Carleton University
Department of Economics

Innovation Policy and Economic Growth
ECON 5063
Winter 2025

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Time: Thursdays, 18:05–20:55
Classroom: ONLINE - Asynchronous

Office hours: By appointment (online)

Course Description

This course provides students with an overview of the issues facing policymakers in trying to improve the innovative performance and economic growth of the economy. Innovation means the implementation of a new or significantly improved product, process, marketing method, or organizational method in business practices and organizations. Innovation is expected to lead to higher productivity, rising wages, and higher standard of living.

A good understanding of the concepts and issues of innovation policy requires a good understanding of the literature dealing with how innovation arises in economies, and the analysis of the relatively better or poorer performance of different firms, industrial sectors, and national economies. This course focuses on why innovation is so important in economic policy making and economic growth, and explains different views on what makes firms and economies innovative. The course will also provide examples of policy responses to innovation challenges.

As part of the course, empirical modeling and evaluation techniques of various innovation policies will be discussed to provide students with necessary tools to conduct evidence-based policy evaluation. Prior familiarity with econometric techniques would be helpful but not necessary.

At the end of this course, students will:

1. understand the concept of innovation, its measures, and its role in economic growth
2. be able to identify the main actors in the innovation ecosystem and their roles
3. know government's main policy instruments to promote innovation
4. be familiar with the main technics to evaluate the impact of innovation policies
5. be able to identify the main issues facing the innovation system

Course Structure and Evaluation

The course consists of 12 sessions. Each session will generally include three parts:

- Part (1)- Introduction of the topic

- Part (2)- A “special topic” to introduce the technical aspects of innovation policy and evaluation
- Part (3)- Oral presentations by students (starting session 7)

The final assessment will be on the following basis:

- One page paper outline (by session 5, February 6): 5% of the final grade
- Oral Presentation (in sessions 7 to 12): 15% of the final grade
- Participation mark (online comments on students’ presentations): 15% of the final grade
- Bi-weekly review quizzes: 20% of the final grade
- Term paper (due on the last day of the term, April 8): 45% of the final grade

Term papers and presentations can be done in groups of one or two. A preliminary schedule of presenters will be assigned by session 3. Students need to record a 15-minute presentation and post it on Brightspace. The rest of the class is required to watch the presentations and submit online comments. These comments and the presenter’s responses will be counted as students’ participation mark.

There will be five bi-weekly review quizzes, starting from the fourth week of the course. The quizzes will be posted on Brightspace each Friday afternoon and students are expected to answer them by Sunday 11:59 pm. The quizzes will include 2 or 5 questions that cover the material presented in Part 1 of each week. While it is expected that students get familiar with the topics presented as part of the “special topics” in Part 2, weekly review quizzes do not cover these materials. The highest four of the five quizzes will be considered for the final mark.

Students will also be required to submit a term paper of maximum 20 pages (double-spaced) on a topic linked to the seminar sessions. A short, maximum one page, outline of the paper must be submitted by session 5 and approved by the instructor before proceeding. The outline should contain a short thesis statement and provide a brief summary of the main issues to be reviewed and the principal resources to be used. The term paper and presentation may be on the same or different topics. The term paper must be submitted online no later than the last day of the course. Late submissions without a valid reason will lose 20% of the mark per day. Valid reasons include a Self-Declaration form, doctor’s note, or PMC letter of accommodation depending on the length of incapacitation.

Note that any use of Generative Artificial Intelligence tools (e.g. ChatGPT) to produce assessed content is considered a violation of academic integrity standards as per our statement on Plagiarism.

No textbook is required to be bought for the course. Articles and other learning materials are available to Carleton University students free of charge through Carleton University’s Library.

More explanations about the paper outline, presentation, and term paper will be provided in the first session.

Course Outline and Calendar

Session 1 - Introduction

There will be a brief review of the course topics, a review of the evaluation framework for the course, a discussion of available resources, and a guideline on writing the reports and making the presentations.

Session 2 - What is innovation? How is it measured?

Special topic: Innovation data sources and innovation indexes

Any framework to measure innovation performance should include measures of input, output, and outcome of innovation activities. This measurement includes defining proper statistical indicators, determining their data sources, and outlining the strengths and weaknesses of each indicator to capture different aspects of innovation activities. Examples of innovation indicators such as research and development (R&D) expenditures, intellectual property rights, productivity measures, etc. and their data sources will be discussed.

