



UCD Spatial Dynamics Lab
Soatharlann um Dhinimic Spásúil



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DI CAGLIARI



The mobility of skilled individuals and the transitional nature of the workplace from a more permanent and stationary setting to one that is project-based and dominated by short term contracts is changing the economic landscape. In addition, as highly skilled workers become more reliant on finding, and subsequently bidding and securing, projects offered by a variety of entities, they also increasingly need to become entrepreneurs rather than just employees who can rely on the support mechanisms that a regular place of work usually offers. Conversely, low skilled individuals face increased job insecurity and competition both domestically and internationally (via imports from low labour cost countries and value chains). The co-evolution of skills, mobility and entrepreneurship, and the rapid pace of how these transitions occur in the contemporary knowledge-based economy provides a fertile environment for inter-disciplinary discourse and scientific inquiry. RSA Europe's Socio-Spatial Dynamics Summer College 2019 aims to coach students and early career researchers to collaborate and work across disciplines in order to tackle these and related, societal challenges.

Main objectives

- To develop new networks beyond economic geography and regional disciplines
- To explore collaborations at the intersection of disciplines
- To push the frontier of scientific inquiry in one field by incorporation of ideas and theories from others
- To connect young talented researchers from various disciplinary backgrounds
- To offer participants valuable networking opportunities with peers and also with course tutors
- To offer participants training in methods and skills and the opportunity to discuss and develop their understanding of, and contribution to, theoretical advancement
- To encourage and pursue the development of future leading researchers

Program

Welcome reception – Monday, 2nd September

18:00 Aperitivo at Bar *I 4 mori*, Via Corte d'Appello, 37

Day 1 - Tuesday, 3rd September

09:30 Kick-Off - Welcome delivered by organizers

09:45 Ice-Breaker Session

10:45 *Coffee Break*

11:00 Riccardo Crescenzi - Regional Innovation, Skills and Public Policy

12:00 Marte C. W. Solheim - Diversity and Innovation: Barriers and Opportunities

13:00 *Lunch and Poster Session*

14:00 Frederick Guy - Problems of skill

15:00 *Coffee Break + Break-Out Group Presentation & Discussion Session*

17:30 End

20:00 Summer College Dinner - *FronteMare*, Poetto, Cagliari

Day 2 - Wednesday, 4th September

10:00 Andrea Salvatori – The future of work

11:00 *Coffee Break*

11:30 Elvira Uyarra - Policy entrepreneurship for regional path creation

12:30 *Lunch*

14:00-18.00 *Entrepreneurship at UniCA*

this session takes place at CREA, the Centre for Innovation and Entrepreneurship of the University of Cagliari
(the centre is a five-minute walk from the Summer College venue)

14:30 Maria Chiara Di Guardo - Knowledge, innovation and entrepreneurship: opportunities and challenges

15:00 Michela Loi, Maria Chiara Di Guardo, Elona Marku - Creativity Lab

16:30 *Coffee Break*

16.45 Creativity Lab - continues

18:00 End

Day 3 - Thursday, 5th September

09:30 Andrea Morrison - Migration & Innovation from a Historical Perspective

10:30 Ernest Miguez - Highly Skilled and Well-Connected: STEM Migration and the Global Economy

11:30 *Coffee Break*

12:00 Stefano Usai - Sardinia economy and the two case studies of Tiscali and Saline Conti Vecchi

13:00 *Lunch*

14.00-15.30 Visit to Tiscali Open Campus

16.00-18.00 Visit to Saline Conti Vecchi

18.30 Back to Cagliari

Day 4 - Friday, 6th September

10:00 Are we asking the right questions? (SC Instructors)

10:45 Group Discussion - Priority List Development

12:00 Career and Publishing Session – Dieter Kogler, Sabrina Lai, Ernest Miguez, Stefano Usai

12:45 Collect Feedback - Dieter Kogler and Klara Sobekova

13:00 Farewell

2019 RSA Europe Summer College Instructors

- Riccardo Crescenzi, London School of Economics, UK
- Maria Chiara Di Guardo, University of Cagliari, Italy
- Frederick Guy, Birkbeck, University of London, UK
- Dieter F. Kogler, Spatial Dynamics Lab, UCDublin, Ireland
- Sabrina Lai, University of Cagliari, Italy
- Michela Loi, University of Cagliari, Italy
- Elona Marku, University of Cagliari, Italy
- Emanuela Marrocu, CRENoS, Università di Cagliari, Italy
- Ernest Miguelez, University of Bordeaux, France
- Andrea Morrison, Utrecht University, Netherlands
- Alessandro Plaisant, Università di Sassari, Italy
- Andrea Salvatori, OECD
- Marte C. W. Solheim, University of Stavanger, Norway
- Stefano Usai, CRENoS, Università di Cagliari, Italy
- Elvira Uyarra, University of Manchester, UK



Riccardo Crescenzi

London School of Economics, UK

Prof Riccardo Crescenzi is (Full) Professor of Economic Geography at the London School of Economics where he is also affiliated with the Centre for Economic Performance (CEP) and the Spatial Economics Research Centre (SERC). Riccardo is the current holder of a European Research Council (ERC) Starting Grant, one of the most competitive research funding schemes in Europe. He is also an Associate at the Centre for International Development (CID) at the Harvard Kennedy School of Government, Harvard University. He has been a Visiting Scholar at the Harvard Kennedy School of Government's Taubman Centre, at the University of California Los Angeles (UCLA) and a Jean Monnet Fellow at the European University Institute (Florence). Riccardo has provided academic advice to, amongst others, the European Investment Bank (EIB), the European Parliament, the European Commission (DG Regional Policy), the Inter-American Investment Bank (IADB), the Organisation for Economic Co-operation and Development (OECD) and various national and regional governments. Riccardo is the 2016 recipient of the Talented Young Italians Award for 'Research and Innovation' "in recognition of his outstanding research accomplishments" and the 2017 recipient of the Geoffrey J.D. Hewings Award from the North American Regional Science Council for "outstanding contribution to Regional Science Research". His research is focused on Regional Economic Development and Growth, Innovation, Multinational Firms and the analysis and evaluation of European Union development policies.



Maria Chiara Di Guardo

University of Cagliari, Italy

Maria Chiara Di Guardo is Full Professor of Innovation Management and Organization Studies at the University of Cagliari (Italy). She also holds the position of Vice-Rector for Innovation, Director of the CREA – Center for Innovation and Entrepreneurship Activities at the same university. She earned her PhD in Business Economics from the University of Catania (Italy) in 2003. Di Guardo's research has focused on how to organize efficiently the innovation process as well as the relationship between innovation and entrepreneurship. More specifically, her studies have fostered and challenged a better understanding of how innovation and entrepreneurship can create development opportunities in areas with scarce entrepreneurial vocation. She has published a number of research articles for high standing international journals including, Research Policy, Journal of Business Research, International Small Business Journal, Journal of Technology Transfer, Small Business Economics, Long Range Planning, Strategic Organization, Science and Public Policy, The Service Industries Journal,

Management Research. She is also the author or coauthor of books related to innovation management and entrepreneurship.



Frederick Guy
Birkbeck, University of London, UK

Frederick Guy is Senior Lecturer in the Department of Management of Birkbeck, University of London. He received his BS in Political Economy of Natural Resources from the University of California at Berkeley; worked for twelve years as a manager, consultant, and company director in consumer cooperatives in grocery retailing, wholesaling, and housing; received his PhD in Economics from the University of Massachusetts, Amherst; and spent two years at the Centre for Business Research at Cambridge University, before joining Birkbeck. His book *The Global Environment of Business* is published by Oxford University Press. His current research deals with the effects of social insurance on skill formation; the contribution of monopoly and finance to regional economic disparities; and the political economy of the Anthropocene epoch.

Key reading related to my presentation:

- Filippetti, Andrea, and Frederick Guy. 2019. "Labor Market Regulation, the Diversity of Knowledge and Skill, and National Innovation Performance." (*Under Review*). <https://frederickguy.files.wordpress.com/2019/08/filippetti-guy-2019-labor-market-regulation-diversity-of-knowledge-and-innovation.docx>
- Iversen, Torben, and John D. Stephens. 2008. "Partisan Politics, the Welfare State, and Three Worlds of Human Capital Formation." *Comparative Political Studies* 41 (4–5): 600–637. <http://www.people.fas.harvard.edu/~iversen/PDFfiles/Iversen%26Stephens2008.pdf>
- Cappelli, Peter. 2014. "Skill Gaps, Skill Shortages and Skill Mismatches: Evidence for the US." *National Bureau of Economic Research Working Paper Series* No. 20382. <https://doi.org/10.3386/w20382>.



