists' and inventors' networks. *Research Policy*, 39(1), 14-26.
- Breschi, S. & Lenzi, C. (2010). Spatial patterns of inventors' mobility: Evidence on US urban areas. *Papers in Regional Science*, 39(29), 235-250.
- Breschi, S. & Lissoni, F. (2009). Mobility of inventors and networks of collaboration: An anatomy of localised knowledge flows. *Journal of Economic Geography*, 9(4), 439-468.
- Breschi, S., Cassi, L., Malerba, F. & Vonortas, N. (2009). Networked Research: European Policy Intervention for Information and Communication Technologies. *Technology Analysis and Strategic Management*, 21(7), 833-857.
- Breschi, S., Lissoni, F. & Montobbio, F. (2008). University patenting and scientific productivity: a quantitative study of Italian academic inventors. *European Management Review*, 5(2), 91-109.
- Breschi, S., Lissoni, F. & Montobbio, F. (2006). The scientific productivity of academic inventors: new evidence from Italian data. *Economics of Innovation and New Technology*, 16(2), 101-18.
- Breschi, S., Lissoni, F. & Montobbio, F. (2005). From publishing to patenting: do productive scientists turn into academic inventors? *Revue d'Economie Industrielle*, 110(June), 75-102.
- Breschi, S. & Lissoni, F. (2005). Cross-firm inventors and social networks: localised knowledge spillovers revisited. Annales d'Economie et de Statistique, 79-80 July-December, 189-209.
- Balconi, M., Breschi, S. & Lissoni, F. (2004). Networks of inventors and the location of academic research: An exploration of Italian data. *Research Policy*, 33(1), 127-45.

- Breschi, S. & Cusmano, L. (2004). Unveiling the texture of a European Research Area: Emergence of oligarchic networks under EU Framework Programmes. *International Journal of Technology Management*, 27(8), 747-772.
- Breschi, S., Lissoni, F. & Malerba, F. (2003). Knowledge relatedness in firm technological diversification. *Research Policy*, 32(1), 69-87.
- Beaudry, C. & Breschi, S. (2003). Are firms in clusters really more innovative? *Economics of Innovation and New Technology*, 12(4), 325-341.
- Breschi, S. & Lissoni, F. (2001a). Knowledge spillovers and local innovation systems: A critical survey. *Industrial and Corporate Change*, 10(4), 975-1005.
- Breschi, S. & Malerba, F. (2001). Geography of innovation and economic clustering. *Industrial and Corporate Change*, 10(4), 817-33.
- Breschi, S. & Lissoni, F. (2001b). Localised knowledge spillovers vs. innovative milieux: Knowledge 'tacitness' reconsidered. *Papers in Regional Science*, 80(3), 255-73.
- Breschi, S., Malerba, F. & Orsenigo, L. (2000). Technological Regimes and Schumpeterian Patterns of Innovation. *Economic Journal*, 110(463), 388-410.
- Breschi, S. (2000). The Geography of Innovation: A Cross-Sector Analysis. *Regional Studies*, 34(3), 213-229.

7 Publications (book chapters)

- Breschi, S., Lissoni, F., Miguelez, E. (2020). Return Migrants' Self-Selection: Evidence for Indian Inventors, in Ganguli, I., Kahn, S., and MacGarvie, M. (Eds). The Roles of Immigrants and Foreign Students in US Science, Innovation, and Entrepreneurship, University of Chicago Press.
- Breschi, S., Lissoni F. and Tarasconi, G. (2017). Inventor Data for Research on Migration and Innovation The Ethnic-Inv Pilot Database, in Fink, C. and Miguelez, E. (Eds.), *The International Mobility of Talent and Innovation: New Evidence and Policy Implications*, Cambridge: Cambridge University Press (pp. 73-113).
- Breschi, S., Lissoni F. and Temgoua C.N. (2017). Migration and innovation: a survey of recent studies, in Shearmur, R., Carrincazeaux, C., Doloreux, D. (Eds.), *Handbook on the Geographies of Innovation*, Cheltenham: Edward Elgar (pp. 382-397).

