

# Conference on Entrepreneurship, Innovation and Enterprise Dynamics

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Paris, 8-9 December 2014



Abstracts & Biographies

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# Abstracts and Biographies

*Monday 8 December 2014*

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## Welcome Address



### **Dirk Pilat**

Deputy Director  
Directorate for Science, Technology and Innovation (STI)  
Organisation for Economic Co-operation and Development (OECD)

Mr. Dirk Pilat, a Dutch national, is Deputy Director of the OECD Directorate for Science, Technology and Industry. As Deputy Director, he supports the Director of STI in pursuing the Directorate's programme of work and contributing to the achievement of the strategic goals of the Organisation as defined by the OECD Secretary-General.

He joined the OECD in February 1994 and has worked on many policy issues since then, including the OECD Innovation Strategy and OECD Green Growth Strategy, how to draw greater benefits from information technology for economic growth, how to strengthen growth performance in OECD economies (the OECD Growth Project), how to strengthen the performance of the services sector, as well as work on climate change, labour markets, product market regulation, productivity and entrepreneurship. He was Head of the Science and Technology Policy Division from 2006 to January 2009, with responsibility for the OECD's Committee for Scientific and Technological Policy, and Head of the Structural Policy Division, with responsibility for the OECD's Committee on Industry, Innovation and Entrepreneurship, from February 2009 to December 2012.

Before joining the OECD, Mr. Pilat was a researcher at the University of Groningen, in the Netherlands, where he also earned his Ph.D. in Economics. He has published extensively in a range of economics journals, with a strong focus on international comparisons of growth and productivity performance.



Chair: **Luiz de Mello**

Deputy Director

Directorate for Public Governance and Territorial Development (GOV)

Organisation for Economic Co-operation and Development (OECD)

Luiz de Mello is Deputy Director of the Public Governance and Territorial Development Directorate at the OECD. Previously, he served as Deputy Chief of Staff of the OECD Secretary-General. He started his career at the OECD in the Economics Department, where he was the Head of Desk responsible for bilateral surveillance activities with Brazil, Chile and Indonesia before becoming the Economic Counsellor to the Chief Economist.

Prior to joining the OECD, Mr. de Mello worked in the Fiscal Affairs Department of the International Monetary Fund, where he was involved in different projects in the areas of public finances, as well as programme monitoring and policy surveillance, with an emphasis on emerging-market and transition economies in Asia, Latin America and Eastern Europe.

Mr. de Mello holds a Ph.D. in Economics from the University of Kent, United Kingdom, where he started his career as a lecturer. His main areas of interest are open-economy macroeconomics, public finances, and growth and development issues.

# Keynote Speech

## Knowledge spillover entrepreneurship and innovation: the role of universities

David B. Audretsch - Indiana University, United States

Knowledge spillover entrepreneurship is a fundamental process by which knowledge and ideas created in one organizational context are commercialized and transformed into innovative activity in the context of a new firm or organization. This paper explains how the role of universities in generating knowledge-spillover entrepreneurship has evolved over time. In the contemporary globalized economy, universities make a key contribution to industry dynamics by facilitating the spillover of knowledge from the universities for innovative activity.



**David B. Audretsch**

Indiana University, United States

David Audretsch is a Distinguished Professor and Ameritech Chair of Economic Development at Indiana University, where he also serves as Director of the Institute for Development Strategies. He also is an Honorary Professor of Industrial Economics and Entrepreneurship at the WHU-Otto Beisheim School of Management in Germany. In addition, he serves as a Visiting Professor at the King Saud University in Saudi Arabia, Honorary Professor at the Friedrich Schiller University of Jena in Germany, and is a Research Fellow of the Centre for Economic Policy Research in London.

Audretsch's research has focused on the links between entrepreneurship, government policy, innovation, economic development and global competitiveness. His books include *Everything in its Place: The Strategic Management of Cities, Regions and States* with Oxford University Press in 2015 and *The Handbook of Local Competitiveness* also with Oxford University Press in 2015. He is co-founder and co-editor of *Small Business Economics: An Entrepreneurship Journal*. He was awarded the 2001 Global Award for Entrepreneurship Research by the Swedish Foundation for Small Business Research. In 2008 he received an honorary doctorate degree from the University of Augsburg, and in September, 2010 he received an honorary doctorate degree from Jonköping University. In 2011 he was awarded the Schumpeter Prize from the University of Wuppertal.

He is a member of the Advisory Board to a number of international research and policy institutes, including Chair of the *Deutsches Institut fuer Wirtschaftsforschung Berlin* (German Institute for Economic Analysis Berlin), Chair of the *Stifterverband fuer die Deutsche Wissenschaft* (Foundation for the Promotion of German Science), New York Academy of Sciences, the Swedish Entrepreneurship Forum, and the Jackstädt Centre for Entrepreneurship in Wuppertal, Germany.





# Session 1

## Who wants to be an entrepreneur?

**Chair:** Nick Johnstone

*Directorate for Science, Technology and Innovation (STI)*

*Organisation for Economic Co-operation and Development (OECD)*

- **The Private Financial gains to entrepreneurship**  
**Is it a good use of public money to encourage individuals to become entrepreneurs?**  
Thomas Åstebro - *HEC Paris, France*
- **The entrepreneurial earnings puzzle: Evidence from matched person-firm data.**  
Mirjam van Praag - *Copenhagen Business School, Denmark*  
Arvid Raknerud - *Statistics Norway, Norway*
- **If you don't succeed, should you try again?**  
**The role of entrepreneurial experience in venture closure outcomes.**  
Sandra Gottschalk - *ZEW - Centre for European Economic Research, Germany*  
Francis J. Greene - *University of Birmingham, United Kingdom*  
Bettina Müller - *ZEW - Centre for European Economic Research, Germany*



Chair: **Nick Johnstone**

Directorate for Science, Technology and Innovation (STI)  
Organisation for Economic Co-operation and Development (OECD)

Nick Johnstone is Head of the Structural Policy Division of the Directorate for Science, Technology and Industry. He provides leadership to the OECD's work on new sources of growth, innovation, productivity and entrepreneurship, and the role of industry and industrial policies. He will support the Committee on Industry, Innovation and Entrepreneurship (CIIE) and its subsidiary bodies, as well as the Steel Committee and the Council Working Party on Shipbuilding.

Mr. Johnstone began his career at the OECD in September 1999, taking up the position of Head of the Empirical Policy Analysis Unit in the Environment and Economy Integration Division of the Environment Directorate, with responsibility for projects such as the analysis of links between public environmental policy, industrial organisation and technological innovation. He previously held positions as a Research Associate at the International Institute for Environment and Development, and as a Research Officer at the Department of Applied Economics of the University of Cambridge.

Mr. Johnstone, a Canadian national, holds a Ph.D. in Economics from the University of Cambridge (UK).

## The Private Financial gains to entrepreneurship Is it a good use of public money to encourage individuals to become entrepreneurs?