Dieter F. Kogler
Spatial Dynamics Lab, UCDublin, Ireland

Dieter F. Kogler is the co-founder and academic director of the UCD Spatial Dynamics Lab. He is an Associate Prof. in Economic Geography at the School of Architecture, Planning and Environmental Policy at University College Dublin. His research focus is on the geography of innovation and evolutionary economic geography, with particular emphasis on knowledge production and diffusion, and processes related to technological change, innovation, and economic growth. Dr. Kogler is an ERC Starter Grant Holder with the following project title: *Technology Evolution in Regional Economies (TechEvo)*. This is a 5-year, €1.5m research project with the objective to produce a series of economic indicators, models and tools which will enable firms and policy makers, across Europe, to make more informed and better location-based investment decisions to boost innovation and drive regional prosperity; see here for further details. His career path combines professional, education and research experience acquired in Europe, the United States, and Canada within a variety of areas pertaining to the spatial analysis of socio-economic phenomena. He is an Editor of *Regional Studies* and an Editorial Board member of the *Cambridge Journal of Regions, Economy and Society*, both of which are highly regarded top-tier peer-reviewed journals concerned with research on the spatial dimensions of contemporary socio-economic processes. Further, Dr. Kogler is also an editor of the *Economic Geography* book series published by Springer. Since 2014 he is a Board Member (Conference and Events Coordinator) of the *Regional Studies Association (RSA)*, which serves as a global forum for city and regional research, development and policy, as well as an Associate Editor for the RSA's interdisciplinary open access journal, *Regional Studies, Regional Science*. In 2016, he spent a period as a Visiting Professor at the *Centre for North South Economic Research (CRENoS)* at the University of Cagliari and University of Sassari in Sardinia, Italy.



Sabrina Lai
University of Cagliari, Italy

A Civil Engineer, Sabrina received her Ph.D. in Regional and Urban Planning from the University of Cagliari (Italy) in 2009 and her MSc in International Planning & Development from Cardiff University (UK) in 2007. Her research interests and publications focus on environmental planning and relationships between spatial planning and preservation of natural resources at the regional scale, spanning from land-cover/land-use analyses to ecosystem services assessment and its integration into planning, from institutional tools for biodiversity conservation (prominently, natural protected areas and green infrastructures) to environmental assessments. She is presently an officer at the Department for the Environment of the Autonomous Region of Sardinia, and an editor of “Regional Studies, Regional Science” (Early Career Section), the open access journal of the Regional Studies Association.

Key reading related to my presentation:

- About how the EC section started in 2014 Benneworth P., Bradford P., Haselsberger B., Lai S., Porter J. (2013) Editorial. *Regional Insights* 4(2). <https://doi.org/10.1080/20429843.2013.10795992> (Paywall)
- About the benefits of the RSA mentored route to publication in an OA journal Pugh R. (2019) Navigating the world of academic publication as an early career scholar. *Regions e-zine* 4. <https://doi.org/10.1080/13673882.2018.00001043> (Open access)



Michela Loi
University of Cagliari, Italy

Michela Loi is Assistant Professor of Innovation Management and Organization Studies at the University of Cagliari. Her research interests are at the intersection of entrepreneurship, organization and innovation. Mainly, her research focuses on understanding the mechanisms, such as learning, that drive entrepreneurial behaviour in the creation of new business and existing businesses. Topics of interest include organizational learning, entrepreneurial organization, the creation of new businesses and, more generally, the individual-context nexus in the generation of change and innovation.

Key reading related to session *Entrepreneurship at UniCA*:

- Sarasvathy, S., 2001. Causation and effectuation: toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review*, 26, 243–263.
- Shane, S., Venkataraman, S., 2000. The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25, 217–226.



Elona Marku
University of Cagliari, Italy

Elona Marku is Assistant Professor of Strategy at the Department of Economics and Business, University of Cagliari. She holds a Ph.D. in Economics and Business awarded with the Doctor Europaeus label, and an M.Sc., cum Laude, in International Management from the same university. She also was visiting scholar at Columbia Business School (Columbia University, NYC) and Cass Business School (City, University of London). Her research focused on the strategic management of technology and innovation and the implications of these for firm performance. Current projects investigate the dynamics related to digital transformation and the diffusion of emerging technologies (i.e., Blockchain) at the industry level. She has published in peer-reviewed journals such as *Journal of Technology Transfer*, *Scientometrics*, *Journal of Management and Governance*, and *Technology Analysis and Strategic Management*. She also co-authored several book chapters and conference proceedings.



Emanuela Marrocu
CRENoS, Università di Cagliari, Italy

Emanuela Marrocu is Full Professor of Econometrics at the Department of Economics and Business, University of Cagliari. She is Director of the Centre for North South Economic Research (CRENoS), University of Cagliari and University of Sassari. She attained her PhD in Economics from the University of Warwick (United Kingdom) in 2000. Her main research fields are: spatial econometrics and time series econometrics; productivity analysis at regional and firm level; determinants of knowledge diffusion and innovative performance;

tourism economics.



Ernest Miguelez
University of Bordeaux, France

Ernest Miguelez is research fellow (Chargé de Recherche) at the French National Centre for Scientific Research (CNRS), attached to the GREThA – UMR CNRS 5113, University of Bordeaux. He received his PhD from the University of Barcelona in 2013. Before joining the GREThA – UMR CNRS 5113, he held a Research Economist Position at the Economics and Statistics Division of the World Intellectual Property Organization, a UN specialised agency based in Geneva. He is also visiting fellow of the Regional Quantitative Analysis Research Group (AQR-IREA) and external research fellow at the Centre for Research and Analysis of

Migration (CREAM). He has also spent time as a Visitor at the University of Manchester, the Kiel Institute for the World Economy, Bocconi University, the Rotman School of Management (University of Toronto), and the University of Melbourne. He currently runs the ANR's funded project TKC, which includes a workshop series on Migration, Globalization and the Knowledge Economy. From 2015 to 2018, he acted as Early Career Editor of Regional Studies. His research interests cover economic geography, innovation economics, migration, patent data and intellectual property.

Key reading related to my presentation:

- **Foreign inventors in the US:** article - <https://academic.oup.com/joeg/article-abstract/17/5/1009/2888532?redirectedFrom=fulltext> ; working paper - <http://cahiersdugretha.u-bordeaux4.fr/2015/2015-25.pdf> ; blog - <https://voxeu.org/article/migrant-inventors-america-evidence-spillovers>
 - **Highly skilled and well connected: Migrant inventors in Cross-Border M&As:** article - <https://link.springer.com/article/10.1057%2Fs41267-018-0203-3> ; working paper - <http://cahiersdugretha.u-bordeaux4.fr/2019/2019-03.pdf>
 - **Migration, knowledge diffusion and the comparative advantage of nations:** article - <https://onlinelibrary.wiley.com/doi/abs/10.1111/ecoj.12450> ; blog - https://scholar.harvard.edu/files/dbaharc/files/br_migration.pdf
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Andrea Morrison
Utrecht University, Netherlands

Andrea Morrison is currently Marie-Curie Fellow at the Department of Management and Technology, Bocconi University and Associate Professor at Utrecht University. His research interests lie in the areas of evolutionary economics, innovation studies, economic geography and economic development. He has investigated extensively topics like system of innovation, industrial clusters, knowledge networks, global value chain and

geography of science. More recently he turned his attention to international migration as driver of innovation and technological diversification.

Key reading related to my presentation:

- Abramitzky, R., & Boustan, L. (2017). Immigration in American economic history. *Journal of economic literature*, 55(4), 1311-45.

- Akcigit, U., Grigsby, J., & Nicholas, T. (2017a). Immigration and the rise of american ingenuity. *American Economic Review*, 107(5), 327-31.
- Kerr, W.R., Lincoln, W. F. (2010). The supply side of innovation: H-1B visa reforms and US ethnic invention. *Journal of Labor Economics*, 28(3), 473-508.
- Kerr, Sari Pekkala, William Kerr, Çağlar Özden, and Christopher Parsons. 2016. "Global Talent Flows". *Journal of Economic Perspectives*, 30 (4): 83-106.
- Lissoni, F. (2018). International migration and innovation diffusion: an eclectic survey. *Regional Studies*, 52(5), 702-714.
- Morrison, A., Petralia, S., & Diodato, D. (2018). Migration and invention in the age of mass migration (No. 1835). Utrecht University, Department of Human Geography and Spatial Planning, Group Economic Geography.