- Breschi, S., Lenzi C. (2017). Are Gatekeepers Important for the Renewal of the Local Knowledge Base? Evidence from U. S. Cities, in J. Glückler, E. Lazega, I. Hammer (Eds.), *Knowledge and Networks*, Berlin: Springer Verlag (pp. 291-313).
- Testoni, M., Breschi, S., Valentini, G. (2014). Assessing the Effects of the Network of Strategic Alliances on M&A Decisions: Some Empirical Evidence from the US semiconductor industry, in A. Risberg et al. (Eds) The Routledge Companion to Mergers and Acquisitions, Routledge.
- Breschi, S., Lenzi, C. (2013). Local buzz vs global pipelines and the inventive productivity of US cities. In Scherngell T. (Ed.), *The geography of networks and R&D collaborations*, Berlin: Springer Verlag.
- Breschi, S. (2011). The geography of knowledge flows. In Cooke P. et al. (Eds.), *Handbook of Regional Innovation and Growth*, Cheltenham: Edward Elgar (forthcoming).
- Breschi, S., Lenzi, C., Lissoni, F. & Vezzulli, A. (2010). The geography of knowledge spillovers: the role of inventors' mobility across firms and in space. In R. Boschma & R. Martin (Eds.), *HandBook of Evolutionary Economic Geography.* Cheltenham: Edward Elgar (pp. 353-369).
- Breschi, S., Cassi, L., Malerba, F. (2009). Knowledge search and strategic alliances: evidence from the electronics industry. In F. Malerba & N. Vonortas (Eds.) *Innovation networks in industries* (pp. 105-124). Cheltenham: Edward Elgar.
- Breschi, S., Cassi, L., Malerba, F., Vonortas, N. (2009). European policy favouring networks in ICT. In F. Malerba & N. Vonortas (Eds.) *Innovation networks in industries* (pp. 105-124). Cheltenham: Edward Elgar.
- Breschi, S. & Malerba, F. (2009). ERA, networks and their impacts. In U. Muldur, L. Soete & F. Delanghe (Eds.), *European science and technology policy*. Cheltenham: Edward Elgar (pp. 160-174).
- Breschi, S. & Garavaglia, C. (2009). The co-evolution of entrepreneurship and clusters. In U. Fratesi & L. Senn (Eds.), *Growth and Innovation of Competitive Regions* (pp. 95-116). Berlin: Springer Verlag.
- Breschi, S. (2008). Innovation-specific agglomeration economies and the spatial clustering of innovative firms. In C. Karlsson (Ed.), *Handbook of Research on Clusters: Theories, Policies and Case Studies* (pp.167-192). Cheltenham: Edward Elgar.
- Breschi, S. & Malerba, F. (2005). Clusters, networks and innovation: research results and new directions. In S. Breschi & F. Malerba (Eds.), *Clusters, networks and innovation* (pp. 1-26). Oxford: Oxford University Press.

- Breschi, S., Lissoni, F. & Montobbio, F. (2005). The geography of knowledge spillovers: conceptual issue.s and measurement problems. In S. Breschi & F. Malerba (Eds.), *Clusters, networks and innovation* (pp. 343-378). Oxford: Oxford University Press.
- Breschi, S., Lissoni, F. & Montobbio, F. (2006). Open science and university patenting: A bibliometric analysis of the Italian case. In B. Pottelsberghe de la Potterie & A. De Meyer (Eds.), *Economic and Management Perspectives on Intellectual Property Rights* (pp. 83-103). Palgrave McMillan.
- Breschi, S., Cassi, L. & Malerba F. (2006). The exploration of knowledge networks through patent citations. In B. Andersen (Ed.), *Intellectual Property Rights: Innovation, Governance and the Institutional Environment* (pp. 278-310). Cheltenham: Edward Elgar.
- Breschi, S. & Cusmano, L. (2006). Unveiling the texture of a European Research Area. In Y. Caloghirou, A. Constantelou, N. Vonortas (Eds.), *Knowledge Flows in European Industry* (pp. 268-98). London: Routledge.
- Breschi, S. & Lissoni, F. (2004). Knowledge networks from patent data: methodological issues and research targets. In H. Moed, W. Glänzel, U. Schmoch (Eds.), Handbook of Quantitative Science and Technology Research: The Use of Publication and Patent Statistics in Studies of S&T Systems (pp. 613-43). Berlin: Springer Verlag.
- Breschi, S., Lissoni, F. & Malerba, F. (2004). The empirical assessment of firms' technological «coherence»: data and methodology. In J. Cantwell, A. Gambardella, O. Granstrand (Eds.), *Economics and Management of Technological Diversification* (pp. 69-97). London: Routledge.
- Breschi, S., Lissoni, F. & Orsenigo, L. (2003). Success and failure in the development of biotechnology clusters: the case of Lombardy. In G. Fuchs (Ed.), *Biotechnology in comparative perspective* (pp. 143-168). London: Routledge.
- Beaudry, C., Breschi, S. & Swann, P. (2002). Clustering, innovation and growth: A comparative study of European countries. In J.H. Dunning and J.L. Mucchielli (Eds.), *Multinational firms. The global-local dilemma* (pp. 190-213). London: Routledge.
- Breschi, S. (1999). Spatial Patterns of Innovation: Evidence from Patent Data. In F. Malerba e A. Gambardella (Eds.), *The Organisation of Economic Innovation in Europe* (pp. 71-101). Cambridge: Cambridge University Press.
- Breschi, S. & Palma, D. (1999). Localised Knowledge Spillovers and Trade Competitiveness: The Case of Italy. In M. Fischer, L. Suarez-Villa, M. Steiner (Eds.), *Innovation, Networks and Localities* (pp. 155-179). Berlin: Springer Verlag.