Thomas Åstebro - HEC Paris, France

Recent evidence on earnings from entrepreneurship versus wage earning shows that, after allowing for obvious observable differences, entrepreneurs in most developed countries on average earn less than similar wage-earning employees. Does this mean that the decision to become an entrepreneur should be discouraged? The answer depends in part on whether one believes that entrepreneurs report their income truthfully or not. Adjusting for what is considered to be underreporting by entrepreneurs (using observed differences in food expenditure) lifts entrepreneurial average earnings by between 10% and 40%, reversing the fortunes of the entrepreneur such that they appear to be earning much more than their counterparts in a wage-earning job. If this adjustment should prove to be appropriate, then there is no obvious reason to increase the incentive for individuals to become entrepreneur (such as with tax breaks or direct start-up subsidies) in developed countries, and one should discuss decreasing these subsidies.



**Thomas Åstebro**

HEC Paris  
France

Thomas Åstebro is Associate Professor of strategy and entrepreneurship at HEC Paris; Academic Director, HEC Leadership Center; co-Director Entrepreneurship Track MBA Program, member of steering committee, Groupement de Recherche et d'Etudes en Gestion d'HEC (HEC Management Research Group) and past member of the Steering and Curriculum committees, MBA Program at HEC. He is listed in Marquis Who's Who in the World, is among the top 2 percent most downloaded authors on www.ssrn, has made over 150 presentations, published 30 academic journal articles, and has been mentioned in business media over 50 times (including The Economist, Business Week, The Times, and Bloomberg News). He is an Associate Editor of *Management Science*, *Industrial and Corporate Change*, and *Research Policy*, and past Associate Editor of *European Management Review*. In a prior life he was a management consultant and a serial entrepreneur.

## **The entrepreneurial earnings puzzle: Evidence from matched person-firm data.**

Mirjam van Praag - *Copenhagen Business School, Denmark*

Arvid Raknerud - *Statistics Norway, Norway*

Empirical studies show that the pecuniary returns to an individual's decision to switch from wage employment to entrepreneurship are low. We reconsider the pecuniary gains from this transition using a unified and flexible approach based on a mixed model with heterogeneous returns to entrepreneurship. Addressing the issue of self-selection, we analyze to what extent earlier findings are obscured by mixing individuals who become entrepreneurs without interesting wage alternatives with those who do have a realistic alternative opportunity. Our data set covers the whole Norwegian population of individuals matched to the entire population of firms established in the period 2002-2011, and includes extensive income and ownership share measures. The results indicate that the average return to entrepreneurship is significantly negative for individuals entering entrepreneurship through self-employment. Entrepreneurs who establish firms by injecting the minimum (or close to minimum) required amount of equity in an incorporated firm at start-up, have a significantly positive, but low return to entrepreneurship on average. Finally, persons who become entrepreneurs by establishing firms that are at least twice as large as the minimum requirement, increase their earnings by 10 percent on average by becoming entrepreneurs. We identify a significant positive selection by absolute advantage with regard to the choice of becoming an incorporated entrepreneur, but not with regard to self-employment.



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**Arvid Raknerud**

Statistics Norway  
Norway

Arvid Raknerud holds a Ph.D. in economics from the University of Oslo, Faculty of Social Sciences, from 1999. During his Ph.D. studies, he was a visiting research scholar at the Dept. of Statistics, University of California at Berkeley. Since 1999, he has been employed at the Research Department in Statistics Norway, where he is a senior research fellow. Since 2012, he also has a position as a Research Associate at the Central Bank of Norway, Dept. of Financial Stability. His research interests and publications are mainly in the fields of micro econometrics (firm and individual level data), entrepreneurship, banking and financial econometrics.

## **If you don't succeed, should you try again?** **The role of entrepreneurial experience in venture closure outcomes.**

Sandra Gottschalk - *ZEW - Centre for European Economic Research, Germany*

Francis J. Greene - *University of Birmingham, United Kingdom*

Bettina Müller - *ZEW - Centre for European Economic Research, Germany*

Despite the importance of habitual entrepreneurship, little is known about how different forms of habitual experience impact on new venture closure outcomes. Equally, there are several conflicting theoretical explanations of the likely link between habitual experience and venture closure outcomes. In this paper, we adopt a competing hypotheses approach to investigate if four different forms of habitual experience (i.e. those that concurrently run other ventures (portfolios), those that sold/passed on a previous venture (serials), those that dissolved a previous venture (dissolvers) or saw it go bankrupt (bankrupts)) shape the decision to persist or quit a new venture and - if the venture does close - what role these experiences play in the dissolution or bankruptcy of the new focal venture. Using large scale representative panel data on 8,400 German new ventures, we find that portfolios and serials do not experience longer survival durations and are no more likely to dissolve or go bankrupt in their new focal venture than inexperienced entrepreneurs. We also find that survival durations for both bankrupts and dissolvers are shorter and that they are more likely to go bankrupt than inexperienced entrepreneurs in their new focal venture. We conclude by discussing the implications for entrepreneurship researchers and practitioners.



**Bettina Müller**

ZEW - Centre for European Economic Research  
 Germany

Bettina Müller is a senior researcher at the Centre for European Economic Research (ZEW) Mannheim, Germany. Her research interests include all areas of entrepreneurship and the working of the creative industries. She started working at the Centre for European Economic Research in 2005 in the research group Information and Communication Technologies. In 2010, she changed department to Industrial Economics and International Management, which is also her current affiliation. Bettina got her education from the University of Konstanz, Germany, where she studied economics. After her diploma, she attended the doctoral programme Quantitative Economics and Finance of the University of Konstanz which she finished with a Ph.D. thesis on human capital in new firms.



## Session 2

### Firm dynamics, innovation and productivity

**Chair:** Dirk Pilat

*Deputy Director, Directorate for Science, Technology and Innovation (STI)  
Organisation for Economic Co-operation and Development (OECD)*

- **Do micro start-ups fuel job creation?  
Cross-country evidence from the “Dynemp Express” database.**  
Chiara Criscuolo - *Organisation for Economic Co-operation and Development (OECD)*  
Carlo Menon - *OECD*  
Peter Gal - *OECD*
- **Innovation and firm dynamics – sources of differential productivity growth between countries, industries and firm groups.**  
Mika Maliranta - *ETLA - The Research Institute of the Finnish Economy, Finland*
- **What do firms know? What do they produce?  
A new look at the relationship between patenting profiles and patterns of product diversification**  
Giovanni Dosi - *Scuola Superiore Sant’Anna, Italy*  
Marco Grazzi - *Università of Bologna, Italy*  
Daniele Moschella - *Scuola Superiore Sant’Anna, Italy*



Chair: **Dirk Pilat**

Deputy Director  
Directorate for Science, Technology and Innovation (STI)  
Organisation for Economic Co-operation and Development (OECD)

Mr. Dirk Pilat, a Dutch national, is Deputy Director of the OECD Directorate for Science, Technology and Industry. As Deputy Director, he supports the Director of STI in pursuing the Directorate's programme of work and contributing to the achievement of the strategic goals of the Organisation as defined by the OECD Secretary-General.

He joined the OECD in February 1994 and has worked on many policy issues since then, including the OECD Innovation Strategy and OECD Green Growth Strategy, how to draw greater benefits from information technology for economic growth, how to strengthen growth performance in OECD economies (the OECD Growth Project), how to strengthen the performance of the services sector, as well as work on climate change, labour markets, product market regulation, productivity and entrepreneurship. He was Head of the Science and Technology Policy Division from 2006 to January 2009, with responsibility for the OECD's Committee for Scientific and Technological Policy, and Head of the Structural Policy Division, with responsibility for the OECD's Committee on Industry, Innovation and Entrepreneurship, from February 2009 to December 2012.

