



# ISEE

INTERNATIONAL SCIENCE  
EXPLORATION EVENT

# 2019 POST EVENT REPORT



7<sup>th</sup> - 8<sup>th</sup> November 2019

• University of Information Technology and Management in Rzeszow, Poland



## **International Science Exploration Event 2019** Supporting entrepreneurship by local authorities in Poland, Slovak Republic and Estonia

**7th - 8th November 2019**



**Ministry of Science  
and Higher Education**

Republic of Poland

The project „International Science Exploration Event 2019” has received funding from the Ministry of Science and Higher Education under the contract 532/P-DUN/2019 by the Ministry of Science and Higher Education allocated to the activities of disseminating science.



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**UNIVERSITY of INFORMATION  
TECHNOLOGY and MANAGEMENT**  
in Rzeszow, POLAND



**INSTITUTE FOR FINANCIAL  
RESEARCH AND ANALYSES**

# 53

PARTICIPANTS



# 29

PRESENTATIONS

# 19

SCIENTIFIC  
INSTITUTIONS

*„We specified a narrow topic, but gathered an international environment, dedicated time for valuable discussion and maintaining cooperative relationships.*

***Thank You all participants for your contribution to ISEE 2019.”***

Tomasz Skica, PhD  
Coordinator





The **International Science Exploration Event 2019** referred to the issues of supporting economic initiatives by LGUs and aimed to disseminate research results in the field of supporting entrepreneurship by local government entities in Poland, Estonia and Slovakia.

The seminar was attended by scientists from 19 academic centers located in various countries, such as: **Great Britain, Germany, Italy, Estonia, Slovakia, Bosnia and Herzegovina and Poland.** The partners of the event were the University of Tartu (Estonia) and the Faculty of Management at Comenius University in Bratislava (Slovakia).

Presented report contains the biographies of the speakers, abstracts and selected issues from the discussion section.



## Prof. Michael Fritsch

### Friedrich Schiller University Jena, Germany

Is a professor of the Faculty of Economics and Business Administration at the Friedrich Schiller University Jena. His research focuses on entrepreneurship, economic geography and innovation. He is also Editor of *Regional Studies* and of *Small Business Economics*. Scopus statistics: 114 documents, 4825 citations, *h*-index 38. Most cited paper "Who cooperates on R&D?" published in *Research Policy* in 2001,

Research topic:

**One Transition Story does not fit them all: The role of entrepreneurship in the developments of East German regions after the socialist era**

Authors:

Michael Fritsch, Michael Wyrwich

#### Abstract

The development of East Germany, the former German Democratic Republic (GDR), after the demise of the socialist regime is very diverse across regions. While some places like the cities of Jena, Leipzig and Dresden managed the transition to a market economic system relatively well, others came in tremendous economic jeopardy and experience long-run economic decline. These different developments are closely related to different levels of innovation and entrepreneurial activity.

The different developments of many East German regions after 1990 show a remarkable resemblance with their historical pre-socialist structures (Fritsch and Wyrwich 2014, 2016, 2019). These findings call for an in-depth assessment of trajectories of regions in post-socialist environments beyond their recent history. Hence, pre-socialist developments and an assessment of how places were (re-)shaped in socialist times need to be taken into account in order to understand regional differences in economic performance today. Accounting for pre-socialist structures is also essential for determining the effect of the socialist regime on regional development.

The paper first describes the differences in the economic development of East German regions from 1990 until today. Based on these empirical patterns we distinguish between different types of regions according to their pre-socialist economic structures and their exposition to four decades of socialism. In particular, we identify three types of regions.

- First, regions with a long history of successful industrialization such as the southern part of Saxony. The development of these regions in pre-socialist times was driven by high levels of innovation and entrepreneurship outside the agricultural sector and they were among the economically leading areas in Germany before World War II.

- Second, rural regions with low levels of industrialization before and during the GDR time (e.g., large parts of Mecklenburg-Western Pomerania). These regions never showed significant levels of innovation activity and self-employment was mainly in the agricultural sector (farm-ownership).

- Third, regions with no or only a weak tradition of industrialization where the GDR government tried to create industrial centers more or less from scratch (e.g. Eisenhuettenstadt, Hoyerswerda). There was some significant innovation activity in these places during the socialist era but they were lacking any tradition of non-agricultural entrepreneurship. The ‘entrepreneur’ in this case was the socialist state.

While the first type of regions, those with a tradition in successful industrialization and non-agricultural entrepreneurship, performed relatively well after 1990, the other two types face severe economic problems that in many cases lead to a downward spiral of economic backwardness where significant numbers of young and well-educated people migrate to more prosperous places for better jobs and living conditions.

We illustrate and analyze the diversity of developments and particularly the role of long-term development trajectories for representative cases. Our example for the first type of region, those with a rich industrial tradition, is the southern part of Saxony. The example of the third type of region is Eisenhuettenstadt. All in all, we demonstrate a region’s economic history has a strong effect on how it develops and is able to cope with the challenges of the transformation process after the socialist era. We argue that a tradition of successful industrial entrepreneurship is a main source of development that can help to make a region resilient to external shocks. That self-employment in the agricultural sector does not have such positive effect shows that the type of entrepreneurship is important. Further research should therefore dig deeper into the role of different types of self-employment and their role for long-term regional development.

## References

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Fritsch, M. and Wyrwich, M. (2019): *Regional Trajectories of Entrepreneurship, Knowledge, and Growth—The Role of History and Culture*. Cham: Springer. <https://link.springer.com/book/10.1007%2F978-3-319-97782-9>

## Hypothesis

The regional level of historical entrepreneurship and the historical knowledge base have significant effects on regional performance after socialism.

## In a nutshell

- Historical roots play an important role in explaining regional development.
- A regional culture of entrepreneurship and high qualification of the workforce are conducive to successful transformation after socialism.
- Regions with weak industrial tradition and dominance of large scale industries tend to have no significant culture of entrepreneurship. These regions are the most problematic cases in the transition process.

## Policy implications

- Fostering entrepreneurship in regions with an underdeveloped entrepreneurial culture has long-term benefits. Should such a policy be limited to the ‘right type’ of entrepreneurship?
- Improve the regional knowledge base. -> Stimulate education and research!
- Account for region-specific factors!

## Conclusions

Political strategies have to account not only for differences of current economic structures but also for regional economic histories, traditions, and cultures.

**The full paper will be submitted to:**

Post-Communist Economies (Special Issue)  
Print ISSN: 1463-1377 Online ISSN: 1465-3958



## Alexander N. Krasnoselskikh, PhD

### Russian Presidential Academy of National Economy and Public Administration, Russia

He works in the Institute of Economic Research at the Russian Presidential Academy of National Economy and Public Administration located in Moscow. His research considers development of small and medium-sized enterprises in Russia. Recently published article was “Identify Examples of the Favorable Impact of the Policy of Encouraging Small and Medium-Sized Enterprises on the Socio-Economic Development of Territories Abroad”

Research topic:

**How institutions in the Russian regions affect entrepreneurship?**

Authors:

Vera A. Barinova, PhD, Stepan P. Zemtsov, PhD,  
Alexander N. Krasnoselskikh, PhD, Yulia V. Tsareva, MSc

#### Abstract

Positive relationship between entrepreneurial activity, institutions and regional development was detected in many empirical works (Acs et al., 2018; Autio, Fu, 2019; Bosma et al., 2018; Chowdhury et al, 2019). For post-communist countries, such as Russia, where market institutions were formed not so long ago, studies of the role of institutional environments are especially relevant (Aidis et al., 2008). In Russia, SMEs share in GDP is quite low (20%) comparing to most of the post-communist Eastern European countries. However, the regions of Russia differ significantly in the level of development of entrepreneurship (Zemtsov, Tsareva, 2018). There are regions with high business density, and there are lagging regions throughout the post-Soviet history. What are the reasons for these differences? How much institutions determine business development, and what is the role of objective geographical factors (for example, remoteness from large markets)? Efficient SME support policy requires understanding of factors, which influence entrepreneurship.

The review of studies on various determinants of entrepreneurial activity allows us to identify two groups of factors: individual (age, gender, education etc.) and regional (GRP per capita, unemployment, institutional environment etc.).

The institutional factors deserve special attention, thus SMEs are more vulnerable due to their lack of substantial financial, human and other resources and often are not sufficiently provided with formal institutions in post-communist countries. Entrepreneurs in such companies often lack business experience.

According to the purpose of our research and literature review, authors formulated the following hypotheses about the influence of institutional and other factors on entrepreneurial activity:

1. Entrepreneurial activity is lower in regions with higher investment risks, such as criminal activity, corruption, etc. In Russia, there are quite a few regions with a high share of the shadow economy due to the corruption of local authorities, a low level of trust in formal institutions, and high crime.
2. Regions with more developed banking system have higher entrepreneurial activity because of better access for finance.
3. Human capital concentration has a positive effect on entrepreneurial activity. Higher qualifications help to open new businesses in promising innovative industries.



4. The effect of SME support on the level of entrepreneurial activity is insignificant due to the selection effect. The federal government supports weak regions, where local government cannot efficiently redistribute these transfers.

To create an econometric model the authors used panel data: annual values of indicators for the period 2008-2015 in 83 Russian regions. The main source of data was the Federal State Statistics Service (Rosstat). The open data of Expert RA, the Central Bank of the Russian Federation and the authors' calculations are also used.

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## Conclusions

- The effect of SME state support on entrepreneurial activity has not been found. This may be due to the fact that weak regions receive more support in the form of subsidies than medium and strong regions. In addition, tax benefits on average are provided in the regions equally and mainly to medium-sized and large firms (for example, within the framework of special economic zones), that is, small firms do not have advantages between regions, which could lead to a change in the place of their registration. The availability of banking services contributes to the growth of entrepreneurial activity.
- In authors opinion, a higher density of banking infrastructure can be an indicator of low interest rates due to competition from banks, and, accordingly, a proxy for assessing the availability of capital.
- Improving the quality of human capital in the region should also have a positive effect on the growth of entrepreneurial activity, since to create a successful business it is necessary to have a certain set of knowledge and skills. GRP per capita and the market potential of the region, which can be indicators of market demand for business services, are significant.

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## Domenico Scalera, PhD

### University of Sannio, Italy

Professor of Economics (Ordinario di Economia Politica) at the Department of Law and Economics (Dipartimento di Diritto, Economia, Management e Metodi Quantitativi), Università degli Studi del Sannio di Benevento. First Class Honours Degree in Economics at the University of Naples "Federico II", Italy (November 1986). 105 published papers and 529 citations on Google Scholar (January 2019). The most cited paper A. Del Monte, D. Scalera, The life duration of small firms born within a start-up programme: Evidence from Italy, *Regional Studies* 35(1):11-21.

