



**Les principales revues spécialisées à consulter (et bibliothèques)<sup>1</sup>**

European Journal of Innovation Management

Industry and Innovation

Journal of Product Innovation Management

Journal of Technology Transfer

R&D Management

Research Policy

Research Technology Management (UQAM, Centrale)

Science and Public Policy

Technology in Society

Technology Analysis and Strategic Management

Technovation

**Revues non spécialisées avec des articles pertinents**

Academy of Management Journal

Administrative Science Quarterly

California Management Review

Industrial and Corporate Change

Journal of Economic Issues

Journal of Evolutionary Economics

Journal of International Business Studies

Journal of Policy Analysis and Management

Management Science

Revue d'économie industrielle (UQAM, Centrale)

Strategic Management Journal

World Development

**Bases bibliographiques à consulter**

ABI, Econlit, Emerald, Google Scholar, Scopus, Social Science Citation Index.

**Sites à consulter**

OECD.org (via bibliothèque UQAM)

<http://www.afee.net>

<http://etss.net>

<http://eaepe.org>

<http://www.globelics.org>

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<sup>1</sup> On peut consulter presque toutes ces revues et bases via les services électroniques des bibliothèques.



**Session 1: Concepts fondamentaux**

Concepts de technologie, science, bien public, invention, innovation (majeure et mineure, architecturale et modulaire), recherche (fondamentale et appliquée), développement, transfert de technologie, coopération technique, brevet, licence, diffusion, propriété intellectuelle, externalités, etc. Systèmes complexes et causalité.

**Bibliographie:**

Dodgson, M. (2000): The Management of Technological Innovation, Oxford University Press.

Freeman, C. & L. Soete (1997): The Economics of Industrial Innovation, Cambridge, MIT Press.

Gault, F. (2010): Innovation Strategies for a Global Economy, Cheltenham, Elgar.

OCDE (2005): Manuel d'Oslo, 3<sup>e</sup> édition, Paris

OCDE (2002): Manuel de Frascati, 6<sup>e</sup> édition, Paris.

Tidd, J., J. Bessant & K. Pavitt (1997): Managing Innovation, Chichester, Wiley.

**Session 2: Théorie**

Le cadre général de l'évolutionnisme en administration, en économie et en technologie. Les fondements dans la pensée de Schumpeter. Concepts de dépendance de sentier, de routine organisationnelle, de trajectoire technologique, équilibre ponctué. Théorie des compétences et apprentissage. Convergence de l'évolutionnisme et de la théorie de la firme fondée sur les compétences. L'évolution des systèmes complexes. Exemple : l'évolution de l'avion.

**Bibliographie:**

- Ahuja, G. et al (2008): "Moving beyond Schumpeter: Management research on the determinants of technological innovation", Academy of Management Annals, 2 (1): 1-98.
- Arthur, W.B. (1999): "Complexity and the economy", Science, 284 : 107-109.
- Basalla, G. (1988): The Evolution of Technology, Cambridge University Press.
- Foster, J. and J. S. Metcalfe (Eds.)(2001): Frontiers of Evolutionary Economics, Elgar.
- Gersick, C. J. (1991): "Revolutionary change theory: a multilevel exploration of the punctuated equilibrium paradigm", AMR, 16 (1): 10-36.
- Hill, Charles W.L. & F.T. Rothaermel (2003): "The performance of incumbent firms in the face of radical technological innovation", AMJ, 28 (2): 257-274.
- Hodgson, Geoffrey M. (1998): "Competence and contract theory of the firm", Journal of Economic Behaviour and Organization, 35 (2): 179-201.
- Hodgson, G.M. & T. Knudsen (2004): "The firm as an interactor: firms as vehicles for habits and routines", Journal of Evolutionary Economics, 14 (3) : 281-307.
- Koruna, S. (2004): "Leveraging knowledge assets: combinative capabilities – theory and Practice", R&D Management, 34 (5): 505-16.
- Loasby, Brian (2002): Knowledge, institutions and evolution, Londres, Routledge.
- Metcalfe, J.S. (2001): "Institutions and progress", Industrial and Corporate Change, 10 (3): 561-586.
- Montgomery, Cynthia (Ed.)(1995): Resource-Based and Evolutionary Theories of the Firm. Towards a Synthesis, Boston, Kluwer.
- Murmann, J. et al. (2003): "Evolutionary thought in management at the beginning of the new millennium", Journal of Management Inquiry, 12 (1): 22-40.
- Nelson, R. R. & S. Winter (1982): An Evolutionary Theory of Economic Change, Cambridge, Belknap Press of Harvard University.
- Nelson, R. R. (2006): "Evolutionary social science and universal Darwinism", Journal of Evolutionary Economics, 16: 491-510.
- Noda, T & D.J. Ellis (2001): "The evolution of intra-industry firm heterogeneity: Insights from a process study", AMJ, 44 (4): 897-925.
- Schoenmakers, W. & G. Duysters (2010): "The technological origins of radical inventions", Research Policy, 39: 1051-9.
- Sterman, J. (2000): Business Dynamics, New York, McGraw-Hill.
- Teece, David (1998): "Design Issues for Innovative Firms", in A. D. Chandler et al (Eds): The Dynamic Firm, New York, Oxford University Press, pp. 134-165.
- Teece, D, G. Pisano and A. Shuen (1997): "Dynamic Capabilities and Strategic Management" Strategic Management Journal, 18 (7): 509-33.
- Utterback, James (1994): Mastering the Dynamics of Innovation, Boston, Harvard Business School Press.
- Ziman, John (Ed.)(2000): Technological Innovation as an Evolutionary Process, Cambridge, Cambridge University Press

**Session 3: Technologie et stratégie**

Les choix stratégiques des firmes en matière de technologie. Une comparaison des diverses typologies de stratégies technologiques des entreprises. Technologie et organisation.