Before joining the OECD, Mr. Pilat was a researcher at the University of Groningen, in the Netherlands, where he also earned his Ph.D. in Economics. He has published extensively in a range of economics journals, with a strong focus on international comparisons of growth and productivity performance.



## Do micro start-ups fuel job creation? Cross-country evidence from the “Dynemp Express” database.

Chiara Criscuolo - Organisation for Economic Co-operation and Development (OECD)

Carlo Menon - OECD

Peter Gal - OECD

Exploiting a novel database recently built from national business registers by the OECD with the support of an international network of experts, this paper investigates the growth dynamics of micro-firms (employing less than 10 workers) across 16 countries. Results show that only a small proportion of micro-firms manage to grow beyond ten employees, but those contribute disproportionately to job creation. Econometric analysis focusing in particular to the role of age confirms that young micro-firms – especially those below three years of age – are much more likely to grow above 10 employees than older firms.



### Chiara Criscuolo

Directorate for Science, Technology and Innovation (STI)  
Organisation for Economic Co-operation and Development (OECD)

Chiara Criscuolo is senior economist in the Structural Policy division of the Science Technology and Industry Directorate at the OECD. The main focus of her work is on productivity entrepreneurship, firm dynamics and innovation policy. With her team, she is coordinating two distributed microdata projects Dynemp on employment dynamics and Multiprod on productivity. Prior to joining OECD in September 2009, she was a Research Fellow at the Centre for Economic Performance, London School of Economics. She has been involved in industrial policy evaluations and has coordinated large cross-country microeconomic studies. Her work has been published in peer reviewed journal including the *American Economic Review* and the *Review of Economics and Statistics*.

Chiara Criscuolo received her undergraduate training in economics at the University of Siena and at the University of Oxford and her Master and doctoral degree from University College London.

## **Innovation and firm dynamics – sources of differential productivity growth between countries, industries and firm groups.**

Mika Maliranta - *ETLA - The Research Institute of the Finnish Economy, Finland*

The intensity of the firm dynamics is examined with a variant of productivity decomposition method, which is particularly suitable for measuring to what extent aggregate productivity growth is based on the productivity growth of the firms (i.e. the average productivity growth rate of the firms) and to what extent restructuring between firms (i.e. what is the contribution of creative destruction to aggregate productivity growth). The method is applied by use of comparable data firm-level data and harmonized computation procedures for four countries (Finland, Sweden, Denmark and Norway) and different industries of the business sector in these countries. In addition, the method is also applied for different firm groups, defined on the basis of the innovation efforts, within the same industries in Finland. The results show that salient differences in aggregate productivity growth between countries or firm groups (in the same industries) typically derives rather from differences in creative destruction than from differences in the productivity growth rates of the firms. In fact, differences in the average productivity growth rates of the firms (i.e. within component) are usually surprisingly small between countries, when the differences in the industry structures between countries are controlled for.

December 8th



**Mika Maliranta**

ETLA - The Research Institute of the Finnish Economy  
Finland

PhD (Economics) in 2003 from Helsinki School of Economics, Adjunct Professor (Docent) since 2008 at Helsinki School of Economics, Professor since 2009 at University of Jyväskylä, Research Director at ETLA, The Research Institute of the Finnish Economy (Helsinki) since 2009, with responsibility for the research programme Competition, Innovation and Productivity. He is a vice-chair of the OECD working party on industry analyses (WPIA). His research interests include economic growth, micro-level mechanisms of productivity growth, the determinants of productivity, worker flows, and more recently occupational restructuring. Research results have been published in a number peer-reviewed international journal articles.

## What do firms know? What do they produce? A new look at the relationship between patenting profiles and patterns of product diversification

Giovanni Dosi - Scuola Superiore Sant'Anna, Italy

Marco Grazzi - Università of Bologna, Italy

Daniele Moschella - Scuola Superiore Sant'Anna, Italy

In this paper, we aim to give a new perspective about the relationship between technological diversification and product diversification at the firm level. Following a well established tradition in the literature, we proxy firms' technological capabilities with the stock of their patents. By exploiting a new matching between patent applications and firms, we intend first of all to characterize the patenting profiles of the population of Italian firms.

Second, and more important, we link the patenting profiles of Italian firms to their product diversification patterns. In order to do so, we use a recently developed algorithm (Lybbert and Zolas, 2014) which delivers a concordance between IPC classes and standard industry classifications.



### Giovanni Dosi

Scuola Superiore Sant'Anna  
Italy

Giovanni Dosi is professor of economics and director of the Institute of Economics at the Scuola Superiore Sant'Anna in Pisa, Italy. He also serves as co-director of the Industrial Policy and Intellectual Property Rights task forces at the Initiative for Policy Dialogue at Columbia University. Additionally, Professor Dosi is a continental Europe editor of the journal *Industrial and Corporate Change*. He is included in the ISI Highly Cited Research list, denoting those who made fundamental contributions to the advancement of science and technology, and is a corresponding member of the Accademia Nazionale dei Lincei, the first academy of sciences in Italy.

His major research areas - where he is author and editor of several works - include Economics of Innovation and Technological Change, Industrial Economics, Evolutionary Theory, Economic Growth and Development, Organizational Studies.

A selection of his works has been published in two volumes: *Innovation, Organization and Economic Dynamics. Selected Essays*, Cheltenham, Edward Elgar, 2000; and *Economic Organization, Industrial Dynamics and Development: Selected Essays*, Cheltenham, Edward Elgar, 2012.



### Daniele Moschella

Scuola Superiore Sant'Anna  
Italy

Daniele Moschella is Research Fellow at Scuola Superiore Sant'Anna, Pisa. He was educated at Scuola Normale Superiore, Pisa and Scuola Superiore Sant'Anna, where he received a PhD in Economics. He discussed his PhD dissertation, entitled "Three Essays on Organizational Capabilities, Market Selection and Trade Competitiveness", under the supervision of prof. Giovanni Dosi. His research interests range from industrial dynamics, to organizational competences, to innovation and technology today and during the Industrial Revolution. His articles have been published in international journals like *Journal of Economic History*, *Cliometrica*, *Seoul Journal of Economics*.