Research topic:

**Research, innovation and default. Evidence from European Manufacturing firms**

Authors:

Mariarosaria Agostino, PhD, Domenico Scalera, PhD, Marianna Succurro, PhD, Francesco Trivieri, PhD

### Abstract

The purpose of this paper is to investigate the relationship between firm's default probability and innovation activities, to be meant not only as the effort in R&D, but also as fertility of research in terms of firms' enhanced abilities to achieve better performance, process and product innovations, and patenting. Indeed, a key feature of our approach is the emphasis on firms' risk of default as a result of the successfulness or fertility of the research that firms carry out. This idea is consistent with well-established theoretical frameworks. For example, it fits into a neo-Schumpeterian framework à la Aghion et al. (2014), in which innovation depends on the effort in research, and the firm not successful in achieving innovation is bound to exit the market and being replaced by a new innovator (creative destruction). The strand of literature known as CDM initiated by Crepon et al. (1998) is one of our theoretical references as well. Considering a knowledge production function, this literature highlights the linkages between research (i.e. innovation input), patents' and innovation intensity (i.e. innovation output), and firm productivity. Our research hypothesis stems from these bases to move a step further. In our setup, research and innovation contribute to determining a latent firms' propensity to default, so that the probability that a firm goes bankrupt turns out to be somehow affected by the variables involved in

the research-innovation-productivity process as well as by individual firm's financial conditions. Hence, unlike the majority of previous works which alternatively examine the impact of either R&D expenditure (i.e. the innovation input) or product/process innovation and patenting (i.e. the innovation output) on firm performance, we jointly consider the effect of both factors on firm default risk. By employing R&D, as well as innovation achievement, we aim at disentangling the effect of risky research activity in itself from the one of innovation, in order to distinguish what increases and what reduces the probability of default. In addition, we also consider the institutional context where firms are embedded as they can acquire knowledge by exploiting external R&D through contractual arrangements (Love and Roper, 2001) or simply from imitating other agents such as competitors and suppliers. According to some authors (Cassiman and Veugelers, 2006; Lokshin et al., 2008) firms using external sources of R&D may have even better innovation outcomes, while Mata and Woerter (2013) underline the highest risk associated to these R&D strategies. Given that firms tend to make simultaneous decisions on research activities and production, this may raise problems of endogeneity, that we address by running instrumental variables regressions.

Also, to deepen our investigation, we compare various schemes of firms' choices regarding research and innovation. To this aim, using information embodied in our data, we allow for the interplay of different variables accounting for R&D, innovative outcome and patenting.

**The results of the econometric investigation robustly indicate that firms with higher investment in R&D activities face a higher probability of default, so confirming the riskiness of research activities, which in themselves are a highly uncertain investment.**

On the other hand, to the extent that research involves the achievement of product or process innovation, productivity may be raised and competitiveness improved, so that survival chances increase. Indeed, our results show that innovating firms enjoy a lower probability of bankruptcy: this is documented at a high significance level if innovation is measured by the share of turnover due to innovative products, or by the product/process innovation dummy, and at a lower significance level if innovation output is proxied by patent applications. Also, we provide further evidence proving that research-innovation profiles characterised by both patents and (product or process) innovation are the most rewarding in terms of lower risk of exit.

## Sample description

European manufacturing firms whose research and innovative activity is observed over the 2007-2009 years. Data are drawn from the EU EFIGE Survey, enriched with accounting data retrieved from the Amadeus Database (Bureau Van Dijk). The data consist of a representative sample – at the country level for the manufacturing industry – of almost 15,000 surveyed firms in seven European countries (Germany, France, Italy, Spain, United Kingdom, Austria, and Hungary). The Amadeus Database also provides the status (i.e. active, in reorganisation, under insolvency procedure, in default) of each company in 2009 and 2014.

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## Anna Golejewska, PhD Hab. University of Gdańsk, Poland

She works at Economics of European Integration Department at University of Gdansk located in Poland. Her publications consider innovation in Polish business market. Recently published research was “Typology of Regional Innovation Systems in Poland”.

Research topic:

**Regional Innovation Systems in Poland. How to classify them?**

Authors:

Anna Golejewska, PhD Hab., Dorota Ciołek, PhD, Adriana Zabłocka-Abi Yaghi, PhD

### Abstract

The aim of the paper is to examine RIS in Poland in 2004-2016 and to classify them due to their innovation potential and innovation position. The following detailed objectives are expected to be met: presentation of literature review on different typologies of RIS; empirical research on innovation inputs and outputs of innovation systems in Poland, and finally conclusions. The assumption is that RIS in Poland differ due to their metropolisation and urbanization level thus we decided to apply different classification of NUTS 3 regions which is division into metro and non-metro sub-regions (Eurostat), or predominantly urban, intermediate and predominantly rural sub-regions (OECD). This paper contributes to the empirical literature by implementing the aforementioned classifications in the analysis of typology of RIS.

The analysis is based on different data sources: published (Eurostat, PATSTAT database, Statistics Poland: Local Data Bank) and unpublished. It covers NUTS-3 sub-regions (72 units according to territorial breakdown of 1 January 2015). The unpublished data include the following variables: share of enterprises which have incurred outlays for the innovative activities; share of enterprises implementing process or product innovations; share of companies collaborating in the field of

innovation and share of new or modernized products in total production sold in industrial companies. It covers industrial enterprises employing more than 49 people. The data is extracted from innovation statements in industry (PNT-02). In case of lack of data at NUTS 3 level information was supplemented by NUTS 2 data. In order to examine whether significant changes in the nature of RIS can be observed in Polish regions, an analysis was carried out for three different years: 2004 (year of Poland's accession to the EU), 2010 (during the crisis), 2016 (with a quite good economic situation).

The methodology employed in the analysis includes estimation of regressions (panel data models with random effects) and cluster analysis (k-means method with maximum cluster distance). In the first stage of the analysis, panel regressions were estimated separately for different regions clusters, in which it was examined how the innovation output depends on various variables reflecting the innovation inputs. Output variable was calculated as non-weighted average of four variables: share of industrial enterprises with process and product innovations; share of industrial production of new/modernized products; number of EPO patent applications and number of Community Designs.



The results of analysis show that in case of:

- metro sub-regions, the most numerous are systems with low inputs and low outputs. Only three sub-regions: city of Krakow (PL213), Bielski (PL225) and city of Warsaw (PL127) remain in group with high inputs and high outputs throughout the whole time period. The composition of groups by inputs is not stable.
- non-metro regions, the most numerous are the sub-regions with low inputs and low outputs and the least numerous the entities with high outputs. In 2004-2016 most of the systems moved to high-outputs groups. The biggest differences among clusters have been recognized in two inputs: young people with no lifelong learning and in R&D employment. There are almost no differences in share of innovative and share of cooperating enterprises among identified clusters.
- predominantly urban regions, the most numerous are systems with low inputs and low outputs and the least numerous – with high outputs. In the analyzed period, most of sub-regions moved to high-outputs groups. The results of cluster analysis by inputs show that two groups remain stable throughout the whole time period. The first one consist of capital sub-region with the highest number of high schools and the highest share of innovative enterprises, the second one of 5 sub-regions: city of Krakow (PL213), katowicki (PL22A), city of Poznan (PL415), city of Wroclaw (PL514) and Tri-City sub-region (PL633).
- intermediate regions, the most numerous groups are those with high inputs and high outputs and low inputs and low outputs. The composition of groups by inputs remains stable from 2010. The only factor very similar for all the clusters is the share of cooperating firms.
- predominantly rural regions, the most numerous group is characterized by low inputs and low outputs, the least numerous- with low inputs and high outputs. In the analyzed period, most of the systems moved to low-outputs clusters. The composition of groups by inputs remains not stable. The differences among them are mainly in unemployment rate. Share of innovative enterprises and share of their cooperation are very similar in all the clusters.

## Conclusions

The results confirm that there have been substantial differences among Polish sub-regions as regards the strength of innovation systems. Lack of cooperation causes fragmentation of the systems. It could be interesting to identify effective innovation systems in Poland. Most helpful in this case could be Data Envelopment Analysis. Sub-regions characterized by high inputs and effective at the same time could be recognized as strong systems. It shall be a question for further study.

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## Jan Brzozowski, PhD Hab. Cracow University of Economics, Poland

Professor of the Department of European Studies & Economic Integration at Cracow University of Economics located in Poland. His research consists of topics connected to immigrant, ethnic, diaspora and transnational entrepreneurship, economics of international migration (economic adaptation of immigrants and returnees), International entrepreneurship, socio-economic and cultural integration and assimilation.

Research topic: **Immigrant entrepreneurship in Croatia: Exploring its potential, (rising) barriers and integration patterns**

Authors: Ruzica Simic Banovic, PhD, Mirela Alpeza, PhD, Jan Brzozowski, PhD

### Abstract

This paper investigates the socio-institutional constraints to immigrant entrepreneurship in post-communist countries of Balkans. We focus on Croatian case, a country in which immigrant population is still limited, but due to recent EU membership it is expected to increase in a nearest future. Yet, only 11% of Croatian citizens see immigration more of an opportunity than a problem and only 40% of Croatian citizens believe that immigrants have an overall positive impact on the national economy (Eurobarometer, 2018). These data refer to the perception of non-EU immigrants. Furthermore, in Croatia only 1,3% of the population are non-nationals (Eurostat, 2019). Still, Croatian citizens are the least informed in the EU on the immigration-related issues – 81% of them consider themselves insufficiently informed on the immigration and integration related matters (Eurobarometer, 2018). General public usually links the immigrant entrepreneurship with refugee and politically-driven migration issues and their potential burden for the welfare state. In addition, policy makers still do not seem to recognise the importance of foreign entrepreneurs and the dominant public discourse on the migration-related issues is mostly election-driven.

Therefore, our study is one of the first papers dealing with the issue of immigrant entrepreneurs in Croatia. The chief aim of our research project is exploratory: we conduct an analysis of socio-institutional constraints to immigrant entrepreneurship in Croatia. We conduct a qualitative study based on semi-structured interviews with immigrant entrepreneurs and relevant stakeholders (including NGOs and public administration representatives) supplemented by statistical data from a recent GEM survey. The sample included total of six (coded as IN1, IN2, IN3, IN4, IN5 and IN6) institutional representatives (NGOs, think tanks, employers' associations) and ten entrepreneurs (coded as EU or nonEU 1-10). Those interviews were conducted in the period between January and mid-August 2019 personally in Zagreb or over the phone. The interviews were carried out in English and lasted 45 minutes on average. Main topics of the interview were mostly chronologically sequenced around two distinctive stages of migration (Castles & Miller, 2009: 20-21): first, the immigration determinants and patterns; and second, the integration processes and perspectives. This necessarily leads to the analysis of interaction of macro- and micro-structures, and their

intermediate mechanisms named 'meso-structures', as any migratory movement is a result of it (Castles et al, 2014: 26-27). In line with the purpose of this research, the afore-stated (im)migration stages were focused on entrepreneurship-related issues. In sum, the research mostly relies on an 'extended' functionalist approach as it seeks to identify the push and pull factors and related issues.