Alessandro Plaisant

Universita di Sassari, Italy

I'm an associate professor of the Department of Architecture, Design and Urban Planning, the University of Sassari, where I teach Urban Planning and Analysis of urban systems. I held a Ph.D. at the University of Cagliari, after spending eight months as a fellow at the School of Anthropology, Geography and Environmental Studies, the University of Melbourne, focusing my research on decision-making processes in public policymaking, strategic planning, policies and pluralism-oriented tools. I combine my research activities with higher education, international and institutional cooperation activities, as director of the II level International Master's Program "Advanced Methods and Tools for Sustainable Planning", developed in academic cooperation with Harbin Institute of Technology and as scientific coordinator of the activities planned for the funded national call "extraordinary Program of intervention for urban redevelopment and security of the metropolitan suburbs", specifically in Sant'Avendrace district, the Municipality of Cagliari (Sardinia, Italy). Among my recent publications: Urban regeneration of peripheral areas: the critical role of the connective space in an Italian city. (*Aa.Vv*) *Urban Design Journal*, 2018; Planning for S.M.A.R.T. development: a bottom up approach to lead knowledge-based tourism development in low density rural districts (*Aa.Vv.*), *INPUT*, 2016.



Andrea Salvatori

OECD

Andrea Salvatori is currently a Labour Economist at the OECD. Andrea completed his PhD studies in Economics at the University of Warwick in 2009, where he was an EST Marie Curie Fellow and a Teaching Fellow. He was then a Research Fellow at the Institute for Social and Economics Research (ISER) of the University of Essex until 2017. His research is in Applied Microeconometrics and Labour Economics. He has conducted research on job quality, the effect of technology on the labour market, unions, temporary employment, the wellbeing effects of employment protection legislation, the effects of the minimum wage on the job entry probability of the unemployed, the effect of welfare reforms on labour market participation in the UK.

Key readings related to my presentation:

- OECD (2018), *Job Creation and Local Economic Development 2018: Preparing for the Future of Work*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264305342-en>.
- OECD (2019), *OECD Employment Outlook 2019: The Future of Work*, OECD Publishing, Paris, <https://doi.org/10.1787/9ee00155-en>.
- OECD (2018), *Productivity and Jobs in a Globalised World: (How) Can All Regions Benefit?*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264293137-en>.
- OECD (2018), *Job Creation and Local Economic Development 2018: Preparing for the Future of Work*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264305342-en>.
- The Future of Work page at the OECD: <https://www.oecd.org/employment/future-of-work/>



Marte C. W. Solheim

University of Stavanger Business School, Norway

Marte C. W. Solheim is a Postdoctoral researcher in studies of Diversity and Innovation at the Centre of Innovation Research, UiS Business School, University of Stavanger, Norway. She carries out research on diversity (foreign workers, diversity in experience) and innovation, combining insights from organizational theory and innovation studies with that of economic geography. For more information, please see: Personal [University website](#) or her [researchgate-profile](#)

Key reading related to my presentation:

- Fostering innovation through workplace diversity: <https://regions.regionalstudies.org/ezine/article/fostering-innovation-through-workplace-diversity/>
- Foreign Workers Are Associated with Innovation, But Why? International Networks as a Mechanism <https://journals.sagepub.com/doi/10.1177/0160017615626217>
- One of my passions in my job is also research dissemination, and besides a bit off topic my presentation at the Summer School, I also recommend this piece that I wrote for the London School of Economics Impact Blog: <https://blogs.lse.ac.uk/impactofsocialsciences/2018/11/28/disseminating-your-research-does-carry-risks-and-can-leave-you-vulnerable-but-it-is-vital-to-developing-the-courage-to-use-your-voice/>



Stefano Usai

CRENoS, Università di Cagliari, Italy

Stefano Usai is a full professor of Applied Economics at the University of Cagliari and a researcher of CRENoS (Center for North-South Economic Research). He is currently the Dean of the Faculty of Economics, Law and Social Sciences. He graduated in Political Science, majoring in Economics, at the University of Cagliari, then received the M.A. in Economics and the Mphil in Industrial and Business Studies at the University of Warwick and later the Ph.D. in Economics at the University of Naples. His research focus is on regional economic development and growth, with special emphasis on knowledge production and diffusion, and processes related to technological change, innovation and structural change. Current projects include topics on green innovation, dynamics of regional specialization in European and Italian regions and international and interregional trade. He is Associate Editor of Regional Studies.



Elvira Uyarra

University of Manchester, UK

Elvira Uyarra is Reader in Innovation Policy and Strategy at Alliance Manchester Business School (University of Manchester) where she is also director of the Manchester Institute of Innovation Research and program director of the MSc in Innovation Management and Entrepreneurship. She is also Professor II at the Mohn Center of Innovation and Regional Development at the University of Western Norway. Elvira's research activities center on: regional science and innovation policy; spatial dimensions of knowledge and innovation; evolutionary approaches to public policy, universities and regional development, and the innovation impact of public procurement. Elvira is a Fellow of the Regional Studies Association and Chair of the North West of England branch of the RSA.

Key reading related to my presentation:

- Public procurement, innovation and industrial policy: Rationales, roles, capabilities and implementation
 - Author links open overlay panel – ElviraUyarra, Jon Mikel Zabala-Iturriagoitia, Kieron Flanagan, EdurneMagro <https://www.sciencedirect.com/science/article/pii/S0048733319301635?dgcid=coauthor>
 - Towards a comprehensive understanding of new regional industrial path development - Robert Hassink, Arne Isaksen & Michaela Trippel - <https://www.tandfonline.com/doi/full/10.1080/00343404.2019.1566704>
- Rethinking Path Creation: A Geographical Political Economy Approach - Danny MacKinnon, Stuart Dawley, Andy Pike & Andrew Cumbers - <https://www.tandfonline.com/doi/full/10.1080/00130095.2018.1498294>

Book of abstracts

Jhono Bennett

University of the Witwatersrand, South Africa

SPATIAL NARRATIVES OF A POST-POST-APARTHEID CITY A SOUTHERN URBANIST EXPLORATION OF SPATIAL IMAGINARIES THAT INFLUENCE CITY MAKING IN JOHANNESBURG

Key words: reflective praxis, visual methods, spatial narrative, southern urbanism, emergent practice

Since the state-controlled regime of Apartheid to South Africa's current democratic epoch; various collective imaginaries (such as the New South Africa, Post-Apartheid and now Post-Rainbow Nation) have been used to capture and drive the different socio-political eras of the country. In regard to the current political shifts of power, the growing depth of the urban youth voice and a firmly established uncertainty in the nation's direction; the author aims to use the working term of a post-post1-Apartheid city to frame an engagement with the ever shifting horizons of South Africa's urban future. This term will be explored through a series of grounded, positionally reflective and visually driven explorations of narrative based imaginaries related to Joburg's inner-city. This initial inquiry will focus on a set of situations that occur across the city and speak to concepts of spatial justice through design research and a Southern Urbanist framing of 'city-making'. The author is driven by creative and speculative forms of research and will be navigating the dissertation through a carefully structured and reflexive approach to the research question that will be guided by contemporary feminist principles of intersectionality and situatedness. The broader research will explore the relationship between these situated imaginaries and the various city-making forces that guide not only the future of Joburg's inner-city but perpetuate the broader stigmas of South African spatial inequality.

Alexandra-Maria COLCER

GEOPOLITICS OF ROMANIA. CASE STUDY – BLACK SEA AND ITS ENERGY POTENTIAL

- Alexandra-Maria COLCER, Babeş-Bolyai University Cluj-Napoca, Faculty of Geography, Romania
- Ioan-Aurel IRIMUŞ, Professor, Babeş-Bolyai University Cluj-Napoca, Romania

The Pontic region was always important and it's important now, representing today the neuralgic point of the Eurasian geopolitical macro-system, or in other words, the place where some regional geopolitical systems intersect. The Black Sea has always been an essential link on the axis of the seas (Caspian Sea - Black Sea - Mediterranean Sea) contributing to the configuration and reconfiguration of regional geopolitical systems: sedentary versus nomadic in the prehistoric period and in the dawn of antiquity, Greco-Roman equation in Antiquity, Byzantine-Turkish, later Ottoman in the Middle Ages, Ottoman-Russian, Soviet-Western (NATO) during the communist period, the current regional configuration becoming more complicated.