Suggested reading (* indicate main resources):

Fagerberg, J., (2013) "Innovation – a New Guide", TIK Working Papers on Innovation Studies No. 20131119, http://ideas.repec.org/s/tik/inowpp.html.

Hall, B. H., (2004) "Innovation and Diffusion", NBER Working Paper No. 10212.

Haskel, J., (2011) "The fork in the road for innovation measurement: which way should we go?", National Academy of Sciences, Washington DC.

Hollanders, H., and N. Es-Sadki, (2013) "Innovation Union Scoreboard 2013 – Methodology report", European Union.

Litan, R.E., A.W. Wyckoff, and Kaye H. Fealing, (2013) "Capturing Change in Science, Technology, and Innovation: Improving Indicators to Inform Policy", National Research Council of the National Academies.

(*) OECD, (2015) "Frascati Manual 2015: Guidelines for Collecting and Reporting Data on Research and Experimental Development, The Measurement of Scientific, Technological and Innovation Activities", OECD Publishing, Paris.

(*) OECD/Eurostat, (2018) "Oslo Manual 2018: Guidelines for Collecting, Reporting and Using Data on Innovation", 4th Edition, The Measurement of Scientific, Technological and Innovation Activities, OECD Publishing, Paris/Eurostat, Luxembourg.

(*) OECD, (2022) "Main Science and Technology Indicators", OECD Publishing.

Warwick, K. and A. Nolan, (2014) "Evaluation of Industrial Policy: Methodological Issues and Policy Lessons", OECD Science, Technology and Industry Policy Papers, No. 16, OECD Publishing, http://dx.doi.org/10.1787/5jz181jh0j5k-en.

Sessions 3 and 4 - Why does innovation policy matter? The link between innovation, productivity, and economic growth

Special topic: How to estimate productivity: panel data and Vector Error Correction Model (VECM)

Why is innovation policy a critical element of the economic agenda of most governments? In this session, we will link countries' ability to innovate to the increase in productivity and economic growth.

Suggested readings:

Baldwin, J.R., and W. Gu, (2013) "Multifactor Productivity Measurement at Statistics Canada", The Canadian Productivity Review, 31, Statistics Canada Catalogue no. 15-206-X. Ottawa: Statistics Canada.

(*) Baldwin, J., W. Gu, R. Macdonald and B. Yan, (2014) "Productivity: What Is It? How Is It Measured? What Has Canada's Performance Been Over the Period 1961 to 2012?", The Canadian Productivity Review.

Council of Canadian Academies, (2009) "Innovation and Business Strategy: Why Canada Falls Short", Ottawa: Council of Canadian Academies, http://www.scienceadvice.ca/en/assessments/completed/innovation.aspx.

Denney, Steven, Viet Vu, and Ryan Kelly, (2021) "Into the Scale-up-Verse: Exploring the Landscape of Canada's High-performing Firms", The Brookfield Institute for Innovation + Entrepreneurship and The Innovation Policy Lab at the Munk School of Global Affairs & Public Policy.

(*) Lynch, K.G., and M.A. Sheikh, (2011) "Innovation Dividend=Stronger Productivity Growth", Policy Options.

Mohnen, P., and B.H. Hall, (2013) "Innovation and Productivity: An Update", Eurasian Business Review, 3(1), pp. 47-65.

(*) OECD, (2023) "OECD Compendium of Productivity Indicators 2023", OECD Publishing, Paris.

OECD, (2012) "OECD Economic Surveys: Canada 2012", OECD Publishing, http://dx.doi.org/10.1787/eco_surveys-can-2012-en.

Science, Technology and Innovation Council, (2012) "State of the Nation 2012 - Canada's Science, Technology and Innovation System: Imagination to Innovation - Building Canadian Paths to Prosperity", Government of Canada.

Therrien, P., and P. Hanel, (2011) "Innovation and Productivity: Summary Results for Canadian Manufacturing Establishments", International Productivity Monitor.

Sessions 5 and 6 - Financing innovation in the private sector: how critical is public money?

Special topic: Matching technics to assess the impact of support programs

To correct for the market failure in R&D, governments provide incentives to private firms to compensate for the gap between the private and social returns to R&D expenditures. Government intervention in R&D could be done through indirect instruments, direct instruments, or a mixture of the two. Indirect instruments include R&D tax credits, R&D allowances and reductions in R&D workers' wage taxes. Direct instruments include R&D grants, loans and procurement. This session will discuss the difference between these two instruments and their impacts on innovation. We will also discuss the Business Innovation and Growth Support (BIGS) program and the Scientific Research and Experimental Development (SR&ED) program as Government of Canada's main direct and indirect tools to support innovation.