## Conclusions

Our findings demonstrate a growing potential of immigrant entrepreneurship in Croatia, but also persistent barriers connected both with formal and informal institutions. Interestingly, the informal institutions often present even bigger obstacle for the entrepreneurs from the less developed, non-European countries. The ignorance combined with very limited openness towards other ethnic groups discourages their entrepreneurial initiatives. Our study, albeit having an explorative character, contributes to the growing strand of literature in post-communist economies of Central, Eastern and Southern Europe and provides important policy recommendations for practitioners and administrative units responsible for international migration governance. Moreover, we offer suggestions for further research on immigrant entrepreneurship in the Balkans region and in Croatia in particular.

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## Korneliusz Pylak, PhD

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Research topic: **Turbulent times for female entrepreneurs: What mechanisms have made women entrepreneurs for ninety years**

Author: Korneliusz Pylak, PhD

### Abstract

The paper aims to explore the mechanisms behind the changes and persistence in the structure of Polish female employers in the years 1921–2011. The choice of the research period is not accidental. Women in Poland were granted electoral rights only in 1918, followed by the possibility of employment in the public sector. In this way, we capture the entire period initiated by political and social upheavals and thus examine to what extent the structure of employment has changed since then and why. Not surprisingly, the proportion of women in the labour force outside agriculture systematically increased after 1931 (from 31.5% in 1931 to 45.5% in 2011) but it remained stable in the years 1921–1931 as in 1921 the share was equal to 31.7%. At that time, only 23.3% of women in Poland were economically active (comparing to 56.7% in the case of men). However, the magnitude of the changes in the structure of female employment is astonishing. Currently, the proportion of female employers is 2.5 times higher than in the past and amounts to 2.7%. Compared to men, this is not yet much (4.6%), but the proportion of male employers has practically not increased. Interestingly, the Great Depression of 1929 affected mainly male employers, whose proportion in the male workforce fell from 4.3%

to 3.4%, while the proportion of female employers in the female workforce of 1.1% was barely disrupted. These changes also mean that while we observe a growing proportion of female employers, the proportion of male employers in 2011 has merely recovered from the Great Depression and exceeded the 1921 level.

Over the last 90 years, we witness significant changes in the structure of the entire labour market. General changes in the labour market have revealed an increase in the proportions of employers, as well as in the proportions of employees at the expense of the solo self-employed and helping family members. Surprisingly, the greatest changes took place between 1921 and 1931. Thus, it is likely that the period of the Second World War and the centrally planned economy in the years 1945–1989 slowed down the processes of changes in the labour market, or the labour market had already managed to form itself in the 1930s. On the other hand, it would be interesting to examine whether the labour market structures survived the turbulent periods in the history of Poland and managed to re-establish itself after 1989.



Therefore, the aim of the paper is twofold. First, we reveal the mechanisms that made women employers in 1921, 1931 and 2011. We expect that these mechanisms operate in three dimensions: 1) personal development; 2) industry-specific; 3) spatial spill-overs. In terms of personal development, female employers can derive from solo self-employment and the natural business development, white- or blue-collar employment lured by a vision of higher wages or helping family members learned entrepreneurial skills and culture while observing entrepreneurs at home. These processes can be catalysed by literacy, educational attainment, dominant religion or religious diversity, and market potential. Female employers may also be assigned to specific industries, which grow in certain regions of Poland (like for instance textile industries around Łódź and Białystok) and thus may entail an increase in the proportion of women in the creation and management of enterprises. Finally, female entrepreneurship may be linked to the general level of entrepreneurial culture present in the area, which shall be reflected in similar proportions of female and male employers in the county economy. Second, after we analyse the static mechanisms that made women employers, we investigate to what extent these mechanisms have changed over time i.e. whether the 1921 mechanism can explain the changes in women employer proportion in 1931 and so on.

We expect to find different mechanisms for women than for men. While we are fairly confident to find places with entrepreneurial culture enhancing the overall level of employers, and some social and cultural characteristics facilitating establishing own enterprises and employing people as well, we also expect certain gender-specific determinants. First, women gained the highest entry rate into the active labour force. Second, the proportion of female employers increased the most of all groups (2.5 times). Third, women experienced the greatest changes in the structure of the labour market over time, including the highest drop in helping family members.

## Data & method

The data sources include the first census of dwellings, population and occupation conducted on September 30, 1921, the second census of dwellings, households, population and occupation conducted on December 9th, 1931. Both censuses covered the entire Polish territory of that time, thus the analyses may include contemporary parts of Lithuania, Belarus and Ukraine but exclude the western part of contemporary Poland. For 2011, we use the census conducted from the 1st of April to 30th of June. The censuses provide information on the number of employers, solo self-employed, white and blue collars and helping family members, with all the groups divided by gender. Respective data on population density, the proportion of agriculture, unemployment rates, religion, literacy, education levels for women and men separately are also provided. Both historical censuses are available on the county and industry level and the contemporary census covers regions and industry level. Thus, the comparison between 1931 and 2011 is possible only using industry cross-sectioning maximising the level of observations. Comparison between years requires meticulous adjustment of particular industries and sectors of the economy, as well as boundaries of counties and regions that have significantly changed over time.

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## Małgorzata Wosiek, PhD

### University of Rzeszów, Poland

Vice-dean for Research and Development at the University of Rzeszów located in Poland. Her research considers: Human capital, Social capital, Intellectual capital, Regional and local development, Socio-economic inequality. Recently published article was “Reducing the development gaps between regions in Poland with the use of European Union funds”.

Research topic:

**The relationship between the entrepreneurship and the local environment: evidence from Poland**

Authors:

prof. Adam Czudec, Małgorzata Wosiek, PhD

### Abstract

Against the backdrop of various factors, which may influence entrepreneurship's development dynamics and directions, the geographical (spatial) location, in particular inter-regional and intra-regional proximity, are strongly linked to local specificities (Torre and Wallet 2014; van Ham et.al. 2017). Such proximity, especially in the case of regions and local communities, which largely differ in terms of economic development, may be a factor stimulating entrepreneurship development in less developed regions. This does not only denote geographical proximity, but also other proximity dimensions (Torre and Wallet 2014, 47-63). Several reasons may justify the importance of studying inter-regional and intra-regional (local) proximity:

- positive neighbourhood impact on entrepreneurship development may further encourage various forms of cooperation between enterprises in regions where such cooperation is weak or non-existent;
- identification of the significance of the neighbourhood may enhance the establishment of wider organisational and institutional cooperation of less developed regions with enterprises in more developed ones;

- owing to the fact that many factors influence the development process of entrepreneurship, it is important to determine the importance of the neighbourhood in terms of other conditions.

Against this background, the main goal of the research is to investigate the importance of geographical proximity between regions as an entrepreneurship development factor compared to other determinants of entrepreneurship process. Three neighbouring regions (NUTS-2) in south-eastern Poland were selected for the study: Małopolskie, Podkarpacie and Świętokrzyskie.

- the main research problem concerns an assessment of the regions' neighbourhood importance in shaping entrepreneurship development; hence, the geographical proximity of the regions in question is a prerequisite;
- out of the three regions, Małopolska demonstrates a much higher level of economic development than the other two. This may create the possibility of faster than average entrepreneurship development along its borders with the other two regions;

- the Małopolska and Podkarpackie regions border Slovakia and the Ukraine; thus, some of these regions' local communities are geographically peripheral. This makes it possible to study the importance of this feature for entrepreneurship development, especially when juxtaposed with other parts of the regions (located in the vicinity of cities or internal borders between regions).

The three studied regions in south-eastern Poland (NUTS-2) differ from each other quite significantly in their overall economic development level. Such circumstances justify the hypothetical assumption that neighbouring Małopolska offers a positive impact on the entrepreneurship development level of the other two regions. If geographical proximity is also related to other forms of proximity (organisational, social, cognitive), Podkarpacie's and Świętokrzyskie's entrepreneurship in the areas bordering Małopolska should be strongly stimulated for this reason. This, in turn should benefit the local communities and offer a competitive advantage over others, especially those located in peripheries along the state border.

## Hypothesis

The research hypothesis assumes that there is a positive impact of regional proximity on entrepreneurship development at the local level in Poland's south-eastern regions.

## Data & method

The spatial diversification of entrepreneurship development was assessed with the use of taxonomic measures of development based on the Weber median. The regression analysis (2SLS estimators) was used to identify the specific features of local environments, which determine entrepreneurship. The years 2008–2017 form the chronological scope of the examination. Data collected by the Polish Central Statistical Office in the Local Data Bank were used for the research purposes.

**The full paper will be submitted to:**

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## Adriana Zabłocka-Abi Yaghi, PhD

### University of Gdańsk, Poland

Assistant professor at the Department of European Integration Research at University of Gdansk located in Poland. Her research interests are EU competition policy, Economics of European integration, International Management. The article recently published by her was “The impact of tax-breaks on firm’s performance – a case of the regional aid in Special Economic Zones in Poland”.

Research topic: **The impact of tax breaks on firms’ performance – a case of the regional aid in Special Economic Zones in Poland**

Authors: Wanda Dugiel, PhD, Anna Golejewska, PhD, Tomasz Skica, PhD, Anna Zamojska, PhD, Adriana Zabłocka-Abi Yaghi, PhD

### Abstract

Income tax breaks for companies investing in the Special Economic Zones (SEZs) have been a key scheme of place-based policies in Poland since 1994. At the end of 2017, the SEZs were placed in 181 cities and 305 communes, with the total area of 22 660,7 hectares. The aim of the SEZs scheme is to decrease the regional socio-economic disparities via public support of new investments and new job created by companies located in the SEZs. From 1995 (the first operative year), through to 2017, firms located in the SEZs invested a total of around PLN 106,6 billion and at the end of 2017 created some 213,000 new jobs. From 1998 to 2016 firms’ tax breaks reached almost EUR 5,5 billion.

To our knowledge, there is no firm-level evaluation of income tax breaks for companies operating in Polish SEZs. The paper aims to fill this gap by providing statistically robust evaluation of the impact of income tax breaks on the growth of output (sales), investments (fixed assets) and employment of firms that have benefited from tax breaks under the SEZs scheme in Poland using counterfactual approach. The study will seek to determine whether the theoretical arguments, which suggest that regional policy intervention enhances firms’ performance, have any basis in empirics.

The paper makes several contributions to the literature. First, it contributes to the EU regional policy debate by supplementing existing evaluation of place-based policy schemes with firm-level evidence from Poland. The review of the literature shows that the firm-level evidence on the effectiveness of enterprise regional support in emerging economies is virtually non-existent as most prior studies are based on Italian (Bernini and Pellegrini 2011; Cerqua and Pellegrini 2014; Bernini et al. 2017), French (Crozet et al. 2004) and UK data (Devereux et al. 2007; Criscuolo et al. 2016). As the existing empirical studies on place-based policy evaluate schemes for deprived areas in developed countries one can expect different evaluation results of schemes designed for both leading and deprived areas in emerging economies.

Second, the research is an attempt at understanding of the mechanisms by which impacts occur. The differences in the impact of the state aid may be also caused by differences between instruments. Although both subsidies and tax breaks are used by government to solve the same problem, their impact may be distinct. Tax breaks are perceived as more market-oriented instrument than subsidies, due to leaving decision on



the level and timing of investments to the private sector. They may also be less effective than subsidies, due to low response elasticity. Therefore evaluating their impact as regional policy tool may produce results other than those obtained in the context of the evaluation studies of subsidies, which are the subject of most analysis of regional policy programs in the Western Europe.