**Bibliographie:**

- Burgelman, Robert (1991): "Intra-organizational Ecology of Strategy", Organization Science, 1: 239-262.
- Burgelman, Robert (1996): "Evolutionary perspectives on strategy", Strategic Management Journal, 17: 5-19.
- Burgelman, Robert (2005): "Strategy as vector and the inertia of co-evolutionary lock-in" ASQ, 47 (2): 325-357.
- Burgelman, Robert et al. (1996): Strategic Management of Technology and Innovation, Homewood, Irwin.
- Chandler, Alfred (Éd.) (1998): The Dynamic Firm, New York, Oxford University Press.
- Chesbrough, H.W., Kusunoki, K., (2001): "The Modularity Trap: Innovation, Technology Phase Shifts and the resulting limits of virtual Organisations, pp.202-230 in Nonaka, I., Teece, D.J. (eds.), Managing Industrial Knowledge: Creation, Transfer and Utilization, London, Sage Publications.
- Christensen, Clayton (1997): The Innovator's Dilemma, Boston, Harvard Business School Press.
- Freeman, Chris & L. Soete (1997): The Economics of Industrial Innovation, Cambridge, MIT Press.
- Goodman, Richard A. & M. W. Lawless (1994): Technology and Strategy, New York, Oxford University Press.
- Helfat, Constance (1997): "Know-How and asset complementarity and dynamic capability accumulation: the case of R&D", Strategic Management Journal, 18 (5): 339-360.
- Herber, Jennifer et al (2000): "The design of new organizational forms", in G.S. Day et al (eds.): Wharton on Managing Emerging Technologies, New York, Wiley.
- Hill, C.W.L. & F.T. Rothaermel (2003): "The performance of incumbent firms in the face of radical technological innovation", AMR, 28 (2): 257-274.
- Nelson, Richard R. (1997): "Why do firms differ and how does it matter", in N. Foss (Ed.): Resources, Firms and Strategies, New York, pp. 257-267.
- Nicholls-Nixon, Charlene & C.Y. Woo (2003): "Technology sourcing and output of established firms in a regime of encompassing technological change", Strategic Management Journal, 24: 651-666.
- Rumelt, Richard R. et al (Eds.) (1994): Fundamental Issues in Strategy, Cambridge, Harvard Business School Press.
- Sheremata, Willow (2004): "Competing through innovation in network markets", Academy of Management Review, 29 (3): 359-377.
- Teece, David et al. (1997): "Dynamic capabilities and strategic management", Strategic Management Journal, 18 (7): 509-533.
- Van de Ven, Andrew & R. Garud (1994): "The coevolution of technical and institutional events in the development of an innovation" in J.A.C. Baum & J.V. Singh (Eds.): Evolutionary Dynamics of Organizations, NY, Oxford University Press, pp. 425-43.

**Session 4: Technologie et finances**

Le capital de risque et le financement des entreprises de technologie de pointe. Types de capital de risque. Localisation régionale du capital de risque. Une comparaison internationale de l'industrie de capital de risque. Le capital de risque corporatif. Cas de la biotechnologie

**Bibliographie:**

- Allen, K. & J. Percival (2000): "Financing strategies and venture capital", in G. S. Day & P.J.H. Schoemaker (Ed.): Wharton on Managing Emerging Technologies, NY, Wiley.
- Dushnitsky, G. & M.J. Lenox (2005): "When do firms undertake R&D by investing in new ventures", Strategic Management Journal, 26 (10): 947-965.
- Dushnitsky, G. & M.J. Lenox (2005): "When do incumbents learn from entrepreneurial ventures? Corporate venture capital and investing firm innovation rates", Research Policy, 34 (5): 615-39.
- European Private Equity and Venture Capital Association (2004): European Stock market Financing for High-Growth Companies, Brussels.
- Gompers, P.A. and J. Lerner (2001): "The venture capital revolution", Journal of Economic Perspectives 15 (2): 145-168.
- Gompers, P. and J. Lerner (1999): The venture capital cycle, Boston, MIT Press.
- Press, Hsu, D.H. (2006): "Venture capitalists and cooperative start-up commercialization Strategy", Management Science, 52 (2): 204-219.
- Markham, S.K. et al (2005): "Strategies and tactics for external corporate venturing », Research Technology Management, 48 (2) : 49-59.
- Martin, R. et al (2005): "Spatial proximity effects and regional equity gaps in the venture capital industry: evidence from Germany and the UK", Environment and Planning A, 37 (7): 1207-31.
- McGlue, David (2002): "The funding of venture capital in Europe: issues for public policy", Venture Capital, 4 (1): 45-58.
- Murray, Gordon C. & R. Marriott (1998): "Why has the investment performance of technology-specialist European venture capital funds been so poor? ", Research Policy, 27 (9): 947-76.
- OECD (1996): Venture Capital and Innovation, Paris, OECD Working Papers Vol. 4 #98. (document gratuit: [www.ocde.org/dsti/stat-ana/prod/evaluation.htm](http://www.ocde.org/dsti/stat-ana/prod/evaluation.htm))
- OCDE (1997): Government venture capital for technology-based firms, Paris. (document gratuit: [www.ocde.org/dsti/s\\_t/info/prod/e-97-201.pdf](http://www.ocde.org/dsti/s_t/info/prod/e-97-201.pdf))
- Puri, M. & R. Zarutskie (2008): On the lifecycle dynamics of venture capital firms and non-venture capital financed firms, NBER Working Paper, w14250 ([www.nber.org](http://www.nber.org)).
- Revest, V. et S. Sapió (2008): Financing technology-based small firms in Europe: review of the empirical evidence, Pisa, Sant'Anna School Working Paper Series.
- Von Burg, Urs & M. Kenney (2000): "Venture capital and the birth of the local area network industry", Research Policy, 29 (9): 1135-1155.
- White, S., et al (2005): "Financing new ventures in China: Systems antecedents and Institutionalization", Research Policy, 34 (6): 894-913.
- Wonglimpiyarat, J. (2006): "Venture capital financing in the Canadian Economy", Int. Journal of Technology, Policy and Management, 6 (1): 33-49.
- Site web important: Canadian Venture Capital Association ([www.cvca.ca](http://www.cvca.ca))

