15th European Rural Development Network Conference

Innovation and Cooperation in Smart, Sustainable and Inclusive Rural Regions
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Book of Abstracts

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Vienna, October 2017
Programme

Eisenstadt, 3rd-4th October 2017

Tuesday, 3rd October 2017, Conference Day 1 – Hotel Burgenland

08.00 – 09.00 Registration

09.00 – 10.30 Welcome and Session 1 – Social Innovation and Cooperation in Agriculture and Rural Development

Chair: Sigrid EGARTNER, Federal Institute of Agricultural Economics, Vienna, Austria

Introduction and welcome
Thomas RESL, Head of the Federal Institute of Agricultural Economics, Vienna, Austria
N.N. Federal Ministry of Agriculture, Forestry, Environment and Water Management, Vienna, Austria

Social Innovations in Rural Development – Can Policy Catalyse Social Innovations in Rural Areas?
Barbara WIELICZKO, Institute of Agricultural and Food Economics – National Research Institute, Warszawa, Poland

Modern Short Food Supply Chains: Social Innovations, Collaborative Networks and New Forms of Governance in Rural Societies
Pawel CHMIELIŃSKI, European Rural Development Network, Institute of Agricultural and Food Economics – National Research Institute, Warszawa, Poland

Innovation Transfer in EU Rural Areas: A Social Network Analysis in "Short Food Supply Chain Knowledge And Innovation Network (SKIN)" – H2020 Project
Piermichele LA SALA et al., Department of Economics, University of Foggia, Italy

10.30 – 11.00 Coffee break
11.00 – 12.30 Session 2 Social Innovation – Preconditions and Experiences
Chair: Marie TRANTINOVÁ, Institute of Agricultural Economics and Information, Praha, Czech Republic

Social Innovations to Connect Agro-Ecological Farmers and Consumers: The Experience of the "Redes De Cidadania Agroalimentar" in South Brazil
Luigi ROSELLI et al., Department of Agricultural and Environmental Science, University of Bari Aldo Moro, Italy

Preconditions for Social Innovation in Rural Development: Best Practices in Turkey
Peyman UYSAL and Ahmet ALI KOÇ, Department of Economics, Akdeniz University, Antalya, Turkey

Experiences of Social Innovation for Blue Growth in the Dutch North Sea
Katrine SOMA, Sander VAN DEN BURG et al., Wageningen University and Research Centre, Den Haag, The Netherlands

Enhanced Provision of Public Goods through Agriculture and Forestry Activities across the EU
Thomas DAX, Thilo NIGMANN et al., Federal Institute for Less Favoured and Mountainous Areas, Vienna, Austria

Sustainable Development in Rural Regions of Slovakia: The Role of the National Rural Development Programme
Drahoslav LANČARIČ, Radovan SAVOV et al., Faculty of Economics and Management, Slovak University of Agriculture in Nitra, Slovakia

12.30 – 14.00 Lunch at Hotel Burgenland

14.00 – 21.00 Field trip including dinner

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Wednesday, 4th October 2017, Conference Day 2 – Hotel Burgenland

09.00 – 10.30 Session 3 Agricultural Sector – Strategies & Approaches
Chair: Julia NIEDERMAYR, Federal Institute of Agricultural Economics, Vienna, Austria

Social Agriculture – a Sustainable Diversification Strategy for Agriculture and an Innovative Offer of Social Services – The Case of South Tyrol
Clare GIULIANI, Institute for Regional Development, Eurac Research, Bolzano, Italy

Development of Extension Services – a Challenge for the Innovation Flow in the Agriculture of the Republic of Moldova
Alexandru STRATAN, Anatolie IGNAT et al., Agro-food Economy and Rural Development, National Institute for Economic Research, Chisinau, Republic of Moldova
Innovative Future Perspectives for the Province of Burgenland’s Agriculture. A Transdisciplinary Research Project
Ruth BARTEL-KRATOCHVIL et al., Research Institute of Organic Agriculture, Vienna, Austria

Biodiversity Monitoring in High Nature Value Grasslands by Farmers in Austria
Maria ZACHARIAS and Barbara STEURER, Austrian Council for Agricultural Engineering and Rural Development, Vienna, Austria

10.30 – 11.00 Coffee break

11.00 – 12.30 Session 4 – Analyzing Rural Areas
Chair: Andrew FIELDSEND, Research Institute of Agricultural Economics, Budapest, Hungary

CommunalAudit, a Guide for Municipalities in Austria to Foster Inclusive and Sustainable Development
Erika QUENDLER, Federal Institute of Agricultural Economics, Vienna, Austria

Networking of Rural Centers through Direct Transport Connections: Has the Long-Term “Status Quo” Been Disturbed by One Governmental Decision? Case Study of Prešov Region, Slovakia
Vladimír SZÉKELY and Daniel MICHNIAK, Institute of Geography, Slovak Academy of Sciences, Bratislava, Slovakia

Regional Smartness and Convergence – a Romanian Case Study
Monica Mihaela TUDOR et al., Romanian Academy – Institute of Agricultural Economics, Bucharest, Romania

12.30 – 14.00 Lunch at Hotel Burgenland

14.00 – 14.45 Poster session

14.45 – 16.00 Session 5 – Local Development Strategies
Chair: Paweł CHMIELIŃSKI, European Rural Development Network and Institute of Agricultural and Food Economics – National Research Institute, Warszawa, Poland

Strategic Planning of Czech Local Action Groups in Rural Development: New, Required and Innovative in 2014-2020?
Ondřej KONEČNÝ et al., Faculty of Regional Development and International Studies, Mendel University in Brno, Czech Republic
"CLLD" Approach and Implementation of Local Development Strategies in Slovenia
Matej BEDRAČ and Tomaž CUNDER, Agricultural Institute of Slovenia, Ljubljana, Slovenia

Rural Development Policy Implementation in Georgia – Bridging the Gap Between Policy and Community Level
Giorgi SHUBITIDZE et al., FAO Office in Georgia, Tbilisi, Georgia

An Innovative Method for Evaluating LAGs and Rural Development „Mirror of LAGs“
Marie TRANTINOVÁ, Institute of Agricultural Economics and Information, Praha, Czech Republic

16.00 – 16.30 Coffee break

16.30 – 18.00 Session 6 – Understanding Rural Economies / Closure
Chair: Klaus WAGNER, Federal Institute of Agricultural Economics, Vienna, Austria

The Rural Business Innovation System – an Under-Researched Concept?
Andrew FIELDSEND, Research Institute of Agricultural Economics, Budapest, Hungary

Factors Affecting the Performance of Small and Medium Enterprises in Rural Areas of Kosovo
Ekrem GJOKAJ and Halimi KAPLLAN, University of Pristina, Faculty of Agriculture and Veterinary, Pristina, Kosovo

Support of Households and Their Role in Rural Development in Ukraine
Ludmila STEPURA, Scientific and Methodological Centre of Agrarian Education of Ukraine, Kyiv, Ukraine

Outlook and Closure
Paweł CHMIELIŃSKI, European Rural Development Network, National Research Institute, Warszawa, Poland and Klaus WAGNER, Federal Institute of Agricultural Economics, Vienna, Austria

19.30 Farwell Dinner at Restaurant Haydnbräu

Remark: Only the affiliations of the corresponding authors are shown, see section of abstracts for all authors and respective affiliations.
Abstracts

Innovation and Cooperation in Smart, Sustainable and Inclusive Rural Regions

Efforts in previous Common Agricultural Policy periods have enabled agricultural development but also promoted integrating other sectors of the rural economy and emphasised social and environmental concerns in rural development programmes. In the current period of the rural development policy one of the six EU priorities is dedicated to fostering knowledge transfer and innovation in a very broad sense.

Innovation does not only refer to technology, products or processes, but likewise to social, organisational and governance aspects, including any forms of horizontal and vertical cooperation and communication. This approach shall contribute to improving regional competitiveness in an increasingly challenging economic environment while securing the sustainable use of resources, the provision of eco-system services, food security, social and human capital. Innovation could arise from regional strengths and regional identities and should enable broad participation in the innovation process.

Tuesday, 3rd October 2017, Conference Day 1 - Hotel Burgenland

Session 1 – Social Innovation and Cooperation in Agriculture and Rural Development

1.1 Social innovations in rural development – can policy catalyse social innovations in rural areas?

Barbara WIELICZKO, Institute of Agricultural and Food Economics – National Research Institute, Warszawa, Poland

Rural development policy is constantly looking for new policy instruments more effectively and efficiently targeting developmental needs of rural areas and their inhabitants. Innovations are currently seen as means to facing any challenges appearing in the economic development. Innovations are generally associated with new technological solutions. Yet, the innovations can relate also to non-technical aspects of functioning of the economy. Therefore, also in the social reality we can and implement innovations. The concept of social innovations has been research in different fields relating to, among others, management and entrepreneurship. Also the idea of social innovations as way of achieving socio-economic development has been

1 Abstratcs as submitted by authors
gaining on popularity in recent years and in the agricultural and rural contexts it is seen as an essential part of innovation (Bock, 2012).

The fundamental question for policy designers relates to the potential for the policy to catalyse social innovations. To find the answer to this question a careful study of social innovations, their creation and diffusion must be conducted. The aim of this paper is to present the concept of social innovation and assess the potential of rural policy to catalyse such innovation within the rural development policy. The paper applies systemic review approach. The databased used for the study was ISI Web of Knowledge and the search was conducted within the whole period covered by this database.

Social innovations are defined in different ways and used in various contexts. For the purpose of this paper a social innovation is an innovation that results in a new form of functioning of social relations such as communication and coordination processes (Neumeier, 2017). It involves social change that translates into alteration of social practices, including both institutions and informal interactions. Social innovations can include products, services, markets, platforms, processes or business models (Caulier-Grice et al., 2012). Yet, only these changes can be considered as social innovations that are purposeful and orientated at a desired goal (Cajaiba-Santana, 2014). According to Neumeier (2012) there are three stages of a social innovation, including:

- Problematisation – identification of a need.
- Expression of interest – expansion of the group interested in implementing the innovation.
- Delineation and co-ordination – specification of the details of an innovation.

Based on the distinction of these stages three groups of factors influencing the social innovation process can be named. They include:

- Factors influencing the participation in the innovation process, such as social capital, existence of key actors/group leaders.
- Factors influencing the success of the social innovation, including consistence with existing solutions, triability or forseability of result.
- Factors influencing the room to manoeuvre for the social innovation actor network that is external factors not under control of the innovation proponents.

The study shows that the concept of social innovations is still in its developmental phase despite decades’ long research. The theoretical background is generally based on institutional and structuration theory (Cajaiba-Santana, 2014). Social innovations are characterised by their novelty and meeting a social need, efficiency and enhancement of society’s capacity to act (Caulier-Grice et al., 2012). Based on the review of the literature it can be concluded that the role for rural development policy in fostering social innovation is to create an enabling environment empowering the agents to develop and implement new ideas. Creating this specific environment the policy designers have to bear in mind different initial conditions, especially differences in social capital, as well as variety of social innovations that require
different environment settings. Moreover, policy should be opened to support prototyping that is putting ideas into practise in a form of pilot projects.