The aim of this paper is to highlight the strategic importance of Romania as a nation state and as a member of various international organizations, and especially Black Sea, which is an area that focuses all the interests of the great international players. Moreover, the key moments of the geopolitical evolution of Romania starting with the second half of the 20th century until now will be discussed. Another objective is to analyze the strategic valence of the Black Sea with a special focus on the oil and gas production and the offshore exploitation, given the fact that our country is one of the oldest oil and gas producers in the world. Considering the qualitative aspects, the methods that we used were: analysis, synthesis, inductive and deductive ones, which helped us to understand how the geographic position of Romania influenced regional stability. The results of the study are emphasizing the importance of being one of the Black Sea's riveran countries and how those aspects affected the development and stability of the country.

Zsolt Csáfordi

INTER-FIRM LABOR MOBILITY NETWORKS AND INTRA-INDUSTRY PRODUCTIVITY DIFFERENCES. EMPIRICAL RESULTS AND AN AGENT-BASED MODEL

- Lőrincz, László - Institute of Economics, Centre for Economic and Regional Studies, Hungarian Academy of Sciences, Tóth Kálmán utca 4, 1097 Budapest, Hungary; Corvinus University of Budapest, Fővám tér 8, 1093 Budapest, Hungary

- Csáfordi, Zsolt - Erasmus University Rotterdam, Burgemeester Oudlaan 50, 3062 PA Rotterdam, The Netherlands
- Kiss, Károly Miklós - Institute of Economics, Centre for Economic and Regional Studies, Hungarian Academy of Sciences, Tóth Kálmán utca 4, 1097 Budapest, Hungary; University of Pannonia, Egyetem u. 10, 8200 Veszprém, Hungary

Acknowledgements:

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Abstract

Why are productivity differences maintained between firms in the same industry? Labor mobility is a means of knowledge spillovers between firms, and is particularly intense between firms of the same industry. Therefore we examine how the intensity and structure of labor mobility between firms is associated with the productivity dispersion of industries. We use econometric analysis of the Hungarian administrative and firm data in 2003-2011 on labor mobility and productivity dispersion in the first part of the paper. In the second part we present an agent-based model of labor mobility, and analyze the simulated results for better understanding the mechanisms driving the examined relationship.

We show empirically that labor mobility within industries is associated with the change in industries' productivity dispersion. However, it is not the magnitude of the mobility, which balances productivity differences, but a dense network involving the firms is necessary for this. We analyze the role of modularity, and find that in case of a highly modular network, intense labor mobility decreases the productivity dispersion.

To better understand the dynamics of this process, we developed an agent-based simulation model corresponding to empirical evidence on productivity spillovers through labor mobility and existing search-and-matching models. When comparing the simulations with different parameters, we find that increased switching costs are associated with decreased intensity of labor mobility and density of the network, and increased equilibrium level of productivity dispersion. To separate the effect of intensity of labor mobility and the characteristics of the labor mobility network, we run panel regression estimations within the simulations. Results confirmed our empirical analysis that the increased density of the network is necessary to decrease productivity dispersion. However, these regressions did not confirm our empirical results considering the modularity of the network. Note, that in these regressions we analyzed the outcomes within the same simulation (using fixed-effects). Therefore the results are based on fixed switching cost levels, and reflect only effects due to the dynamic changes of the mobility networks. If we consider the different level of labor mobility as a proxy for switching costs in our empirical analysis, than not the regressions within the simulations, but the cross-sectional comparison of simulations with different switching cost level corresponds to it.

Although our results are consistent on the effect of the labor mobility on productivity dispersion, we do not analyze, which factors influence mobility exogenously, or to put another way, what are the elements of the switching costs, we are analyzing. Firm specificity of human capital, uncertainty about the knowledge spillovers, or geographical distribution of the firms are candidates for this, however, future research is necessary on examining the role of these factors.

On the other hand, our research may have direct implications on regional policy, as we show that a dense network structure between firms as an important factor of regional knowledge spillovers. Analysis of this phenomenon in a regional policy context is also an aim of the authors in the Central-Transdanubia Region of Hungary.

JEL codes: D22, J24, J60, M51

Dmitry Gladyrev

Ural Federal University, Russia

POLLING STATIONS DATA AS A TOOL TO MEASURE PARTIES AND ELECTORATE

The first research is focused on the synchronized elections for parties and individuals (who represent one of the parties). People do not always vote for the candidate from the same party as they vote in the list of parties. Sometimes voters do not know about affiliations of candidates or ignore it, but the research tries to find and measure other possible reasons. Simple comparison of percentage of votes for party and candidate doesn't provide much information, so we can make an econometric model to find additional information. For this purpose, the results of polling stations can be used. Percentage for the candidate is taken as dependent variable and percentage for the party is taken as independent variable. The analysis of econometric coefficients and indicators of the model allows to measure candidates' connections with their parties: how they are associated with each other (using R-squared), how dependent on each other (alpha) and who has more power (beta). All effects are illustrated with the data of elections in Yekaterinburg and Moscow. These results can be used for post analysis of any elections, forecasting and understanding psychology of voters.

The second research is focused on the fact that most of polling stations in Russia are situated in schools. Students in these schools usually represent families that live nearby. Lists of voters in polling stations are usually formed in similar way. We can conclude that generally voters in polling stations and students in respective schools represent the same families. It allows to make an econometric model how mean state exam results in schools are connected with results of different parties in polling stations that placed in these schools. Such model was made using results of elections to Ekaterinburg city parliament in 2018. The research found that voting results in polling stations have a significant connection with results of state exam in perspective schools.

Melissa Haller

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TRACING EMPLOYMENT MOBILITY AFTER ECONOMIC DECLINE: THE CASE OF ROCHESTER, NY

As manufacturing and mature industries have declined across the United States and elsewhere in the world, there has been a continued focus on the rise of new, innovative industries. Yet, innovative activity is increasingly concentrated in a small number of cities, often at the expense of old industrial regions. As both firms and young, highly skilled workers are drawn to large economic centers, can cities in decline maintain their economic viability? While evidence suggests that workers often move away from declining cities to seek employment opportunities elsewhere, fewer studies examine the individual characteristics of these mobile workers. This information is crucial to understanding the impact of worker mobility on struggling regions. To bridge this gap, I use patent data to study the movement of innovative workers after firm decline, focusing on the case study of Rochester, NY, a region whose largest employer has laid off hundreds of innovative workers in recent years. I ultimately find that workers who are more productive, more experienced, and who produce more diverse technologies are most likely to move in the face of firm decline. While many workers move to work for patenting firms in other cities, some workers also move to maintain their role in the declining firm, suggesting that movement is both a response to potential displacement and a strategy to avoid redundancy. Because the most innovative workers are the most mobile, declining levels of human capital may pose challenges as Rochester and cities like it try to attract new development.

Kitonsa Haula

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ECONOMIC APPLICATION OF DRONE TECHNOLOGY IN AGRICULTURAL SECTOR IN SUB-SAHARAN AFRICA, (A CASE STUDY OF EAST AFRICA)

As the world is heading forward with further deep in digitalization, all sectors of the economy are forced to digitalize their respective functions so that they cope up with the technological transformation. Among the sectors include Quaternary, Primary, Tertiary and Secondary of which each sector is trying to digitalize its activities. The focus of this

research is on the primary sector which consists of Agriculture. Digitization has led to the adoption of precision agriculture in developed countries including Japan, USA, India and China among others. These countries have found a way to integrate technology in agriculture. Among the technology include the drone technology whose demand is rapidly increasing due to its enormous applications and it originally gained its foothold in combat zone as a weapon for military purposes. This technology has proved to be applicable in almost all stages of agriculture. Since the economies in sub-Saharan Africa highly depend on Agriculture for their existence, this research is aimed at designing a model in which drone technology can be easily integrated in the traditional agricultural processes in the sub-Saharan Africa in a cost effective way without causing a panic and employment to the local farmers but instead solve some problems affecting the agricultural process and also increase on the productivity and quality of produce. To do that, an analysis ought to be done on the existing drone regulations in sub-Saharan African compared to the countries which have already been successful in integrating drone technology in their Agricultural sector. A comparison ought to be conducted on of agricultural practices used in sub-Saharan African countries with the most advanced countries in Agricultural digitalization including India, Russia, USA, Japan and China. This comparison will provide a clear understanding of the stages at which various countries adopted drone technology evaluating the impact and challenges faced. The main aim of this research is to design an agricultural model, basing on the data gathered so as to integrate drone which are cost effective at the right stage under favorable rules and regulations that fully grant the desired effective exploitation of the technology in sub-Saharan Africa (East Africa).