Suggested readings:

Bérubé, C., and P. Mohnen, (2009) "Are Firms That Received R&D Subsidies More Innovative?", Canadian Journal of Economics, 42(1), pp. 206-225.

Becker, B., (2015) "Public R&D Policies and Private R&D Investment: A Survey of the Empirical Evidence", Journal of economic surveys, 29(5), 917-942.

Czarnitzki, D., P. Hanel, and J. M. Rosa, (2011) "Evaluating the impact of R&D tax credits on innovation: A microeconometric study on Canadian firms", Research Policy, 40(2), pp. 217-229.

Czarnitzki, D., and J. Delanote, (2017) "Incorporating innovation subsidies in the CDM framework: empirical evidence from Belgium", Economics of innovation and new technology, 26(1-2), 78-92.

Czarnitzki, D., K. Hussinger, (2018) "Input and output additionality of R&D subsidies" Applied economics, 50(12), 1324-1341.

(*) David, P. A., B. H. Hall, and A. Toole, (2000) "Is public R&D a complement or substitute for private R&D? A review of the econometric evidence", *Research Policy*, 29(4-5), pp. 497-529.

Government of Canada, (2011) "Innovation Canada: A Call to Action - Review of Federal Support to Research and Development – Expert Panel Report".

Hall, B., and J. Van Reenen, (2000) "How effective are fiscal incentives for R&D? A review of the evidence", Research policy, 29 (4-5.). pp. 449-469.

OECD (2012), "Financing business R&D and innovation", in OECD Science, Technology and Industry Outlook 2012, OECD Publishing, Paris. http://dx.doi.org/10.1787/sti_outlook-2012-12-en.

OECD, (2015) "Financing SMEs and Entrepreneurs 2015: An OECD Scoreboard", OECD Publishing, Paris, DOI: http://dx.doi.org/10.1787/fin_sme_ent-2015-en.

(*) OECD, (2020) "The Effects of R&D Tax Incentives and Their Role in the Innovation Policy Mix: Findings from the OECD MicroBERD Project, 2016-19", OECD Science, Technology and Industry Policy Papers No. 92.

OECD, (2022) "OECD R&D tax incentives database, 2021 edition: Mapping Business Innovation Support (MABIS)", https://www.oecd.org/sti/rd-tax-stats-database.pdf.

(*) Criscuolo, C., N. Gonne, K. Kitazawa, and Guy Lalanne, (2022) "Are industrial policy instruments effective? A review of the evidence in OECD countries", OECD Science, Technology and Industry Policy Papers, No. 128.

(*) Parsons, M., and N. Phillips, (2007) "An Evaluation of the Federal Tax Credit for Scientific Research and Experimental Development", Department of Finance Working paper No. 2007-08.

Treasury Board of Canada Secretariat, (2022) "2020-21 HORIZONS: The Second Annual Report of the Central Performance and Impact Assessment Unit".

Wilson, K. E. (2015), "Policy Lessons from Financing Innovative Firms", OECD Science, Technology and Industry Policy Papers, No. 24, OECD Publishing, Paris, http://dx.doi.org/10.1787/5js03z8zrh9p-en.

Session 7 - Promoting innovation through government laboratories and research institutes

Special topic: Crépon-Duguet-Mairesse (CDM) model of innovation

In addition to using direct and indirect R&D instruments, governments may support innovation activities directly by engaging in science and technology (S&T) activity in government labs. This session will discuss the role of government labs and research institutes in the innovation system.

Suggested readings:

Council of Science and Technology Advisors, (1999) "Building Excellence in Science and Technology (BEST): The Federal Roles in Performing Science and Technology", Government of Canada.

Dufour, P., and J. de la Mothe, (2001) "Change, Reform and Capacity: A Review of the Canadian Government R&D Experience", in Cox, D., P. J. Gummett, and K. E. Barker *Government Laboratories - Transition and Transformation*, Amsterdam.

Doern, G.B. and J. Kinder, (2002) "One Size Does Not Fit All: Canadian Government Laboratories as Diverse and Complex Institutions," *Journal of Canadian Studies*, Vol. 37, No. 3, pp. 33-55.

(*) Doern, G.B. and J. Kinder, (2007) *Strategic Science in the Public Interest: Canada's Government Laboratories and Science-Based Agencies*, Toronto: University of Toronto Press.