• Breschi, S. & Malerba, F. (1997). Sectoral Innovation Systems. In C. Edquist (Ed.), *Systems of Innovation* (pp. 130-156). London: Pinter Cassell.

8 Books (edited)

• Breschi S. & Malerba F. (Eds.), *Clusters, networks and innovation*. Oxford: Oxford University Press, 2005, 2nd reprint

9 Invited seminars, worskhops and conferences (most recent)

- 2020 Wharton Strategy Science (Virtual) Conference.
- 2020 Wick Phd Workshop, Collegio Carlo Alberto Torino, Turin, Italy.
- 2019 EPFL Lausanne, Switzerland.
- 2018 NBER Workshop on The Role of Immigrants and Foreign Students in Science, Innovation, and Entrepreneurship
- 2018 Third Entrepreneurial Finance Conference, Politecnico di Milano, Italy.
- 2018 SMS Conference Rethinking Corporate Strategy in the Age of Paradox, Hyderabad, India.
- 2018 INSEAD Workshop on Mobility, Fontainebleau, France.
- 2018 Academy of Management annual meeting, Chicago, IL, USA.
- 2018 2nd Innovative Data for Economic Analysis Workshop, SKEMA, Sophia Antipolis, France.
- 2017 Strategic Management Society annual conference, Houston, TX, USA.
- 2017 DRUID conference, New York, NY, USA.
- 2017 DRUID PDW on the "The movement of people across borders: Implications for innovation and internationalization", New York, NY, USA.

10 Major research grants (EU funded projects)

- POLISS Policies for Smart Specialisation (Research project funded by the EU, H2020 Program. Duration: 2019-2023. Role in the project: principal investigator. https://cordis.europa.eu/project/id/860887)
- TALTECH INDUSTRIAL Industrial Strategy and Competitiveness Studies at TalTech (Research project funded by the EU, H2020 Program. Duration: 2020-2023. Role in the project: principal investigator.)

- GOTaM Cities Geography Of Talents in Metropolitan Cities (Research project funded by the EU, H2020 Program. Duration: 2019-2021. Role in the project: coordinator. https://cordis.europa.eu/project/id/ 789505)
- Cr8tv.eu Unveiling Creativity for Innovation in Europe (Research project funded by the EU, FP7 Program. Duration: 2013-2016. Role in the project: senior investigator. https://cordis.europa.eu/docs/results/ 320/320203/final1-cre8tv-final-report-16-september-2016.pdf)
- Measurement and analysis of knowledge and R&D exploitation flows, assessed by patent and licensing data (Research project funded by the EU, DG Research. Duration: 2010-2013. Role in the project: principal investigator.).
- Advancing knowledge-intensive entrepreneurship and innovation for economic growth and social well-being in Europe (Research project funded by the EU under FP7. Duration: 2009-2011. Role in the project: senior researcher https://cordis.europa.eu/project/id/225134/results).
- Using performance indicators in monitoring the implementation of ICT research in FP6 and FP7 (Research project funded by the EU, DG INFSO. Duration: 2009-2010. Role in the project: principal investigator.).
- Knowledge-Based Entrepreneurship: Innovation, Networks and Systems (Research project funded by the EU, DG Research. Duration: 2005-2007. Role in the project: senior researcher).
- Highly-cited patents, highly cited publications and research networks (Research project funded by the EU, DG Research, Directorate M. Duration: 2005-2006. Role in the project: principal investigator.).
- Evaluation of progress towards a European Research Area for Information Society Technologies (Research project funded by the EU, DG IST. Duration: 2005. Role in the project: senior researcher.).
- Innovation, Networks and the Creation of Knowledge (Research project funded by the EU, DG Research. Duration: 2002-2004. Role in the project: senior researcher.).
- Science, Technology, Innovation Network Indicators (Research project funded by the EU, DG Research. Duration: 2002-2004. Role in the project: principal investigator.).
- Innovation-Related Knowledge Flows in the European Industry (Research project funded by the EU, DG XII. Duration: 1999-2001. Role in the project: senior researcher.).

- Sectoral Systems in Europe: Innovation, Competitiveness and Growth (Research project funded by the EU, DG XII. Duration: 1999-2001. Role in the project: senior researcher.).
- Dynamic Capabilities Growth and Long-Term Competitiveness of European Firms (Research project funded by the EU, DG XII. Duration: 1998-1999. Role in the project: senior researcher.).
- Industrial Districts and Localized Technological Knowledge: The Dynamics of Clustered SMEs Networking (Research project funded by the EU, DG XII. Duration: 1997-1999. Role in the project: senior researcher.).
- Innovation Systems and European Integration (Research project funded by the EU, DG XII. Duration: 1996-1997. Role in the project: senior researcher.).