Naomi Prachi Hazarika

National Institute of Educational Planning and Administration (NIEPA), India

URBAN MARGINALITIES, EDUCATIONAL ASPIRATIONS AND SOCIAL POLICY: AN ETHNOGRAPHIC INQUIRY

Urban marginalities, educational aspirations and social policy are three seemingly unrelated words that converge at the basic understanding of the urban margins in the form of slums, unauthorised colonies and "jhuggi-jhopdi" clusters, as geographical spaces within the city that house individuals who suffer from multidimensional deprivations due to their marginalized status. This marginalized status, along with existing socio-economic disadvantages, accrues from the space that they inhabit within the city and the land where they reside, as they negotiate their rights and freedoms as urban citizens. It represents how lived experiences from a slum in the city differ wildly from that of a posh residential enclave. These differences are in the way individuals live; how one claims rights to basic amenities such as health, education or sanitation that are constitutive of the aims of social policy.

Moreover, in the context of the urban margins, education plays an essential role in providing the ladder required to achieve social and upward mobility. Since it is in the case of the urban margins where the ghettoization of populations takes place, studying the role of education in helping individuals secure away out and achieve upward mobility becomes a central issue when it comes to ensuring an equitable notion of urban citizenship.

Using ethnographic methods, I ask the question of how spaces of urban marginalities can act as a geographical disadvantage that ultimately functions as a barrier to the educational aspirations and post-school pathways for young students living in the urban margins.

Broadly, the core of this lies in the question of whether geographical disadvantages overlap with educational aspirations and post-school pathways available for students. I also locate the spatial distribution of skills as part of this study and geographically situate it in the city of New Delhi, India with a focus on a site of urban marginality-Sangam Vihar: classified as an 'Unauthorized Colony'.

Within this study, I look at post-school aspirations in two sites in Sangam Vihar- an all girl's government school located in the colony and a private spoken English academy called 'Freedom English Academy'.

Keywords: Urban Marginalities, Education, Post-School Aspirations, Upward Mobility

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MOTIVATIONS AND BARRIERS OF COMPANIES FOR SHIFTING TOWARDS CIRCULARITY

Since 2014, the Grand Duchy of Luxembourg's national policy aims at transitioning the national economy from a linear to a circular model. The fundamental objective of the circular economy is to reduce the consumption of natural

resources (e.g., fossil fuels, land, water, and minerals) by optimising the energy and material flows within a system. In a circular economy, the value of products, materials, and resources maintains as long as possible, and waste is significantly reduced or even eliminated. By definition, moving towards a circular economy requires radical and significant changes in design, production, distribution, consumption, use, waste and reuse practices.

So far, policy in Luxembourg deals with essential domains of a circular economy, as are energy consumption, waste management, and material efficiency (collectively, 'resource efficiency') – but not specifically with the circular economy. Besides, how the different socio-economic actors in the country deal with the political vision of a circular economy is still unknown. Therefore, the research aims at analysing the effectiveness of the circular economy policy in Luxembourg by studying institutions and practices in businesses. In this way, the approach follows authors who claim for the systematic inclusion of institutions into the analysis of policy effectiveness. The hypothesis assumes that institutions explain sectoral differences in the efficacy of circular economy policies, understanding institutions as stable patterns of interactions based on legitimate mutual expectations and correlated interaction (Bathelt and Glückler, 2014:340). Thusly, institutions serve as a moderator between the micro-level of social interaction, the practices and the macro-level of normative orders, regulations (Glückler and Lenz, 2016). Both levels affect the formation and change of institutions while at the same time being affected by them.

The research follows a qualitative research approach, including 16 exploratory and 50 semi-structured expert interviews with representatives from the building sector and automotive supply firms. The preliminary results put forward the interdependence of the actors' perception of what would mean a circular economy model for Luxembourg. They also reveal the firm's specific role in this system. The decision of a business actor to implement a circular economy practice depends primarily on its return on investment, the general regulatory pressure and the maturity of the industry and the company. In general, the hindrance for circularity is not the absence of a technological or technical solution. Besides, the maturity of the firm given its awareness for concepts like the circular economy, sustainable development, or sustainability shapes its vision for the future in this field actively. As a push for action, interviewees suggested a regulatory framework for circularity.

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Ellen Hughes

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FOOTLOOSE? DESIGNERS' MIGRATION AND CAREER TRAJECTORIES INTO BRISTOL, UK

Creative workers, theorised as instrumental in urban economic development, are claimed to be footloose: migrating regularly to cities that cater to their lifestyle preferences, and where they can live unfettered by strong familial ties. Creative career trajectories are also theorised as highly mobile, with creative workers moving between occupations and industry sectors, making no lifelong commitment to a single profession. Although heavily theorised, little has been published on the sequential migration routes of creative workers, or their career trajectories across the lifespan. My PhD study addresses this gap. Taking a biographical perspective, the research draws upon qualitative data gathered from in-depth interviews with 65 designers in the city of Bristol, UK. The research maps designers' migration and occupation trajectories within their historical, political and social contexts, with a focus on the connection between early life experiences (from birth until university age) and later occupation and migration outcomes. Contrary to theory, findings show careers in design are rooted in childhood and are steadily maintained across the lifespan. For the majority—males from prosperous middle-class backgrounds – family of origin provided on-going support into adulthood, contributing financial, housing and moral support as designers engaged in post-graduate education, unpaid internships, low-paid employment and business start-ups. Four migration trends were identified. Firstly, migration rates over the life-span were low and migration was mainly regional. Secondly, many interviewees made yo-yo migrations away from and then returning to an anchor place or region, the anchor place being often the interviewee's birthplace. Thirdly, a move was commonly made soon after the formation of a family. This move was motivated by a desire to recreate elements of the interviewees' own childhoods in that of their children. Fourthly, gendered patterns

of migration were evident: females made tied migrations at the expense of their own careers. In addition, migration and occupation trajectories were also impacted by the economic climate, and the differing cultures of art and design teaching within higher education establishments. This research extends knowledge of creative worker migration in the UK; questions policies based on the theorised migration trends of creative workers; and highlights that in addition to careers in design, individuals and households are also conducting careers on the housing ladder, careers as parents, and are working to maintain their family's social position. Migration, as a strategy serves these multiple aims.

Ryan Hynes

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OK COMPUTER: THE CREATION AND INTEGRATION OF AI IN EUROPE

This paper investigates the creation and integration of Artificial Intelligence (AI) patents in Europe. We create a panel of AI patents over time, mapping them into regions at the NUTS2 level. We then proceed by examining how AI is integrated into the knowledge space of each region. In particular, we find that those regions where AI is most embedded into the innovation landscape are also those where the number of AI patents is largest. This suggests that to increase AI innovation it may be necessary to integrate it with industrial development, a feature central to many recent AI-promoting policies.

JEL: O33, O31, R11

Keywords: Artificial Intelligence; Geography of Innovation; Knowledge Space; Technological Change; Regional Studies

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LABOUR EXPLOITATION IN HAND CAR WASHES

This poster presentation outlines the key findings of research conducted on labour exploitation and modern slavery in the UK's hand car wash (HCW) sector. Recent investigations and reports on HCW activities in the UK have unearthed a host of labour, employment, health and safety, and environmental violations. One area that has been subject to increasing scrutiny is the exploitation of workers in these operations, as press coverage and investigations by enforcement and regulatory bodies have identified numerous labour exploitative practices. In an age of technological advances, such labour intensive operations are fuelled largely by an abundant low-skilled workforce. They are often described as operations run by migrants for migrants, allowing low-skilled migrant workers the opportunity to earn an income to improve their livelihood opportunities. Reportedly, while some workers are victims of labour and employment violations, others are exploited and forced into modern slavery. The lack of data on this sector creates a challenge in assessing the incidence rate of labour exploitation within HCWs. Further, HCWs are a difficult area to investigate as the topic raises ethical and practical challenges, particularly when engaging with vulnerable workers. It is therefore difficult to assess the number of HCWs existing in the UK, their business models, and the conditions of the workforce employed. The present research was designed to progress understanding of labour exploitation in the HCW sector by investigating the nature and prevalence of unlawful labour and employment practices and the challenges and approaches to tackling exploitation and slavery. The research involved a review of existing academic and grey literature, in combination with new data from police authorities and key stakeholders. The research found that the growth of unregulated HCWs in the UK is indicative of inadequate enforcement of regulations and the normalisation of informal labour and employment practices. Subsequently, the research highlighted that the regulation of the HCW sector requires a smart mix of preventative, educative and enforcement measures to drive compliance and protect vulnerable workers.