Third, from an empirical standpoint, presented research overcomes two important data limitations of prior studies that stemmed from Polish Statistical Office data or Ministry of Development datasets. We use data that come from two sources: financial statement dataset (Amadeus) covering the period 2006-2017 and a state aid dataset from State Aid Data Sharing System of Polish Office of Competition and Consumer Protection. The treatment group consist of 996 firms which, according to Ministry of Development data operated in SEZ. The control group comprise 1006 enterprises.

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## In a nutshell

In our research, we apply an approach proposed by Cerruli and Ventura (2019), a generalization of the difference-in-difference estimator applicable to the case of (many) post- and pre-intervention periods. We estimate Average Treatment Effects (ATEs) assuming that our treatment variable is binary and varying over time. As outcome in the model (dependent variable) we use separately sales, fixed assets and employment that represent the effectiveness of the tax breaks in the treated firms. And the set of independent variable includes the following: age, foreign ownership, firm size, sector, regional aid intensity, total state aid received by an enterprise.

The results of evaluation imply positive impact of tax breaks on sales and investments. However, the results can be differentiated due to the firm size and a regional aid intensity. The impact of tax breaks on employment is statistically insignificant.

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## **Maksim Belitski, PhD**

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Associate Professor in Entrepreneurship and Innovation on the Department of Leadership, Organisations and Behaviour at the University of Reading located in United Kingdom. His research focuses on entrepreneurship and economic development as well as innovation in business and strategic management. Most cited paper “Entrepreneurial ecosystems in cities: establishing the framework conditions”(Google Scholar).

Research topic:

**Moving Beyond the Binary Treatment of Entrepreneurial Ecosystems: Evidence from European cities**

Author:

Maksim Belitski, PhD

### **Abstract**

Who drives regional economic development in entrepreneurial ecosystems (EEs) of different types? This study introduces the complementarity perspective to entrepreneurship ecosystem research to theoretically debate the role of complementarities, compare and design an entrepreneurship ecosystem model for 16 cities across 8 countries: Kazakhstan, Poland, Romania, Bulgaria, Ukraine, Georgia, Kosovo and Bosnia and Herzegovina. Using mixed method analysis (expert interviews and regression analysis) within the complementarity perspective to entrepreneurship ecosystem this study reveals what are the main factors which bestow to entrepreneurship ecosystems in cities and

how they interact across the variety of EE types. We demonstrate how and why this approach can be important as a valid alternative methods in testing heterogeneous entrepreneurship ecosystems, and ensuring how entrepreneurial outcomes and regional development can be achieved. This study finds similarities and differences between city EEs with resource effectiveness and access were found to be the most important for global centre ecosystem types, while connectedness and entrepreneurship orientation were found to be most relevant for regional and specialized types of EEs.

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## Juraj Mikuš, PhD

### Comenius University in Bratislava, Slovakia

Master of Business Administration at Comenius University in Bratislava located in Slovakia. His research considers entrepreneurship in Slovakia. Recently published article was “Entrepreneurial Activity in Slovakia: Selected Regional Aspects and the Role of Governmental Environment”.

Research topic: **Inclusive entrepreneurship in the selected CEE regions (countries): do governmental programs and policies matter?**

Authors: Prof. Anna Pilková, Juraj Mikuš, PhD, Ing. Ján Káčer

#### Abstract

**Reasoning:** Inclusive entrepreneurship represents an involvement of under-represented or disadvantaged groups in entrepreneurial activities, leading through unleashing their creative potential towards the economic self-sufficiency that is beneficial for themselves and for society (Pilková, et al., 2016). These groups represent mainly women, youth, seniors, immigrants, disabled etc.

In literature inclusive entrepreneurship is studied from perspectives of attitudes, competencies, skills and experience of individuals, but also the environment that enables these groups of people, if they are interested, to take part in entrepreneurship (Pilková, et al., 2017). However, not many studies are focused on inclusive entrepreneurship in former socialist countries or CEE (Central and Eastern European Countries). Our main aim is to fill this gap.

**Objective:** The objective of our paper is to analyse a level of entrepreneurial inclusivity of the less represented groups of population (women, seniors and youth) in the selected Central and Eastern European countries (former East bloc countries); b/ the entrepreneurial activity drivers of these groups; c/ significance of governmental policies and programs on the level of entrepreneurial inclusiveness of analysed groups.

The paper makes several contributions to the literature. First, it contributes to the EU regional policy debate by supplementing existing evaluation of place-based policy schemes with firm-level evidence from Poland. The review of the literature shows that the firm-level evidence on the effectiveness of enterprise regional support in emerging economies is virtually non-existent as most prior studies are based on Italian (Bernini and Pellegrini 2011; Cerqua and Pellegrini 2014; Bernini et al. 2017), French (Crozet et al. 2004) and UK data (Devereux et al. 2007; Criscuolo et al. 2016). As the existing empirical studies on place-based policy evaluate schemes for deprived areas in developed countries one can expect different evaluation results of schemes designed for both leading and deprived areas in emerging economies.

Second, the research is an attempt at understanding of the mechanisms by which impacts occur. The differences in the impact of the state aid may be also caused by differences between instruments. Although both subsidies and tax breaks are used by government to solve the same problem, their impact may be distinct. Tax breaks are perceived as more market-oriented instrument than subsidies, due to leaving decision on

**Research Design & Methods:** We employ the Global Entrepreneurship Monitor (GEM) data (both APS – adult population survey and NES- national expert survey data). A pooled sample of individual-level APS GEM data of 12 Central and Eastern European countries (Russia, Hungary, Romania, Poland, Lithuania, Latvia, Estonia, Croatia, Slovenia, Bosna and Herzegovina, Macedonia and Slovakia) for the period of 2011 to 2017 is used. The sample comprises of 148,611 adult population individuals (55,043 youth – 18 to 35 years old, 29,002 seniors – 55 – 64 years old and 75,055 women) and is weighted to be representative for gender, age and regional distribution. In the first stage, we use descriptive statistics to analyse a level of entrepreneurial inclusivity of selected groups of population in the selected CEE countries by applying total early-stage entrepreneurial activity (TEA) inclusivity index. We use the Mann-Whitney test to determine whether the difference between CEE countries and the rest of Europe is significant. In the next step, we use correlation and linear regression analysis to investigate the relationship between TEA inclusivity indices and chosen variables of entrepreneurial activity drivers of studied groups as well as variables of governmental policies and programs. Separate models are constructed for each group.

## Conclusions

To increase inclusivity of particular groups of population governmental policies and programs should focus on:

- formation of business networks and their promotion in case of all studied groups;
- improving social attitudes towards entrepreneurship such as perception of entrepreneurship as a good career choice, social status of entrepreneurs as well as promoting entrepreneurship in media;
- promoting opportunity perception for all studied groups especially for youth as it is a significant driver of their entrepreneurial activity.

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## Marta Czyżewska, PhD

### Pedagogical University of Cracow

Chair of Economics and Political Economy at Pedagogical University of Cracow located in Poland. Her research interests include: Finance, Entrepreneurship and Innovation. Her latest publication was “Conditions for Creating Effective Startup Acceleration Models to Support Innovative Entrepreneurship in Poland”.

Research topic:

**Entrepreneurial competences diagnosis of academic youth in Poland from regional perspective by application of mining association rules**

Authors:

Marta Czyżewska, PhD, Teresa Mroczek, PhD

### Abstract

The aim of the article is to assess the level of entrepreneurship among academic youth from two regions of Poland according to the EntreComp methodology developed for the European Commission.

EntreComp methodology adopts a broad definition of entrepreneurship, as the capacity to act upon opportunities and ideas and transform them into value for others, that can be financial, cultural or social. The framework of the methodology breaks down the definition into three areas of competences: “Ideas and opportunities”, “Resources” and “Into action”. Each of the area cover five competences developed at foundation, intermediate, advanced and expert level reflected in 8 levels of proficiency and 442 reference learning outcomes.

EntreComp is not an educational programme, but a reference framework to support assessment of entrepreneurial competences that can be used by different actors seeking to improve their capabilities in the entrepreneurial mindset development.

The authors transformed and translated the tool developed into a questionnaire that was sent to students of Pedagogical University of Cracow and University of Rzeszów. Both Universities are located in the south-eastern part of Poland. University of Rzeszów is located in Subcarpathian Region, relatively poorer region than Lesser Poland Region where the Pedagogical University is based.

In the study we received 106 responses. 68% of the respondents represented Lesser Poland Region, 25% lived in Subcarpathian Region and the rest was from the other regions of Poland.

Due to the complexity of EntreComp which is a framework comprising a wide range of skills that create a set of a person’s entrepreneurial competences, it is valuable to identify the associations between different individual skills. The technique enabled to identify existing patterns regarding the sets of competences and overall assessment of the entrepreneurial readiness to undertake initiatives creating value for others by the youth.

As a result there were 73 rules identified, but we selected 30 with the highest lift (above 1.2) and confidence (above 80%).

The initial analysis of the results enabled to identify the association rules regarding entrepreneurial competences of academic youth from Podkarpackie Region. This group of respondents evaluated their competences in the three mentioned areas mostly at basic level, especially with regard to sharing and protection of ideas, staying driven by the possibilities of creating value and by contribution to do good for others, understating economic and financial concepts and knowledge of basic terminology related to money and budgeting, and at intermediate level in responsibility in using resources.

## Conclusions

Research aimed at finding regularities in order to identify of entrepreneurial competences and evaluate their level:

- to identify the sets of competences that need to be strengthened, and those that can be jointly developed,
- to tailor the teaching programs for a chosen group of students and their initial competences.

Further research:

- continuation of the entrepreneurial competences diagnosing,
- searching for new possibilities to analyze the complex set of EntreComp,
- multilevel association rules and other mining techniques.

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## Mervi Raudsaar, PhD

### University of Tartu, Estonia

Associate Professor of Entrepreneurship on Chair of Entrepreneurship of School of Economics and Business Administration at University of Tartu located in Estonia. Her research considers Entrepreneurship and innovation. Recently published article was "Sustainable Entrepreneurial Process: From Idea Generation to Impact Measurement".

Research topic:

**Comparison of the development of social entrepreneurship and creative industries in the post-Soviet context: case of Estonia**

Authors:

Mervi Raudsaar, PhD, prof. Tõnis Mets

### Abstract

The developments of social entrepreneurship and creative industries in Estonia are influenced by previous historical processes. Before World War II liaison was widely practised in different forms of cooperation. But during the Soviet occupation only practices in accordance with the communist ideology were allowed. After regaining independence, a consistently liberal free-market economy was applied in Estonia as a reaction to the communist planned economy. The Republic of Estonia was occupied and incorporated within the Soviet Union in the periods of 1940–1941 and 1944–1991. The Soviet system did not support any entrepreneurship; profitable private trade was called speculation and was considered a crime against the state. However, the Soviet rulers were witness to informal and illicit markets, where people exchanged goods and services (Boettke, 1993; Kornai, 1992; Nove, 1993) and according to Sautet (2013), informal markets were present throughout the Soviet Union. This means that entrepreneurs were active, discovering opportunities to seize gains from trade to improve their daily lives and fill gaps in the official economic system.