11 Main Bocconi teaching activities

11.1 Last three years

- 2016/2017 20133 Industry Analysis (Economia dei settori industriali e dell'innovazione) (ID=7.556 , IC=7.925)
- 2016/2017 20133 Industry Analysis (Economia dei settori industriali e dell'innovazione) (ID=8.1, IC=8.361)
- 2016/2017 20452 Industry and Competition Analysis (ID=8.787, IC=8.606)
- \bullet 2016/2017 30154 Technology and Innovation Management (ID=8.215, IC=7.981)
- 2017/2018 20133 Industry Analysis (Economia dei settori industriali e dell'innovazione) (ID=7.37, IC=7.815)
- 2017/2018 20133 Industry Analysis (Economia dei settori industriali e dell'innovazione) (ID=7.756, IC=8.151)
- 2017/2018 20452 Industry and Competition Analysis (ID=8.631, IC=8.668)
- \bullet 2017/2018 30154 Technology and Innovation Management (ID=7.75, IC=8.365)
- 2018/2019 20133 Industry Analysis (Economia dei settori industriali e dell'innovazione) (IC=7.922)
- 2018/2019 20133 Industry Analysis (Economia dei settori industriali e dell'innovazione) (IC=8.002)
- 2018/2019 20619 Economics of Business Strategy Module I (Market Behavior) (IC=8.67)

• 2018/2019 - 30154 Technology and Innovation Management (IC=8.033)

Course co-ordination

- 2016/2017 20133 Industry Analysis (MSc, 3 classes, ITA/ENG)
- 2016/2017 20452 Industry and Competition Analysis (MSc, 1 class, ENG)
- 2017/2018 20133 Industry Analysis (MSc, 3 classes, ITA/ENG)
- 2017/2018 20452 Industry and Competition Analysis (MSc, 1 class, ENG)
- 2018/2019 20133 Industry Analysis (MSc, 3 classes, ITA/ENG)
- 2018/2019 20619 Economics of Business Strategy Module I (MSc, 1 class, ENG)

11.2 Previous years

- Industrial economics, MSc in Marketing Management and MSc in Economics and Management of Innovation and Technology, Università Commerciale L. Bocconi, Milan (Italy) (2005 to present)
- *Microeconomics of technical change*. Compulsory course taught in English, MSc EMIT, Università Commerciale L. Bocconi, Milan (Italy) (from a.y. 2004-05 to a.y. 2010-11).
- The economics and organization of interfirm networks. Elective course taught in English, MSc EMIT, Università Commerciale L. Bocconi, Milan (Italy) (from a.y. 2006-07 to a.y. 2009-10).
- Industrial Economics. Compulsory course taught in Italian, B.A. in Economics, Università Commerciale L. Bocconi, Milan (Italy) (from a.y. 2001-02 to a.y. 2010-11).
- Microeconomics. Compulsory course taught in Italian, B.A. in Management, Università Commerciale L. Bocconi, Milan (Italy) (from a.y. 2002-03 to a.y. 2004-05 and a.y. 2007-08).

12 Institutional roles and services in Bocconi

- Director of ICRIOS research centre (Jan 2018-present)
- Director of the MSc Program (laurea specialistica) in Economics and Management of Innovation and Technology (EMIT), Università Commerciale L. Bocconi, Milan (Italy) (from a.y. 2003-04 to 2009-2010).

13 Editorial services

- Associate editor of the journal Industrial and Corporate Change (2012-present)
- Advisory editor of the journal *Research Policy* (2014-present)
- Best reviewer 2019 for Journal of Economic Geography
- Referee for the journals: Management Science, Strategic Management Journal, Academy of Management Journal, Organization Science, Research Policy, Industrial and Corporate Change, Economics of Innovation and New Technology, Journal of Evolutionary Economics, Structural Change and Economic Dynamics, Small Business Economics, Regional Studies, Social Networks.
- Associate editor of the European Management Review (from 2005 to 2008).

14 Bibliometric indicators

- Total citations received (ISI): 2323.
- *h-index* (ISI-Web of Science): 13.
- Total citations received in Google Scholar: 13770.
- *h-index* (Google Scholar): 36.

15 Computer skills

- OS: Windows, Linux.
- Statistical and database management packages: SAS, STATA, R, MySQL.
- Programming languages: Ruby, Python.
- Software packages for social network analysis: Pajek, Ucinet, Igraph, Guess, Graphtools.