## Session 3

### Entrepreneurship, venture capital and economic growth

**Chair:** Javier Miranda

*U.S. Census Bureau, United States and WPIA Chair*

- **Venture capital as a catalyst for high growth**

Ryan Kelly - *Industry Canada, Canada*

Hankook Kim - *Industry Canada, Canada*

- **The impact of venture capital financing on the survival of IPO firms**

Sophie Pommet - *GREDEG - CNRS Université de Nice-Sophia Antipolis, France*

- **Total factor productivity and the role of entrepreneurship**

Roy Thurik - *Erasmus University Rotterdam, The Netherlands*



Chair: **Javier Miranda**

U.S. Census Bureau, United States  
and WPIA Chair

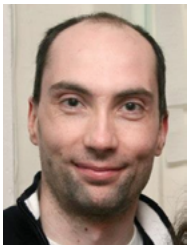
Javier Miranda has been Principal Economist at the Center for Economic Studies since 2012. He has been with CES since 2005, previously as a Senior Economist, and has been affiliated with CES since 1998. Javier received a Ph.D. in Economics from American University in D.C. in 2004. Javier has published papers in the areas of industrial organization, technological change, job creation, entrepreneurship and firm financing. Among his publications are articles in the *American Economic Review*, *Journal of Economic Literature*, *American Economic Journal Macroeconomics*, *Review of Economic and Statistics*, *IMF Review*, *World Bank Economic Review*, *Journal of Business Valuation and Economic Loss*, *NBER Macroeconomics Annual*, and multiple books and chapters. Javier received the Director's Award for Innovation (2007) and the U.S. Department of Commerce Bronze Medal (2011). His contributions to data infrastructure are notable. Javier Miranda is responsible for the development of the Longitudinal Business Database and the Business Dynamics Statistics and is currently helping develop the Synthetic Longitudinal Business Database v3. Together with the USPTO Javier is leading the development the Business Dynamics Statistics of Innovative Firms a longitudinal database of firms, patents, and inventors. Javier has held previous research positions at the World Bank and the Urban Institute.

## Venture capital as a catalyst for high growth

Ryan Kelly - Industry Canada, Canada

Hankook Kim - Industry Canada, Canada

We use new data linking information on venture capital (VC) financing from Thomson Reuters with firm-level data from Statistics Canada to compare VC-backed and non-VC-backed firms. We assess the impact of VC on growth of key firm-level variables. This is the first study of its kind on VC-backed firms that incorporates official financial information of enterprises operating in Canada. The richness of the data allows us to construct a control group using previously unavailable covariates that are often thought to be associated with the potential for high growth and the probability of receiving VC financing, e.g., R&D expenditures, R&D support program, size, age, industry, location, among others. Using propensity score matching, our results suggest that VC-backed firms outperform their non-VC-backed counterparts in growth metrics. VC-backed firms experience higher growth in sales, wages, and employment over a 5-year period while the higher growth in R&D expenditures for VC-backed firms only occur over the first year with the levels converging over the long-term. In profitability, we find no statistical difference between VC-backed and non-VC-backed firms. Our results provide robust empirical evidence that VC financing is associated with faster firm growth and an acceleration of the innovation and commercialization process.



**Ryan Kelly**

Industry Canada  
Canada

Ryan Kelly works as an economist for the Economic Research and Policy Analysis Branch of Industry Canada, which is responsible for conducting economic research and giving expert advice on policy issues, such as financing innovation and competition in regulated sectors. Ryan joined Industry Canada in 2008 and specializes in industrial organization. Over the last six years, he has worked on a diverse set of files from this perspective including: risk capital, telecommunications, measuring competition intensity in key sectors, econometric assessment of government programs, and foreign direct investment. More recently, Ryan's research has focussed on firm financing, and in particular, on comparing different forms of risk capital, e.g., private venture capital, publicly funded VC programs, and angel investment.

## The impact of venture capital financing on the survival of IPO firms

Sophie Pommet - GREDEG - CNRS Université de Nice-Sophia Antipolis, France

We analyze the impact of venture capital involvement on the survival time of French Initial Public Offerings (IPO) during the period 1996-2006. We examine the link between the survival time of IPO companies, and several proxies for the quality of venture capitalist financing. Our results show that, taken as a whole, venture capital financing has a negative impact on firm survival. However, the quality of venture capitalist monitoring, measured by the duration of their investment before the IPO, enhances company survival times. We also find that during normal periods of activity, the longer the duration of VC involvement/monitoring the greater the positive effect on firm survival time, while this positive impact disappears during bubble periods.

December 8th



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**Sophie Pommet**

GREDEG - CNRS Université de Nice-Sophia Antipolis  
France

She holds a Ph.D. degree in Economics. She is Associate Professor at the GREDEG, University of Nice Sophia Antipolis.

Her core research area is the empirical investigation of the impact of financing strategies of entrepreneurial companies -including venture capital and private equity- on their economic performances.



## Total factor productivity and the role of entrepreneurship

Roy Thurik - *Erasmus University Rotterdam, The Netherlands*

The absence of a long-run relationship between entrepreneurship and economic growth in the scholarly literature is at odds with the importance attributed to entrepreneurship in the policy arena. The present paper deals with this absence introducing entrepreneurship in six different models explaining total factor productivity of twenty OECD countries for a recent period (1971-2002). Traditionally, entrepreneurship is not dealt with in these models. It is shown that in all models there is a significant influence of entrepreneurship while the remaining effects mainly stay the same. Entrepreneurship is measured as the business ownership rate (number of business owners per workforce) corrected for the level of economic development (GDP per capita).



**Roy Thurik**

Erasmus University Rotterdam  
The Netherlands

Roy Thurik is Professor of Economics and Entrepreneurship at *Erasmus University Rotterdam* and Professor of Entrepreneurship at the *Free University of Amsterdam*. He is scientific advisor at *Panteia* in Zoetermeer, the Netherlands. He is 'directeur de la recherche' at the *Montpellier Business School* in France. He is a Research Fellow at two renowned Dutch research schools: the *Tinbergen Institute for Economic Sciences* and the *Erasmus Research Institute for Management*. He is member at the *IZA Institute for the Study of Labor*.

Roy's research focuses on the role of small firms in markets, the role of business owners in firms, industrial organisation and policy, geno-economics, nascent entrepreneurship and the consequences and causes of entrepreneurship in economies.

His research has been published in some two hundred articles in leading academic journals

He consulted with many firms and (international) institutions.

For detailed information see <http://www.thurik.com>



## Session 4

### Productivity growth and convergence

**Chair:** Giuseppe Nicoletti

*Economics Department (ECO)*

*Organisation for Economic Co-operation and Development (OECD)*

- **Resource misallocation and productivity slowdown:  
Luxembourg's manufacturing in the post-recession**

Umut Kiliç - *Statec - Institut National de la Statistique et des Études Économiques  
du Grand-Duché du Luxembourg, Luxembourg*

- **Dynamics of productivity growth**

Michael Polder - *Statistics Netherlands, The Netherlands*

George van Leeuwen - *Statistics Netherlands, the Netherlands*

Hugo de Bondt - *Statistics Netherlands, the Netherlands*

- **Productivity convergence at the plant level: New evidence from Americas**

J. David Brown - *U.S. Census Bureau, United States*

Gustavo A. Crespi - *Inter-American Development Bank, United States*

Leonardo Iacovone - *World Bank, United States*

Luca Marcolin - *Katholieke Universiteit Leuven, Belgium*

*and Organisation for Economic Co-operation and Development (OECD)*



Chair: **Giuseppe Nicoletti**

Economics Department (ECO)

Organisation for Economic Co-operation and Development (OECD)

Giuseppe Nicoletti, who holds a Ph.D. in Economics from New York University, has been heading since 2004 the Structural Policy Analysis Division at the OECD Economics Department in Paris, where he is in charge of cross-country structural studies presented at the Working Party No. 1 of the OECD Economic Policy Committee, including prospective studies drawing long-term growth scenarios for the world economy. Since 2008, he has also been in charge of work on the economics of climate change mitigation and responsible for green growth related work within the OECD economics department.

