## Creating a sub-regional innovation index. Is it just a game with numbers?

#### Zoltán BAJMÓCY

The measurement of territorial innovation performance has gained an increased importance in the era of the differentiated innovation policy. However, practical measurement attempts hardly go beyond the regional level, in spite of the arguments on the local nature of the innovation process.

Present paper approaches the question whether the available set of statistical data enables the creation of a subregional innovation index. We demonstrate on a Hungarian data set the challenges of such a process and the possible answers to these challenges. We conclude that there is room for a subregional innovation index. It might be useful for policy-making, but only in case it is used in given ways and for given purposes in line with its limitations.

Keywords: systems of innovation, measurement of innovation, micro-regional innovation index

#### **Networks of innovation and cooperation in Hungary**

Zoltán CSIZMADIA – András GROSZ

In today successful innovation and competitiveness increasingly depends on, how can the actors of the innovation system (especially the business organisations) be integrated in network with different functions and structures both in local/regional and national or global levels. In our study we would like to present some of the key parameters of the innovation activities and social network features of Hungarian firms based on a nation-wide representative enterprise survey. Thus, the focus of the study is the characteristics of innovation activity, the motivation factors and obstacles to innovation activities, the business-organizational relationships and the main cooperation areas of the Hungarian firms. The study is based on the most important achievements of the empirical research (NETINNOV project) funded by the former National Office of Research and Technology.

Keywords: innovation, social networks, cooperation, survey

## Theoretical establishment and problems of welfare measurement

#### Judit GÉBERT

Defining prosperity has a long traditon in economics and this problem arises again and again in today's literature also. This paper takes stock of the dominant theories of welfare: preference-utilitarianism, basic goods approach related to John Rawls, and Amartya Sen's capability approach. Along what their method is, the theories are divided into two groups: formal theories and substantive theories. First I classify these theores into one of the two groups then I make a critical comparison between them. On this basis finally I propose a comprehensive typology of welfare, which can be the theoretical foundation of measuring welfare.

Keywords: welfare, informational basis, primary goods, capability approach

### New tendencies on the field of sustainability indicators

Mónika IMREH-TÓTH

In my study I am concerned with sustainability indicators on subnational levels, including certain approaches and introducing of criterions of indicators, because for a useful sustainability indicator set it is necessary to define the criterions which help to create an adequate system.

In the course of the examination of sustainability indicators it is important to examine the top-down and bottom-up approaches, and the advantages and disadvantages of them. The former is rooted in reductionism and uses quantitative indicators. The latter is based on participation philosophy. The top-down indicators are collected accurately, examined by experts and their validity is tested by statistics tools. However, this approach often disregards the connection with local communities. On the other hand, the bottom-up approach is based on understanding the local context and understanding the environmental and community on local level. This approach not only provides a good source of indicators, but attempts to emphasize the communities' capacity. The approach itself holds the danger that the indicators developed through participation techniques may not able to grasp sustainability with absolute precision and maximum reliability since it is not certain that the problems and ideas raised by certain members of the community completely cover the knowledge which is necessary to measure the region of interest.

Keywords: level of sustainability, sustainability indicators, top-down approach, bottom-up approach, criterions of indicators, ecological footprint

# **Entrepreneurship education in higher education: possibilites** and expectations

Mónika IMREH-TÓTH – Szabolcs IMREH – Szabolcs PRÓNAY – Márton VILMÁNYI – Miklós LUKOVICS – Péter KOVÁCS

In the study we make an attempt at reviewing some of the most important questions of the discipline of entrepreneurship education. The aim of the inquiry is the typification, systematization and synthesization of questions concerning the entrepreneurship education at university, with special regard to the dichotomy of entrepreneurship, namely, what is possible to teach and what is not. We touch on the most important international trends, and make an attempt to demonstrate our fallback existing in this field, in addition, we present some possibilities to advance.

In the second part of the study we present the principal results of our research conducted with entrepreneurs of Csongrád megye. Within the frame of our research we got feedback of the role of the university in enterprise development.