Government of Canada, (2007) "Mobilizing Science and Technology to Canada's Advantage", Ottawa, Industry Canada, https://www.ic.gc.ca/eic/site/icgc.nsf/vwapj/SandTstrategy.pdf/$file/SandTstrategy.pdf.

Guellec, D., van Pottelsberghe de la Potterie, B. (2000), "The impact of public R&D expenditure on business R&D", OECD Science, Technology and Industry Working Papers, 2000/04, OECD Publishing, Paris, http://dx.doi.org/10.1787/670385851815.

(*) Harrison, P. and A. Sharpe, (2009) "Productivity in the Public Service: A Review of the Literature", Centre for the Study of Living Standards, Study prepared for the Treasury Board of Canada Secretariat.

Session 8 - Universities as an innovation engine in the economy

Special topic: Difference-in-Difference technic to measure policy impact

Many countries, including Canada, consider universities and post-secondary institutions as key engines for innovation. University laboratories and researchers are seen important resources of commercially relevant basic research. Another important role for universities and post-secondary institutions is to provide human capital and necessary skills for the marketplace. Accordingly, the federal government has diverted significant resources to universities in recent decades, and that universities throughout the OECD now combine the functions of education and research in varying degrees.

Suggested readings:

Crespo, M. and H. Dridi, (2007) "Intensification of university-industry relationships and its impact on academic research", *Higher Education*, Vol. 54, No. 1.

Currie, I., (2011) "Government Policies to Encourage University-Business Research Collaboration in Canada: Lessons from the U.S., the UK and Australia", Ottawa: Centre for the Study of Living Standards, http://www.csls.ca/reports/csls2011-02.pdf.

(*) Langford, C.H., J. Hall, P. Josty, S. Matos, and A. Jacobson, (2006) "Indicators and Outcomes of Canadian University Research: Proxies becoming Goals", Research Policy, Vol. 35, no. 10.

Mowery, D.C., and B. Sampat, (2005) "Universities in National Innovation Systems" in Fagerberg, J., D. Mowery, and R. Nelson eds, *The Oxford Handbook of Innovation,* Oxford: Oxford University Press.

(*) OECD (2011), Skills for Innovation and Research, OECD Publishing. http://dx.doi.org/10.1787/9789264097490-en.

OECD, (2012) *OECD Economic Surveys: Canada 2012*, OECD Publishing.

(*) OECD and Statistics Canada, (2022) "How do higher education institutions promote sustainable innovation in their own communities?", International Workshop jointly organized by the Treasury Board of Canada Secretariat, Statistics Canada, and the OECD, 25 October 2022.

Sessions 9 and 10 - Intellectual property (IP) rights and their role in promoting innovation

Special topic: The application of artificial intelligence and machine learning in measuring innovation

Intellectual property (IP) rights and the mechanisms designed to protect them such as patents, trademarks, industrial design, and copyrights are an important part of innovation policy. An IP right is a government-protected right granted to an inventor or creator to exclude others from using the newly developed technology or product. The argument for government intervention to protect IP rights is that without this protection, the competitive market fails to provide enough incentives for the private sector to undertake sufficient R&D to generate the new ideas and technologies which are important sources of long-run economic growth. This session introduces different types of IP rights and their relationships with innovation.

Suggested readings:

(*) Canadian Intellectual Property Office (CIPO), (2019) "IP Canada Report 2019", https://ised-isde.canada.ca/site/canadian-intellectual-property-office/en/publications/ip-canada-report-2019.

(*) Gallini N., (2012) "The Patent System and Canada's Innovation Agenda", Industry Canada working paper.

Hall B., and D. Harhoff, (2012) "Recent Research on the Economics of Patents", NBER Working Papers 17773.

Lerner, J., (2009) "Empirical Impact of Intellectual Property Rights on Innovation: Puzzles and Clues", American Economic Review, 99(2), pp 343-348.

Maskus K., (2004) "Encouraging International Technology Transfer", UNCTAD-ICTSD.

(*) OECD, (2018) "Intellectual Property Activities of Canadian Firms: Report to The Canadian Intellectual Property Office", OECD Directorate for Science, Technology and Innovation.

OHIM-EPO, (2013) "Intellectual property rights intensive industries: contribution to economic performance and employment in the European Union, Industry-Level Analysis Report", Office for Harmonization in the Internal Market (OHIM) and the European Patent Office (EPO).