In this context, Dr Nicoletti led numerous studies comparing public policies across countries in various areas - including product and labour markets, taxation, infrastructure investment, innovation and the environment - and relating these policies to comparative performances of both OECD and emerging economies.

His main personal research interests are: the influence of policies and institutions on the determinants of growth; regulation and product market competition; product and labour market reform; the political economy of structural reforms; economic convergence.

## Resource misallocation and productivity slowdown: Luxembourg's manufacturing in the post-recession

Umut Kiliñç - *Statec - Institut National de la Statistique et des Études Économiques  
du Grand-Duché du Luxembourg, Luxembourg*

This study explores the effects of the 2008 global economic crisis on the productivity and factor allocation dynamics in Luxembourg's manufacturing sector. The analysis is based on firm-level data for the period from 1996 to 2011 and finds a dramatic productivity slowdown after 2008. The crisis deteriorates the efficiency in the allocation of labor among manufacturing firms, which calls attention for the strict employment protection legislation that possibly prevents labor to be reallocated towards more productive establishments. In addition to relaxing employment protections, facilitating entry and growth of young firms is expected to promote creative destruction, improve allocative efficiency and speed up the recovery in the post-recession period.



**Umut Kiliñç**

Statec - Institut National de la Statistique et des Études Économiques  
du Grand-Duché du Luxembourg, Luxembourg

Umut KILINC holds a Master of Philosophy degree in economics from Tinbergen institute, The Netherlands (2007). He conducted doctoral studies at Tinbergen Institute and VU University of Amsterdam where he was employed as a research and teaching assistant between 2007 and 2011. In 2011, he received his Ph.D. degree in economics from VU University, and joined the STATEC as a post-doc researcher. Since 2013, he conducts a Marie-Curie funded research project on international trade, productivity growth and industrial economics.

## Dynamics of productivity growth

Michael Polder - *Statistics Netherlands, The Netherlands*

George van Leeuwen - *Statistics Netherlands, the Netherlands*

Hugo de Bondt - *Statistics Netherlands, the Netherlands*

We determine the degree of entry and exit for the period 2000 to 2010 based on Business Register data and complementary information on the reasons of population changes. Using the typification of firms by entry, exit and continuing firms, data on input and output, and calculating sampling weights, we perform a decomposition analysis of industry level labour productivity growth. We relate industry differences to the variation in the ICT intensity of industries. We find that reallocation and exit contribute positively to productivity growth in ICT intensive industries, whereas in other industries we find indications of misallocation. Moreover, we find that the crisis was particularly cleansing for ICT intensive industries, and that ICT intensity correlates positively with the allocative efficiency in an industry. Finally, we find that ICT intensity associates with several distributional characteristics of firm performance such as market concentration, dispersion, and turbulence.

December 8th



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**Michael Polder**

Statistics Netherlands  
The Netherlands

Michael Polder works as a researcher at the department of National Accounts, Statistics Netherlands. His research focuses on productivity at the firm- and industry-level, mostly in relation to information technology and innovation. He studied econometrics at Erasmus University Rotterdam and obtained a Ph.D. degree from the University of Maastricht with a thesis on "Nonlinear investment dynamics and labour adjustment dynamics".

## Productivity convergence at the plant level: New evidence from Americas

J. David Brown - *U.S. Census Bureau, United States*

Gustavo A. Crespi - *Inter-American Development Bank, United States*

Leonardo Iacovone - *World Bank, United States*

Luca Marcolin - *Katholieke Universiteit Leuven, Belgium*

*and Organisation for Economic Co-operation and Development (OECD)*

This paper provides new empirical evidence about productivity growth in the Americas. Relying on plant-level data from various countries (Mexico, Colombia, the United States, in the future Chile and Uruguay), we first decompose labor productivity growth to assess the relative role played by plant-level growth (“within” component) versus market reallocation (“between” component). Second, we estimate the determinants of productivity convergence at the plant level to shed light on the determinants of “within” plant-level growth. First, we find that on average the “within” component accounts for more than two thirds of overall productivity growth in the manufacturing sector. Second, as we distinguish between convergence towards the “global” frontier and the country-specific frontier, our results suggest that convergence towards the global frontier is much weaker. Third, we find that innovation effort is more important than trade in explaining the speed of catch-up at the plant level in both Mexico and Colombia.



### Luca Marcolin

Katholieke Universiteit Leuven, Belgium

and Directorate for Science, Technology and Innovation (STI), OECD

Luca Marcolin is an Economist within the Science, Technology and Industry Directorate (STI), where he is mainly involved in projects related to the measurement and analysis of knowledge-based capital and its role in shaping economic performance and trade dynamics, especially productivity and trade in value added.

Before joining the OECD, he consulted with the World Bank (Trade and Competitiveness Directorate), the European Bank for Reconstruction and Development (EBRD, Office of the Chief Economist), and interned at the Bureau of the Policy Advisers (BEPA) of the European Commission and the UN Conference on Trade and Development (UNCTAD, Division of Investment and Enterprise), in research projects exploring issues related to international trade, productivity and innovation outcomes.

He studied Economics at University of Bologna, the Paris School of Economics and the Ecole Normale Supérieure de Paris. He is finalising his Ph.D. at the Catholic University of Leuven (KUL, Belgium) focusing on wage and productivity dynamics.



Chair: **Alessandra Colecchia**

Directorate for Science, Technology and Innovation (STI)  
Organisation for Economic Co-operation and Development (OECD)

Alessandra Colecchia heads the Economic Analysis and Statistics (EAS) Division of the OECD Directorate for Science, Technology and Industry. She oversees the work on measurement standards in the S&T and Digital Economy areas, including IPR related statistics, as well as the empirical analysis of issues related to R&D, innovation, enabling technologies, firms and industry dynamics, productivity, trade in value added and competitiveness. She joined the OECD in 1995 and worked in the Trade Directorate, Economics Department and the Information, Computer and Communications Policy Division of DSTI. Between 1999 and 2003 she led the development of the first international measurement framework for the information society. Between 2004 and 2009 she led the work on R&D, Innovation and Human resources in Science and Technology; launched the 2006 Blue Sky Agenda and the OECD Innovation micro-data project. Most recently she has been leading the measurement work for the OECD Innovation Strategy. In 2010 she delivered "*Measuring Innovation: A New Perspective*" which included new policy relevant indicators, such as the first quantitative estimates of R&D tax incentives, as well as a forward looking Innovation Measurement Agenda. Followed in 2014 by "*Measuring the Digital Economy: A New Perspective*", a wide ranging look at the role of ICTs across OECD economies, which also identifies measurement gaps and lines of future research in this area. Every two years she leads the work on the OECD STI Scoreboard, the most comprehensive effort to provide a set of policy relevant and insightful indicators in the areas of science, technology, innovation and competitiveness of nations.