Key words: SMEs, entrepreneurship, entrepreneurship education

# Regional growth, development, territorial capital and competitiveness

Imre LENGYEL

The functioning of societies and economies has changed to a large extent in the last decades because of globalization processes. In this new global division of labor it seems to be important to reconsider the interpretations of the notions of regional economic growth, development and competitiveness. Since both economic growth and development are areas of busy and long ongoing research activity, today it is the concept of regional competitiveness and its relationship with the other two aforementioned notions which are highly debated in the special literature. In my study I give an overview of the significant scientific schools examining the notions of regional economic growth, development and competitiveness. I also include the elements of territorial capital and their systematization in my analysis since these are applicable to the evaluation of endogenous development. In the last part of my study I make proposal for the possible time period of the domains of the formerly examined three notions.

Keywords: regional growth, development, territorial capital, regional competitiveness

### Characteristic problems of family business

Éva MÁLOVICS – Beáta VAJDA

Family business (not equivalent with small-and medium-sized enterprises) is a dominant enterprise form; according to estimates, 65-80 percent of companies are run by families. They also play a significant role in the Hungarian economy, however, only little research has been made about their needs and special characteristics. As a beginning of our research, on the basis of English- and German language publications of research results, we investigate how international results and models can be implemented and adopted into a Hungarian setting.

While family businesses may exploit their common history, identity, language, as well as from the fact that commitment to the family can increase commitment to work, we must also acknowledge that intimacy in their activities may be an expense on professionalism. Meeting dual (family and business) expectations may result in management innovations.

The aim of our research is to identify systems of values and features of business-family systems that ensure continuity, thus encouraging the innovativeness of family businesses.

Keywords: family business, management, model adaptation

### Dilemmas in the operationalization process of sustainability measurement

György MÁLOVICS

The question of well-being is intensively debated in economics for a long time. In the last decades the debate on environmental sustainability joined to the debate on well-being because future well-being is to a high extent influenced by environmental changes.

Both well-being and environmental sustainability are complex notions. This study aims to analyze the dilemmas appearing when operationalizing the latter one. We apply an economic approach, i.e. dilemmas of operationalization are analyzed based on our economic knowledge on sustainability. The main conclusions are that (1) we face unavoidable dilemmas when creating measurement tools for complex notions; (2) environmental economics and ecological economics provide us important aspects in order to be able to make our choices of operationalization regarding the operationalization dilemmas of sustainability; still, (3) these choices are necessarily accompanied by a certain extent of trade-offs and thus value judgments.

This eventuates that one of the main task of the researcher in the operationalization process of the notion of sustainability is to introduce trade-offs and value judgments behind the relating operationalization choices and measurement tools. It becomes especially important if environmental economists and ecological economists do not want to commit the same faults (reductionism) which they criticize in mainstream textbook economics.

Keywords: sustainability measurement tools, dilemmas, value judgements

# University-Industry Relations: a case study of the Oxford University

Benedek NAGY

An increasingly important function of universities is transfering knowledge not only through teaching but also throug industrial connections. This is the much emphasised third mission of universities. This paper will first gives an overview of the literature of the divers aspects of the university-industry relationships, and how these aspects are treated theoretically. Second, through a case study of the Oxford University it will give a good example how university-industry relations can be successfully managed in practise.

Keywords: university-industry relations, third mission, knowledge transfer

### Effects of the regional networks in development of SMEs

Gábor PAPANEK

During the past decades in the developed countries the dynamism of the SME sphere was the main actors of the economic development, and in the coming years in the Hungarian economy this firm group will give the engine for the growth as well. So, the basic interest of the Hungarian society is to create all conditions of the rapid increase of SME's performance. In Hungary however, in spite of the realisation of many economic researches about the topic, among the spatial experts only seems to be well known, that the inter-firm relations influence also the dynamism of SMEs. Because of this in my presentation I will analyse the opportunity and problems of this relations, in order to initiate an inter-disciplinarian exchange of views of the conference participants.

Keywords: entrepreneurship, growth, SMEs

### **Competitiveness of touristic destinations – how to measure**

Zsófia PAPP

For effective tourism management it is essential for the destination to be able to measure its successfulness at any time – and to be able to determine the points where certain management interventions (marketing, development, etc.) can help to achieve success.

Several theories have recently been developed about destination competitiveness, trying to identify which factors can result in the success of a tourist destination. Many researchers have focussed on building up models based on those factors. Some model-builders aim to give a framework for all influencing factors, like the most quoted Ritchie and Crouch (2003) or Heath (2002). Other researchers, such as Dwyer et al (2002), stand on the other side, focussing on one single aspect like the price-competition among destinations for example. However, very few researchers have paid attention to developing an appropriate methodology for measuring competitiveness. As there are a lot of factors to be taken into account – even the most comprehensive model is not adequate to measure destination competitiveness.