## Session 5: Technologie et marketing

Les meilleures pratiques dans le lancement et la commercialisation de produits nouveaux de technologie de pointe. La mise en marché mondial des innovations. Risque initial (avions)

### Bibliographie:

- Becker, M.C. & M. Lillemark (2006): "Marketing/R&D integration in the pharmaceutical Industry", Research Policy, 35 (1): 105-120.
- Cooper, Robert G. (1993): Winning at New Products, Reading, Mass., Addison-Wesley.
- Cooper, Robert G. (1998): Product Leadership, Reading, Mass., Perseus.
- Corey, E. R. (1997): Technology Fountainheads, Boston, Harvard Business School Press, pp. 93-108 ("Technology transfer as marketing").
- Day, George (2000): "Assessing Future Markets for New Technologies", in G.S. Day et al (eds.): Wharton on Managing Emerging Technologies, New York, Wiley.
- Jolly, Vijay K. (1997): Commercializing New Technologies, Boston, Harvard Business School Press.
- Kahn, K.B. (2005): "Department status : an exploratory investigation of direct and indirect effects on product development performance », JPIM, 22 (6) : 515-26.
- Kor, Y.Y. and J. T Mahoney (2005): "How dynamics, management, and governance of resource deployments influence firm-level performance", Strategic Management Journal, 26 (5); 489-96.
- Leonard-Barton, Dorothy (1998): "Commercializing Technology: Imaginative Understanding of Human Needs" in R. S. Rosenbloom & W. J. Spencer (eds.): Engines of Innovation, Boston, Harvard Business School Press.
- Lettl, C. et al (2006): "Learning from users in radical innovation", Int. Journal of Technology Management, 33 (1): 25-46.
- Li, X.T. (2005): « Cheap talk and bogus network externalities in the emerging technology market », Marketing Science, 24 (4) : 531-43.
- Macmillan, I & R. Gunther McGrath (2000): "Technology strategy in lumpy market landscapes", in G.S. Day et al (eds.): Wharton on Managing Emerging Technologies, New York, Wiley.
- Millier, Paul (1997): Stratégie et marketing de l'innovation technologique, Paris, Dunod.
- Moore, Geoffrey (2002): Crossing the Chasm, New York, Harper.
- O'Connor, P. (1998): "Market learning and radical innovation", Journal of Product Innovation Management, 15:136-150.
- Sherman, J.D. et al (2005): "New product development performance and the interaction of cross-functional integration and knowledge management", JPIM, 22 (5) : 399-411.
- Tripsas, Mary (2000): "Commercializing emerging technologies through complementary assets", in G.S. Day et al (eds.): Wharton on Managing Emerging Technologies, New York, Wiley.
- Trott, Paul (2001): "The role of market research in the development of discontinuous new products", European Journal of Innovation Management, 4 (2): 117-126.
- Von Hippel, Eric (1988): The Sources of Innovation, New York, Oxford University Press.
- Zou, S. & S. Tamer Cavusgil (2002): "The GSM: A broad conceptualization of global marketing strategy and its effects on firms performance", Journal of Marketing, 66 (4): 40-56.



### **Session 6: Technologie et gestion des opérations**

Contrôle de qualité totale, ingénierie simultanée, flux tendus (JIT), benchmarking, production allégée (lean manufacturing) et autres routines de la gestion des opérations et leur rapport à la technologie. La diffusion des routines organisationnelles en opérations. Est-ce que les routines en GOP sont des modes ? Les PME au Québec.