OHIM, (2015) “Intellectual property rights and firm performance in Europe: an economic analysis Firm-Level Analysis Report”, Office for Harmonization in the Internal Market.

Park, W., (2008) “Intellectual Property Rights and International Innovation,” in K. Maskus (ed.) Frontiers of Economics and Globalization, Vol. 1, Handbook Series, Elsevier Science.

Statistics Canada, (2021), “Intellectual Property Awareness and Use Survey (IPAUS)”, https://www150.statcan.gc.ca/n1/daily-quotidien/210218/dq210218b-eng.htm.

(*) WIPO, (2022) “World Intellectual Property Indicators 2022”, World Intellectual Property Office, https://www.wipo.int/publications/en/details.jsp?id=4632.

Session 11 – The role of information and communication technologies (ICT) and digital economy; size and nationality of innovative firms; and, industrial clusters, regionalism, and federalism in innovation

Special topic: Program evaluation and innovation policy

This session will discuss three different topics and their relationship with innovation policy. According to one school of thought, SMEs are an important source of innovation and employment in the economy due to their abilities to exploiting new and rapidly evolving products and technologies. Alternatively, another school of thought emphasizes on the importance of large enterprises in innovation. Similarly, according to one school of thought, government should help domestic entrepreneurs to grow large enough so that they can exploit new products, technologies, and markets on their own, and that to ensure R&D and head offices stay in the country. Yet, another school of thought emphasizes on foreign ownership and export orientation of companies. This session will discuss the empirical evidence to support these arguments. The session will also discuss the roles of ICT, clusters and regional policies in innovation.

Suggested readings:

ICT:

Hagsten, E., M. Polder, E. Bartelsman, and P. Kotnik, (2013) “The Multifaceted Nature of ICT: Final Report of the ESSnet on Linking of Microdata to Analyse ICT Impact”, EuroStat Working paper.

(*) Gu, W., and W. Wang, (2004) “Information Technology and Productivity Growth: Evidence from Canadian Industries.” In Dale W. Jorgenson, Economic Growth in Canada and the United States in the Information Age.

OECD, (2013) “Measuring the Information Economy and Society: ICT Industries and ICT use Evidence from existing indicators and ideas for future work”, OECD Working paper.

(*) OECD, (2015) "OECD Digital Economy Outlook 2015", OECD Publishing, Paris, DOI: http://dx.doi.org/10.1787/9789264232440-en.

SMEs/Foreign ownership:

Baldwin, J., D. Sabourin and G. Gellaty, (2006) “Changes in Foreign Control under Different Regulatory Climates: Multinationals in Canada”, *Canadian Economic Observer*, Vol. 19. No. 3.

* Competition Policy Review Panel, (2008) “Compete to Win: Final Report”, Industry Canada, https://www.ic.gc.ca/eic/site/cprp-gepmc.nsf/vwapj/Compete_to_Win.pdf/$FILE/Compete_to_Win.pdf.

Narula, R. and A. Zanfei, (2005) “Globalization of Innovation: The Role of Multinational Enterprises” in Jan Fagerberg, David Mowery, Richard Nelson eds. *The Oxford Handbook of Innovation*, Oxford: Oxford University Press.

Therrien, P. and P. Hanel, (2011) “Innovation and Productivity: Summary Results for Canadian Manufacturing Establishments”, *International Productivity Monitor*, No. 22.

Industrial Clusters:

Higgins, R, (2008) “The Evolution of Knowledge Clusters: Progress and Policy”, *Economic Development Quarterly*, Vol. 22, No. 4.

(*) Institute for Competitiveness and Prosperity, (2011) “Canada’s Innovation Imperative”, Toronto: University of Toronto, http://www.competeprosper.ca/uploads/Report_on_Canada_2011_FINAL.pdf.

Niosi, J, (2002) “Regional systems of innovation Market pull and government push”, in Holbrook, J. A. and D. Wolfe, *Knowledge, Clusters and Regional Innovation: Economic Development in Canada*, Montreal: McGill-Queen's University Press.

Noisi, J., (2005) “*Canada's Regional Innovation Systems”,* Montreal: McGill-Queen’s University Press.

Porter, M. E., (1998) “*Clusters and the New Economics of Competition”,* Harvard Business Review, Boston.

Wolfe, D. and M. Gertier, (2004) “Clusters from the inside out: local dynamics and global linkages”, *Urban Studies*, Vol. 41, No. 5-6.