This paper deals with models and measurement methods of tourist destinations competitiveness. The main question is if there is any appropriate measuring methodology, which can be used to any kind of tourist destination.

Keywords: tourist destination, measuring competitiveness

### Regions in the last 20 years of regional policy

János RECHNITZER

The institutional system of statistical-administration regions was set up 10 years ago in Hungary. Regional development councils as quasi government institutions were established at the end of 1998 and at the beginning of 1999. These institutions became the top-down appointed authorities for planning and development of NUTS2 territorial units consisting of several counties. In my study I introduce the Hungarian regionalization from the change of earlier regime until recent times. My analysis is based on the perspective of territorial development and regional policy. It does not include any evaluations based on the regional organization and management of state functions. Although I cannot avoid touching upon the indispensable central government level of administration and territorial organization, I do intend to focus my analysis on regional policy.

Keywords: regional policy, spatial development, institutions

#### To stay in competition – a case of an SME

#### Mária RÉDEI

The aim of paper is to present a case study of a SMEs development operating by high added value. To support the SMEs have been high priority in all of economic strategies, but the development of firms were restrained. Several research reports and papers were published on the basis of regional statistical variables, it was verify several relations, but to see the challenges and solutions in market context on a case study can contribute to a better understanding their business climate. Uncommon is in a case of this small firm, that several international relations have been acted, or was forced to do so, to benefit from the international connection. The development of firm shows what kind of quality insurance problem has to be solving, and how to modify the new market roll. The author has taken efforts that how the firm was in context by the adequate transition situation.

Keywords: small enterprise, high added value, international relations

### Teritorial relation of competitiveness and creativity

Imola RITTGASSZER – Miklós LUKOVICS

The opinion, that not only companies, but also regional units compete with each other, becomes increasingly accepted. The concept of competitiveness, which expresses the firmness in competitive situations, has turned by today due to the basic processes of globalisation, and the special characteristic of global competition into one of the central concepts of economics and business sciences. There is another important tendency at regional studies, that the concept of creativity – which examines the role of regional units in the knowledge-based economy for special aspects - comes even more powerful into prominence.

The exploration of the connection system of competitiveness and creativity is an important research question, since the clarification of margins and overlaps beetween the two categories is crucial for the purpose of empirical analyses.

The present study aims to explore the relationship of competitiveness and creativity on the basis of international and national literatur. The study presents the potential connecting points, most important coherences of innovation, competitiveness, and creativity proceeding of the thinking over the relationship beetween innovation and creativity.

Keywords: knowledge, creativity, innovation, competitiveness

### The opportunities of biotechnology cluster in Szeged

Gábor SCHULZ

Biotechnology has become an integral part in the development programs of many regions. From agriculture through bioproduction to the solution of the most acute problems of these days, enormous hope is arising that biotechnology will be able to answer these questions and master the towering challenges we are facing.

This paper aims to give a brief introduction of the biotechnology industry and review the cases of two minor cities comparable to Szeged, which were able to successfully establish their own biotechnology clusters. Afterwards, I am giving a brief summary of my research conducted among biotechnology firms in Szeged.

Keywords: biotechnology, Szeged, cluster

### Spatiality of knowledge-intensive sectors: innovation and concentration

Izabella SZAKÁLNÉ KANÓ

The knowledge intensive industries are playing a centralized role in nowadays "knowledge-based" or "learning-based" economy. In the developed countries they are one of the central promotional forces of economic growth – and since every industry is a several world, which is made by the knowledge of its actors and by interactions of them, and since the intensity of these interactions is spatially depending –, it is important to look at the spatial distribution of these industries.

This study aims to investigate the spatial distribution of knowledge intensive manufacturing industries and knowledge intensive services in Hungary on subregional level (LAU-1). Among others we seek to answer the question: is there any connection between geographic distribution of knowledge intensive industries and the innovativeness of them. Our study is made on basis of empirical dates of Hungarian subregions, by the help of statistical methods: of concentration and agglomeration indices.