#### **Bibliographie**

- Ambriter, H. et al (2008): "Organizational innovation: the challenge of measuring non-technical innovation in large-scale surveys", Technovation, 28: 644-657.
- Abrahamson, E et al (1999): "Management fashion : lifecycles, triggers and collective learning », ASQ 44 (4) : 708-740.
- Barclay, I, K. Porter (2006): "Benchmarking best practice in SMEs for growth" International Journal of Technology Management 33 (2-3): 234-54.
- Bivin, D.G. (2003) "Firm Performance under Just-in-Time and Traditional Proxies for Profit Maximization". International-Journal-of-Production-Economics, 81-82: 141-52.
- Bhuiyan, N, et al (2006): « Implementing concurrent engineering », Research Technology Management , 49 (1) : 38-43.
- Choi, T.Y. & K. Eboch (1998) "The TQM Paradox: Relations among TQM practices, plant performance, and customer satisfaction". Journal of Operation Management, 17: 59-75.
- Feeny, D. et al (2005): "Taking the measure of outsourcing providers", Sloan Management Review, 46 (3) : 41+
- Flynn, Barbara et al (1995): "Relationship between JIT and TQM: Practices and performance", Academy of Management Journal, 38 (5): 1325-60.
- Gibson, J.W. & D.V. Tesone (2001): « Management fads: emergence, evolution and implications for managers », AME, 15 (4) : 122-133.
- ISO (2009): Survey 2008.
- Kimberly, J. R. et al (2000): "Designing the customized workplace", in G. S. Day et al. (eds): Wharton on managing emerging technologies, N.Y., Wiley, pp. 393-411.
- Morris, Jonathan & B. Wilkinson (1995): "The transfer of Japanese management to alien environments", Journal of Management Studies, 32 (6): 719-730.
- Niosi, Jorge (1999): "The Diffusion of Organizational Routines" in John Groenewegen et al (Eds.): Institutions and the Evolution of Capitalism, Cheltenham, Elgar :109-21.
- O'Leary, D.E. (2000) Enterprise resource planning systems: systems, life cycle, electronic commerce, and risk. Cambridge (UK): Cambridge University Press.
- Pisano, G. (1997): The Development Factory. Unlocking the Potential of Process Innovation, Boston, Harvard Business School Press.
- Sanderson, S.W. (1997) The innovation imperative: strategies for managing product models and families. Chicago : Irwin.
- Taylor, W.A. G.H. Wright (2006): "The contribution of measurement and information infrastructure to TQM success", Omega- International Journal of Management Science, 34 (4): 372-384.
- Womack, J. et al (1989): The Machine that Changed the World, New York, Rawston.
- Womack, J.P. & D.T. Jones (1996) Lean Thinking: Banish Waste and Create Wealth in Your Corporation. New York: Simon & Schuster.

**Session 7: Technologie et R-D**

Les méthodes de la gestion de la R-D et du transfert des résultats à d'autres fonctions de l'entreprise. Le contrôle de qualité en R-D.

**Bibliographie:**

- Ball, D. F., J. Rigby (2006): « Disseminating research in management of technology: journals and authors », R&D Management 36 (2): 205-215.
- Bergen, S.A. (1990): R&D Management, Oxford, Blackwell.
- Burgelman, Robert et al. (1996): Strategic Management of Technology and Innovation, Homewood, Irwin.
- Chesbrough, H. (2003): Open Innovation, Boston, Harvard Business School Press.
- Cohen, W.M. & D. Levinthal (1989): « Innovation and learning the two faces of R&D », The Economic Journal, 99 (397): 569-596.
- Cohen, W.M. & D. Levinthal (1990): « Absorptive capacity: a new perspective on learning and innovation », Administrative Science Quarterly, 35 (1) : 128 et sq.
- Collins, S. and D. C. Wilson (2006): "Inertia in Japanese organizations: Knowledge management routines and failure to innovate", Organization Studies 27 (9): 1359-87.
- Endress, Al (1997): Improving R&D Performance the Juran Way, New York, Wiley.
- Gassmann, O. (2006): "Opening up the innovation process", R&D management, 36 (3): 223-8
- Hamilton, W.F. (2000): "Managing real options", in G. S. Day et al. (Eds.): Wharton on managing emerging technologies, N.Y., Wiley, pp. 271-288.
- Kim, Bowon & H. Oh (2002): "Economic compensation preferred by R&D personnel of different R&D types and intrinsic values", R&D Management, 32 (1): 47-59.
- Kim, J. & D. Wilemon (2002): "Focusing the fuzzy front end in new product development", R&D Management, 32 (4): 269-279.
- Martin, M. (1994): Managing Innovation and Entrepreneurship in High-Technology, New York, Wiley.
- Mathieson, David & Jim (1998): The Smart Organization. Creating Value Through Strategic R&D, Boston, Harvard Business School Press.
- Mitchell, Graham & W.F. Hamilton (1996): "Managing R&D as a strategic option", in M. L. Tushman & P. Anderson (Eds.): Managing Strategic Innovation and Change, Oxford University Press, pp. 307-317.
- Niosi, J. (1999): "Fourth Generation R&D", Journal of Business Research, 45 (2): 111-8.
- Prajogo, D. I. & S. W. Hong (2008): "The effect of TQM on performance in R&D environments: A perspective from South Korean firms", Technovation, 28:855-863.
- Perlitz, M., T. Peske, & R. Schrank (1999): "Real options valuation: the new frontier in R&D project evaluation?" R&D Management, 29 (3): 255-70.
- Roussel, P. A. et al (1991): Third Generation R&D, Boston, Harvard Business School Press.
- Tidd, Joe, K. Bodley (2002): "The influence of project novelty on the new product development process", R&D Management, 32 (2): 127-138.
- Trigeorgis, L. (1998): Real Options: Managerial Flexibility and Strategy in Resource Allocation, Massachusetts, MIT Press.