Giffona Justinia Hanitravelo

Angers Higher School of Agriculture, France

IMPACT OF DIGITAL TECHNOLOGIES DEVELOPMENT ON FARM PERFORMANCE AND AGGLOMERATION DYNAMICS

In 1950, French farmers had more than 1 million of tractors (Auroi, 2016), this was the debut of the mechanization in France. In addition to that, at the same time, policies and all the progress done in others fields like the chemical, informatic contribute to change the structure and the organization of farmers. Indeed, they became more organized, specialized and agglomerated. Through the literature, searchers assessed four advantages for firms to be in agglomeration: natural factors, transport cost, work market and knowledge spillovers. For the last one, we can illustrate this by the presence of high-tech firms in Silicon Valley which is explain by all the talents in IT peoples that provides a unique environment where knowledge diffuse and revolve the most. So consequently, digital technologies have a big impact on knowledge spillover and can make an impact on the sector agglomeration. In agriculture, the sector was already proven to be agglomerated (Ben Arfa, 2011; Gagné et al., 2012; Roguet et al., 2015). This is important to us because, the others side of the agglomeration is that there is a cost for the agglomeration and in agriculture, it's environmental issues due to the pollution attribute to the activity. So, famers are once again turn to the technologies to improve the production but not the environmental impact and the last decades, the last big innovation is the digitals technologies. Indeed, digitals are transforming all sectors in the word. Some sectors like music, education, transportation, have already begun their transformation and actually agriculture has a real opportunity to solve many issues by the digital revolution. One of the most anticipates effect of numeric is the liberation of human beings and firms from distance; some may call it the "death of distance". Indeed, in late 80' and in the beginning of 90', many researches had predicted the 'death of distance' (Cairncross, 1997; Moriset and al., 2012) and nowadays, we can't deny that with the digital revolution, sectors are more and more global and firms are more and more multinationals. Because agriculture have already a negative environmental impact so the aim of the research is to know if the digital technologies will accelerate or not the agglomeration phenomenon. By doing so, we studied the impact that digital can have in a farmer's agglomeration. First, we develop an agglomeration model based on Carl Gagné (2012) and Thisse (2001) models. Then we introduced these impacts identified bellow in the model. After that, we estimate the model empirically and we find out that digital technologies seem to not have a direct impact on the production, but more likely, the improvement is done by the knowledge spillovers between farmers in the locality permit by those technologies. For future researches, we would like to verify if this is also the case for environmental performances.

Anders Kamp Høst

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THE CAUSAL EFFECT OF PUBLIC SECTOR JOBS ON THE LOCAL ECONOMY - QUASI-EXPERIMENTAL EVIDENCE FROM A LARGE-SCALE STRUCTURAL REFORM IN DENMARK

In recent decades, regional and central governments in Europe and the US have developed an array of place-based policies, such as the (re)location of public sector jobs. The aim is to reverse the economic decline in lagging regions by creating employment opportunities for local residents. The (re)location of public sector jobs is intended to create additional private-sector jobs in the receiving areas, as the demand for locally-produced goods and services increase. However, it may also result in a crowding out or displacement of local private jobs due to general equilibrium effects, including increasing housing prices and local wages. Moreover, the overall effect may critically depend on the supply of land and how public wages are determined.

A large share of relatively low-wage, low-skill jobs in key non-tradable public sectors such as eldercare, primary education, and childcare depends on the local demography and is poorly suited for relocation. In contrast, high-skilled public employees perform either tradable services, such as public administration and support services, or non-tradable services that require a larger population base including legal staff, medical personnel, and higher education institution teaching staff. Moreover, high-skill public sector jobs are highly suited for reallocation.

I exploit the temporal and spatial variation in high-skill public jobs in the public administration, judiciaries and health care due to a major structural reform in Denmark in 2007. I employ a difference-in-differences design with continuous treatment across distance to the location sites of the increase in public sector jobs, as applied by Gibbons et al. (2011) and Faggio (2019). More specifically, I assess whether the change in local high-skill public jobs crowd-in or crowd-out private-sector jobs divided by sectors and skill levels in the 10 year period 2007-016 and hence during the economic turmoil in the aftermath of the international financial crises. I employ high-quality administrative register panel data

maintained by Statistics Denmark encompassing annual geo-coded public and the private employer-employee records for the entire working-age population in the years 1996-2016.

In line with Faggio (2019), I find that an increase in high-skill public jobs increases private-sector employment in the receiving areas. In addition, I find evidence of partial displacement. Private sector firms locate close to the location sites of public sector jobs at the expense of areas at distances between 1 to 50 km further away. In addition, the increase in high-skill public sector jobs seems to reinforce the sectoral change from manufacturing towards services driven by both knowledge-intensive services as well as less knowledge-intensive personal and business services.

Maria Kristalova

PERSISTENCE AND CHANGE OF REGIONAL ENTREPRENEURSHIP ACTIVITIES IN GERMANY

- Michael Fritsch, Halle Institute for Economic Research (IWH), Germany
- Maria Kristalova, Friedrich Schiller University Jena, Germany
- and Michael Wyrwich, University of Groningen, The Netherlands

We study inter-regional persistence and change of entrepreneurship activities in Germany in the 1925-2015 period. We employ a unique data set on self-employment and start-up rates at a regional level throughout the last century and beyond. The results are ambiguous and underpin a stability hypothesis on the one hand, and a change hypothesis on the other hand. We observe a strong path dependency of regional levels of new business formation in some regions, whereas there is pronounced rank mobility of others. We also exploit the division of Germany into two different states after World War II and the re-unification more than 40 years later as a natural experiment and investigate the impact of the different political regimes on persistence and change in the levels of regional entrepreneurship. Using a regional League Table (LT) and a difference-in-difference (DiD) approach, we are also able to quantify the long-run role of the socialist legacy in today's divergence of the regional economic performance.

Our results show that current systematic differences in the performance between East and West Germany didn't exist prior to World War II. However, the socialism treatment effect is not as long-lasting as the public debate often suggests. Instead, we find that the share of manufacturing employment as well as the physical proximity to centers of R&D activities in the beginning of the last century are more effective in the long run and socialism may just have fell on the fruitful ground. Recent R&D activities are also of high importance for both new business formation and self-employment. The results help to a better understanding of why some regions nowadays fall so strongly behind others and underpin the importance of studying the pre-separation history of Germany when considering the research on the re-unification.

JEL classification: L26, R11, O30

Keywords: Entrepreneurship, new business formation, economic development

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GEOGRAPHICAL MOBILITY AND PATHWAYS TO ENTREPRENEURSHIP

Much entrepreneurship research to date has investigated human capital characteristics of (nascent) entrepreneurs (for a comprehensive review, see Marvel et al. 2016). A primary focus in these research endeavors, however, has been on the founding of a new venture as an end in and of itself, or more generally on transitions to entrepreneurship (Burton et al. 2016). Even when researchers have considered career experiences of entrepreneurs, these experiences have been conceptualized as accumulated human capital rather than a series of steps that lead to entrepreneurship. It has, however, been long recognized that such transitions are 'embedded in trajectories that give them distinctive form and meaning' (Elder 1985: 31). In that respect, there may be distinctive career pathways, triggered by varying circumstances and preferences, which lead individuals into episodes of entrepreneurship (Aldrich and Kim 2007). The point is that entrepreneurship as a career choice is not typically a static, final career move, but a dynamic phase in one's overall career path (Hytti 2010). Thus it is useful to analyse transitions to entrepreneurship and other forms of career mobility within a common framework (Sørensen and Sharkey 2014). Or simply put, a decision to engage in an entrepreneurial activity should be seen as a career choice much like any other vocational decision.

The poster summarises the research project that aims to investigate in what way pre-entry career trajectories of individuals regulate their propensity for entrepreneurship as well as the performance and societal impact of firms that

they initiate. A particular attention is paid to pre-entry *spatial biographies* of individuals, defined as the history of individuals' geographical mobility. It has been demonstrated that entrepreneurship propensity is positively associated with inter-regional relocation at the time of the entry (Reuschke 2014, Hart and Mickiewicz 2016). Some recent studies have also shown that not only the immediate relocation prior to the entry, but also the extended spatial biography of individuals have a positive impact on their propensity to engage in entrepreneurial activities (Frederiksen et al. 2016, Martynovich 2017). While this relationship has been extensively investigated in the international migration literature (e.g., Saxenian 2006), less is known about the mobility of individuals within national borders as a mechanism regulating the probability of entrepreneurial entry.