Keywords: innovation, knowledge-intensity, spatial concentration, agglomeration

### Carrying capacity and growth

János TÓTH I.

I am studying the relationship of economic growth and carrying capacity in my paper. The growth is the central idea of the mainstream of modern economics which is reinforced by at least two centuries of experience of the Western world. However, there have always been critics (Malthus, Elrich, Meadows) of the concept of unlimited growth. These critical thoughts have intensified with the birth of ecological economics (Daly, Rees, Costanza) and the economic use of the concept of carrying capacity in parallel. The concept of carrying capacity comes from the science of ecology and it shows the maximum number of individuals in a given population. In my opinion, the concept of carrying capacity can be applied to the human communities, but this application is complicated by several human factors (consumption, production, pollution). I am studying this topic in my paper reviewing the ideas of the authors who are criticising the economic growth.

*Keywords:* ecological economics, overshoot, technology ecological efficiency

## Joint decision making as innovation in doctor-patient communication

Beáta VAJDA – Sarolta HORVÁTH – Éva MÁLOVICS

It is a common characteristic of healthcare sectors (not only in Hungary, but in developed countries as well) that they struggle with financial difficulties. Meanwhile, according to OECD data, health-related indicators (e.g. expected lifetime) of a country do not only depend on how much money is spent on healthcare. For a real solution of problems, a holistic approach is needed, which supports innovations that decrease costs and increase quality. Shared Decision Making (SDM) is a communication and decision making model that may contribute to the improvement of medical services through supporting shared decision between doctors and patients, reducing information asymmetry. On the basis of our research, we may claim that it is the doctor who is in dominant position in this relationship, and that one third of respondents consider communication an important factor in healing.

Keywords: healthcare, communication, shared decision

# Impact assessment of regional innovation policies by the GMR-Europe model

Attila VARGA – Péter JÁROSI

In this paper we outline the GMR-EU (Geographic Macro and Regional) model and provide applications to illustrate its capabilities. The GMR system consists of three sub-models: the regional knowledge production function (KPF) sub-model, the regional spatial computable general equilibrium (SCGE) sub-model and the macroe-conomic (MACRO) sub-model. The GMR model has been applied in different development policy impact analysis simulations carried out for the Hungarian government and for the European Commission (DG Regional Policy). The paper also provides a selection of recent policy applications of the GMR model.

Keywords: GMR, knowledge production function, TFP, SCGE, development policy impact modeling

### Sectoral systems of innovation: knowledge in focus

Zsófia VAS

Industries are very different in terms of their innovation activity. While some industry is characterized by radical innovation, others have capability to make incremental innovation. The differences between industries appear also in the dominant technology used, the demand, the institutional background, knowledge base and linkages to exploit knowledge.

Introduction to the notion of sectoral innovation system makes possible to describe enterprises' different behaviour to innovate, their innovation capacities and performance. To explore all the special characteristics of a sectoral innovation system, it is reasonable to examine it embedded in the regional and national business environment. This also gives the opportunity to recognize features influencing clusters' development.

Present paper aims to demonstrate a theoretical framework, to build a model, a tool to examine the influence of industries' innovation activities on regional economic performance, especially on the basis of their knowledge intensity.

Keywords: sectoral innovation system, knowledge, knowledge-intensive industry

# Regional peculiarities in consumers' leisure-time activities, consumer- and brand-preferences

Zoltán VERES – Jenő ANDICS – Erzsébet HETESI – Szabolcs PRÓNAY – Péter KOVÁCS – Erika HLÉDIK – Beáta VAJDA

The Hungarian Scientific Research Fund supported "Lifestyle based consumer segment research" has been carried out between 2007 and 2010 at the Institute of Business Studies of the University of Szeged. The research focussed on a special field of the sociology of consumption: the investigation of consumption structure of given consumer segments and methodological finetuning of lifestyle research respectively. From methodological questions of lifestyle research two issues emerged as important topics: finetuning of status typology method in order to get a better fit to the Hungarian circumstances, and analysis of regional differences of lifestyle groups focussing on the South-Hungarian region. In 2007 a series of in-depth interviews was completed to found the survey. In 2008 we carried out the test questioning which was followed by the final survey in 2009. From 2009 autumn focus group discussions have been conducted to validate the survey results.

Keywords: lifestyle, leisure time consumption, status typology