**Session 8: La technologie dans les entreprises multinationales**

L'internationalisation de la R-D dans les entreprises multinationales. Les typologies de laboratoires expatriés. Les explications de la multinationalisation de la R-D.

**Bibliographie:**

- Archibugi, D. & C. Pietrobelli (2003): "The globalization of technology and its implications for developing countries", Technological Forecasting and Social Change, 70: 861-883.
- Asakawa, K. (2001): "Evolving headquarters-subsidiary dynamics in international R&D: the case of Japanese multinationals", R&D Management, 31 (1): 1-14.
- Cantwell, J. & L. Piscitello (2005): "Recent locations of foreign-owned R&D activities by large MNCs in the European regions : the role of spillovers and externalities", Regional Studies, 39 (1) : 1-16.
- Casson, M. & S. Singh (1993): "Corporate R&D strategies: the influence of firm, industry and country factors on the decentralization of R&D capacity", R&D Management, 23 (3): 91-107.
- Dunning, J. H. (1994): "Multinational enterprises and the globalization of innovatory capacity", Research Policy, 23: 67-88.
- Edler, J. et al (2002): "Changes in the strategic management of global technology", R&D Management, 32 (2): 149-164.
- Hagedoorn, J. et al (2005): "Intellectual property rights and the governance of international R&D partnerships", Journal of International Business Studies (JIBS) 36 (2) : 175-86.
- Kogut, Bruce & U. Zander (2003): "Knowledge of the firm and the evolutionary theory of the MNC", JIBS 34 (6): 516-29.
- Kogut, Bruce & U. Zander (2003): « A memoir and reflection: knowledge and an evolutionary theory of the multinational firm 10 years later », JIBS 34 (6) : 505-515.
- Kuemmerle, Walter (1999): "Foreign Direct Investment in industrial research in the pharmaceutical and electronics industries", Research Policy, 28 (2-3): 179-194.
- Niosi, J. (1997): "The globalization of Canada's R&D", Management International Review, 37 (4): 387-404.
- Niosi, J. (1999): "The internationalization of industrial R&D: from technology transfer to the learning organization", Research Policy, 28 (2-3): 107-118.
- Patel, P. & K. Pavitt (1991): "Large firms in the production of world technology: an important case of non-globalization", Journal of International Business Studies, 22 (1): 1-22.
- Patel, Pari & K. Pavitt (1997): "The technological competence of the world's largest firms: complex and path-dependent but not much variety", Research Policy, 26: 141-156.
- Ronstadt, R. (1984): "R&D Abroad by US multinationals", in R. Stobaugh & L.T. Wells Jr. (Eds.): Technology Crossing Borders, Boston, Harvard Business School Press: 241-64.
- Taggart, J. H. (1998): "Determinants of increasing R&D complexity in affiliates of manufacturing multinational corporations in the UK", R&D Management, 28, 2: 102-10.

### **Session 9: La technologie dans les petites et moyennes entreprises**

La production et le transfert de technologie par les petites et moyennes entreprises de technologie de pointe. La naissance et croissance des PME de technologie de pointe. Les cas de la biotechnologie et du logiciel.

#### **Bibliographie:**

- Acs, Z. J. (Ed.) (1999): Are small firms important? Their role and impact, Norwell, Kluwer.
- Agmon, T. & R. L. Drobnick (1994): Small Firms in Global Competition, New York, Oxford University Press.
- Almus, M., & E.A. Nerlinger (1999): "Growth of new technology-based firms: which factors matter?", Small Business Economics, 13 (2): 141-154.
- Autant-Bernard, C. et al (2006): « Creation of biotech SMEs in France », Small Business Economics 26 (2): 173-187
- Baldwin, John (1996): "Innovation and success in Canada: small and medium-sized enterprises", in J. de la Mothe & G. Paquet (Eds): Evolutionary Economics and the New International Political Economy, Londres, Pinter, pp. 238-56.
- Bhidé, Amar V. (2000): The origin and evolution of new businesses, New York and Oxford, Oxford University Press.
- Buckley, Peter et al (Eds.)(1997): International Technology Transfer by Small and Medium-Sized Enterprises, Londres, Macmillan.
- Davenport, S. (2005): "Explaining the role of proximity in SME knowledge acquisition", Research Policy, 34 (5): 683-701.
- During, W. et al (Eds.)(2000): New Technology-Based Firms at the Turn of the Century, Londres, Pergamon.
- Freel, M. S. (2003) : « Sectoral patterns of small firms innovation », Research Policy, 32 : 751-770.
- Hoffman, K. et al (1997): "Small firms, R&D, technology and innovation" in International Journal of Technology Management, 1, 2: 102-121.
- Hollenstein, H. (2005) : « Determinants of international activities : Are SMEs different ? », Small Business Economics, 24 (5) : 431-450.
- Niosi, J. & J. Rivard (1990): "Canadian technology transfer to developing countries through small and medium-sized enterprises", World Development, 18 (11): 1529-1542.
- Niosi, Jorge (2003): "Alliances are not enough. Explaining rapid growth in biotechnology", Research Policy, 32: 737-750.
- Oakey, R. P. et al. (1998): "The management of innovation in high-technology small firms", in D. Tapscott & A. Lowy (Eds.): Blueprint to the digital economy, New York McGraw-Hill.
- Pisano, G. (2006): Science Business, Boston, Harvard Business School Press.
- Qian, C. & L. Li (2003): "Profitability of small and medium-sized enterprises in high-technology: the case of the biotechnology industry", Strategic Management Journal, 24: 881-7.
- Srinivas, B. (1999): "Globalization of smaller firms: fields notes and processes", Small Business Economics, 13 (1): 1-7.
- Torrise, Salvatore (1998): Industrial Organisation and Innovation. An International Study of the Software Industry, Cheltenham, Elgar.