The aim of the article is to compare how social entrepreneurship and creative industries have developed in post-Soviet country (1991-2018). Therefore, we describe what features and attitudes have influenced the development and what has state done to support enterprises of these two sectors. As the starting point 25 years was the same for social entrepreneurship and creative industries, we can see now that one sector has developed much more than the other. According to Estonian survey (Mapping 2011) the phenomena was defined: the creative industries is an economic sector based on individual and collective creativity, skills and talent, and capable of creating wealth and jobs through the creation and use of intellectual property.

It seems that there was a greater mutual understanding between creative entrepreneurs and government officials concerning creative industries in Estonia and creative entrepreneurs had more precise development strategies than social entrepreneurship activities. Therefore, creative industries gained more support by state and ministries.

The attention of state and local governments towards social entrepreneurship in Estonia is limited and not sufficient for proper development of their activities. On state level there are no regulations, surveys or projects concerning social entrepreneurship and society is not aware of potential and possibilities of social entrepreneurship. What we have are just some foundations and organisations, founded by civil society, which are also disseminators of their ideas, but summa summarum, support from Estonian state for social entrepreneurship is still limited.

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## **Conclusions**

Creative industries have reached a balance between realization of creativity and business, but social enterprises are still unbalanced. This difference in practices of two close areas is consequence of the apparent difference regarding supportive measures by state. In the beginning, that means years ago, were starting positions and possibilities similar both for social entrepreneurship and creative industries in Estonia. But on a state level was decided that priority in delivering financial support will be given to creative industries. This decision was based on survey data within creative industries and as implications of that were compiled plans of development and measures for supporting of creative industries.

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## Zuzana Kovačičová, PhD

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Vice-Rector at Comenius University in Bratislava. Professor on the Department of Information Systems. Her research considers Management, Entrepreneurship, Project Management, Business Management. Recently published article was “Challenges in Management of Software Testing: Evolvments in Business Information Processing and Management—Volume 1”

Research topic:

**Student entrepreneurship in selected CEE countries: messages for entrepreneurship support policies**

Authors:

Marian Holienka, PhD, Zuzana Kovačičová, PhD

### Abstract

One of the key target groups in order to boost entrepreneurship potential and entrepreneurial activity in CEE countries are university students. The reasons for this are manifold. First, university students find themselves at the doorstep of their future professional career. If they choose entrepreneurship in their initial career stage, it is a good precondition for their sustained economic self-sufficiency, self-employment and potential employment creation for others throughout their future career. Also, thanks to high level of education, expertise and knowledge in their fields obtained during studies, university students have a good precondition to become involved in more sophisticated entrepreneurial activities with higher expected income. Then, entrepreneurial projects of students and fresh graduates are important tools for transferring knowledge from academia, science and research into business. Further, university students represent a rather consistent group

in terms of reachability with different support initiatives, as they can be quite easily addressed within their university environment. Finally yet importantly, universities are one of the key pillars of regional entrepreneurship ecosystems.

Therefore, in this study, we aim to investigate the main aspects of student entrepreneurship within university student population in selected CEE countries. We analyze the expected career paths of university students (in relation to entrepreneurship vs. employment) after graduation as well as few years later, their perception of support from university environment, and their involvement in nascent and active entrepreneurship, together with main aspects of their students businesses. Our findings will result into policy-making messages to improve the regional and national conditions for students to enter and sustain on the entrepreneurial path.

Our study is based on data from the world's largest academic study on student entrepreneurship – Global University Entrepreneurial Spirit Students' Survey (GUESSS). In particular, we utilize 2018 GUESSS data from the selected Central and Eastern European countries (Czech Republic, Estonia, Hungary, Lithuania, Poland, Slovakia) comprising of 18 483 respondents. The survey was implemented across these (and all participating) countries using a common harmonized methodology and survey instrument, with a convenience sampling method applied to obtain the respondents from among university students. In each of the participating countries, a national coordinator appointed by the project coordinator was responsible to execute the survey and recruit partner universities and student respondents.

## Conclusions

The preliminary findings show that while 8.1% of students show entrepreneurial inclination straight after school (6.0% as founders of their own businesses), almost four in ten (38.6%) students declare interest to run their own business five years later. Also, we found out that university students are rather skeptical in perceiving atmosphere at their universities as inspiring to develop new business ideas (average value 3.77 on a scale from 1 to 7), as favorable for becoming an entrepreneur (average value 3.75) or as encouraging them to engage in entrepreneurial activities (average value 3.74).

Also, slightly more than a half (51.4%) of the interviewed students indicated no participation in any entrepreneurship related courses during their studies. Nevertheless, among students in our sample we found 6.5% of those already running their own businesses or being self-employed, and 20.7% of students declaring they are currently attempting to start their own businesses. These findings indicate that student entrepreneurship is an integral, yet not sufficiently supported part of university students' lives. Thus, certain policy actions are needed to utilize the full potential of this phenomenon in favor of economic development of CEE countries and their regions.

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## Przemysław Zbierowski, PhD Hab. King's College London, UK

Przemysław Zbierowski is a Maria Skłodowska-Curie Research Fellow at Strategy, International Management and Entrepreneurship Group at King's College London. His current research interests focus on psychology of entrepreneurship, especially the processes that lead to well-being and thriving of entrepreneurs. He is also a co-leader of Global Entrepreneurship Monitor Polish Team. He recently published a book on positive drivers of corporate entrepreneurship.

Research topic:

**Flourishing in entrepreneurial work - conceptual framework**

Authors:

Przemysław Zbierowski, PhD Hab.; prof. Ute Stephan

### Abstract

Entrepreneurs view their personal happiness as closely tied to their venture and their well-being has been linked to enhanced opportunity recognition and firm performance (Stephan, 2018 for a review). Also research pays increasing attention to entrepreneurs' well-being as an important outcome of entrepreneurship (Stephan, 2018; Wiklund, Nikolaev, Shir, Foo, & Bradley, 2019). Past studies have suggested autonomy as a key resource for entrepreneurs' wellbeing (e.g., Benz & Frey, 2008), however, that effect has not been properly studied empirically. Moreover, current perspective is: (1) rather static, (2) focused on entrepreneur-employee comparisons, (3) informed by relatively 'old theories' about drivers of well-being of employees, (4) focused on subjective WB. What is missing is a more interactive, collective, process-oriented view that considers processes related to eudaimonic WB and thriving.

We propose a new approach to studying well-being of entrepreneurs. We take into consideration a variety of processes that are critical for thriving in entrepreneurial work. First, we take into consideration a variety of approaches to well-being. Second, we go beyond autonomy as single determinant and pay attention to potentially unique work characteristics of entrepreneurs (meaningfulness, stressors, uncertainty) and motives (opportunity-necessity, following some evidence that only opportunity entrepreneurs gain well-being benefits). Third, we study the dynamics of well-being processes of entrepreneurs. Finally, we consider the spill-over effect of well-being and cross-over effect from the entrepreneur to the life partner. We argue that our approach provides more comprehensive understanding of processes leading to thriving of entrepreneurs.



## prof. Tõnis Mets

### University of Tartu, Estonia

Professor in the department of School of Economics and Business Administration at University of Tartu located in Estonia, for more than ten years. His current research interests are Entrepreneurship, technology entrepreneurship, entrepreneurial process and journey and also industrial property management. Recently published article was “Role of university- industry-government linkages in the innovation processes of a small catching-up economy”.

Research topic: **The entrepreneurial paradox of innovation: an Estonian case**

Author: Prof. Tõnis Mets

### Abstract

Entrepreneurial opportunities have been understood as the foundation and heart of entrepreneurship, and universities have been considered the main source of novel ideas feeding opportunities for innovation and startups. After regaining independence 1991, Estonian science moved fast to worldwide recognition (Schiermeier/Nature, 2019), but according to the latest European Innovation Scoreboard (EIS) (EIS, 2018, 2019) measurements, linkages to the economy/innovation have remained weak.

But, at the same time, according to the Global Entrepreneurship Monitor (GEM, 2018), a high level of entrepreneurial activities and startups have become the engine of the economy. Peter Drucker (2002) sees innovation as the function of entrepreneurship. World Economic Forum (WEF) (WEF, 2014, 2016), using global competitive index (GCI) studies, shows Estonia among innovation-driven societies and the 1st in the list of Europe's top entrepreneurial hotspots. However, also, at the same time, according to the Global Entrepreneurship Monitor (GEM), a high level of (total) entrepreneurial activities (TEA) and startups have become

the engine of the economy (GEM, 2018). From the EIS comes as the entrepreneurship could be based on a low level of innovation. That phenomenon for Estonia could be called the “entrepreneurial paradox of innovation” differing from the “European” and “Swedish” paradoxes (EC, 1995; Jacobsson, 2013) linking science and innovation only.

The paradoxical situation evokes the question about the correlation between the entrepreneurship and innovation (E&I) opportunities and processes; and what is their impact on the EIS indicators. Understanding Idea-Opportunity linkages on the startup as well as ecosystem level are one of the main assumptions to ensure the sustainability of knowledge-based entrepreneurial society.

For that purpose, we briefly analyse the nature of the entrepreneurial and innovation processes, disclose the sources of the knowledge-based economy and collect the comparative empirical data about the entrepreneurial ecosystem. Based on the theoretical and empirical approach, we draw conclusions for the design of subsequent studies.

Strongly dispersing indicators and contradictory data from different sources point to the need to analyse sources and methods of how results are obtained critically. Given the fact that the EIS is the basis for the innovation policy of the European Union and its Member States, it is a responsible task. Due to limited volume, the study focuses only on a few unstable metrics. This means comparing the results obtained with different measuring instruments (EIS, GEM, GEI, GCI, etc.), including time series of their results. Empirical research is based on databases of patent offices, startup communities, Estonian statistical office (SE) and annual reports of new ventures. Interviews (with two innovation experts and several entrepreneurs) and case studies are used for specifying entrepreneurship and innovation data collection generally and mapping R&D and innovation activities and expenses in the fast-growing startups particularly.

## Conclusion

The Estonian Paradox appears in the framework of the entrepreneurial ecosystem as an interaction between startup processes and universities sourcing new ideas and opportunities for the creation of new innovative ventures. Current research focuses on this framework as defining the content and peculiarities of the Estonian Paradox.

Understanding Idea-Opportunity linkages on the startup as well as ecosystem level are one of the main assumptions to ensure the sustainability of knowledge-based entrepreneurial society in Estonia. EIS indicators do not explain the phenomena behind the high level of startup processes leading economic development in Estonia, which we call the Estonian Paradox.

The phenomenon of the Estonian Paradox proves the disaccord of entrepreneurial dynamics and the structure of performance indicators of the current EIS. That means the Estonian startup ecosystem produces more innovations than the EIS indicates.