Naturally, the major role for policy is in the field of innovations’ scaling and diffusion. This is the next step after pilot projects. Moreover, the knowledge gained by supporting prototype, pioneering projects offers must be popularised to ensure an efficient use of public funds. This is also the cheapest way to ensure implementation of social innovations at a large scale.

There is still much need for further research on how to design an effective policy supporting social innovation. This is clearly shown by the experiences with the EU bottom-up approach for the development of rural areas. The LEADER approach is considered to be a right solution for supporting social innovations and increasing local communities’ empowerment that plays a key role in catalysing social innovation. The experiences with the LEADER approach show that the key factor for the type and extend of results of using the bottom-up approach depend not only on the social capital already present in the targeted areas but also on the exact procedures and extend of support offered. The EU Leader approach is a right step into facilitation of social innovations. Yet, there is a threat that the mainstreaming of bottom-up approach is losing the power of this instrument (Dax, Oedler-Wieser, 2016) due to increasing administrative burden and growing intend of the European Union to concentrate in quantitative indicators in evaluating the results of the LEADER approach.

To sum up, it can be stated that social innovations are as important as other types of innovations to the development of rural areas. With the increasing number of challenges facing the socio-economic development of rural areas, it is necessary to take into account the issue of social innovations within the rural development policy and introduce effective and efficient measures to support such innovations.

References:
Neumeier, S. (2012), Why do social innovation in rural development matter and should they be considered more seriously in rural development research? Proposal for a stronger focus on social innovation in rural development research. Sociologia Ruralis, 52, 48-69.
1.2 Modern Short Food Supply Chains: Social Innovations, Collaborative Networks and New Forms of Governance in Rural Societies

Paweł CHMIELIŃSKI, European Rural Development Network, Institute of Agricultural and Food Economics – National Research Institute, Warszawa, Poland

The modernisation of rural economies depends on the capacity of rural actors to cooperate successfully to form efficient value chains which will deliver competitive products and services. The greater interest being shown in short supply chains provides opportunities to rethink and improve value chain organisation so as to turn specific assets into economic, environmental and social benefits.

The new forms of value chain organisation in rural areas are influenced by a plurality of components referring to aspects of technical, technological, cultural, economic, organizational, legal and institutional nature.

A transition to new business patterns requires an approach that takes into account these system dimensions. We observe a shift from traditional, farm- and place-based, to modern SFSCs, which are more complex, consisting of collaborative networks of producers, consumers and institutions but often seeking to sustain traditional farming practices through social innovation in chain organisation and food marketing.

Paper will present an evidence-based view on the different aspects of short food supply chains development in different EU countries. This includes the characteristics of individual and collective businesses, investigation of networks, interaction and cooperation between different stakeholders but also changes at organizational and managerial as well as conceptual level of SFSCs in the context of implementation of rural development policy.

The future role and development paths of SFSCs will be discussed in the context of:
- new forms of social innovation and collaborative networks,
- institutional and policy support,
- new forms of governance introduced in SFSCs organisation and be seen as one significant contribution to the current transitions in rural areas across European countries.

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1.3 Innovation transfer in EU rural areas: a social network analysis in "Short Food Supply Chain Knowledge and Innovation Network (SKIN)" - H2020 project

Piermichele LA SALA, Francesco CONTÒ, Nicola FACCILONGO and Mariantonietta FIORE, Department of Economics, University of Foggia, Italy

This study aims to introduce an innovative approach to spread knowledges in Food Supply Chain (FSC), strictly connected to the territorial actors, intended as regional nodes. To this extent, the nodes appear as local hubs concentrating knowledge and expertise, coming from research and real experiences. European Commission (EC) is strongly fostering sustainable growth, as proposed within the Horizon 2020 program. Also according to the EIP-AGRI Focus Group, the SFSC represents a relevant topic to improve farm incomes, sustainable farming systems and promote local economic development. In this sense, the SKIN project, an H2020 project coordinated by the University of Foggia, focuses on the assessment of good practices in Short Food Supply Chain (SFSC), spread in European areas through the implementation of strong networks. A fundamental part of the SKIN approach will be indeed represented by the regional nodes. A single regional node will deal with maintaining and consolidating the network among actors, increasing density, bonds and expansion. In long term, the foresights attain to realize networks among new communities and existing ones, involving different sectors and exploiting synergies. These synergies are also promoted within the EIP-AGRI final report on SFSC. The document highlights the need to get closer producers with consumers. To reach marketplaces without missing the economic sustainability, farms should be able to constantly understand current and future consumers’ behaviour. The principal challenge consists in providing a framework exploitable everywhere in European areas, though adapting it to the specific local needs. Regional nodes will exactly express the local desires and involve the expertise able to manage the common framework. The role of the experts will also consist in filtering and checking innovations and knowledge from other nodes that mainly fit with local actors. The analysis will be performed considering how to identify the local entities to be raised as regional nodes, and the bonds to be promoted will be carried out applying a social network analysis (SNA). Through SNA the networks show the bonds with edges connecting the nodes, and the thickness of those edges displays the number of exchanged records in information networks. Furthermore, several studies sustain that the length of the edges shows the time of the transactions. According to these, sustainable SFSC is the expression of an efficient network where the connections appear with short edges (the highest priority of the operators is to get closer consumers with producers) and thick edges (high transaction intensity). The methods arisen will be used in SKIN to discover which current players have an high influence within the SFSC and those one having latent market power, becoming potential leaders. SNA represents an essential method to keep under control the ongoing communities building, avoiding unproductivity relationships, being the main cause of wastefulness resources.
Session 2 - Social Innovation – Preconditions and Experiences

2.1 Social Innovations to Connect Agro-Ecological Farmers and Consumers: The Experience of the "Redes De Cidadania Agroalimentar" in South Brazil

Luigi ROSELLI\textsuperscript{A}, Oscar José ROVER\textsuperscript{B}, Isadora LEITE ESCOSTEGUY\textsuperscript{B}, Antonio LOPOLITO\textsuperscript{C}, Maurizio PROSPERI\textsuperscript{C}, Giacomo GIANNOCCARO\textsuperscript{A} and Bernardo DE GENNARO\textsuperscript{A}

\textsuperscript{A}Department of Agricultural and Environmental Science, University of Bari Aldo Moro, Italy; \textsuperscript{B}Department of Zootechny and Rural Development, Federal University of Santa Catarina, Florianópolis, Brazil; \textsuperscript{C}Department of Scienze Agrarie, degli Alimenti, e dell'Ambiente, University of Foggia, Italy

In the last years, the organic food market is experiencing a process of conventionalization involving also the stage of product retailing (Desquilbet, Maigné, Monier-Dilhan, 2017). In particular, conventional retail stores increasingly engaged in the marketing circuits of organic products. The penetration of conventional retailers into the organic market is based on the application of the conventional marketing strategies where the brand play a central role in building trust between producers and consumers.

Because agro-food production processes produce several pressures on ecosystems, it is a global need to improve their environmental sustainability in order to promote a green economy (UNEP, 2011). Greening the agro-food system should be based on the diversification of production processes, aiming to increase the resilience of agroecosystems (UNITED NATIONS, 2015). In fact, the diversification of production processes is the strategic pillar for the redesign of sustainable agroecosystems (Altieri and Nicholls, 2005; Altieri and Nicholls, 2012; Gliessman, 2001; Silici, 2014). However, the dominant logics of conventional agro-food markets require increasing the specialization and the scale of firms to optimize logistic of retailing. This market approach is contrasting with a diversified agro-ecological production. In this context, many alternative organizations have grown around the world in order to counteract the conventional production and retailing system. They are the so-called Alternative Food Networks (Renting, Marsden, Banks, 2003; Aguglia, 2009), Civic Food Networks (RENTING; SCHERMER; Rossi, 2012) or Food Community Networks (Pascucci, 2010). These experiences represent governance structures based on cooperation between producers and consumers, aiming to change the organizational dynamics of agro-food systems and to implement an agro-food democracy (Renting, Marsden, Banks, 2003; Pascucci, 2010). Indeed, these approaches emphasize the role of civil society and its ability to act effectively in decisions regarding the agro-food system.

This research aims to analyse the case of a Redes de Cidadania Agroalimentar (RCA) under construction in the South of Brazil. To analyse this experience we adopt the theoretical framework of social innovation. The methodological approach is based on participant observation procedures in which the researchers immersed themselves in the dynamics of organization of the Network, followed by semi-structured interviews with producers and
consumers. By means of a ‘naturalistic’, rather than a completely experimental design, this approach is directed at finding valuable insights on the following points:
1) What role can be played by social innovation in facing complex environmental and sustainable development issues in domains with limited public policy support?
2) How social innovation for rural areas can be designed and implemented?
3) Why specific issues of rural development should be addressed by social innovation?

Following the construction of experiences such as the Ecovida Agroecology Network (Rover, De Gennaro, Roselli, 2017), the RCA represent a further social innovation aiming to find a social arrangement that integrates farmers groups and consumer groups in the metropolitan territory of Florianópolis (SC) Brazil. The main goal of this new governance initiative is to promote direct sale and relationship between them. RCA was born out from the need of the Farmers Groups to shape fairer markets for their products, since the organization of consumers is still in its infancy. The first results seems to confirm a previous study regarding Europe (Kneafsey et al, 2013), where the main drivers of consumers’ participation are the guarantee of food safety, as well as the desire to support the agro-ecological farmers. Instead, the factors that most mobilize farmers and their organizations to engage in these networks are the fairer and stable income and the possibilities of socioeconomic reproduction. The format of social innovation under construction in the South of Brazil is described and analysed as a promoter of a sustainable rural development, resilient to global climate change, which still lack the support of public policies.

### 2.2 Preconditions for Social Innovation in Rural Development: Best Practices in Turkey

**Peyman UYSAL and Ahmet ALI KOÇ, Department of Economics, Akdeniz University, Antalya, Turkey**

Social innovation has emerged a new sustainable way for exploring economic potentials in rural areas, particularly for the last decade. Widely accepted definitions of social innovation entails collaboration of local actors to solve common local social, economic and environmental issues to boost sustainable development (Murray et all, 2010; Moulaert, 2013). There are three key elements of social innovation which are i) focussing on common local issues, ii) leaded by key actors at local or meso level, iii) requiring the collaboration of key actors at local/meso levels such as producers/providers or its organisations, local public bodies (governors, mayors, regional development agencies, etc.), private sector organisations and NGOs.

In this paper, regarding the essential drivers of social innovation, widely popularized three social innovation practices in Turkey are examined which are leaded by farmers’ cooperative (Tire Dairy Cooperative), NGOs (TEMA) and local public institution (Seferihisar Town Municipality). The aim of the study is to explore main characteristics and drivers of these successful social innovation practices occurred in the rural areas and determine the preconditions of these successful social innovation practises. The interrelations of local and
national actors taking role in these social innovations cases are also examined under the light of actor network theory.

Tire Dairy Cooperative, established in 1971, was not working efficiently until the late 1990s. It used to only collect and market milk from a few producers. However, it has become a successful model cooperative in Turkey thanks to its achievements since early 2000s with the motto “from producer to consumer” and it was nominated two times by FAO in 2015 and 2016 as the “Best Example of Rural Development Model” and the best practice in “Contribution to Food Security and Rural Wealth”.