# Keynote Speech

## Ideation, entrepreneurship and innovation

Albert N. Link - University of North Carolina at Greensboro, United States

The origin of ideas is an important topic to be addressed by eminent disciplinary scholars, and then debated, and then debated, and then debated yet again. Even addressing the narrower topic of the origin of entrepreneurial or innovative ideas is a bold if not presumptuous undertaking. In this paper, which forms the basis of my keynote address, I set the stage with a brief summary statement about how two historical scholars viewed the source of ideas and then I move to a brief discussion about what academic researchers in the field of entrepreneurship and innovation know about sources that influence innovative behavior. In the final section, I present some inaugural findings from my own research in this area, or more accurately, the research on which I have just begun to embark. I conclude with a question: Why do scholars of entrepreneurship, innovation, and enterprise dynamics need to know about the sources of ideas that lead to new technology and innovation, and I offer a suggestive answer.



**Albert N. Link**

University of North Carolina at Greensboro  
United States

Albert N. Link is professor of economics at the University of North Carolina at Greensboro. His research focuses on technology and innovation policy, academic entrepreneurship, public sector entrepreneurship, and the economics of R&D. He is currently Editor-in-Chief of the *Journal of Technology Transfer*.

Link's forthcoming books include *Battery Technology for Electric Vehicles: Public Science and Private Innovation* (Routledge), *Handbook on University Technology Transfer* (University of Chicago Press), and *Public Sector Entrepreneurship* (Oxford University Press). Other research has appeared in such journals as the *American Economic Review*, the *Journal of Political Economy*, the *Review of Economics and Statistics*, *Economica*, and *Research Policy*.



## Session 5

### Risk, entrepreneurship and innovation

**Chair:** Erik Fahlbeck

*Ministry of Enterprise Energy and Communications, Sweden*

*and Chair, CIIE - Committee on Industry, Innovation and Entrepreneurship*

- **Risk, balanced skills and entrepreneurship**

*Chihmao Hsieh - University of Amsterdam, The Netherlands*

*Simon C. Parker - University of Western Ontario, Canada*

*Mirjam van Praag - Copenhagen Business School, Denmark*

- **R&D profitability: the role of risk and Knightian uncertainty**

*Sara Amoroso - Joint Research Centre, JRC-IPTS, European Commission*

*Pietro Moncada-Paternó-Castello - JRC-IPTS, European Commission*

*Antonio Vezzani - JRC-IPTS, European Commission*

- **The impact of Government R&D subsidy on firm performance:  
Evidence from Korean SMEs**

*Beom Cheol Cin - Kyonggi University, Korea*

*YoungJun Kim - Korea University, Korea*

*Nicholas S. Vonortas - George Washington University, United States*



Picture: Marie-Louise Anekraus

Chair: **Erik Fahlbeck**

Ministry of Enterprise Energy and Communications, Sweden  
and Chair, Committee on Industry, Innovation and Entrepreneurship (CIIE)

Erik Fahlbeck is, since five years, Chief analyst at the Ministry of Enterprise. He works, among other things, with growth policy, enterprise policy and innovation policy. He and his unit follow research and international experiences in these areas and he is also responsible for the Agency for Growth Policy Analysis. Erik Fahlbeck have a PhD in agricultural economics and has a background also in academia.

## Risk, balanced skills and entrepreneurship

Chihmao Hsieh - *University of Amsterdam, The Netherlands*

Simon C. Parker - *University of Western Ontario, Canada*

Mirjam van Praag - *Copenhagen Business School, Denmark*

One of the most commonly accepted outcomes of economic theories applied to entrepreneurship is that risk aversion decreases the likelihood of entrepreneurship. More recently, researchers have embraced Lazear's (2005) Jack-of-all-Trades theory. Many tests find empirical support for it: Balanced skills increase the likelihood of entrepreneurship. This paper proposes that risk aversion encourages individuals to invest in balanced skill profiles, making them *more* likely to become entrepreneurs. By not having taken this possible linkage into account, previous research has underestimated the impacts of both risk aversion and balanced skills on the likelihood individuals choose entrepreneurship. Data on Dutch university graduates provides an illustration supporting this contention. The possibility is raised that even risk-adverse people might be suited to entrepreneurship; and it may also help explain why prior research has generated somewhat mixed evidence about the effects of risk aversion on selection into entrepreneurship.



**Mirjam van Praag**

Copenhagen Business School  
Denmark

Prof Dr C. Mirjam van Praag is Maersk Mc-Kinney Møller Professor of Entrepreneurship at Copenhagen Business School, Department of Innovation and Organizational Economics. Besides she holds an unpaid position as a Professor of Entrepreneurship and Organization in the Amsterdam Business School of the University of Amsterdam. She is also a Crown Member of the Socioeconomic Council (SER) of the Dutch government. Until recently she was the founding and academic director of the Amsterdam Center for Entrepreneurship.

Van Praag's research is widely published in international academic journals- such as in Management Science, Journal of Labor Economics or Journal of Business and Economic Statistics- studies Economics of Entrepreneurship (e.g., Human Capital, Teams, Entrepreneurship and the Household) often using (field or natural) experiments. Besides entrepreneurship, she is also an active researcher in the field of Personnel Economics (performance measurement and rewards) and Behavioral Economics.

Following her education in economics and econometrics (UvA, Tinbergen Institute), Mirjam was employed as a consultant with The Boston Consulting Group, as a financial analyst with Procter & Gamble and as a research consultant with GfK Intomart. She has served as a non-executive member on various boards, both in the public and the private sector.

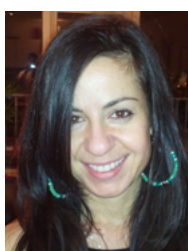
## R&D profitability: the role of risk and Knightian uncertainty

Sara Amoroso - Joint Research Centre, JRC-IPTS, European Commission

Pietro Moncada-Paternó-Castello - JRC-IPTS, European Commission

Antonio Vezzani - JRC-IPTS, European Commission

This paper provides the first empirical attempt of linking firms' profits and investment in R&D revisiting Knight's (1921) distinction between uncertainty and risk. Along with the risky profit-maximizing scenario, identifying a second, off-setting, unpredictable bias that leads to heterogeneous returns to R&D investments is crucial to fully understand the drivers of corporate profits.



### Sara Amoroso

Joint Research Centre, JRC-IPTS  
European Commission

Sara Amoroso is a research fellow at the Knowledge for Growth unit, Joint Research Center (JRC), European Commission. Before joining the JRC in 2013, she studied in Tilburg University, where she obtained her Ph.D. in Economics.

Sara's research focuses on the role of R&D, innovation and productivity in firm strategy and market performance.



### Pietro Moncada-Paternó-Castello

Joint Research Centre, JRC-IPTS  
European Commission

Pietro Moncada Paternò-Castello is Senior Analyst at the European Commission (EC), Joint Research Centre (JRC) – Institute for Perspective Technological Studies (IPTS).

He is an agricultural engineer - mayor on "techno-economics" - (University of Catania, Italy), and holds a Master of Science Degree in Management of Technology (Massachusetts Institute of Technology - MIT - Sloan School of Management and the School of Engineering). He completed the Ph.D. programme in Science of Economics and Management at the Solvay Brussels School of the Université Libre de Bruxelles (Belgium).

Before joining IPTS in 1995 he worked, as Founder and President, in the Agency for Natural Resources Energy and Technology (ANETEC, B), in the MIT Energy Laboratory, Electric Utility Program and in the EC's Directorate General for Research and Technological Development (DGRTD).