Two overarching research questions are posited:

RQ1 (individual level): in what way do individuals' spatial biographies affect their propensity for entrepreneurship and its character?

RQ2 (firm level): in what way do entrepreneurs' pre-entry spatial biographies condition the post-entry performance of firms that they initiate?

In order to answer the research questions, the proposed project develops an analytical framework that integrates the career perspective on entrepreneurship with the economic geography perspective on geographical mobility as a knowledge accumulation mechanism. This analytical framework is tested empirically through extensive quantitative studies of microdata coming from Swedish firm and individual registers. The project aims at making theoretical contributions at the interface of entrepreneurship studies and economic geography.

Ágnes Németh

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HARNESSING FINNISH BRAIN GAIN FOR LOCAL DEVELOPMENT: INVESTIGATING LOCAL POTENTIALS OF SOCIAL INTEGRATION OF HIGHLY SKILLED MIGRANTS FROM THE EU

Recent changes in migration trends in Europe have raised the attention of both policy-makers and researchers towards its possible social and economic challenges and impacts. While focussing on the current 'refugee crisis' we tend to forget the significance of EU-internal mobility that do not only characterise but also one of the fundamental principles of the EU. 'Free movement of labour' means that EU citizens are entitled to look for a job, reside and work in another EU country without needing a work permit. Having fulfilled certain conditions, these foreign EU citizens are also allowed to stay in their host country even after their initial term of employment has finished, and they may receive equal treatment with nationals in access to employment, working conditions and some social and tax benefits. One of the starting points of the research is that these people have the potential to contribute to the economy of the host cities/regions not only by filling gaps in local labour markets but also by generating innovation and synergies through interacting and actively engaging with their new social-cultural-economic contexts.

It seems, however, that some places have the ability to retain and make better use of this type of human capital than others. There are cities in Europe that have focussed local strategies in order to internationalise their society explicitly by targeting people with high creative and/or 'spending' capacities (highly educated professionals, students in specific innovative fields, affluent pensioners, artists, etc.). In order to realise these strategies effectively, deeper understanding is required of the reasons why highly mobile people are willing to stay in certain places representing a foreign environment, and why they decide leaving others after a short time. What makes a place 'sticky' for well-qualified, creative people? This is an important question since from the perspective of the individual migrant, setting up one's life in a foreign environment do require personal sacrifices, compromises, including efforts and costs of *adjustment and social integration*.

The research aims at mapping and analysing European immigrants' socio-economic engagement in the Joensuu and Turku urban regions in Finland. The analysis operates at the intersection of three factors effecting, in general, foreigners' integration process into the host society: their initial personal *socio-demographic backgrounds*; the locally or nationally offered top-down *institutional integration programmes* and policies, and their own (bottom-up) *efforts to engage themselves in social networks* in the host country/city driven and directed by their individual interpretation and judgement of 'integration'. The first hypothesis of the research is that the perception and self-engagement of the migrant depends on the individual and broader institutional contexts, and at the same time, his or her own definition, interpretation of integration also effects the (effectiveness of) institutional integration efforts as well as their own individual motivation to 'integrate'. The second hypothesis is that societal interactions, networks (work-related or not)

to a high degree contribute to the sense of 'feeling at home' in a foreign environment, especially if they facilitate integration to the local society, cultural milieu and everyday life.

Laura Norris

Cardiff University, UK

SUPERFAST BROADBAND BUSINESS EXPLOITATION PROJECT

In Wales, the use of broadband by SMEs is set in a context of numerous sub-regions that face persistent socio-economic disadvantages and are eligible for Convergence Funding. This is reflected in relatively low levels of gross value-added per capita, where poor productivity among SMEs is considered a contributory factor. These demographic characteristics, alongside rural geography present specific challenges to the deployment of broadband.

The resulting failure of commercial provision of broadband infrastructure has been countered by a market intervention by the Welsh Government. Programmes such as Superfast Cymru, part funded by the ERDF, aim to bring Superfast broadband coverage in the remaining harder to reach areas. Broadband adoption and use have become central to Welsh Government strategy with policy support and programmes set up for public and private entities.

Skills-based programmes exist to ensure Welsh SMEs engage with Superfast broadband infrastructure, ensuring that these businesses take advantage of the opportunities that digital technology presents for them individually and the wider economy. This support is provided by Superfast Business Wales and includes workshops and one-to-one advice.

As part of this five-year programme, the Welsh Economy Research Unit of Cardiff Business School (WERU) was commissioned by the Welsh Government to undertake activities that would assess the developing activities of the programme and provide a research function. This research has two main avenues: an annual digital maturity survey and supporting case studies to better understand how businesses are using new digital technologies and skills to improve their offer.

A key feature of the annual digital maturity survey is the development of a Digital Maturity Framework. This framework allowed the development of Digital maturity typologies, which evaluate the digital embeddedness and skill level of an SME. Assessment criteria focuses on the level of digital skills possessed by the employees, whether this is used for innovation, the extent to which technologies are integrated into the workplace, and whether digital technologies are utilised to overcome difficulties faced in daily operations such as commuting. This research supports the iterative development of the Superfast Business Wales skills programme,

Within this project, it is apparent that the skills development of SMEs has an important role to play, and a question whether these digital abilities provides the potential to overcome spatial inequalities for rural firms. Case studies highlight rural firms that are now able to compete internationally, negating the perceived need to migrate to Urban centres. This entrepreneurial activity frequently requires business model renewal and the gaining of new skills on the part of the business owner. Preliminary research suggests that these changes in skills and rural entrepreneurship will contribute to changing innovation geography.

Xiaozhen QIN

Sun Yat-sen University, Guangdong, China

WORKFORCE SKILLS, MOBILITY AND ENTERPRISE INNOVATION

Labor mobility has long been considered as an important source of innovation. Knowledge production is becoming more and more important in the era of knowledge economy. As the carrier of knowledge and human capital, the flow of labor force in different employment units directly affects the transfer of knowledge among enterprises, thus affecting the innovation performance of enterprises. The knowledge carried by the labor force is mainly composed of two aspects, one is the general or professional knowledge acquired in the course of academic education, and the other is the knowledge related to specific industries or occupations mastered in the process of work. A considerable amount of literature has focused on the impact of scientific and technological R&D personnel engaged in innovation activities on the innovation performance of enterprises, but paid little attention to the impact of non-scientific R&D personnel. Therefore, this study tries to explore whether there are differences in the influence of knowledge acquired through

education and work on enterprise innovation. From the perspective of labor skill level, this study tries to answer the question whether the flow of labor force with different skills has different influences on enterprise innovation. This study uses Dongguan social security data to measure labor flow and invention patent data to measure innovation performance of enterprises, and builds an econometric model of the impact of enterprise labor flow on innovation. In this study, the weighted average of the number of industrial employment of enterprise employees is used to represent the diversity of industrial knowledge of enterprise labor force, and the weighted average of the number of years of education of enterprise employees is used to represent the diversity of educational background of enterprise labor force. We calculate the ratio of the number of floating employees to the total number of employees to represent the labor force flow of enterprises. In order to consider the labor force flow at different skill levels, this study divides the labor force into three skill levels according to the educational background, namely, low skill level, medium skill level and high skill level. In this study, two control variables, enterprise size and enterprise life, are selected. The empirical results show that the diversity of labor force education background has a positive effect on enterprise innovation, while the diversity of work experience has no significant effect on enterprise innovation. According to the situation of labor flow, the overall labor flow at the enterprise level has a positive promoting effect on enterprise innovation, and the effect of labor flow with different skills on enterprise innovation is different. The flow of high-skilled labor force and medium-skilled labor force has a positive effect on enterprise innovation, while the flow of low-skilled labor force has no significant effect on enterprise innovation. From the perspective of action intensity, the highly skilled labor flow (0.595) has a stronger promoting effect than the medium-skilled labor flow (0.500).

Simona Quagliano

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CITIES IN TRANSITION: HOW CLIMATE CHANGE IS MODIFYING THE PERCEPTION OF URBAN SPACES WITHIN INSTITUTIONS AND SOCIETY

My work, in the field of urban planning and evaluation, is focused on environmental transition that cities are living through the lens of climate change.