### **Session 10: Les alliances et la coopération technologiques**

La gestion des consortia et des alliances technologiques entre les entreprises. Les alliances, les entreprises en coparticipation et les réseaux. Les explications de la multiplication des formes de coopération.

#### **Bibliographie:**

- Belussi, F. & F. Arcangeli (1998): "A Typology of Networks: Flexible and Evolutionary Firms", Research Policy, 27 (4): 415-28.
- Corey, E. R. (1997): Technology Fountainheads. The Management Challenge of R&D Consortia, Boston, Harvard Business School Press.
- Das, T.K. et al (2000): "Instability of strategic alliances: an internal tensions perspective", Organization Science, 11 (1): 77-101.
- DeMeyer, A. (1999): "Using strategic partnerships to create a competitive position for hi-tech start-up firms", R&D Management, 29 (4):323-9.
- Doz, Y. (1996): "The Evolution of Cooperation in Strategic Alliances: Initial Conditions or Learning Processes?" Strategic Management Journal, 17: 55-83.
- Doz, Y. & G. Hamel (1998): Alliance advantage, Boston, Harvard Business School Press.
- Dyer, J.H. & H. Singh (2000): "Using alliances to build competitive advantage in emerging technologies", in G.S. Day & P.J. Schoemaker (Eds.): Wharton on Managing Emerging Technologies, New York Wiley.
- Fritsch, M. & R. Lukas (2001): "Who cooperates on R&D?" Research Policy, 30 (1): 297-312.
- Gomes-Casseres, B. et al (2006): "Do alliances promote knowledge flows?" Journal of Financial Economics, 80 (1): 5-33.
- Gulati, R. (1998): "Alliances and networks", Strategic Management Journal, 19: 293-317.
- Hageddorn, J. (2002): "Interfirm R&D partnerships: an overview of major trends since 1960", Research Policy, 31: 477-92.
- Hoffmann, W.H. et al. (2001): "Acquire or ally? A strategic framework for deciding between acquisition and cooperation", Management International Review, 41 (2): 131-159.
- Judge, W., R. Dooley (2006): « Strategic alliances outcomes: a transaction cost economics perspective », British Journal of Management, 17 (1): 23-37.
- Matthews, John (2002): "The origins and dynamics of Taiwan's R&D consortia", Research Policy, 31: 633-651.
- Niosi, Jorge (1995): Vers l'innovation flexible. Les alliances technologiques de l'industrie canadienne, Montréal, Presses de l'Université de Montréal. (Version anglaise: Flexible Innovation, Montréal, McGill-Queen's University Press).
- R&D Management (1999) Numéro spécial sur les alliances technologiques, Vol. 29, N.4.
- Vonortas, Nicholas (2000): "Multimarket Contact and inter-firm cooperation in R&D", Journal of Evolutionary Economics, 10 (1-2): 243-71.
- Wang, L. (2007): "Alliance or acquisition?" Strategic Management Journal, 28 (3): 1291-1317.
- Whitley, R. (2006): "Project-based firms: new organizational forms or variations on a theme?" Industrial and corporate change, 15 (1) : 77-99.
- Yoshino, Michael & U. S. Rangan (1995): Strategic Alliances, Boston, Harvard Business Review Press.

**Session 11: La diffusion de la technologie**

Les premières études sur la diffusion en agriculture. Les études sur la diffusion en économie, administration, géographie et sociologie. Modèles de diffusion technologique. Lock-in dans des trajectoires technologiques. La politique de la diffusion et ses paradoxes. Les cas du Minitel et de l'énergie nucléaire.