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Professor and Head of the Department of Strategy and Entrepreneurship at Comenius University in Bratislava located in Slovakia. Her research considers mainly entrepreneurship in Slovakia. The article recently published by her was "Senior, Youth and Women Entrepreneurship in the European Regions".

Research topic: **Key drivers of senior entrepreneurship in Central and Eastern European Countries**

Authors: Prof. Anna Pilková, Ján Reháč, PhD, Michal Munk, PhD, Juraj Mikuš, PhD

### Abstract

This paper studies the level of senior entrepreneurship and the influence of personal, contextual and demographic factors on different phases of senior entrepreneurship in the post-communist Central and Eastern European countries. The objective is to analyze the differences between the different regimes in the former Eastern bloc and identify factors leading to inclusive entrepreneurship of seniors. We divide the countries into three blocks, the Baltic, Visegrad and Balkan, to analyze the influence of selected factors and the context of the former regimes on senior entrepreneurship. We use Global Entrepreneurship Monitor data for the selected countries between 2007 and 2016, on individual and national level. We construct a senior inclusivity index to define the levels of entrepreneurial inclusiveness of seniors, tetrachoric correlation analysis and contingency coefficients to define the level of influence of selected variables on the different phases of entrepreneurial activity, starting with entrepreneurial intention, opportunity and necessity driven early stage entrepreneurial activity and established businesses activity.

Our analysis utilizes the Global Entrepreneurship Monitor (GEM) individual-level adult population data from the years 2007 to 2016 for Central and Eastern European countries, which in total amounts to 46.501 observations for a total of 16 countries. The data availability for each country depends on the implementation of GEM and is available in the table 4.1. At the same time, we used the GEM national level data for the analyzed countries according to data availability (same as for individual level data). In the individual level data sample, for the purposes of the analysis we included only individuals aged 55 and above (the number of observations represents this age cohort), in the national level data were used variables both for the 55+ cohort and the adult population aged 18-64, when calculation the indexes of senior entrepreneurial inclusivity and the comparison of entrepreneurial intention in senior cohort.

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Research topic: **Foreign-Born Entrepreneurial Academics in Poland and Slovakia. Success Stories and Institutional Barriers**

Author: Kamil Łuczaj, PhD

#### Abstract

The main aim of this paper is to investigate what is the entrepreneurial potential of foreign-born academics in Poland and Slovakia. The region-specific research seems indispensable because American or Western European research can barely be useful in Central and Eastern Europe (CEE) cultural context. The first difference between CEE and the US and other “global centers” is the investment climate and workforce pool. In Europe in general, and in CEE in particular, there is no long tradition of university-business collaboration (Davey et al. 2018) and there is a very limited share of foreign-born academics, accounting for a 3-6 percent of all academics in Poland in Slovakia (Łuczaj and Bahna 2019). Moreover, the pressure to commercialize the results is relatively new, and the academic institutions do not sufficiently support scientists commercializing scientific research (PAP 2018). On the other hand, there is another form of academic entrepreneurship — many academics take more than one standard job and use their skills outside academia, mainly due to low salaries. The main question of this paper is: how foreign-born migrants employed in academia can commercialize their professional skills in Central and Eastern Europe? The second question is, what institutional barriers do they encounter in their professional life?

In order to answer both research questions, a case study method has been chosen. The paper builds on success stories of foreign-born entrepreneurial academics from Poland and Slovakia and analyzes their various professional, non-academic, activities. The second part is focused on current legal regulations and institutional practices, which temper the entrepreneurship of highly-skilled migrants.

This paper draws on the 100 in-depth interviews with foreign-born scholars residing in Poland and 40 with foreign-born scholars from Slovakia. The interviews were conducted in 2018 and 2019 in English or Polish. The sample was diversified by professional experience (from teaching assistants to full professors), type of institution (public institutions and private universities), academic field (humanities, social sciences, and STEM), gender, and country of origin. Although this study is based on a purposive sample, the distribution of each key variable, in the Polish sub-sample — the main data source for this paper — resembles the distribution in the population of foreign-born scholars in Poland (data obtained from the Ministry of Science and Higher Education, approx. 3000 of cases).

The empirical material reveals that careers of foreign-born scholars are non-linear — the respondents often did not control their professional path and were getting new posts not as a result of a plan but by a happy coincidence. Some of them decided to move to CEE because of a private relationship (a local life partner), or due to lack of job offers elsewhere. Thus, they are open to new opportunities, also from outside academia.

The paper focuses on three case studies — success stories of foreign-born academics involved in local businesses. The first one is an artist who lives in a smaller Slovak town and works simultaneously for a university and a design company. The second one is a university language teacher involved also in multiple language schools in the capital of Poland. The third one describes an engineer, who used to work full-time for a big corporation, but later decided to combine academic work with commercial projects. These three cases are discussed in a broader context of professional roles available for foreign-born academics.

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## Institutional barriers

The paper argues that the entrepreneurship of highly-skilled migrants would have been facilitated if the governments had made some institutional work. First of all, in both countries the visa procedure and the administration were perceived as unfriendly. Especially in Slovakia, the Foreign Police (Cudzinecká polícia) has a disastrous opinion. Second, the number of EU Blue Cards issued in both countries is still very low. Third, there are language problems — an entrepreneur usually needs language assistance as there are official procedures, which have to be done in Polish or Slovak. Fourth, the political climate in both countries did not encourage the study subjects to get involved in non-academic jobs, which could have changed to some extent with Čaputová's presidency in Slovakia. Fifth, come foreign-born scholars experienced verbal and physical offenses, which discourage them from investing their money and time with any extra-curricular activities. The Conclusion section draws some policy recommendations targeted at accelerating academic entrepreneurship in CEE.

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Research topic: **Impact of franchise on the reduction of the franchisor's risk. The case of catering industry in Poland**

Authors: Żaklina Jabłońska, PhD, Katarzyna Mischczyńska, PhD

### Abstract

The main goal of business operations is to increase their value. However, this activity is usually conducted in conditions of uncertainty, which can be divided into two categories: unmeasurable and measurable - called risk. Taking into account the directions of impact, risks can be divided into external - from the enterprise environment and internal - from the inside of the enterprise. This division is not stable, as some threats may affect both, the internal and external environment of the organization. The purpose of risk quantification is to estimate the likelihood of risk occurring and the resulting financial consequences in the enterprise. The final stage is risk control, understood as the definition of feasible actions aimed at limiting it and making a decision on their implementation.

Depending on the adopted strategy and available resources, the entrepreneur should adopt an optimal risk control method for his company. Kokot-Stępień research shows that the greatest impact on risk in enterprises from the SME sector have external factors on which these enterprises have little influence (changes in legal regulations, market demand) and financial factors. Increasing competition, whose activities are difficult to predict, is often indicated as the dominant threats,

which is why it is crucial to take actions to improve its position on the market and strengthen its position in relation to competition. One of such action may be the introduction of a franchise system that will spread part of the risk of system owners among franchisees. The franchise has proved its worth during the economic crisis, as evidenced by the continuous increase in interest in this system in Poland over recent years. This is also confirmed by the results of the research conducted by the author. The purpose of this article is to indicate the impact of franchise on the reduction of the franchisor's risk on the example of the gastronomy industry in Poland.

The discussion presented in the paper concerns the study that comprised Polish enterprises from the catering industry in 2016. The main objective of the study was to examine impact of franchising on market results obtained by franchisers. In order to achieve that the base of franchising companies active in the catering industry was compiled and later compared to a group of non-franchise enterprises. active in the catering industry. The first group comprised 67 enterprises active in the catering industry . 25 franchisers decided to participate in the study (37,3%).

Another group of companies included in the study comprised 150 catering enterprises (non-franchise) operating in Poland since 2016. They were selected from the base of 2711 catering enterprises active in Poland since 2016 and compiled by the Business Consulting company. 37 owners (24,6%) from the abovementioned enterprises agreed to take part in the study. This part of the study was of comparative nature in relation to the first part.

Data concerning the enterprises mentioned above was obtained from three sources. The first one provided information characteristic for specific franchise systems., included in the [www.franchising.pl](http://www.franchising.pl) website. The second source was information from questionnaires collected from franchise companies respondents, and the third one- from non-franchise enterprises. Collected results were correlated with the duration of business activity (in franchise and non-franchise companies), a number of own outlets (in franchise and non-franchise companies), a number of franchise outlets (in franchise companies).

Prepared analysis was an attempt to examine differences between the results achieved in franchise and non-franchise enterprises as well as to examine the coexistence of features between the analyzed entities. In order to examine the differences observed between franchise and non-franchise enterprises the Mann-Whitney U test and measures of central tendency were used.

## Conclusions

83% of the surveyed franchisors confirmed that the introduction of the franchise reduced the risk of their operations. Over 60% of franchisors said that thanks to the franchise they remained on the market. According to the obtained results, the increase in the number of franchise outlets is positively correlated with the declaration about the positive impact of the business model used on maintaining the market. Over 60% of franchisors believe that by observing and analyzing the activities of their franchisees, they significantly reduce their risk and increase the efficiency of actions taken by franchisees (84%).

Operating under uncertainty is common to modern companies, which is why they take various actions to reduce risk. The franchise model helps to reduce the risk of the franchisor, as each license holder runs his business at his own risk. Over 80% of the surveyed franchisors stated that the franchise fully influences the risk reduction of their business activity, clearly emphasizing the advantage over non-affiliated catering establishments (35%), which allows a positive assessment of the impact of the franchise on reducing the risk of the franchisor.

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Research topic: **Investment support for SMEs by EU funds as an opportunity for the development of enterprises in the regions**

Author: Marcin J. Piątkowski, PhD

#### Abstract

Small and medium-sized enterprises are a group of economic entities of significant importance for the economy, especially on the labor market. Due to the dominant share of enterprises belonging to the SME sector in the total number of all enterprises (approx. 99.8%) employing 69.5% employed in the economy, various actions are taken to support their development at the national and regional level through: central and local government units and at European Union level.

Financing the development of enterprises from European Union funds is a valuable support for small and medium-sized enterprises that face the problem of insufficient capital. Subsidies are an additional source of financing for companies that allow them to carry out investments at much lower costs than when using other sources. In addition, structural funds have a very positive impact on the development of the company and improving its competitive position on the market. It is also important that the scope of assistance offered was very wide, thanks to which the

entrepreneur can apply for co-financing of projects in various fields. For this reason, there was a great interest of entrepreneurs in investment subsidies, enabling companies to equip themselves with modern machinery or to change the way services are provided.

In Poland, in 2007-2015, the implementation of the strategic goal of National Strategic Reference Framework (NSRF), namely: “creating conditions for the increase of competitiveness of the knowledge-based economy and entrepreneurship ensuring employment growth and increase in the level of social, economic and spatial cohesion as well as horizontal objectives”, was implemented using a tool in the form of operational programmes. They were financially supported from structural funds and the Cohesion Fund in cooperation with the state budget and budgets of local government units, as well as from entrepreneurs’ funds.