The objective of Tire Dairy Cooperative is to ensure better income for the producers by enabling them to produce more efficiently, adding value by processing, collectively marketing their products, procure high quality inputs at reasonable prices and to improve economic and social lives of small family businesses in rural areas. The cooperative has achieved high yielding milk production per cow in accordance with quality and safety standards (Codex Alimentarius), reduced production cost of small and medium sized farmers by unification, accessed investment fund for establishing dairy processing plants and marketing its own-branded products through various distribution channels.

Tire Dairy Cooperative has one Outlet Store from which the daily needs of its members are provided with in-kind payment. Also through its Agri-Market, members can acquire necessary agricultural machinery and equipment with affordable payment plans. The cooperative also give training and consultancy services in cooperation with Ege University and Provincial Directorate of Public Education to help its members who want to turn their animal husbandries into professional enterprises. Between 2008 – 2013 with the cooperation of Izmir Metropolitan Municipality and Tire Milk Cooperative, “School Milk Project” was conducted in Turkey by distributing its 25- 30 metric tons of pasteurized milk to 20 thousand children in 250 schools. Thereafter, the project turned into a nationwide project called “Spring Lamb Project” and it was conducted again in collaboration with Izmir Metropolitan Municipality. The cooperative provides two litres of milk per week to 125.000 families with infants (0-5 years of age) who cannot afford it. It also has a “500 18 18 Milk Service” (Milk Line Project) by which the customers can have fresh milk delivered to their doors directly at market price. In addition, the cooperative has “Çiftçim” Cooperative Products Sales Point which offers healthy products to the consumers and also enhance cooperative forward integration. The main drivers of success are unification of farmers, collaboration of local key actors (municipality, university etc.), forward integration (dairy processing and retailing), and supporting institution to access investment fund such as Regional Development Agency.

TEMA Foundation (Turkish Foundation for Combating Soil Erosion, for Reforestation and the Protection of Natural Habitats) was founded in 1992 by two Turkish businessmen. The objective of TEMA is to create effective and conscious public awareness on environmental problems, especially soil erosion, deforestation, desertification, climate change and biodiversity loss. TEMA operates at local, national and international level by implementing training/educational activities, conducting campaigns to empower people and implementing model projects to help environmental policy makers. Today it became the largest and leading
environmental NGO in Turkey serving with over 450 thousand volunteers. In this study “The Macahel Rural Development Project”, conducted by TEMA is selected as a social innovation example driven by NGO’s. Macahel is the name of a basin including 6 villages in Borçka Town in Artvin, situated in the north east of Turkey. The project started in 1998 in order to provide development to the region by apiculture, eco-tourism and organic agricultural production. Besides protecting the biodiversity in the region, the project had ensured the economic and social empowerment for the villagers.

As an example of social innovation in rural areas leaded by local public institutions, the case of Seferihisar (a town in İzmir province which was chosen to be the first slow city (Cittaslow) in Turkey) is examined in this study. Slow Cities (Cittaslow) is a movement founded in 1999 in Italy that has spread to 191 towns in 29 countries. The Slow City movement is a response to the fast world under the influence of globalization and it advocates local distinctiveness and desire to protect the uniqueness of localities (Mayer and Knox: 2006). Slow cities are chosen according to 59 different aspects grouped into six different topics including environmental concerns, infrastructure and technological level of the candidate city/town etc. In Seferihisar case, the social innovation process took start with the application of the Mayor of Seferihisar. Up to now, Seferihisar has implemented many innovative programs as a Slow City. Among these projects, the most important ones are focused on organic agriculture and empowering women as organic bazaars, where the local farmers and women sell their products; seed Trade Festival, a restaurant for local cuisine, gathering places for women like coffee houses, cycling lanes, tree blue ribbon beaches, support for sustainable fishing, use of solar and geothermal energy, promoting the hot water bath tourism, conservation of the historic Teos Antique City, and restoration and landscaping of the Sigacık area (Gündüz et al.: 2016).

2.3 Experiences of Social Innovation for Blue Growth in the Dutch North Sea

Katrine SOMA, Sander VAN DEN BURG, Trond SELNES and Martijn VAN DER HEIDE, Wageningen University and Research Centre, Den Haag, The Netherlands

The Dutch North Sea is in transition. A series of international trends are influential to the changes occurring, including the Blue growth policy instructed by the EU, based on principles of smart, sustainable and inclusive growth at sea, in which energy, aquaculture, tourism, mining and biotechnology sectors are encouraged in the offshore marine and coastal environment. In addition, longer term challenges are impacting activities at sea, such as climate change. Consequentially, innovations are welcomed as contributions to increase employment and economic growth while taking account of the environmental qualities.

Accordingly, in the Netherlands, not only are new sectors stimulated to take part of the already occupied marine areas, but existing ones are encouraged to change. The strategy promotes technological progress and technology innovations for economic progress. Underestimating the importance of the social dimension of change, however, is likely to result in a simple technology-oriented approach. In this article we argue that confiding in
technology alone would not be enough. Social innovations would be important as well, as collaboration and other forms of mutual interchange are likely to be pivotal to progress.

Social innovation can be explained both as process and outcome, which are strongly interwoven. As process it refers to the interaction among actors through phases of problematization, expression of interest, and delineation and co-ordination. As outcome social innovation develops new institutional arrangements, dealing with the particular needs for change to realize intended societal impacts. In the article we elaborate on four dimensions of social innovations;

1) Type, referring to the kind of social innovation that is actually to be addressed.
2) Scale, referring to the directly and indirectly affected number of people,
3) Scope, referring to the level of change towards new institutional settings, and
4) Resonance, referring to the peoples imagination and believe in what is possible.

The aim here is to detect social innovation appearance and potentials in the context of the Blue growth in the Dutch North Sea. A total of three sectors are explored that represent the various new developments in the Dutch North Sea, including 1) offshore wind energy, 2) offshore mussel cultivation and 3) offshore seaweed farming. These three sectors are in different phases of change. Much attention has been devoted to technological innovations that are critical and inherent to these developments, but the same cannot be said about the associated social innovations. In this article we address the role of social innovations in the cases. We analyze the dimensions of social innovations here by using the adaptive cycle (Figure 1).

For the seaweed entrepreneurs, the types of social innovation can be identified as in a reorganization phase (α). They are just about to begin with both technical as well as social innovation. It appears less complicated because they do not need to release or depart from a fixed exiting system, although they have to link with it. A network is being established, and new institutional settings are being defined, based on a believe that this sector will contribute to sustainability in future in ways which not are observed until now, implying that resonance is high. This case is the most obvious one when it comes to social innovation, and belongs to
the so-called ‘back loop’, with a reorganization for dealing with new challenges and a new sector.

The offshore wind energy case is different because it was already a well-established sector. But due to the international and national policy ambitions, it must aim to produce larger proportions of green energy, implying a high resonance. The network scope is still one of traditional actors, such as the ministers and energy suppliers at the core, but new investors are entering the stage. The offshore wind energy entrepreneurs operates in a release stage ($\Omega$), in which the existing network is falling apart, in preparation for a new stage of establishments of new institutional settings. As such this case is just to begin on comprehensive social innovation developments along the technological ones.

The type of social innovation is yet another one in the case of mussel entrepreneurs. They operate within existing system, arguing about the insufficiency of existing production systems and vessels to move offshore, feeling no urgency to move given attractive conditions at present (K). Still, uncertainties about the future are prevailing in coastal areas due to environmental lobbying groups, and lack of space for further explorations of activities. Still, for most mussel entrepreneurs, the resonance is low, they operate within established institutional structures and not beyond. Notably, within these structures, social innovations have been established in existing networks, in which the entrepreneurs are strongly connected. Social innovations out of this scope may be a future result of ongoing national marine planning, if outcome would put the sector under stronger pressures.

The key to enhanced future social innovation is more focus on actors and networks at various levels of cooperation, with joint efforts of stakeholders across nations, policies, sectors and institutions. This in turn depends on actors’ incentives, willingness to cooperate and levels of trust, which also rely on the appearance of ‘enablers’ who can connect people, motivations and opportunities and by that eventually realize change. In this article we discuss conditions for such a change.

2.4 Enhanced provision of public goods through agriculture and forestry activities across the EU

*Thomas DAX, Thilo NIGMANN and Gerhard HOVORKA, Federal Institute for Less Favoured and Mountainous Areas, Vienna, Austria*

Public goods have increasingly attained attention in agricultural policy debates. In particular reforms on the Common Agricultural Policy (CAP) take legitimacy from linkages to provision of public goods. This relationship is most directly expressed for agri-environmental measures (OECD 2013) but effectiveness of policy is often limited so far (Westhoek et al. 2013). Moreover, there is deep concern to address all aspects of land management and achieve sufficient differentiation among management systems (Cooper et al. 2009). A European research project, called PEGASUS (Public Ecosystem Goods and Services from land management – Unlocking the Synergies), has been commissioned in the Horizon 2020
Framework Programme (ISIB-1-2014) to investigate the various drivers and options for public goods including ecosystem services provision. Results from the case studies of this project will be the prime source of this paper. Project partners refer to positive contributions deriving from agriculture and forestry systems as “ecologically and socially beneficial outcomes” (ESBOs) (Maréchal et al., 2016). The research goal is to identify transferable methods and new policy approaches for future adaptation in the relevant policy discourse.

Acknowledging the complexity of Pan-European cases, the project uses a transdisciplinary approach based on the social-ecological systems (SES) framework (McGinnis and Ostrom, 2014). The analysis is based on local, regional and national data sets, a range of semi-structured stakeholder interviews, focus groups and workshop sessions. Focal point of the SES framework is the analysis of systemic interrelations (e.g. actors, governance regimes, resources, drivers and action situations) which was carried out in 34 initial case studies in various topographical and climatic conditions across 10 EU Member States. Thereof, a subset of 12 case studies was selected for in-depth analysis (Table 1) that should allow for detailed comparative analysis. The analysis focused on key ESBOs in each of the case studies in order to reduce complexity.