**Bibliographie:**

- Abrahamson, E. (1996): "Management fashion", Academy of Management Review, 21: 254-285.
- Abrahamson, E. and G. Fairchild (1999): "Management fashion: lifecycles, triggers and collective learning processes", Administrative Science Quarterly, 44 (4): 798-740.
- Astebro, T. (2004): "Sunk costs and the depth and probability of technology adoption", The Journal of Industrial Economics, LII (3): 381-399.
- Baldwin, J. R. and Lin, Zhengxi. (2001): Impediments to advanced technology adoption for Canadian manufacturers. Ottawa, Ontario, Statistics Canada. Analytical Studies Branch, Statistics Canada.
- Baptista, R. (1999): "The diffusion of process innovations: a selective review", International Journal of the Economics of Business, 6 (1): 107-129.
- Bender, K.L. and R. E. Westgren (2001): "Social construction of the markets for genetically modified and non modified crops", American Behavioral Scientist 44 (8): 1350-70.
- Bryant, K. (2001): "Promoting innovation: an overview of the application of evolutionary economics and systems approaches to policy issues", in J. Foster and J. S. Metcalfe (Eds.): Frontiers of Evolutionary Economics. Competition, Self-Organization and Innovation Policy, Cheltenham, Elgar, pp. 361-383.
- Christensen, C.M. (1997): The Innovator's Dilemma, Boston, Harvard Business School Press.
- David, P. (1990): "The dynamo and the computer: an historical perspective on the modern productivity paradox", American Economic Review Papers and proceedings, 80 (2).
- David, P., W.B. Arthur (1985): "Clio and the economics of QWERTY", American Economic review, 75 (2).
- Hall, B. H. (2005): "Innovation and diffusion", in J. Fabergberg, D. C. Mowery and R.R. Nelson (Eds.): The Oxford Handbook of Innovation, Oxford, Oxford University Press, pp. 459-484.
- Kim, W.J., J.D. Lee and T.Y. Kim (2005): "Demand forecasting for multigenerational products combining discrete choice and dynamics of diffusion under technological trajectories", Technological forecasting and social change, 72 (7): 825-849.
- Rogers, E. M. (1995): Diffusion of innovations, N. York, Free Press, 4<sup>th</sup> édition.
- Stoneman P. (1987): "Some analytical observations on diffusion policies", in P. Dasgupta and P. Stoneman, (Eeds.): Economic policy and technological performance, Cambridge, Cambridge University Press, pp.154-168.
- Stoneman, P. (2001): The Economics of Technological Diffusion, Oxford, Blackwell.

**Session 12: La gestion de la recherche universitaire**

L'université et son rôle de productrice de connaissances fondamentales. Les systèmes d'incitation scientifique et technologique. La gestion de la recherche universitaire au Canada et aux États-Unis.

**Bibliographie:**

- Association of University Technology Managers (2008): AUTM Licensing Survey, Norwalk, CT, AUTM (Annual).
- Auerswald, P. E. & L. M. Branscomb (2003): "Valleys of death and Darwinian seas", Journal of Technology Transfer, 28 (3-4): 227-240.
- Branscomb, Lewis et al (1999): Industrializing Knowledge. University-Industry Linkages in Japan and the United States, Cambridge, Mass., MIT Press.
- Etzkowitz, Henry & L. Leydesdorff (Eds.)(1997): Universities and the Global Knowledge Economy, Londres, Pinter.
- Litan, R. E. et al (2007): Commercializing University Innovations: a Better Way, Cambridge, MA, NBER Working Paper.
- Mansfield, Edwin (1995): "Academic research underlying industrial innovation: sources, characteristics and financing", Review of Economics and Statistics, 56-65.
- Mansfield, Edwin & J. Y. Lee (1996): "The modern university: contributor to industrial innovation and recipient of industrial R&D support", Research Policy, 25: 1047-58.
- Mansfield, Edwin (1998): "Academic research and industrial innovation: an update of empirical findings", Research Policy, 26:773-6.
- Miyata, Yukio (2000): "An empirical analysis of the innovative activity of universities in the United States", Technovation, 20: 413-25.
- Mowery, D.C. et al. (2001): "The growth of patenting and licensing in US universities", Research Policy 30 (1): 99-120.
- National Science Foundation (2000): Science and Engineering Indicators, Washington DC US Government Printing Office.
- Nelson, Richard R. (1959): "The simple economics of basic scientific research", Journal of Political Economy, LXVII (3): 297-306.
- Niosi, J. (guest editor) (2006): Journal of technology transfer, special issue on academic spin-offs.31 (4).
- Niosi, J. (2008): "Connecting the dots between university research and industrial innovation", Choices, 14.
- Noll, Roger (1998): Challenges to research universities, Washington DC, Brookings Institutions.
- Rasmussen, E. (2008): "Government instruments to support the commercialization of university research: Lessons from Canada", Technovation, 28: 506-517.
- Rosenberg, N. (2000): "American universities as endogenous institutions" in Schumpeter and the Endogeneity of Growth, Routledge, London and New York, pp. 36-57.
- Statistics Canada (Annual): Survey of Intellectual Property Practices in Canadian Higher Education, Ottawa.
- Stephan, Paula (1996): "The Economics of Science", Journal of Economic Literature, XXXIV: 1199-1235.

**Session 13: La politique scientifique, technologique et d'innovation (STI)**

Les incitations publiques à l'innovation dans les entreprises privées, les universités et les laboratoires publics. Les principales politiques: le crédit d'impôt à la R-D, les subventions directes à la recherche, les incitations à la coopération. Les conceptions néoclassiques et évolutionnistes de la politique scientifique et technologique. La diffusion des politiques et leur évolution pendant la diffusion. Diffusion et l'émulation régionale et internationale. La politique STI au Canada et au Québec. L'évaluation des politiques publiques.