Regionalism and federalism:

Garrett-Jones, S., (2007) “Knowledge and Co-operation for Regional Development: The Effect of Provincial and Federal Policy in Canada and Australia”, *Prometheus*, Vol. 25, No. 1.

Holbrook, J. A. and M. Salazar, (2004) “Regional Innovation Systems within a Federation: Do National Policies Affect All Regions Equally?”, *Innovation: Management, Policy and Practice*, Vol. 6, No. 1.

Holbrook, J. A. and M. Salazar, (2007) “Canadian science, technology and innovation policy: The product of regional networking?”, *Regional Studies*, vol. 41, No. 8.

McKenzie, K.J., (2006) “Giving with One Hand and Taking Away with Another: Canada’s Tax System and Research and Development”, C.D. Howe Institute Commentary, No 240.

Evaluation:

(*) Council of Canadian Academies, (2013) “Innovation Impacts: Measurement and Assessment - The Expert Panel on the Socio-economic Impacts of Innovation Investments”, Ottawa: Council of Canadian Academies.

Doern, G.B., D. Castle, and P. Phillips, (2016) “Canadian Science, Technology, and Innovation Policy”, McGill-Queen's University Press.

McDavid, J.C., I. Huse, and L. Hawthorn, (2012) “Program Evaluation and Performance Measurement: An Introduction to Practice”, 2nd Edition. Sage Publications.

Mertens, D.M., and A.T. Wilson, (2012) “Program Evaluation Theory and Practice: A Comprehensive Guide”, New York: The Guilford Press.

Paic, Alan, and Camille Viros, (2019) Governance of science and technology policies, OECD Science, Technology and Industry Policy Papers, No. 84.

* Warwick, K. and A. Nolan, (2014) “Evaluation of Industrial Policy: Methodological Issues and Policy Lessons”, OECD Science, Technology and Industry Policy Papers, No. 16, OECD Publishing, http://dx.doi.org/10.1787/5jz181jh0j5k-en.)

Session 12 – The link between innovation policy and other social and economic policies; Concluding remarks

This session will focus on the relationship between innovation policy and other economic and social policies. Innovation policy addresses the overall innovation climate, which goes far beyond traditional science and technology policy, involves many different components of the economy, and requires the government to utilize many policies at its disposal. While components of innovation policy could include financing of public and private research and building research labs, innovation policy also interacts with broader economic and social policies such as trade policy, government regulations, education policy, regional development, inclusive growth, and macroeconomic and political stability. Moreover, despite many debates and remedial policies, Canada’s productivity growth and innovation performance have not improved in recent years. This session will also provide a review of different debates and contrasting perspectives on how to support innovation.

Suggested readings:

Cirera, X., J. Frías, J. Hill, and Y. Li, (2020) “A Practitioner’s Guide to Innovation Policy: Instruments to Build Firm Capabilities and Accelerate Technological Catch-Up in Developing Countries”, World Bank.

(*) Drummond, D., (2012) “Confessions of a Serial Productivity Researcher”, International Productivity Monitor.

Dutz, M.A., Y. Kuznetsov, and E. Lasagabaster, (2014) “Making Innovation Policy Work: Learning from Experimentation”, The World Bank and OECD.

Hall, B. H., (2014) “Policy for innovation: insights from economic research”, presentation to GIZ-Beijing, October 2013, and the Innovation Research Forum, January 2014, Caguas, Puerto Rico, https://eml.berkeley.edu/~bhhall/papers/BHH14_PR_innov_policy.pdf.

McFetridge, D., (2008) “Innovation and the Productivity Problem: Any Solutions?” *IRPP Choices*, Vol. 14, No. 3.

(*) Nicholson, P., (2018) “Facing the Facts: Reconsidering Business Innovation Policy in Canada”, IRPP Insight 22. Montreal: Institute for Research on Public Policy.

OECD, (2012) “Innovation for Development: The Challenges Ahead”, in OECD Science, Technology and Industry Outlook 2012, OECD Publishing, Paris.

(*) OECD, (2017) “Policies for Stronger and More Inclusive Growth in Canada”, OECD Publishing, Paris.

Planes-Satorra, Sandra, and Caroline Paunov, (2017) “Inclusive innovation policies: Lessons from international case studies”, OECD Science, Technology and Industry Working Papers 2017/02

Pilat, D., (2015) “Innovation Policy - New Insights, New Directions”, Annual Research Money Conference Ottawa, 31 March - 1 April.

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