Table 1: ESBOs considered in the PEGASUS in-depth case studies

<table>
<thead>
<tr>
<th>Case study</th>
<th>Key ESBOs¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT-1</td>
<td>8, 10</td>
</tr>
<tr>
<td>CZ-2</td>
<td>8, 10, 12</td>
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<tr>
<td>DE-2</td>
<td>8, 9, 10, 13</td>
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<tr>
<td>EE-2</td>
<td>4, 8, 10, 11, 12</td>
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<tr>
<td>FR-2</td>
<td>1, 2</td>
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<tr>
<td>IT-1</td>
<td>1, 2, 6, 7</td>
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<tr>
<td>IT-2</td>
<td>8, 10, 12</td>
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<tr>
<td>NL-1</td>
<td>6, 8, 10, 11</td>
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<tr>
<td>NL-4</td>
<td>1, 6</td>
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<tr>
<td>PT-2</td>
<td>12</td>
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<tr>
<td>SI-1</td>
<td>8, 10</td>
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<tr>
<td>UK-1</td>
<td>1, 5, 12</td>
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</tbody>
</table>

¹ Note: Numerical coding for the respective ESBOs: (1) Water quality; (2) Water availability; (3) Air quality; (4) Climate change mitigation objectives; (5) Flood Protection; (6) Soil functionality; (7) Soil protection; (8) Species and habitats; (9) Pollination; (10) Landscape character and cultural heritage; (11) Farm animal welfare; (12) Rural vitality; (13) Educational activities

All cases showed that agricultural and forestry systems are directly connected to the provision of a series of ESBOs and clearly reference a range of factors that drive ESBO provision. It is evident that changes in ESBO provision are tied to a variety of social, cultural and institutional drivers (Mantino et al., 2016), which are complemented by market forces and structural changes. Societal trends and aspirations are decisive incentives in ESBOs appreciation, but quite often this becomes visible only through product and market differentiation strategies, market development, creation of higher value added as well as various forms of collective action (Knickel et al. 2017).
In order to understand the demand side, all case studies engaged in a qualitative assessment of the appreciation of ESBOs by different actors. The development of causal linkages between the actions within initiatives and the level of provision and related demand was in most cases not feasible. Complex interlinkages suggest to focus on direct or indirect indicators for levels of appreciation as for example the level of consumer demand and willingness to pay premia for certain product or service attributes, the level of farmer or NGO engagement as well as wider political discourse around certain types of management practices related to ESBO provision. Some cases showed how the “value” of ESBO can become either directly or indirectly part of agri-food products or services and how related costs for ESBO provision can partially be recovered via the value chain.

Many cases showed how markets for primary products and in particular how product differentiation and demand for quality regional products impact land use change and management practices. Hence, the private sector can be an important stimulus and agent of change. However, there is evidence that regional “markets” are insufficient and market mechanisms alone are inadequate to secure appropriate provision of ESBOs.

The policy context and relevant regulations must not be neglected in any case, with CAP taking a core role through its interpretation and implementation at member state level for the provision of ESBOs. While policies and instruments focusing directly on ESBOs such as the agri-environmental scheme and nature protection measures are significant, the indirect impact of other CAP measures and other EU and national policies are also critically important.

The interplay between public policies, and private initiatives and market mechanisms have shown to be the clue for understanding the relationship shaping the level of provision of public goods. Comparative analysis support the strong reliance on context, history, types of regions and differentiation of management systems which will converge in the formulation of lessons for the future CAP.

**Literature:**


Traditional farming systems and other activities such as craftsmanship (e.g. manufacturing activities, local food production), represent a sustainable example of human integration with nature. Their maintenance and development, with opportune adaptations to the current socio-economic situation and cultural/technological advancements, are therefore valuable (Gobattoni et al., 2015). Agriculture has long been, one of the main driving forces shaping landscape. However, since the 1950s, the role played by the agricultural sector in society has changed as a consequence of mechanization and technological advances, globalisation processes and new social needs (Randelli et al., 2014; Van Eupen et al., 2012). In post-war Europe, industrialization and new demographic trends have led to the Urbanization phenomenon (Schewenius et al., 2014) with the rapid growth of cities, soil sealing through increased building and the depopulation of rural areas (Crafts and Toniolo, 1996). The deep transformations experienced by agriculture have impacted not only on rural community economy, employment and social dynamics, but also on nature and the environment (Schouten et al., 2013; Hanley et al., 2012; McManus et al., 2012) and, in general, on the supply of so-called ecosystem and landscape services (De Groot et al., 2010; Hermann et al., 2011; Zanten et al., 2014).

Under the new Common Agricultural Policy (CAP), preference will be given to projects with a participative approach presented for funding covered by the Common Strategic Framework 2014–2020 programming. The LEADER approach (second pillar of the Common Agricultural Policy since 2003) is based on a participatory approach and on the involvement of local partnerships – between entrepreneurs, institutions and the voluntary sector – forming a Local Action Group (LAG) as a kind of a public–private partnership in order to design and implement Local Development Strategies (LDS). The challenge is to integrate participatory planning, people’s attitude to traditional work with the European strategy for rural development. Based on local resources, LEADER represents an opportunity of strengthening regional identity (Pollermann et al., 2013; Williams and Stewart, 1998). It is also related to concepts such as the sense of belonging to a community and participation in decision making.
(High and Nemes, 2007). Therefore, a successful combination of organisation, innovation and territory appears crucial (Dargan and Shucksmith, 2008).

In Slovakia, LEADER was perceived as a kind of isolated initiative of European Union, however, it became an integral part of Slovak National Rural Development Programme 2014-2020 (RDP 2014-2020). Community Led Local Development (CLLD) is one of its major tools allowing the local players to take part in decision process connected to social, environmental and economic development of region they live in. LEADER is supported by RDP 2014-2020 in Action 19 which supports the creation of LAG, its running and specific its activities. Since LEADER encourages the development based on usage of local regional resources, it has good chances to appeal to local authorities and communities. There were 29 LAGs approved by Ministry of Agriculture and Rural Development in period 2007-2013.

![Figure 1: LAGs in Slovakia 2007-2013](www.nsrv.sk)

Apart from support of community-driven rural development RDP 2014-2020 supports knowledge transfer and innovative technologies in agriculture and forestry (14.33 mil. EUR). The knowledge transfer is focused on areas of organic farming, rural tourism, biodiversity and local economy.

The paper will deal with the evaluation of role of National Rural Development Programme 2014-2020 in development of rural regions of Slovakia. The number of supported projects, allocation of resources, and their efficiency will be evaluated with respect to regional dispersion and innovative potential of supported projects.

References


Social farming services have been established through a bottom-up approach in rural regions in Italy. This development was a practical and innovative response to societal needs and to complement institutionalised social services. One of the good practice examples is the social cooperative “Mit Bäuerinnen lernen-wachsen-leben” (learning- growing- living with women farmers) located in the Autonomous Province of Bozen-Bolzano, which was founded in 2006.

The first activity of the cooperative started in 2007, offering day care on farms for children, between the age of 0 and 4, with two objectives: (i) providing childcare by women farmers or their family members, and (ii) encouraging interaction with nature.

Providing new forms of environmental education, by allowing children to participate in farm-related activities, has stimulated children’s awareness for the sustainable use of agricultural resources – animals and plants alike. The childcare service includes individually adapted care accommodating up to six children, with an annual average of 420 children\(^3\), flexible care hours (a total of 248,000 care hours in 2016)\(^4\), integration into the family structure, the passing on of traditional values, and the provision of environmental education. Currently, there are 106 qualified day care mothers, who are active in the social cooperative. This service is highly responsive to local demands, which is particularly important in peripheral areas. Another initiative, by women farmers, is an educational farm activity for school children, aged 6 and older, in which they spend 3 to 4 hours on a farm, learning about farm life and its environment. The number of school children participating in this practically orientated programme has increased from 5,700 in 2012 to 10,000 in 2016\(^5\).

In 2014, the social cooperative expanded its social farming services by offering elderly care as a reaction to the growing number of elderly people in South Tyrol (i.e. from 43,500 in 1975 to 100,000 in 2015). This temporary, family orientated care service, actively integrates elderly people in farm life. At present, there are 33 women farmers offering elderly care services on request. Due to the valuable contribution the social cooperative offers society, it is planning to expand its current services to the entire South Tyrol area, and to develop new potential services such as rehabilitation for people with disabilities and special needs, horticulture and animal-assisted therapy for people.

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\(^3\) SBO Jahresbericht 2016.
\(^4\) SBO Jahresbericht 2016.
Moreover, based on the implemented national framework law n. 141/2015 on social agriculture, a working group of regional stakeholders (representatives of the farmer and women farmer association, the provincial department of agriculture and social department, the social cooperative, University of Bolzano including Eurac researchers), is currently drafting a regional law for the province of Bolzano. It is evident, that the working group has had to deal with many challenges in the elaboration of the regional law including the following questions: Which new services should be included and regulated? What are the necessary requirements – e.g. training, qualification, infrastructure, number of people that can be cared for, level of the needs of candidates? How the financial aspect should be regulated between the agricultural and social sector?

Reflection on social farming initiatives has shown that these practices meet the objectives set forth in point 1 “Promoting Rural Prosperity” and point 3 “Investing in Rural Viability and Vitality” of the Cork Declaration 2.0 of 2016. Whereby point 1 stresses that innovative, inclusive and sustainable solutions for social inclusion should be recognised and diversification and entrepreneurship fostered, point 3 stipulates that society should benefit from the investment in private services, self-sustaining initiatives and the promotion of competitiveness in agriculture. In fact, social farming has a twofold benefit. On the one hand, it responds to the needs of society, and stimulates the personal development and independence of vulnerable people through individual, client-orientated services. It also promotes modern, family-orientated and innovative social services, empowering women farmers and creating horizontal and vertical collaboration, in both the private and public sector. On the other hand, it provides an extra income for women farmers in peripheral rural areas, whereby economic, sustainable development is fostered and services are provided for people in these areas.

3.2 Development of extension services - a challenge for the innovation flow in the agriculture of the Republic of Moldova

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In the last decade considerable efforts to create a professional and effective rural extension service in the Republic of Moldova have been made. Unfortunately, there are currently limited institutional connections between the components of knowledge in agriculture in Moldova and information system, for example, between institutions of agricultural research, extension and education / training. These three components work independently, while collaboration is limited to involvement of researchers and professors as consultants in short-term projects of the extension service. Republic of Moldova lacks in a permanent platform for communication and cooperation, aimed at serving the common needs of the private sector.

Agricultural science and innovative policy development aims to stimulate obtaining new knowledge, highly productive biologic material, intensify innovation activities in agro-
industrial sector and creating conditions for absorbing local and foreign innovations through the range of measures:

- RDI activities focused on priority directions of the sector development;
- stimulating innovative scientific activities in order to create new varieties and hybrids of plants and highly productive breeds of animals, applying advanced farming and processing of raw materials;
- promote the creation and implementation of a system of economic incentives for attracting and absorbing innovations in the sector;
- deepening economic research to ensure scientific support for the sustainable development of the agribusiness sector;
- modernization of training and retraining of staff with higher and medium agro-industrial sector and bring the contents and quality of education to market requirements;
- supporting the development of technological transfer and extension network in agro-industrial sector. (Government of the Republic of Moldova, 2008).

The research and innovation in agriculture is currently represented by eight scientific institutes, including the State Agrarian University of Moldova. Research institutes are subordinated to both the Ministry of Agriculture as well as to the Academy of Sciences and are funded, basically from the state budget.

Taking into account the outdated research equipment, insufficient financial resources and aged staff existing research institutes are in a state of survival. There is no clear and transparent procedure of selection for research topics that should be targeted to the real sector demands. Therefore it is important to create closer connections between research and development sector and the agrifood business needs. At present the research and innovation system in agriculture is not oriented towards the private sector and is relatively isolated, which makes it vulnerable.