The aim of the article was to analyze and present the results of supporting the investment activities of enterprises in Poland in a regional perspective using EU funds in 2007-2015 in Poland, extended by analyzing the level of entrepreneurship in these regions.

For the purposes of the empirical part of the article, analytical work was carried out to select and then combine information about 23,981 enterprises across the country implementing 34,677 projects with the support of EU funds. The results in terms of the level of investment support from EU funds were supported by the analysis of the level of entrepreneurship in all regions in the analyzed period.

## Conclusions

The analysis showed that in less than a decade, the value of the overall entrepreneurship rate for the whole country increased from 72 to 80 entities (per 1,000 persons of working age). But at the same time, after 9 years, in a greater number of provinces a lower indicator level than the national average is observed, which means large differences in development between regions.

On a national scale, the positive aspect of support is directed to enterprises operating in regions where the situation regarding the level of entrepreneurship was relatively the weakest. In regional terms, the share of enterprises implementing projects was very diverse. In individual provinces there is a large stratification, both in terms of the total value of the projects and the level of their co-financing, taking into account the difference between the lower and upper quartiles.

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Research topic: **Silver tsunami on the labour market. How affects the health state?**

Authors: Paulina Ucieklak-Jeż, PhD, Agnieszka Bem, PhD

### Abstract

Literature shows how the social gradient affects the population’s health. Social determinants of health consist of non-medical factors which derived from the construction of social and economic environment. The inequalities is this factors affect the health state importantly . Socio-economic factors that shape health are income and social status, social support network, education and literacy, physical environment, environmental quality, self-directed behaviours aimed at healthy lifestyle, proper nutrition and physical activity, healthy childhood, genes, health system, gender, culture. One of the important aspects is employment as well as working conditions. Several study in the area of social determinants of health include some variables related to the labour market. These are for example an employment status and occupation.

The CEE countries form a coherent group of countries in socio-economic terms. In terms of health, they allocate a lower proportion of GDP to health benefits . Previous studies indicate that the economic transition affects

the health status of the population in these countries.

The research sample consists of 9 countries of Central and Eastern Europe: Poland, Czech Republic, Slovakia, Hungary, Lithuania, Latvia, Estonia, Bulgaria and Romania. The data covers the years 2010-2017.

The aim of our study is to analyse the impact of selected factors characterising the labour market on the health status of the population aged 50 and more. The problem of ageing societies also affects, albeit to a lesser extent, the countries of Central and Eastern Europe. The declining share of young workers encourages employers to retain their employees representing older age groups. On the one hand, it enables to make most of older workers’ experience, on the other hand, this age group is more at risk of sickness absence.

One of the posed questions is whether, and to what extent, the individual indicators characterising the labour market, as well as their inequalities, affect the level of health of the population.

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## Conclusions

We build the econometric model where the dependent variable is life expectancy at the aged of 45 years (for women and men). Explanatory variables are selected key indicators of the labour market (KLIM). KLIM indicators cover variables relating to employment (status, economic activity, occupation, hours of work etc.), employment in the informal economy, unemployment and the characteristics of the unemployed, underemployment, education, wages and compensation costs, labour productivity and working poverty . The control variable in the estimated model is the average household income – this variable illustrates the level of economic development, as well as economic circumstances, replacing gross national income.

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Research topic: **Industrial parks as a tool for supporting entrepreneurship by municipalities**

Author: Elżbieta Ociepa-Kicińska, PhD

### Abstract

Local development is a complex concept related to the economic, political, social, cultural and spatial levels. The effect of local development is the process of creating new values at the municipality level such as: new companies and jobs as well as new goods and services satisfying the local and supra-local demand. In discussions on fostering local development and establishing new enterprises, we often use the term “entrepreneurship”.

Creating the conditions for the functioning of business entities is inherent in the policy of economic, institutional and infrastructural incentives offered at the local level by individual municipalities. One of the instruments they use is providing the infrastructure necessary to run business, e.g. in the form of industrial parks.

The aim of this study is to answer the question whether and how the entrepreneurship level changes in the municipalities in which industrial parks operate. For this purpose, the key measures describing the entrepreneurship level and its change over time were identified and analysed.

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Research topic: **The role of the entrepreneurial ecosystem in case of an Innovation paradox**

Authors: Piia Vettik-Leemet, MBA, Tonis Mets, PhD

### Abstract

Over the last decade, the convergence of national innovation systems has received considerable attention from both scientists and policymakers. Estonia has made significant progress since 1991 and moved from the planned economy to the market economy. Rapid growth, together with the small size of the country, the openness of the economy and transition processes, have created many paradoxes. Among them: the value added of low-tech companies is higher than that of high-tech companies; excellence in research is weakly related to the main Estonian industries; deciding according to the volume of corporate investments, companies consider simple process innovation to be more profitable than science-intensive product innovation (Eesti ettevõtete... 2015).

Innovation paradox has been discussed phenomena during the last decades. It describes the situation when high rates of investment inputs into innovation generate weak innovation outputs. The innovation paradox occurs when the aggressive pursuit of operational excellence and incremental innovation crowds out the possibility of creating breakthrough innovations (Davila and Epstein 2014). Another definition of innovation paradox is related more with the development stage of the country's economy. For example, despite

the vast potential returns to innovation, Cirera and with a variety of dimensions, than advanced countries. Maloney (2017) documents in their study that developing countries do far less innovation, measured along with a variety of dimensions, than advanced countries.

The article aims to estimate the role of the entrepreneurial ecosystem in case of an innovation paradox. The article focuses on small country example and analyses the Estonian case. As a result, an overview of the Estonia paradox and its main variables are viewed, and the role of the innovation and entrepreneurial processes, entrepreneurial ecosystem and the degree of maturity are assessed.

The approach is based on the model of entrepreneurial ecosystem (Stam, 2015), model of ecosystems maturity assessment (Cukier et al., 2015) and estimating the reasons behind innovation paradox. For empirical analysis, the following proposition was constructed: The Estonian Paradox is a complex phenomenon framed by startup entrepreneurship and innovation ecosystem and processes generally. The engine of the Estonian economy has changed, and it affects the innovation features.

Empirical research is based on data from different sources: the official statistical databases; data from international organizations (World Economic Forum (Global Competitiveness Index), Tax Foundation (International Tax Competitiveness Index 2018), The Heritage Foundation (Index of Economic Freedom), OECD (Country statistical profiles), World Bank; Eurostat; Global Entrepreneurship Monitor (GEM); Global Entrepreneurship Development Index (GEDI); data from Estonian organizations (Estonian Development Fund; Business Register; Bank of Estonia; StartupEstonia, Statistics Estonia) and other secondary data and authors personal knowledge and experience.

The empirical section follows the case-study design, with an in-depth analysis of the role of innovation and entrepreneurial processes and ecosystems and illustrate the features of innovation paradox.

## Conclusions

This article is organized into four sections. The article is beginning with section 1, which gives an overview about the current state of discourse on the entrepreneurial ecosystems and ecosystem maturity level, and interconnection between innovation paradox and ecosystems. Section 2 gives an overview of the used methodology. The next section contains the analysis of the case of Estonian ecosystem and brings out the Estonian innovation paradox conception. Finally, section 4, with the discussions and conclusions, gives a summary and critique of the findings.

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Research topic: **The Preston curve. The evidence from European countries**

Authors: Agnieszka Bem, PhD, Paweł Prędkiewicz, PhD, Rafał Siedlecki, PhD, Milena Kowalska, PhD

### Abstract

Preston curve shows the relationship between real income per capita and life expectancy (LE). In fact countries which spend more on health achieve longer life expectancy, even after taking into account the differences between countries (Jaba, Balan & Robu, 2014), (Gallet & Doucouliagos, 2017), (Crémieux, Ouellette & Pilon, 1999). Previous studies show that income inequality is associated with higher health care expenditures and more intensive health care use (Lopez, Loehner and Chang, 2016) – this is true both on the macro and micro levels.

However the evidence in this area is rather mixed. Some studies suggest that low income affect negatively self-rated health, life expectancy or infant mortality. Obrizan and Wehby (2018) suggest that increasing health spending should be considered as a major policy objective in countries with low life expectancy in order to improve their population health and longevity. On the other hand, Nixon and Ulmann (2006), conclude that increases in health care spending are only marginally associated with increase in life expectancy. Even Preston himself argues that 75% to 90% of the

growth in life expectancy is unrelated to a country’s growth in per capita income (the breakdown of the Preston curve) (Georgiadis, Pineda and Rodríguez, 2010).

In this study we focus on differences rooted in the construction of the health care system, taking into consideration the consequences of the economic transformation which took place in CEE countries at the beginning of the ’90s. The inspiration lies in the conclusion that in all European countries we can find some forms of mixed health systems, where private and public sectors interact (Jeong, 2005), (Boone, 2018). This healthcare financing structure may have a significant effect on equity of financing, healthcare utilization, and finally, on health status (Leiter & Theurl, 2012). Lichtenberg (2002) suggests that public health expenditure has a higher marginal effect on longevity than private health expenditure. On the other hand Linden and Ray (2017) found that both private and public health expenditures have similar positive effects on life expectancy, while the large share of private funds can be a source of potential

The research sample covers 26 European OECD countries (Austria, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Netherlands, Norway, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, Switzerland). Data covers the years: 1995-2015.

We built the OLS model with heteroskedasticity-robust standard errors, where the dependent variable is life expectancy (LE) for men and women population.

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## Conclusions

Preliminary results suggest the following conclusions:

- there is a positive relationship between life expectancy and GDP per capita – this relationship is stronger in the case of the male population,

- there is a positive relationship between life expectancy and current health care spending – this relationship is also stronger in the case of male population,

- male population benefits more from the higher share of public spendings. In the case of the female population, the negative relationship can be observed,

- the economic transition affects negatively population's health state.

All explanatory variables are statistically significant at the level of  $\alpha=0.1\%$ . Starting from the year 2010 the time dummy variables are not statistically significant – the end of technological progress? Increasing health spending can be a good strategy to improve the population's state. Public-private financing mix seems to be the best strategy. In countries which overcame the economic transition, the special attention should be put on the problem of equal access to health benefits.