Former responsibilities within the EC's JRC-IPTS include: Acting Head of Unit, "Knowledge for Growth" and "Support to the European Research Area"; Action Leader, "Economics of Industrial Research and Innovation"; Manager, "European Science and Technology Observatory"; Co-ordination, "Knowledge and Skills" and "Innovation, Diffusion and Growth" activities; Marketing & Quality Manager

His research interests include: economics of corporate R&D and innovation, firm dynamics, employment and competitiveness; management of technological change, and research & innovation policy.

He has published over 70 papers in international scientific journals and scientific and technical reports. His experience includes being member of Scientific Committees, reviewer and member of editorial Boards of scientific journals, speaker in international conferences and lecturer at university courses and seminars.

## The impact of Government R&D subsidy on firm performance: Evidence from Korean SMEs

Beom Cheol Cin - *Kyonggi University, Korea*

YoungJun Kim - *Korea University, Korea*

Nicholas S. Vonortas - *George Washington University, United States*

This paper empirically explores the R&D promotion policy effects on SME performance measured by value-added productivity. We use a unique large panel data set on public R&D subsidy for Korean manufacturing firms. Econometrically, we control for counter-factual outcomes employing the DID (difference in differences) estimation procedure as well as for endogeneity of the R&D subsidy using the 2-stage Tobit/Logit-DPD (dynamic panel data) procedure. We find significant evidence for positive productivity effect of the public R&D subsidy. The subsidy has successfully raised the R&D expenditure and value added productivity of Korean manufacturing SMEs. It is thus fostering entrepreneurial activity and economic growth.



**Nicholas S. Vonortas**

George Washington University  
United States

Nicholas Vonortas is Professor of Economics and International Affairs at The George Washington University in Washington D.C. He is a faculty member of the Department of Economics and of the Center for International Science and Technology Policy (CISTP). He has served for several years as the Director of both the CISTP and of the graduate program in International Science and Technology Policy. He is now the director of PhD Candidacy of the Department of Economics.

Professor Vonortas also holds a 'São Paulo Excellence Chair' in Innovation Policy at the Universidade Estadual de Campinas (UNICAMP), State of São Paulo, Brazil during the period 2014-2019.

Professor Vonortas' teaching and research interests are in industrial organization, in the economics of technological change, and in technology and innovation policy. He specializes on strategic partnerships/innovation networks, investment under uncertainty, technology transfer, knowledge-intensive entrepreneurship, and R&D program evaluation. He is an editor of the peer reviewed journal Science and Public Policy.

Professor Vonortas holds a Ph.D. and a M.Phil. in Economics from New York University (USA), a MA in Economic Development from Leicester University (UK), and a BA in Economics from the University of Athens (Greece).





## Session 6

### The role of enabling technologies and institutional determinants

**Chair:** Benjamin Mitra-Kahn  
*IP Australia*

- **Young radical innovators in ICT: platforms for new growth in Europe?**  
Reinhilde Veugelers - *Katholieke Universiteit Leuven, Belgium*
- **ICT as facilitator of internationalisation in small and medium-sized firms**  
Eva Hagsten - *Stockholm University, Sweden*  
Patricia Kotnik - *University of Ljubljana, Slovenia*
- **Institutional determinants of university spin-off quantity and quality: longitudinal, multilevel evidence from Italy, Norway and the UK.**  
Riccardo Fini - *University of Bologna, Italy*  
Kun Fu - *Imperial College London, United Kingdom*  
Marius Tuft Mathisen - *Norwegian University of Science and Technology, Norway*  
Einar Rasmussen - *University of Nordland, Norway*  
Mike Wright - *Imperial College London, United Kingdom*



Chair: **Benjamin Mitra-Kahn**  
IP Australia

Dr. Mitra-Kahn has been the Chief Economist at IP Australia since November 2012, previous to which he was the senior economist at the UK Intellectual Property Office. His background includes time as an academic, consultant and company director, and a number of expert panels with the OECD and other organisations.

## Young radical innovators in ICT: platforms for new growth in Europe?

Reinhilde Veugelers - Katholieke Universiteit Leuven, Belgium

By now, it is well known that ICT sectors are major contributors to innovation and growth, also in Europe. It is equally well known that Europe has an ICT growth problem relative to the US. The EU's economy has a lower specialization in ICT sectors. The contribution of digital technologies to growth is lower in the EU. Furthermore, the EU holds a gap in private R&D investments in the digital sector. Due to the prominence of digital R&D investment in overall R&D investment, this digital investment 'gap' accounts for a substantial part of the difference between EU and US total R&D investment.

Further firm-level evidence suggests that the EU's innovation and growth deficit in the information technology sector may reflect constraints on the growth of new digital sectors in the EU compared to the US. Not only has the EU economy (compared to the US) a lower specialization on average in ICT sectors, it also misses to focus on those new digital subsectors and firms where most opportunities for digital based growth are located. Europe is less specialized compared to the US in digital service sectors, most notably Internet and software services, missing young leading innovators (YOLLIES) in these areas.

The implications of this digital deficit are daunting for EU policy making, which has very ambitious digital growth aspirations.

This contribution takes a closer look at innovation in ICT sectors and the ability of new, innovative firms in Europe to grow into leading world positions in these sectors. This analysis shows that Europe's weakness is not so much in the generation of new ideas, but is further down the commercialisation path. When attempting to bring ideas to market, new, innovative firms in Europe face the lack of a single digital market, fragmented intellectual property regimes, lack of access to risk capital and strong ICT clusters with pooled labour markets, and too few advanced early (public) users and complementary industries. The recommendations for European policy making are discussed.



### Reinhilde Veugelers

Katholieke Universiteit Leuven  
Belgium

Prof Dr. Reinhilde Veugelers is a full professor at KULeuven (BE) at the Department of Management, Strategy and Innovation. She is a Senior Fellow at Bruegel since 2009. She is also a CEPR Research Fellow and a member of the Royal Flemish Academy of Belgium for Sciences. From 2004-2008, she was on academic leave, as advisor at the European Commission (BEPA Bureau of European Policy Analysis). She was the President-Elect of EARIE (European Association for Research in Industrial Economics). She currently serves on the ERC Scientific Council. She is a member of the RISE Expert Group advising the EU Commissioner for Research and Innovation.

She was a visiting scholar at Northwestern University's Kellogg Graduate School of Management, Sloan School of Management, MIT, Stern Business School, NYU (US), UCL (BE), ECARES/ ULBrussels, (BE) Paris I (FR), GSE-Barcelona (ES), UMaastricht (NL), SciencesPo (FR).

With her research concentrated in the fields of industrial organisation, international economics and strategy, innovation and science, she has authored numerous well cited publications in leading international journals. Her research combines analytical frameworks, using micro-economics, game theory and economics of information models, with empirical, mostly econometric testing on large datasets. Specific recent topics include cooperative R&D, international technology transfers through MNEs, young innovative companies, innovation for climate change, industry science links and their impact on firm's innovative productivity, performance of technology transfer offices at universities, designing university spin-off contracts, explaining scientific productivity, researchers' international mobility. She coordinates a large, multidisciplinary research project on radical innovations and one on the impact assessment of RTD policy instruments.