The aim of the paper is to analyze the linkage between science development, innovative ideas, their dissemination and establishment of extension services and their impact on the innovative development of the agricultural sector. The basic conclusion of the article is to maintain and expand the coverage of the extension network, together with the diversification and improvement of its services. The service extension should further extend and diversify its services in order to cover the information needs of the whole value chain from production to the market, on the one hand, and to develop commercially base extension services, on the other hand. It is important to strengthen the extension system through creation of the new innovative services, emphasizing entrepreneurship, economic diversification in rural areas and family social services.
3.3 Innovative Future Perspectives for the Province of Burgenland’s Agriculture. A Transdisciplinary Research Project

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Introduction & Aims
The Province of Burgenland is located in the very East of Austria and is – according its population – the smallest Austrian Province. For Burgenland’s economy, showing the lowest gross regional product of all Austrian Provinces (Statistik Burgenland 2016), traditionally the agricultural sector is of high importance. Thus, Burgenland is one of Austria’s leading wine production as well as vegetable cultivation regions. Whereas vegetable, stockless and relatively large-scale crop production takes place in the Northern parts of Burgenland, farms in the Middle and Southern parts of Burgenland tend to be smaller with a higher significance of livestock farming and fruit production (Amt der Burgenländischen Landesregierung 2016). Despite the already existing vast number of local as well as agricultural initiatives, the dynamics of structural change in agriculture are apparent in Burgenland too: Between 1970 and 2013 the number of farms decreased by 76 % and the number of full-time farms by 25 %. Simultaneously, the area of arable land had increased from 4.5 ha per farm in 1970 to 28 ha in 2010, that of vineyards from 0.9 ha to 3.9 ha per farm. Within the same period of time, the number of farms keeping cattle, pigs and poultry respectively diminished to 4 % compared to 1970, whereas the number of sheep keepers rose more than fivefold (Statistik Austria 2016, own compilation).

These structural dynamics coupled with further agricultural trends like the perpetuation of high-tech and capital intensive production, global competition, and at the same time decreasing agricultural incomes and living conditions, constitute the starting point for the underlying project. Initiated by the Burgenland’s Provincial Minister for Agriculture, the project presented here aims to initiate a turnaround by developing innovative future perspectives for the agricultural sector of the Province of Burgenland. In this paper we introduce aims, approach and outcomes of this transdisciplinary project.
Innovative future perspectives for agriculture – project architecture & approach

The transdisciplinary research project introduced in this paper runs from December 2016 to June 2017. The following parties are involved in the project: in total nine researchers affiliated to three different research institutions, one consultant for agriculture and rural development, one representative of the agricultural provincial administration and one political representative, namely Burgenland’s Provincial Minister for Agriculture. The researchers represent the project’s suppliers, whereas the administrative and political representatives are the project’s customers. By being part of the supplier team and a personal consultant of the Provincial Minister for Agriculture at the same time, the consultant has a hybrid status within the project parties.

As the involved project parties bring in a quite similar mind and value set concerning a sustainable future-oriented agriculture, the aims of the project were defined quickly, clearly and consensually as following:

- Developing strategies for small and medium sized farms beyond the ongoing trend of “growing or moving out of agriculture”,
- Generating stimuli for the formation of innovative, regionally oriented value chains (agricultural production - processing - marketing), producing high quality and sustainable products and services,
- Developing project ideas for innovative, regionally marketed products and services.

Thus, the prospected outcomes of the project are a strategic document for the development of small and medium sized farms within the next 10 years as well as a portfolio of concrete project ideas for innovative agricultural products and services. Those outcomes are the result of a transdisciplinary process following the “Reflective Learning Methodology” introduced by Moschitz & Home (2014).

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6 While at the time of conference paper submission no final outcomes can be presented that will be possible in October 2017, when the conference takes place.
The approach comprises two levels of participation:

1. At the project team level, researchers, the consultant as well as the administrative and political representative altogether define goals, develop workshop designs and inputs, transform workshop outputs and reflect the project work. Moreover, big parts of the agricultural strategy development takes place in this forum.

2. At the workshop level, beside the project team selected stakeholders get involved. In the kick-off as well as in the final workshop, participants are multipliers and disseminators like representatives of the local Chamber of Agriculture or of the Organic Farming Associations, managers of the local “Genuss-Regionen” or LAGs. For the five regional workshops the group of participants is expanded to innovative farmers, food processors and food marketers.

The topics of kick-off and final workshop are focused on strategy development whereas within the regional workshops the emphasis lies on the development of innovative project ideas. Methodologically, the workshop design follows the GIVE Method (SPES s.t., cit. in Reinwald 2017) which combines a broad collection of ideas with a deepening of (participatory) selected ideas.

The project is still ongoing at the moment, thus beside the topics delineated above at the ERDN-Conference we will present:

- The lessons learned from the transdisciplinary approach,
- The project’s outcomes, related to the project’s aims as well as a critical reflection on its degree of innovation.

**Literature**

3.3 Biodiversity Monitoring in High Nature Value Grasslands by Farmers in Austria

Maria ZACHARIAS and Barbara STEURER, Austrian Council for Agricultural Engineering and Rural Development, Vienna, Austria

Extensively cultivated grasslands and meadows are characterized as species rich ecosystems. They provide manifold ecosystem services (water filtration, soil fertility, habitat for flora and fauna, etc.) which can only be maintained by sustainable extensive farming methods. The loss of biodiversity, also as a result of inappropriate intensive farming practices, is a world-wide documented problem and is also observed in Europe. Several international conventions and initiatives like the UN Convention on Biological Diversity (UN CBD) and the UN Sustainable Development Goals (Goal 15: Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss) as well as the Alpine Convention define measures to halt the loss of biodiversity. Following article 13 of the UN CBD, awareness raising about the importance of biodiversity to society, proposing a broad and action-oriented knowledge transfer and education program is a major contribution in order to sustain biodiversity. However, the Eurobarometer 2015 concluded that less than one third of EU citizens currently know what biodiversity actually means.

Apart from policy driven top-down approaches on international and european level we particularly need bottom-up solutions to stop further loss of biodiversity and to create a broad awareness for this urging issue. A bottom-up approach involving stakeholders and citizens is a promising way to achieve appropriate, sustainable behaviour of people. Against this background, awareness raising amongst farmers and the dissemination of knowledge about flora and fauna living and depending on grasslands, and thus, on extensive farming practices is highly important to sustain biodiversity of grasslands.

In Austria, the protection of biodiversity on extensively cultivated meadows is funded via the Austrian Agri-Environmental Program which is part of the Program for Rural Development of the European Union.

The initiative called “Wir schauen auf unsere Wiesen – We are monitoring our meadows” piloted a citizen science scheme, where farmers are trained by ecologists and gain expertise in ecological processes as well as knowledge on rare flowers and insect species in their own grasslands, which are then subsequently observed and documented by them. The initiative
provides better understanding of biodiversity and the value of grasslands and meadows not only for participating farmers but for society, too. Moreover, monitoring of individual plants and animals on protected meadows is a fundamental basis to assess the impacts of farmland management and the quality and value of meadows.

The overall objective of the project is to halt loss of biodiversity. Further objectives of the project are to gather information about the effects on biodiversity resulting from different land management practices, to raise awareness about the value of biodiversity among farmers so as to facilitate cooperation between agriculture and nature protection. The surveys can contribute to evaluate if the currently applied management regime is working.

The first pilot-project started in 2007 with fifty farmers trained to monitor plant species in their meadows, which were then reported back to a database using an online system. Today, the network consists of 700 participating farmers who also have the possibility to look after birds, spiders and insects depending on species-rich hay meadows.

Furthermore, more than 14 Austrian agricultural schools are part of the monitoring team. Agricultural college students have the opportunity to meet skilled professionals who report about their practical experiences.

In 2014, the monitoring system has been adapted, refined and enhanced in a more scientific way. Since then, the monitoring data can be evaluated and more information can contribute to a better understanding of relations between agricultural management and biodiversity. The monitoring data collected by farmers may provide the opportunity for information and in-depth understanding on the dynamics and relationship between biodiversity and different extensive farmland management systems in Austria.

Educational materials and comprehensible information tools were developed for all participants of the project.

More than 17 active dedicated participants contribute to disseminate their knowledge on grassland biodiversity in rural regions all around Austria. They organize special events and invite farmer colleagues and other interested people to visit their own farms and pass on information on best practice concerning the protection of high nature farmland.

Some farmers reported that they gained a deeper understanding and appreciation for flora and fauna on their farmland, others reported that they are more sensitive with management methods.

The next step, which is already in working progress, is to compare the monitoring data with existing knowledge about plant species in order to verify and confirm this information about plant species and the best practices for extensive farmland management.
A similar project was set up for Austrian forest managers and owners, who are trained in biodiversity related aspects of their own forests. This initiative contributes to raise awareness among forest managers in order to manage forests in a more sustainable way.

Active cooperation between all project partners and the network between nature conservation and agriculture/forestry is the foundation for the success story of this environmental consciousness raising initiatives. A similar monitoring scheme was implemented on a pilot base in regions of Bulgaria and Croatia, where stakeholders were interested to establish a similar monitoring scheme. The monitoring scheme can easily be adapted to other European countries with extensively cultivated grasslands and meadows.

The project is funded via the Program for Rural Development, the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management and the Federal States of Austria via the Agri-Environmental Program. As project lead, the Austrian council for agricultural engineering and rural development coordinates the project with the consulting engineers Umweltbüro GmbH, LACON and suske consulting.
Session 4 – Analyzing Rural Areas

4.1 CommunalAudit, a guide for municipalities in Austria to foster inclusive and sustainable Development

Erika QUENDLER, Federal Institute of Agricultural Economics, Vienna, Austria

Introduction
Municipalities in Austria have been exploring ways to adopt inclusive and sustainable development approaches based on the built environment. It is a fact that the tasks of municipalities are becoming more and more comprehensive, while the resources available are not increasing to the same extent. However, the sustainable protection of municipal public services must remain a key component in strengthening rural areas. One way is to conduct a CommunalAudit. In addition to the identification of optimisation and development options, the CommunalAudit tool serves as a basis for inter-communal cooperation. Moreover, it enables municipalities to look at their finances and entire infrastructure in an objective and systematic way and to compare them with others. Between 2008 and 2013 CommunalAudit was a measure set within the rural development programme in Austria. This contribution (i) explores the implementation of CommunalAudit in Austria (ii) highlights the benefits and drawbacks for municipalities and citizenry, and (iii) looks at the former’s further development.

Methods and data
The Austrian experience implementing CommunalAudit serves as the background. The inputs, outputs and impacts were analysed according to the Handbook on Common Monitoring and Evaluation Framework (CMEF) of Rural Development 2007-2013. Data was derived from document analysis and semi-structured interviews with experts.