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Research topic: **The Origin of Entrepreneurial Attitude among University Students**

Authors: Kaire Vahejõe, MA, Merike Kaseorg, MBA

### Abstract

Entrepreneurship is perceived to bring economic welfare. The EU planning period 2014-2020 (Regional development strategy for 2014-2020, 2013) and the Estonian Entrepreneurship Growth Strategy 2014-2020 (2013) are focusing on stimulating entrepreneurship and also the creation of new jobs. As well “to turn Estonia into the center of start-ups in the Baltic States, Nordic countries, and north-western Russia and to make Estonia the most attractive country for major corporations’ development centers in Europe. After this seven-year period, Estonia should be one of the best countries in the world to establish and develop a company (Estonian Entrepreneurship Growth Strategy 2014-2020, 2013). The article proposes to give a theoretical overview of entrepreneurship attitude and entrepreneurship education. For data collecting method the web-based questionnaire was carried out in autumn 2018 and will continue in autumn 2019. The questionnaire used in this research was adapted from studies, by Cassidy and Lynn (1989), Kolvereid (1996), Kolvereid and Isaksen (2006), Duval-Couetil et al. (2014) and Kozlinska (2016). We designed the a form of study, (birth year, gender) data. Keat et al., (2011 questionnaire via review by colleagues and pilot testing throw students. The questionnaire consisted

multiple-choice, Likert-type scale how much they agree with the statements (5 - completely agree ... 1 - completely disagree), also some open questions were attached and some demographic (curriculum, study level, study year, ) pointed out that earlier studies exploring students’ intent to be entrepreneurs also focused on demographic data (age, gender, educational level, and family background). The questions focused on student’s life/career goals, attitudes, knowledge, skills, and perceptions of specific entrepreneur-related themes. An empirical study was carried out among Estonian and English speaking non-business students who studied different entrepreneurship courses at the University of Tartu. We sent the questionnaire by learning environment Moodle to the 220 participants. The return rate was 75% (165 questionnaires). 66.7% (110 respondents) of them were women, 74.5% (123 respondents) of them were Bachelor level students and 25.5% (42 respondents) were Masters level students. Data analysis will carry out by using programs SPSS and MS Excel.

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Director for Commercial Development in IFRA. Doctor of economic sciences, his field of interests include the topic of customer loyalty in various branches, in particular in the field of insurance. Scientifically, he is involved in the modelling and measurement of customer loyalty. Author or co-author of over forty publications and many reports, expertises and development strategies. Trainer and consultant working with both academic centers as well as businesses, lecturer at the Stock Exchange School.

Research topic: **LGUs type and the organizational forms of entrepreneurship support. Case study of Poland**

Authors: Jacek Rodzinka, PhD, Tomasz Skica, PhD

### Abstract

The issue of supporting entrepreneurship by local government units is a topic that, starting from the re-activation of local government at the municipal level, raises a lot of controversy. In the academic debate a substantial space on this topic is devoted to financial instruments and solutions based on activities that from the expenditure or income side stimulate entrepreneurship. Importantly, the legitimacy of using such solutions is often questioned in the literature, indicating their low economic efficiency. Thus, the debate on the instrumentalization of entrepreneurship support by communes is increasingly drifting towards non-financial instruments, including in particular organizational instruments gathered around three areas. The first group are activities supporting non-governmental organizations, the second are activities of local government units involving non-financial partnerships, and the third are instruments supporting civic participation. Considering the fact that references to social participation or social capital appear more and more often in works dedicated to supporting entrepreneurship at the LGU level, the role of these forms of support seems to be gaining momentum. At the same time, the problem of the relationship between the generic category of a commune and the non-financial support instruments

used, in particular organizational support, has still not been sufficiently understood. Therefore, the topic of the relationship between the specificity of organizational solutions used and the generic category of communes using them remains open. This issue is essential because knowledge on this subject has a strongly applied dimension. What is more, with the answer to the research question formulated in this way, it becomes possible to profile support policies based on organizational solutions dedicated to specific generic categories of municipalities, and thus to increase their effectiveness in activities aimed at stimulating entrepreneurship. However, in order to be able to effectively profile support policies based on non-financial instruments, the starting point is the diagnosis of relationships between individual generic categories of local government units and the categories of organizational forms of support and instruments within each of them. This article is devoted to the above-mentioned issue.

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Since 2002 working at the University of Information Technology and Management (UITM) in Rzeszow. Director for Research and Science in the Institute for Financial Research and Analyses (IFRA). Editor in chief of Financial Internet Quarterly e-Finance. Expert in public finance (in particular the financing of local public administration) and entrepreneurship support by LGUs. Author of several academic articles, book publications, monograph sections, analytical works and reports, as well as remedial strategies and programs in the field of public finance, with emphasis on local public administration entities.

Research topic: **LGUs policy towards financial instruments of entrepreneurship support**

Authors: Tomasz Skica, PhD, Jacek Rodzinka, PhD

### **Abstract**

The local government in Poland has a variety of instruments that allow it to effectively stimulate local economic development. These instruments include legal, organizational, promotional and financial solutions. Financial instruments are characterized by exclusive specificity. On the one hand, their use is directly related to incurring expenses (e.g. connected to the creation of infrastructure for entrepreneurship), and on the other, with real budget losses as a consequence of the tax expenditure policy. However, regardless of whether the instruments focus on reducing public burdens or creating an infrastructural environment for entrepreneurship, improper use not only does not bring stimulus effects, but reduces the ability to conduct pro-development budgetary policies. This article aims to determine the scope of use of financial instruments to support entrepreneurship by municipalities in Poland. This research goal is dictated by the fact that on the one hand these instruments are used most often, and on the other hand their use does not bring

the assumed stimulus effects. Assuming that there is a relationship between financial forms of entrepreneurship support and economic development (e.g. Skica et al. 2017), it becomes crucial to determine what factors determine the insufficient or even inefficiency of these support instruments. One of the factors is the generic category of the commune using the given solution (see Inglot-Brzęk and Skica, 2017). This factor should be considered crucial in the discussion on the effectiveness of local government solutions supporting entrepreneurship. Therefore, the matters of this article will be devoted to this issue.

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Research topic: **Restructuring proceedings in Poland as a tool to prevent enterprises from bankruptcy: multidimensional analysis**

Author: Ulyana Dzyuma-Zaremba, MSc

### Abstract

The purpose of the article is to present a multidimensional analysis of restructuring proceedings in Poland, which enterprises threatened with insolvency or already insolvent may use to avoid bankruptcy. Changes in the legal system in Poland in 2015 were groundbreaking, as not only the bankruptcy law was amended, but also the legal system was enriched with a new act Restructuring law. The contribution of this paper is threefold. First, the specifics of the four types of restructuring proceedings and the main actions to be carried out during the proceedings were discussed. Second, an analysis of the phenomenon of enterprise restructuring in Poland was conducted on the basis of statistical data published by the Ministry of Justice. Third, the effects of 533 restructuring proceedings opened against capital companies in the period 2016–2018 were assessed. The achieved results allowed for the formulation of the first conclusions on the effectiveness and usefulness of restructuring proceedings for business entities experiencing temporary financial difficulties.

When analysing the phenomenon of the bankruptcy and restructuring of enterprises in Poland, it should be noted that the increase in the number of open restructuring proceedings regarding declared bankruptcies does

not mean that the new regulations are effective, because in the event that both a restructuring petition and a bankruptcy petition are filed, the former is examined first. Therefore, the bankruptcy of the enterprise may be declared with a delay as a result of the inefficient restructuring of the debtor’s enterprise.

The empirical research conducted allows for the formulation of the first conclusions on the usefulness of the restructuring proceedings for debtors in order to survive. The greater number of discontinued proceedings compared to the number of approved arrangements may suggest that most of the restructuring proceedings are not opened at the stage where first symptoms of the crisis start to be visible (i.e. early stage), but at the stage of its escalation (i.e. advanced stage). Therefore, the debtors’ awareness of the possibilities provided by the restructuring law should be raised, which may contribute to an early recognition of the crisis and a more effective implementation of a corrective action plan, which may include the use of restructuring proceedings.

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Currently an employee at the Institute for Financial Research and Analysis at the University of Information Technology and Management based in Rzeszow. PhD student at the Faculty of Economic Sciences of the University of Warsaw, doctoral dissertation “Impact of the quality of services on the effectiveness of non-public healthcare institutions using the DEA method on the example of the Podkarpackie voivodship”. Author and co-author of publications in the field of finance in healthcare, including monographs and studies.

Research topic: **Evaluating the cost efficiency of private medical entities in terms of local development - Data Envelopment Analysis approach**

Author: Małgorzata Leśniowska-Gontarz, Msc

### **Abstract**

An significant beneficiary of local development is the society of a particular area, whose standard of living is the definitive goal of undertaken activities. Social development has been perceived as one of the most crucial aspects of the local development of local entities. This process can be expressed by quality of life of inhabitants at local level. Improving the quality of life of the society can take a different ways including: healthcare of the society, safety of the society, education, human capital, etc.

On the background of scientific research, local development is a comprehensive concept, a paradigm of development and means a continuous improvement in the quality of life, both present and future generations, achieved by shaping the right proportions in managing human, anthropogenic and natural capital.

Continuous improvement in the quality of life can be seen through the prism of measuring efficiency of healthcare entities at the local level. For many years the word “efficiency” has already been used in connection with human activity: it is the effect of rationality inherent in managing limited resources. Economically, efficiency is about using available yet limited resources, a situation so typical to the world around us. In the case of limited resources of public healthcare can be observed the increasing role of private healthcare at the local level.

In this paper there will be presented the evaluation of the efficiency of private medical entities for Podkarpackie voivodship and the recommendations for them in terms of local development. In the times of growing demand for health services – as a result, inter alia, of the challenges of population ageing, measuring the efficiency of health facilities, especially private ones, is an important and very much pertinent challenge to decision-makers in the healthcare sector at the local level.

Presented research study involved a DEA (Data Envelopment Analysis) approach. Conducted research study covered 35 private medical entities from Podkarpackie voivodship in Poland for the years 2012-2017. Using DEA model the ranking of private medical units was prepared. What is more, there was determined a model private medical entity called Decision Making Unit (DMU). Using the DEA model it is possible to establish goals for inefficient DMUs. These benchmarks should be used by inefficient DMU’s in their performance and they should be regularly checked. Inefficient municipalities can improve their efficiency following the performance of model DMU.

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Research topic: **The phenomenon of entrepreneurship - student’s perspective**

Author: Karolina Palimąka, MSc

#### Abstract

Entrepreneurship is a common problem in literature, because this phenomenon applies to everyone. Economists underline the significant role of entrepreneurial people in the process of economic development as the driving force of the global economy. Despite the fact that the enterprise phenomenon has evolved over decades, there is still no single definition for this phenomenon. It is because this is not only the aspect of starting a business, but also having entrepreneurial competences that allow you to be more effective in your work.

Students and their attitudes towards entrepreneurship are widely discussed in the literature, especially issues related to entrepreneurship education during studies, skills necessary to run their own business and motives that guide young people wishing to set up their business.

The work uses the data collected during a survey conducted among 447 students represents 11 field of study at the University of Information Technology and Management in Rzeszów. For the needs of the study, from the group of students were chosen those who represent two opposite attitudes- wanting to start their own business and those who do not want it (394 responses). The aim of the study was to answer the question what factors determine the tendency to set up their own business among students of the University of Information Technology and Management in Rzeszów

(Poland) – both in the group of students. In addition, the answer to the question whether there is a relationship between the declaration of willingness to establish a company and gender, or, according to them, professional experience, appropriate education and the market are an indispensable criterion determining the establishment of their own company.

#### Conclusions:

- There is statistical dependency between gender and willingness to run a business.
- There are no differences between the motives that drive students to set up their own company in both groups
- Professional experience or appropriate education is not an essential criterion that determines the decision to set up an enterprise.
- The idea and the desire to be independent have the greatest impact on the decision.
- It allows to think that shaping entrepreneurial traits is more desirable by young people than the knowledge of running a company.

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