[www.econ.kuleuven.be/msi/members/veugelers.htm](http://www.econ.kuleuven.be/msi/members/veugelers.htm) ; [www.bruegel.org](http://www.bruegel.org)

## ICT as facilitator of internationalisation in small and medium-sized firms

Eva Hagsten - *Stockholm University, Sweden*

Patricia Kotnik - *University of Ljubljana, Slovenia*

Based on harmonised and uniquely linked firm-level datasets for a large group of European countries, this study investigates the role of different ICT capacities in the internationalisation of small and medium-sized firms. Both the decision to export and the export intensity are explored in this respect. The different ICT capacities are captured by online presence, proportion of employees with broadband internet, use of online transactions and by ICT schooled employees. A small and medium-sized firm is defined as having 10 to 249 employees. This group comprises virtually the whole population of firms in most countries while their exporting activities are far smaller than proportionate. The results show a positive relationship between the ICT capacities and the engagement in exporting activities, although the capacity most efficient seems to vary across countries. In countries where the ICT intensity of firms is less developed, more basic capacities such as online presence are of importance for the decision to export. There are also indications that an expansion of international sales benefits from more advanced ICTs than the pure decision to export.



**Eva Hagsten**

Stockholm University  
Sweden

Eva Hagsten is an economist and project leader at Stockholm University. She is temporarily on leave from Statistics Sweden, and formerly worked for Government Offices, National Defence Research Institute and Örebro University.

She is project leader of the EU-funded ESSLait and ESSLimit projects, with the aim of linking microdata and analyse ICT impact. She is a contributor to the OECD Dynemp project and delegate to WPIIS (MADE) and WPIA. Her special interests are: firm growth, ICT, human capital and internationalisation.

## Institutional determinants of university spin-off quantity and quality: longitudinal, multilevel evidence from Italy, Norway and the UK.

Riccardo Fini - *University of Bologna, Italy*

Kun Fu - *Imperial College London, United Kingdom*

Marius Tuft Mathisen - *Norwegian University of Science and Technology, Norway*

Einar Rasmussen - *University of Nordland, Norway*

Mike Wright - *Imperial College London, United Kingdom*

The creation of spin-off firms from universities are seen as an important mechanism for the commercialization of research, and hence the overall contribution from universities to technology development and economic growth. Governments and universities are seeking to develop framework conditions that are conducive to spin-off creation. The most prevalent of such initiatives are legislative changes at national level and the establishment of Technology Transfer Offices (TTO) at university level. The effectiveness of such initiatives is debated, but empirical evidence is limited. In this paper we analyze the full population of universities in Italy, Norway, and the UK; three countries adopting differing approaches to framework conditions, to test whether national and university level initiatives influence on the number of spin-offs created and the performance of these spin-offs. Building on institutional theory and using multi-level analysis, we find that changes in the institutional framework conditions at both national and university level are conducive to the creation of more spin-offs, but that the increase in quantity is at the expense of the quality of these firms. Hence, the effect of such top-down changes in framework conditions on the economic impact from universities seems to be more symbolic than substantive.



**Mike Wright**

Imperial College London  
United Kingdom

Mike Wright is Professor of Entrepreneurship and Head of the Innovation and Entrepreneurship Department at Imperial College Business School, Director of the Centre for Management Buyout Research, Associate Director of the Entrepreneurship Research Centre and visiting professor at the University of Ghent. Mike has received Honorary Doctorates from the Universities of Ghent and Derby and is an Academician of the Academy of Social Sciences. He is currently co-editor of *Strategic Entrepreneurship Journal*. He has published many books and articles in leading international journals on academic entrepreneurship, returnee entrepreneurs, habitual entrepreneurs, technology transfer, family firms, venture capital, private equity, and emerging economies. His latest books include *Private Equity Demystified – 3rd Edition, 2014* (with John Gilligan, ICAEW), and *The Chicago Handbook of Academic Entrepreneurship and Technology Transfer* (with Al Link and Don Siegel, Chicago University Press, in press). He is Past Chair of the Academy of Management Entrepreneurship Division, recipient of that division's Mentor Award, and incoming Chair of the Society for the Advancement of Management Studies. A member of the British Venture Capital Association Research Advisory Committee, he has consulted for various national and international organizations. His research is regularly covered in the *Financial Times*, *Economist*, *Wall Street Journal*, *Bloomberg*, etc.

## Closing Remarks



**Mariagrazia Squicciarini**

Directorate for Science, Technology and Innovation (STI)  
Organisation for Economic Co-operation and Development (OECD)

Dr. Mariagrazia Squicciarini is Senior Economist – Head of Unit at the Organisation for Economic Cooperation and Development (OECD), within the Directorate for Science Technology and Innovation (DSTI). She is responsible for the OECD Working Party on Industry Analysis (WPIA), which develops indicators and quantitative analyses in the area of innovation and industrial performance. Her work encompasses the changing determinants of growth and productivity; the economics of Intellectual Property Rights (IPR); knowledge based capital and its relation to economic performance; as well as participation in global value chains, and job and skill patterns.

She is responsible for the IPR-related data and analysis work carried out in the Directorate, and oversees the STI Microdata Lab initiative, a project aimed at linking micro-level data as firm-specific information, IPR- and scientific publication-data, for indicator and econometric analysis work in support of evidence-based policy making.

She is a member of the Economic and Scientific Advisory Board (ESAB) of the European Patent Office (EPO) and chairs the OECD-led IP Taskforce, which sees the presence of top IP and Statistical Offices worldwide. The IP taskforce aims to coordinate the work undertaken by national and international institutions in the field of IPR statistics by means of: exchanging information and co-ordinating statistical and methodological work; fostering and supporting data collection, data processing and data dissemination; and organising annual conferences on IPR statistics.

She holds a Ph.D. in Economics from the University of Essex (UK) and has had previous appointments at VTT Technical Research Centre of Finland (FI), the University of Essex (UK), the European Commission-Joint Research Centre “Institute for Prospective Technological Studies”(IPTS, ES), and the Italian National Research Centre for the Development of Advanced Materials (CNRSM, IT).



# Conference on Entrepreneurship, Innovation and Enterprise Dynamics

## Monday 8 December 2014

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- 09:00-09:10 Welcome
- 09:10-09:55 Keynote speech -  
Knowledge spillover entrepreneurship and innovation: the role of universities
- 09:55-11:25 Session 1: Who wants to be an entrepreneur?
- 11:25-11:45 *Coffee break*
- 11:45-13:15 Session 2: Firm dynamics, innovation and productivity
- 13:15 -14:30 *Lunch break*
- 14:30-16:00 Session 3: Entrepreneurship, venture capital and economic growth
- 16:00-16:30 *Coffee break*
- 16:30-18:00 Session 4: Productivity growth and convergence
- 18:30-20:00 *Cocktail*

## Tuesday 9 December 2014

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- 09:00-09:45 Keynote speech - Ideation, Entrepreneurship, and Innovation
- 09:45-11:15 Session 5: Risk, entrepreneurship and innovation
- 11:15-11:45 *Coffee break*
- 11:45-13:15 Session 6: The role of enabling technologies and institutional determinants
- 13:15-13:30 Closing remarks