Results
In Austria, CommunalAudits were mostly carried out within municipal collectives, i.e. several municipalities undertook a communal audit jointly. In the period 2008-2013, a total of 570 municipalities successfully completed the CommunalAudit. Coming to the results, most of the expectations of the municipalities surveyed were (i) increased administrative efficiency, (ii) transparency for mandatories and/or citizens and (iii) contribution to the professionalisation/development of local operational and strategic management. Furthermore, there have been some indirect positive effects such as (i) the improvement of the economic situation of the municipalities, i.e. improving competitiveness, contributing to inclusive and sustainable development and safeguarding the quality of life in the regional, national and international context of regions; (ii) savings on the inputs of because of the optimisation potentials identified (benchmarking, re-auditing) an audit results, i.e. the gross added value increases; and (iii) the reduction of greenhouse gas emissions through measures that reduce energy consumption and optimise the vehicle fleet within the climate protection module. These expectations were surpassed in all areas. One outcome of the optimisation measures resulting from the benchmarking process was the promotion of the exchange of information between the municipalities. This in turn, fostered the development of new cross-community
cooperation and the creation of synergies. This contributed to an inclusive and sustainable improvement of the rural area benefitting all inhabitants of the participating municipalities. In total these made up about 1.4 million inhabitants or 16% of the inhabitants of Austria. The measures identified include actions to improve the social, ecological and economic quality of the municipality. As a result, this CommunalAudit also improves the living situation and thus the quality of life (e.g., lower fee rates) in the municipalities when implementing the measures identified. In particular, these measures are required to: (i) increase administrative efficiency and optimise the use of resources; (ii) develop modern strategies; and (iii) ensure the sustainability of policy and administration action. Nevertheless, most of the measures identified were not implemented. The main reasons were (i) the lack of financial resources and (ii) no consequences for non-implementation. In order to face the resulting challenges and to be better prepared for the future, the Federal Ministry for Agriculture, Forestry, Environment and Water Management in cooperation with the municipalities is offering the auditing process in the form of “CommunalAudit New” again. It is being promoted within the campaign “Heimat.Land.Lebenswert.” as a tool for the development of rural areas and cities.

**Conclusion**

Ultimately, municipalities across Austria are in various stages of implementation and with CommunalAudit they are working successfully on the inclusive and sustainable development for their communities. Austrian municipalities are in a state of transition as ways are being sought to adapt to an internationalised marketplace. Municipalities do not have a “market”. For this reason, the comparison with others (benchmarking) is the only market equivalent, which gives feedback on how their performance can be improved. The CommunalAudit is “the” tool in Austria for the development of municipalities. All in all, the long-term intent is to add inclusive and sustainable value to the well-being of municipalities – socially, culturally, environmentally, and economically – resulting in greater municipal competitiveness. This, in turn, allows municipalities to become “destinations” or “places of choice” for people and businesses.

**References**


4.2 Networking of Rural Centres through Direct Transport Connections: Has the Long-Term “Status Quo” Been Disturbed by One Governmental Decision? Case Study of Prešov Region, Slovakia.

Vladimír SZÉKELY and Daniel MICHIJIAK, Institute of Geography, Slovak Academy of Sciences, Bratislava, Slovakia

Peripheral, eccentrically geographically located Prešov region (NUTS 3) from North-Eastern Slovakia is according to the OECD methodology about urban-rural typology a „significantly rural (intermediate) region“. Its territory consists from 13 smaller spatial units, districts (LAU 1) – 4 of them are included in the category „predominantly rural regions“, and 9 of them belong to the category „significantly rural (intermediate) region“. Relative geographical position, official statistical data about performance of regional economy (low GDP/capita and high rate of unemployment), and also the subjective not very positive perception of business vitality of Prešov region from the side of potential investors contributed to its generally presented image as one of the most problematic (underdeveloped) territories in Slovakia.

The rural centres of this region have been selected for the comparative analysis of the changes in their networks of usually relatively long-term stable direct transport connections. The reason for the potential changes has been mainly initiated by the very specific governmental decision about free travel on subsidised trains for students, pensioners and seniors not only from Slovakia, but also from member states of EU (with validity from 2014). We could define this top-down decision, which has not been as controversial one unequivocally accepted by Slovak society, as “organizational innovation” with important consequences on the transport behaviour of people, differentiated supporting of (rural) inhabitants with access to train services, and change of competitive environment for transport (especially bus) providers.

The aim of the study is identifying and comparison of existence and frequency of direct transport connections, i.e. establishing the transport accessibility of the nodes of public transport networks in rural Prešov region. The nodes are defined as the settlements with statuses of (former) district which represent the rural centres of LAU 1 territories. Connection and accessibility of nodes (which are often used as the measure of their hierarchy and importance in communication network with direct impact on well-being of local population) is observed from the point of view of number of direct train and bus connections (connections free from transfers) of each of 13 nodes of significantly (intermediate) rural Prešov region to all other nodes in Slovakia during a 24 hour work day. We compare two working days – the difference between them is almost 14 years. Electronic database of train and bus timetables www.vlak-bus.cz (for 2003) and www.cp.atlas.sk (for 2017) has been and will be used by time-consuming procedure for obtaining the specific information about existence and frequency (by calculating of all trains and buses) of direct transport connections. For the comparison, which is the key word of the study, it is necessary to find in the years 2003 (Székely, 2006) and 2017 transport connections for 910 possible interactions of two district towns, rural centres (13 district towns, rural centres in Prešov region x 70 district towns, rural (and also) urban centres in Slovakia - in both directions). The final basic matrices for the next statistical, cartographic, and descriptive time-spatial comparative analysis
will be construed - the identified data on existence and intensity of direct transport connections will be filled in each of their boxes.

In conclusion we will assess the influence of (not only) top-down governmental decision about free travel in the trains for the selected group of population from the quality of new pattern rural centres networking’s point of view.

Reference:

4.3 Regional Smartness and Convergence – a Romanian Case Study

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The smart growth concept calls for forms of development that are more compact, transit- and walking-friendly, conducive to high-quality of life, and less environmentally damaging and infrastructure hungry than present patterns.

The aims of our paper are to measure the “smartness” of Romanian development regions and their capacity to deliver on growth convergence under their weak negotiation position in term of regional design and implementation of Cohesion Policy in one of the most rural country of the EU. In Romania, the predominantly rural regions account for 60% of the national territory, being the living space of 45.6% of the country’s population, while contributing by 41.8% to labour employment. The predominately urban regions represent only less than 1% of the territory and about 11% of population, the rest being intermediate regions (being more appropriate for rural characteristics than the urban ones).

The Romanian NUTS II regions are rather statistical units and not administrative divisions; they do not have regional government and are not autonomous. Romania's regions are meaningful in the sense that EU regional development funds are allocated to them based on Regional development programmes, but they are not politically / administratively meaningful.

The legal and institutional framework for the implementation of Cohesion Policy in Romania created suitable bases for a centralized approach of the regional development process, top-down type, this approach being appropriate in an early stage, when experience in regional development was weak and limited the regions’ capability to adress the regional specific objectives.

Methodological approach

To measure the smartness of Romanian regions, the measurement issue adopted into the H2020 -PERCEIVE project was used. This methodology deal with the Stochastic
Multicriteria Acceptability Analysis (SMAA) that can create a ranking of regions based on their smartness. In this theoretical model, the concept of “smartness” has 6 dimensions: Human and social capital; Infrastructure; ICT; Quality of life; Management of natural resources; Participatory governance and is operationalised according to 17 variables representing either direct or indirect (rather inverse) proxies of smartness attribute.

The Treaty establishing the European Community defines economic and social cohesion as one of the main operational priorities of the Union. Cohesion is to be achieved mainly through the promotion of growth-enhancing conditions and the reduction of disparities between the levels of development of EU regions and Member States which are key targets of the European Cohesion Policy.

The second part of our study is dedicated to examination of the convergence process at the level of one Romanian particular development region with median smartness rank. More exacty, the increasing of convergence in relation with the dimensions of the smartness during the implementation of 2007-13 Cohesion Policy, is criticaly analysed.

**Preliminary conclusions**

Despite the fact that the Romanian regions has significant economic development potential (each county having the opportunity to get oriented toward smart specialization), significant economic development disparities persist and increased. The business environment dynamics is slow and non-smart oriented and it is marked by the location of industrial enterprises in the big cities and their weak presence in the rural area. 1/3 of regional funds were allocated for the support for sustainable development of cities – potential growth poles. The territorial distribution of funding generally followed the economic development level of regions, with more funding drawn by the more developed ones and less by those with lower development levels.

**Acknowledgement**

This paper is supported by European Union's Horizon 2020 research and innovation programme under the project: Perception and Evaluation of Regional and Cohesion Policies by Europeans and Identification with the Values of Europe (PERCEIVE).

**4.4 Integrated, Territorial Strategies for Services of General Interest**

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Safeguarding public services of general interest (SGIs) is understood as a precondition for high living standards and the attractiveness of rural areas. However, this right of service availability is increasingly in the discourse at European, national and regional level. The latter are particularly affected by the disparities of basic supply of services between rural and urban areas, especially in the Alpine Arc. The main challenges inherent, is the demographic change – the depopulation in rural areas, brain drain as well as aging. Furthermore, various public authorities and private service providers at different levels take responsibility to provide SGIs.
Crucial for the quality of service provision, and that effects the difference between municipalities, is the availability of financial resources. Moreover, the structure, compactness, geomorphology and topography of rural Alpine areas influence the accessibility of SGIs meaningfully.

To find new pathways and possibilities of ensuring service delivery, the Alpine Space project INTESI was initiated in 2016. Stakeholders from five Alpine Test Areas (TAs) (Italy, Switzerland, Austria, Slovenia and France) that face similar challenges in the delivery of basic services but are confronted with different framework conditions exchange their knowledge, experience and discuss innovative strategies for improving the accessibility and availability of service of general interest. The aim is to overcome the traditional sectoral approach of SGI delivery by applying an integrated, territorial approach and exploiting vertical and horizontal synergies between the different sectors and administrative levels. This concept seeks to ensure the need for an efficient and effective output-orientated delivery of SGIs in rural areas. For this purpose, researchers from the EURAC Institute of Regional Development designed regional profiles to compare the current SGI delivery among TAs according to their availability (GIS maps), accessibility (spatial-statistics) and service quality (workshops and interviews). These findings, together with elaborated scenarios for predicting population trends, serve to identify future challenges and to apply a demand-orientated service delivery.

The preliminary results show a strong regulation of services by sectoral legislation in TAs and an increasing willingness for cooperation between the administrative levels, municipalities and other sectors. Especially in the field of education, the TAs guarantee a good supply of services as each municipality has traditionally still its own church, school and post office. Furthermore, tourist destinations offer due to higher demands more facilities and a better quality of services of general interest compared to other municipalities in the test areas.

Although merging municipalities is for sociocultural reasons rather refused than favoured, sharing services is on the opposite less problematic, particular when that accounts for a financial benefit. That concerns among others the health sector. Here, the municipalities accept and even promote the centralized service of telemedicine to cope particular with the demographic change, which requires in remote areas an increasing demand for mobile nursing and elderly care, and to control the steadily rising costs for medical care. A prerequisite for this is the patient awareness, good communication infrastructure and close cooperation between the telecommunication and health sector.