**Bibliographie:**

- Bessant, John & M. Dodgson (1996): Effective Innovation Policy, Londres, Routledge.
- Branscomb, Lewis and J. H. Keller (Eds.)(1999): Investing in Innovation. Creating a Research and Innovation Policy that Works, Cambridge, Mass. MIT Press.
- Foray, D. (Ed.)(2009): The New Economic of Technology Policy, Cheltenham, Elgar.
- Georghiu, L. & D. Roessner (2000): "Evaluating technology programs: tools and methods", Research Policy, 29: 657-678.
- Grupp, H. & M. E. Mogege (2004): "Indicators for national science and technology policy: how robust are composite indicators?", Research Policy, 33 (9): 1373-84.
- Hall, B. & J. van Reenen (2000): "How effective are fiscal incentives for R&D? A review of the evidence", Research Policy, 29 : 449-469.
- Hall, B. (2002): "The Assessment: technology policy", Oxford Review of Economic Policy, 18 (1): 1-9.
- Justman, M. & E. Zuscovitch (2002): "The economic impact of subsidized industrial R&D in Israel", R&D Management, 32 (3): 191-999.
- Khalil, T. M. et al (2005): "Management of technology and responsive policies in the new Economy", International Journal of Technology Management, 32 (1-2): 88-111.
- Kim, L. and R.R. Nelson (Eds.)(1999): Technology, Learning and Innovation. Experiences of Newly Industrialised Countries, Cambridge, Cambridge University Press.
- Lim, Y. (1999): Technology and Productivity, The Korean Way of Learning and Catching Up, Cambridge, Mass., MIT Press.
- Link, A. & D. Roessner (éditeurs invités)(2000): The Economics of Technology Policy, numéro spécial de Research Policy 29 (4-5).
- Lipsey, R. et K. Carlaw (1998): "Les politiques technologiques dans les modèles néoclassiques et structuralistes-évolutionnistes", STI Revue, 22: 33-84.<sup>2</sup>
- Nelson, R.R. (1995): "Why should managers be thinking about technology policy?" Strategic Management Journal, 16: 581-588.
- OCDE (1997): Policy Evaluation in Innovation and Technology. Towards Best Practices, Paris. (Document à télécharger : [www.ocde.org/dsti/stat-ana/prod/evaluation.htm](http://www.ocde.org/dsti/stat-ana/prod/evaluation.htm))
- OCDE (plusieurs années) Reviews of Innovation policy (Documents à télécharger)
- Pavitt, K. (2001): "Public policies to support basic research: what can the rest of the world learn from US theory and practice?" Industrial and Corporate Change, 10 (3): 761/79.
- Quebec, MDEIE (2010): La stratégie québécoise de la recherche et de l'innovation 2010-3.
- Shyu, J. & Y-C. Chia (2002): "Innovation policy for developing countries", R&D Management, 32 (4): 369-374.
- Teubal, Morris (1997): "A catalytic and evolutionary approach to horizontal technology policies", Research Policy, 25:1161-88.

<sup>2</sup> Also available in the English version of the same journal.



**Session 14: Les systèmes nationaux et régionaux d'innovation**

Les systèmes d'innovation : une perspective nationale, régionale et industrielle. Les systèmes d'innovation et les alliances technologiques. L'internationalisation des systèmes d'innovation. La comparaison des systèmes d'innovation. Le système national et les systèmes régionaux d'innovation au Canada.

**Bibliographie:**

- Acs, Z. J. (ed.)(2000): Regional Innovation, Knowledge and Global Change, Londres, Pinter.
- Alcorta, L & W. Peres (1998): "Innovation systems and specialization in Latin America and the Caribbean", Research Policy, 26 : 857-81.
- Amable, B. et al. (1997): Les systèmes d'innovation à l'ère de la globalisation, Paris, Économica.
- Baptista, R. and P. Swann (1998): "Do firms in clusters innovate more?" Research Policy, 27 (5): 525-40.
- Cooke, P. & K. Morgan (1998): The Associational Economy. Firms, Regions and Innovation, New York Oxford University Press.
- Cooke, P. et al (Eds.)(2001): Regional innovation systems, London, Routledge.
- Crow, M. & B. Bozeman (1998): Limited By Design. R&D Laboratories in the US National Innovation System, New York, Columbia University Press.
- Edquist, C. (ed.)(1977): Systems of Innovation, London, Pinter.
- Freeman, C. (1997): "The national system of innovation in historical perspective" in D. Archibugi & J. Michie (Éditeurs): Technology, globalization and economic performance, Cambridge, Cambridge University Press, pp. 24-49.
- Freeman, C. (2002): « Continental, national and subnational innovation systems », Research Policy, 31 (191-211).
- Lundvall, B.-A. (Ed.) (1992): National Systems of Innovation, Londres, Pinter.
- Malerba, F. (Ed.)(2004): Sectoral systems of innovation, Cambridge, Cambridge University Press.
- Nelson, R.R. (ed.)(1993): National Innovation Systems, NY, Oxford University Press.
- Niosi, J. et al (1993): "National Systems of Innovation: In Search of a Workable Concept" Technology in Society, 15: 207-227.
- Niosi, J. (2000): Canada's National System of Innovation, Montreal, McGill-Queen's University Press.
- Niosi, J. (2005): Canada's Regional Innovation Systems, Montreal, McGill-Queen's University Press.
- Niosi, J. (2002): "National systems of innovation are x-efficient (and x-effective)" Research Policy, 31 (2): 291-302.
- Niosi, J. (2010): Building national and regional innovation systems, Cheltenham, Elgar.
- OCDE (2002): Dynamiser les systèmes nationaux d'innovation, Paris.
- Mowery, D.C. (1998): "The changing structure of the US national innovation system", Research Policy, 27 (6): 639-654.
- Teubal, M. (1998): "Les politiques visant à encourager la restructuration des entreprises dans les systèmes nationaux d'innovation: susciter l'apprentissage et infléchir les systèmes", STI Revue: 159-198.<sup>3</sup>

<sup>3</sup> Also available in the English version of the same journal.