The evolving scenario requires adapting planning styles and governance instruments (Loorbach, 2010), but also multi-disciplinary skills and a high level of collaboration. As a consequence, both civil society, and institutions have to learn how to deal with the effects of socio-ecological issues on cities and communities.

Achieving such transition will demand deep changes both in dominant institutional cultures and in civic behaviors. Not only policies and governance models are at stake, but also practices and ways of thinking which will in turn call for different responsibilities by institutions and new knowledge by ordinary people, social movements, organizations.

The research aims to explore and deconstruct how climate change is perceived in two different arenas. The first arena deals with strategies and policies that institutions, at different levels, are providing in order to reconsider planning in the face of climate change (Galderisi and Colucci, 2018); the second arena is about practices that local communities, activists and socio-cultural organizations are activating from below. I am also interested in investigating on how institutional communication and daily news are manipulated by media and boost new imaginaries (Swyngedouw, 2010). The case study I am developing is the metropolitan region of Naples, in the south of Italy.

I am developing a critical review of newspaper articles, in-depth interviews and specific documents (strategies, plans, resolutions) related to how climate change is dealt with in the metropolitan region of Naples, and I am also working on an Alternanza scuola-lavoro project with the high school Mercalli in Naples, to understand how the issue is perceived among young generations.

Mojtaba Shoeibi

POLITICS, POWER AND CAPITAL IN SHAPING URBAN SPACE IN TEHRAN

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Geographical space is regarded as a product of economic, political, cultural, and historical processes in which the footprint of the institution of power can always be identified. Given the importance of these geographic processes, geographers have always sought to identify and understand the geographic space by identifying the factors affecting it and the type of its operation in space.

The city of Tehran is the most important economic, cultural, political and, of course, decision-making center in the Iranian geographical sphere, with the processes dominating it attracting a great deal of research from policy, social sciences, economics and, of course, geography. The role of political economy in geographic space and its various dimensions is one of the practical concepts that can help to study the factors affecting the transformation of space and space. Documentary information and works by former scholars who have studied the spaces of Tehran make it possible to make the assumption that the spatial flow of capital in this city has a geopolitical function and that various actors are at different historical or under different times. Impact of the spatial flow of capital have played a role or have attempted to influence space and location by exploiting the geographical functions of capital. The findings of this study show that for at least the last 40 years (1979–2019), the role of spatial capital creation has been one of the most important factors influencing the evolution of geographical areas of the Iranian capital. During part of this period (1979–1989), the intrinsic role of capital under the influence of ruling ideology was somewhat marginalized, but over the next three decades capital regained its former function and importance in the competitions that dominated the space, and even Space programs that were influenced by ideology are also overshadowed. The scope of capital impact in Tehran and its role in space competitions is such that competition for better access to capital space has caused widespread spatial contradictions in Tehran and day by day it increases the existing gap between rich and poor in this city.

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GAMIFYING A QUALITY AND PROCESS MANAGEMENT COURSE

The purpose of the study is to investigate whether gamification has a positive effect on the learning of students in higher education. Gamification is a widely researched area where a lot of contribution can still be made not only in education but also in businesses, where the motivation and engagement of the employees and customers are crucial points for success. The novelty of this research is that the effect of gamification on the main variables (eg. motivation, engagement, relevance, entertainment) are analysed by separating six different gamer types by the Hexad Model by Tondello. This means that we can demonstrate the difference between each group of how gamification affected them. In order to measure the effects of gamification a Quality and Process Management undergraduate course has been gamified. Multiple gamification elements were implemented into the course such as points, badges, rewards. The evaluation system for the course was also adjusted to the gamification design. There were seven lectures and seminars during the semester with two different teachers. A total number of 75 students attended the course and had learned different methods of quality and process management such as lean management, six sigma, agile scrum. The study is a first part of the research where the goal is to measure whether gamification has a positive influence on the knowledge of the students. For this a pre-test was incorporated in the course during the first lesson. The results will be compared with the final exam. To examine the effects of gamification, a control group will be used which means that the same course will be repeated in the next year without gamification elements. The other part of the research focuses on the effects of gamification on the motivation, entertainment, engagement of the students and the relevance of the course. As there are differences between the characters of individuals the Hexad model by Tondello was also implemented in the research. It comprises six different gamer types based on what motivates them. In order to execute the analysis a questionnaire has been formulated which contained 40 questions that were separated into two parts. 16 questions were related to the course and the examined variables with 4 questions each. The questions were implemented with a seven points Likert Scale and were added in random order. The other part of the questionnaire comprised 24 questions concerning the 6 different gamer types which were also asked in a random order. The questionnaire was anonymous and demanded only the gender and the age of the students. A total number of 68 responses were obtained which means a 91% response rate. A control group in the next year in the same course without gamification will fill out the same questionnaire.

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GENDER MAINSTREAMING IN ACTION? 2014-2020 SCOTTISH STRUCTURAL AND INVESTMENT PROGRAM

The European Union's (EU) gender equality strategy has developed over time and has been incorporated into many programmes to promote social inclusion and economic convergence. In particular, the adoption of Gender Mainstreaming (GM) in regional economic strategies. The European Structural and Investment Funds (ESIF) plays a key role in the EU approach for the inclusion and promotion of the contributions of women in economic development. Gender inequality and occupational segregation by sex results in a loss of efficiency therefore the ESIF are an important tool to promote gender equality both for social justice and economic development.

The adoption of GM aimed to ensure that those responsible for designing policies for regional development are more aware of any potential gendered impacts by incorporating gender equality consideration into both policy development and implementation. Thus, ensuring that any potential unintended consequences affecting either women or men can be identified and avoided. However, whilst there is a recognition of the EU's commitment to gender equality policies there are questions as to how successful GM has been in making transformative changes in the policy process. The conclusions often drawn are that the EU is a progressive organisation in promoting gender equality however there are contradictions between the objectives of GM and the neo-liberal policies which emphasise women's labour market participation. Despite a large body of academic research on GM, there is limited research which links GM and the operation of EU regional policy, specifically at a local level. This is an important area to consider in view of Brexit, as Scotland prepares to leave the EU. In planning for future potential replacement funding, in Scotland, it is imperative that gender analysis is integrated and lessons from GM are learned.

This research explores how GM was operationalised in Scotland's ESIF program during the 2014-2020 time period. A Critical Frame Analysis of policy documents, implementation reports and project application forms, was used to gain an understanding of the way gender inequality is problematised and the identification of the inferred policy solutions. In addition, key stakeholders were interviewed to identify any difference between the policy intentions and the practical application.

The analysis undertaken suggests that there is a lack of awareness of GM at a local level and that gender equality is often perceived to be solely a social issue independent of economic development. Furthermore, the centralised management strategy of the Scottish Government has frustrated the advancement of gender equality. Their focus on quantitative data in terms of access to the labour market and the overly bureaucratic processes involved in operating ESIF funded projects consumes resources restricting any time for meaningful gender analysis. These findings highlight the need for a more innovative approach to gender equality policy which will lead to the end goal of GM. Brexit could present an opportunity for the Scottish Government to implement GM in a more effective way. The implications will inform any successor regional development policy and ensure that any residual influence of the EU on gender equality is retained post-Brexit.

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BLUE-SKY THINKING: CONNECTIVITY IMPACTS ON REGIONAL ECONOMIES AND INNOVATION IN THE UNITED STATES

How do connections enabled by commercial aviation affect long-run economic growth and innovation? The paper studies the effects of aviation connectivity on regional economies in the United States. I construct a novel set of instruments based on the historical institutional and physical requirements for expanded air connectivity. To account for the network nature of aviation infrastructure, I use an improved measure of aviation activity—the Global Connectivity Index developed by Allroggen et al. (2015). This measure captures accessibility enabled by aviation better than passenger and departure numbers used in prior work. After accounting for endogeneity, I find that a 1% increase in a core-based statistical area (CBSA)'s Global Connectivity Index is associated with an increase in long-term total personal income by 1.7% and 6 more granted patents. For a CBSA like Myrtle Beach, SC, with a connectivity index close to the mean connectivity levels of CBSAs, a 1% increase in connectivity would bring about \$218 million in total income over a two-decade period. Finally, I find that the impact of connectivity on regional economies is significantly more pronounced in the largest 100 cities, while these effects vanish in smaller cities. This paper shows, for the first time,

the impact of aviation connectivity on innovation and provides suggestive evidence for aviation's role in strengthening agglomeration economies.