Finally, the INTESI think tank members, consisting of SGI providers, authorities and other stakeholders, will valorise the project’s recommendation on SGI issues. Their input provides an essential contribution to the EUSALP Action Group 5 “Connect people electronically and promote accessibility to public services” within the second pillar of the EUSALP strategy “Ensuring accessibility and connectivity for all inhabitants of the Alpine Region”. Moreover, the findings of the project will contribute to the Alpine Space Programme objective 2 – “Increase capacities for the delivery of services of general interest in a changing society”. The delivery of public services is fundamental to enable equipollent living conditions as they provide the preconditions for individual self-fulfilment, social inclusion and territorial cohesion, which is coherent with the objectives of the Cork 2.0 Declaration of 2016 for a better life in rural areas.
Session 5 – Local Development Strategies

5.1 Strategic Planning of Czech Local Action Groups in Rural Development: New, Required and Innovative in 2014-2020?

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Following the accession of the Czech Republic to the European Union in 2004, the LEADER approach undertaken by LAGs has become a new and innovative method in the rural development in this country. Therefore it is not surprising that the number of LAGs rapidly increased in the Czech Republic in 2004-2006. Some negatives as limited innovation and cooperation (Leader method has become a source of finance) and huge influence of local government were described (Maurel, 2008; Boukalova, Kolarova and Lostak, 2016). For example, it turned out that most of the projects were directed to two measures in 2007-2013: village restoration and development (1) and civic amenities and services (2)(Pavlisova, Surmanova and Konecny, 2016). However, in most cases these measures substituted obligation of municipalities to manage their property. Concurrently, Böcher (2008) shows upon the German experience that LEADER+ seems to be a good example of a political funding programme with a successful combination of regional government and governance. The different Czech conception cannot be understood as an innovative approach to the Leader method as applied in the country of the „new EU-12“. Based on Cork 2.0 declaration, it is obvious that strengthening of the integration of local initiatives and rural capacity building in mainstream EU policy making, in particular through bottom-up approaches to local development such as LEADER and Community Led Local Development will continue (point 8).

With the new programming period 2014-2020, many new local action groups were established in 2012-2013 in the Czech Republic. The result is that the number of municipalities that do not participate in any of the LAGs is very low. Entering the new period, LAGs began to prepare and update their development strategies. However, the variety of approaches in their creation disappeared. Strict rules for creation and assessment of newly defined strategies of community-led local development (CLLD) and also the clear identification of sources of support (NN LAG in the Czech Republic, 2014; MRD of the Czech Republic, 2015) rather provoked a unified approach of LAGs in strategic planning. Still unfinished, complicated process of evaluating strategies CLLD moves the Czech Republic to the group of states with „Major delays in implementation“ (Chevalier, 2012). Also, the LEADER implementation process is more regulated and controlled by Czech national government, which documents strengthening of top-down approach. As Convery et al. (2010) illustrate with an example of Cumbria over-complicated management structure and an apparent reluctance to devolve responsibility have led to significant delays in project funding and have damaged the credibility of the LEADER brand. Despite the facts it was innovation in the context of the LEADER, which was very often highlighted in the current programming period 2014-2020. The manual for creation of CLLD issued by the MRD of the Czech Republic (2015) also defined it. Although best knowledge of local problems and needs
should represent the great advantage of local action groups (Macken-Walsh, 2010), CLLD strategies (the main priorities and measures) are significantly influenced by the possibilities of allocating funds from the designated sources for specific activities and priorities. Therefore, we assume that not only innovation but also local targeting and necessity at the local level is disappearing in the Czech context.

The aim of the paper is to evaluate implementation process of LEADER in current period 2014-2020 in the Czech Republic in the point of view of new and innovative process. The authors of the paper aim to prove/disprove the anticipated unification of LAGs strategies and their setting. As a tool leading to the research objective, we employ analysis of the general framework of CLLD formation in the Czech Republic, and in particular, content analysis of strategies of 47 LAGs (a third of LAGs operating in the Czech Republic). In the first stage, 33 thematic areas/themes were defined according to the variety and also the possibility of support in the programming period. In the second stage, inclusion of thematic areas into the strategies of CLLD and assigning of the hierarchy of objectives (strategic and specific goals, measures, activities) were investigated. These methods were based on the assumption that some topics are included much more frequently than others which, however, should be the essence of LAGs activities. According frequency of themes included in strategies, varied or comparable approach of strategical planning of LAGs was distinguished.

The paper results indicate that the strict adjustment of the frame of forming CLLD suppress innovative approaches to the creation of LAG strategy document and its form. Therefore, innovation which could arise from regional strengths and regional identities is limited. Knowledge of support options and assigned activities affect the setting strategies of LAGs in different ways. It is clear that business and employment (1), and community development and quality of life (2) have been defined by more than ¾ LAGs as strategic objective, however in many of the themes LAGs showed significant heterogeneity. LAGs often include specific themes that are supported in the current period – e.g. the promotion of social entrepreneurship (81% of the studied LAGs). On the other hand, essential themes which are not supported by general setting on the national level, such as organizing local events and infrastructure for them, also appeared with high intensity in the strategies. Some of the currently supported themes, such as community centres, productive investments in forests or regional production, were included in only half of the monitored LAGs. In addition, most of these issues were part of the measures or activities (low strategic hierarchical level), rather than specific targets. Therefore, these results probably allow infer that LAGs still respect the local context and specifics. However, determining the relationship between a setting strategy and the nature/characteristic of LAGs was beyond the scope of this paper.

**Literature:**
5.2 "CLLD" Approach and Implementation of Local Development Strategies in Slovenia

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Introduction
Balanced local development is based on the utilisation of endogenous development potential in rural areas and active involvement of the local population. The implementation of LEADER measure in the previous programming period was very well accepted among rural population and has proved to be a successful tool in meeting the local development needs. In the new programming period 2014-2020 Slovenia decided, to extend the application of the CLLD approach within EAFRD, EMFF and ERDF fund. The advantage of such common approach is the achievement of a comprehensive and integrated addressing of local development needs. In the 2014-2020 programming period around 96 million EUR were allocated to the implementation of CLLD approach.

Methodology
The prepared paper briefly outlines theoretical arguments for introducing of CLLD approach and examines its implementation in Slovenian rural development and regional policy. It’s
based on desk research drawing from literature, legislation documents and available research studies. No modelling work was elaborated in the framework of the analyses. Critical evaluation is carried out in alignment with generally used and known policy evaluation techniques.

Structure of the Paper
The paper is divided into three parts. In the first part we are presenting general characteristics of LEADER approach and measures which are carried out in the Rural Development Programme and the partnership agreement in the period 2014-2020. We will make the comparative analysis of the measures and describes the major differences in implementation between the two programming periods. In the second part we are presenting an analysis of 37 Local Action Groups. The main focus is given on spatial-demographic characteristics, structure of partnership and organisation of decision making body. The paper completes with an analysis of 37 Local Development Strategies. We will analyse to what extent strategic goals and priority tasks of Local Development Strategies follow economic, social and spatial-environmental component of sustainable development.

5.3 Rural Development Policy Implementation in Georgia – Bridging the Gap Between Policy and Community Level

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Georgia is a small developing economy, lower middle-income country located in the South Caucasus. Georgia constitutes 3.73 million people\textsuperscript{7} of which 42.6% live in rural areas. Agriculture remains an important, albeit declining sector in terms of GDP contribution (9.2\% in 2015\textsuperscript{8}). The percentage of the workforce classified as employed in agriculture has remained constant, 52.1\% in 2000, and 53\% in 2013\textsuperscript{9}.

In Georgia the agriculture sector faces numerous problems and challenges including low competitiveness of farmers, underdevelopment of infrastructure, low income of households, limited access to market, obstacles to access public and social services-health care, social security, education, cultural life, environmentally friendly use of natural resources. However, agriculture is an important safety net for most of the rural population including small farmers, typically with around 1.2 hectares and 2 cows per family, classified as subsistence or semi-subsistence.

\textsuperscript{7} Census 2014, National Statistics Office of Georgia
\textsuperscript{8} World Bank Database, downloaded on 11 April 2017.
\textsuperscript{9} National Statistics Office of Georgia
The global commitment to eliminate poverty and hunger by 2030 is reflected in the Sustainable Development Goals (SDGs), namely SDG 1 to eliminate poverty by 2030 and the proposed SDG 2 to eliminate hunger and malnutrition by the same year. These principles are also reflected in the FAO Strategic Framework, more specifically in *FAO Strategic Objective 3 on Reducing Rural Poverty*.

The integrated approach to rural development aims not only at increasing agricultural productivity, but to support income diversification on-farm and off-farm, as well as improve the quality of life in rural areas. FAO has a long experience in developing strategies and programmes on rural development and designing local rural development approaches at farm level through direct involvement of communities.

Georgia is part of the Eastern Partnership Initiative (EaP). Under this Initiative the European Union (EU) recognises the importance of agriculture and rural development. To support the sector ENPARD\(^1\) was launched, under which the EU offers a support on agriculture and rural development assisting in implementing policies and related reforms to make agriculture and rural development a priority sector. In 2016 the Rural Development Strategy was adopted in Georgia (RDS), where FAO provided significant technical support. The Ministry of Agriculture of Georgia (MoA) has a leading role in the implementation of the RDS.

The RDS of Georgia provides a comprehensive approach to improve the quality of life and the social conditions of the rural population, through supporting increased economic opportunities, more accessible social benefits, environmental protection and the sustainable management of natural resources. To eradicate main challenges that rural population are facing, the RDS addresses three priority areas: (i) economy and competitiveness, (ii) social conditions and living standards and (iii) environmental protection and sustainable management of natural resources. The implementation of the RDS requires new institutional setup at governmental level as well as involvement of private sector, local municipalities and local population to identify local needs accordingly.

Based on the FAO experience one of the tools to involve local population in strategy design and implementation is the participatory and inclusive community development (LEADER-like) approach. During the technical work conducted at policy level (top-down driven process), FAO recognized the need to facilitate bottom-up approach for the enhancement of proper policy implementation of RDS, and launched the implementation of two pilot projects.

The rural development pilots are being implemented in high mountainous areas characterised with high outward migration, Tsalka and Racha-Lechkhumi and Kvemo Svaneti Region. Participatory approach was a basic methodological tool, whereby local initiative group (LIG) was established in both pilot areas, representing stakeholders from public, private sectors and NGOs. In the first stage the LIG members identified the main development directions. In Tsalka, the project focused on the support of rural tourism development by linking farmers with potential service providers. In Racha the focus was on pig production, processing and

\(^1\) The European Neighbourhood Program for Agriculture and Rural Development
value chain development of ham through small grant programme. Racha ham is a well-known traditional product in Georgia with potential for further sales promotion. Therefore, the project also focused on the promotion and support of food safety and hygienic standards for Racha ham production as an innovative approach for local farmers to be more competitive.

In the second stage FAO team aims at designing community development strategies for two selected communities in Tsageri and Ambrolauri municipalities, with the full involvement of local stakeholders. This comprehensive approach to shaping and implementing rural development policy enables to bridge the gap between top-down and bottom-up approaches, and enhance a well-informed and consistent policy making process, which is built on lessons learnt at all administrative level.

The paper aims to explore the FAO experience on rural development in Georgia, and discusses future opportunities for contributing rural poverty reduction through support on rural development, which will contribute to the implementation of the SDGs.

5.4 An Innovative Method for Evaluating LAGs and Rural Development „Mirror of LAGs“

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Motto:
"The valuation of local skills and knowledge does not only boost the self-awareness of local people and changes their perception of the area in which they live, it also fosters innovative solutions and competitive advantage of value-adding activities, ultimately of the territory itself." (Lukesch & Schuh 2007).

Abstract
Leader method delivers a variety of innovative activities and it is a tool for rural development, which knows how to bring together people, communities, or regions. The self-evaluation carried out by Local Action Group (LAG) includes the evaluation of social capital and it premises to delivery visible development in rural areas.

This paper is based on internal project of UZEI elaborated in the period 2014 to 2016. The internal project dealt with creation of methodology with the special focus on self-evaluation of LAG titled "Mirror of LAG".

The aim was to develop and validate self-evaluation tool of LAG. During creation of methodology was used cooperation with fourteen LAGs. The proposed procedure was tested on two LAGs.

The method has two parts:
- Evaluation of the LAG strategy – part A
- Evaluation of LEADER principles – part B
Evaluation of Strategy (part A) is based on the analysis of LAG activities concerning strategy. It was analysed if the LAG can meet the objectives of the strategy for the planning period. Achieving the objectives concerns mainly implemented projects and the activities LAG. Part A is mostly quantitative and includes real terms, sometimes referred to as "hard data". The source of information for the quantitative component of the data base are for example, the number of realized projects, allocated funds or number of monitoring criteria. Results are presented in tabular form with commentary and qualitative assessment. The evaluations (Part A) are the basic characteristics of LAG, filling the Strategic Plan Leader or Strategy of Community-led local development (SCLLD). Part A is suitable for official evaluation of ministries or payment agency.

Evaluation principles (part B) is mainly based on qualitative analysis. Part B assesses the most individual way of working of evaluators (LAG) and requires a significant amount of subjective assessment. For example, the method of finding data must often use a questionnaire survey, interviews, focus groups. In evaluating Part B exists fact that some principles are conditioned in rules (eg. proportional representation of sectors), and LAG automatically take on this practice. On the other hand, sometimes there are barriers between managing authorities and local level (LAGs) with negative results and impacts on develop the principles of LEADER.

Cooperating LAGs were interested in evaluating themselves and process brought number of ideas for setting CLLD strategy for the new period. The methodology was useful for monitoring too.

The evaluation of LEADER principles depends on the evaluator skills and acceptance of LAG. Methodology "Mirror of LAG" contains recommended questions, indicators, methods of data collection and frequency of evaluation. It is possible to add or exclude some questions, indicators according to requirements of evaluator.

Participants from LAGs considered methods of evaluation. They assigned following factors of success for self-evaluation:

- Existence/absence of professional workers
- Communication ways must be based on a use of different tools depending on a situation and possibility to be transparent.
- Objectivity and consensus that involves quality of adopted decisions, transparency of the monitoring and evaluation process.
- Application of intervention logic and sufficiently used strategy plan.

To achieve better quality of the evaluation it is essential to respect certain rules, for example to set goals and activities clearly, to set the rules and internal mechanisms.

Innovation as one of the Leader principals can include new services, new products and new ways of acting in the local context (Art. 32 Sec. 2., D). But not everything in the strategy must be innovative, since the partnership must often build trust by demonstrating that they are able to satisfy some short-term basic needs.
Various stakeholders in the region can start with establishing a dialogue with external institutions, such as universities, research centers, government representatives, and others. In the best case, the partnership can become a platform for "social innovation" and consequently to raise funds for their expansion. Successful ideas can then analyze, document and transfer various networks of actors at EU level and at national level and regional level.

In rural areas, this support can cause the transfer and adoption of innovations developed elsewhere, the modernization of traditional forms of know-how, or finding new solutions to persistent rural problems which in other policy interventions could not be solved in a satisfactory and sustainable way.

Let us have an example of one evaluator (LAG) comment. The application of innovative solutions in the implementation of projects were not initially accepted with confidence. Innovation became an inspiration to the relentless action, sharing and disclosure of examples of good practice. Developing innovative solutions occurred within the partnership and are an important prerequisite for the effective development of the region. First step was usually "copying of innovation which was implemented somewhere else" next steps were own innovative approaches, own ideas. Innovative approaches also helped animation program and its publicity and promotion. “LAG Opavsko” (CZE) introduced innovative impacts in four categories: 1 - at the level of applicants; 2 - in the regions; 3 - in the Czech Republic; 4 – outside.

During testing the methodology "Mirror of LAG" it appeared several failure politics and problems for using CLLD in the period 2014-2020. Most of the comments concerned the restriction of LAG creativity.
6.1 The Rural Business Innovation System – an Under-Researched Concept?

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The concept of the Agricultural Knowledge and Innovation System (AKIS) is now widely known and accepted, although several acronyms and definitions exist. For example, Röling and Engel (1991) define an AKIS as “a set of agricultural organizations and/or persons, and the links and interactions between them, engaged in the generation, transformation, transmission, storage, retrieval, integration, diffusion and utilization of knowledge and information, with the purpose of working synergistically to support decision making, problem solving and innovation in agriculture”. This interpretation of AKIS, which focuses on the actors directly relevant to agricultural innovation, is widely used by the European Union (EU). By contrast, the World Bank and FAO speak of an Agricultural Innovation System (AIS), which has a wider definition that includes the so-called ‘enabling environment’. Leeuwis and Ban (2004) define AIS as “a network of organizations, enterprises, and individuals focused on bringing new products, new processes, and new forms of organization into economic use, together with the institutions and policies that affect the way different agents interact, share, access, exchange and use knowledge” [my emphasis]. While this is an important difference, readers are reminded that much more importance should be attached to the practicalities of the promotion and adoption of innovation than to acronyms.

While the considerable attention that is being paid, especially in Europe, to encouraging innovation in agriculture is both commendable and necessary, a fact that is frequently overlooked is that the vast majority of businesses in rural areas are not related to agriculture. For example, in Hungary, data from the Central Statistical Office 2005 microcensus (cited by Fieldsend and Vasvári, 2012) suggest that employment profile of villages is remarkably diverse, with over 25 per cent of jobs being in the manufacturing sector, compared to just 9.4 per cent in agriculture and related industries. While it can reasonably be pointed out that these are residence-based, not workplace-based, data that do not take into account the effects of commuting, it cannot be the case that over 90 per cent of rural workers commute to towns and cities. Similarly, research within the frame of the EU FP7 project ‘RuralJobs’ found that, although 87.8 per cent of the area of the Chelmsford and Braintree ‘Travel to Work Area’ (TTWA) in Essex, UK was rural, workplace-based official data from 2003 indicated that just 1.7 per cent of rural jobs were in farming.

There is widespread political and academic agreement on the need to maintain economically, socially and environmentally viable rural communities. In many rural areas across the EU, non-agricultural small and medium-sized enterprises (SMEs) have an important role as sustainable generators of employment and income. In turn, the viability of these enterprises is influenced by factors linked to their location, such as workforce availability and quality, access to capital and credit, infrastructure availability and access to technologies (Cannarella, 2002). In addition, the sparseness of the population in rural areas means that business owners can suffer from isolation, while many business support providers focus on urban centres,
which are much easier to serve. Several attempts, therefore, have been made to map the availability of support for rural businesses, and to encourage such businesses to make use of this support. Examples include ‘EuroKontakt’ in eastern Hungary, which identified at least 50 sources of support, and ‘WayMark-Essex’ in Essex, UK, which located almost 150 sources of support (Fieldsend and Nagy, 2005), but there are many others.

In contrast to earlier work, which tended simply to list the available sources of support by category, this paper revisits the available data to explore the potential for the concept of a ‘Rural Business Innovation System’ (RBIS) which puts rural businesses at the centre of an ‘ecosystem’ that focuses on promoting non-agricultural innovation and its uptake in rural areas. Shucksmith (2010) has pointed out how the term ‘rural development’ has acquired a new and highly contested meaning in the EU through the establishment of the second pillar of the Common Agricultural Policy and the Rural Development Regulation. The concept of a RBIS could be a useful tool to demonstrate the need for a greater policy emphasis on the need for non-agricultural development and innovation in rural areas.

6.2 Factors Affecting the Performance of Small and Medium Enterprises in Rural Areas of Kosovo

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Keywords: SME, enhancing, constrains, sustainability, rural development, economic growth

The paper tries to give a thorough analysis of the competitiveness of SMEs in the rural areas of Kosovo based on the field study, research reports, country strategies and views of several scholars. Recent studies have proved the relation and impact of SMEs in development in this sector! In addition, the paper is divided into two sections, and ends by the conclusion. The first section, review the different usages of the terms SMEs from different theories and dimensions. The second section deals with the results of field surveys randomly conducted in all around Kosovo. Hence, the questionnaire was prepared and tested in advance in order to avoid any useless questions. The questionnaire was prepared in a way that seeks to figure out the types, reasons, and the problems that the SMEs are facing. The exercise concludes with some personal author’s reflections and conclusions drawn on this topic.

**Problem statement**

The Republic of Kosovo is one of the poorest countries in Balkans. The sector of small and medium-sized enterprises and the agriculture sector are the most important sectors for the economy of Kosovo and represent a good potential to ensure the progress of Kosovo towards the EU integration. Moreover, the sector of small and medium-sized enterprises has played an important role on increasing the income level and employment. Therefore, the further development of this sector has an important role in alleviating the poverty in the country.

However, the effects of the global economic crisis have also been reflected in the economy of the country, mainly through the decline of exports and direct foreign investments. Also the trade liberalization has put pressure in the production sector and competitiveness in order to compete with the local and international markets. As a result, there is a low level of local production where the export of goods is focused only on several products and as a consequence the economy of the country has continued to register a high trade deficit.

**Rural SME-s Analyses**

The enterprise sector is facing challenges which are reducing the competitiveness and preventing it to fulfil its production potential! The main constraints for increasing the productivity and improving the competitiveness are the low use of modern techniques and technologies in both production and management of enterprises, lack of funds, the low use of inputs and the limited ability to meet international standards of food safety.

Despite problems, challenges and difficulties faced by Kosovar Small and Medium-Sized Enterprises they still represent the main factor of economic growth in the country and play an
important role in the economic development of Kosovo. They are the main source of new jobs and income generation. Starting from this general objective, the argument of this study is the research of SMEs operating in the agri-rural sector in Kosovo. The research is focused on the analysis of the impact of SMEs in the economic development of country and the problems related. The measures used in this research include measures related to the research of profitability indicators and return of investments in the company, as well as productivity multi-factors.

In addition, a standardised questionnaire was drawn up to cover all income sources, in order to be more accurate and get detailed information and other features in the companies. The analysing of all factors and data was done with the SPSS Program (Statistical Package for Social Sciences) and the program on statistics R. Results of the research show that that the main reasons to start-up a business vary from life improvement, efficient use of capacities, increase of independence and free capital investment.

Main activities in the sample are trade, milk processing, inputs and processing of cereals. Activities generating higher income are businesses of communication, paper processing, cereal and meat processing. Another important component in the research is the education background where results show that intellectual businesses, inputs and communication have the highest education level, whilst the lowest education level is found among businesses of wood processing, transport, construction, etc. Regarding the number of employees, the results indicate that the processing industry and production of eggs have more employees, in comparison to the producers of fruits and vegetables, fridges, repair of machinery, etc. Most respondents expressed that the increase of the general turnover and of the profit have been the most dynamic factors for strengthening their businesses. Meanwhile, the cost of labour force and interest rates are seen as not in the favour of business. Most of respondents expressed that information and advice as well as more favourable loans would be the most important factors to encourage the start-up of new businesses.

6.3 Support of Households and Their Role in Rural Development in Ukraine

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Background. This contribution provides the description of Ukrainian rural households, their role in rural economy and development of territories. It presents positive tendencies in State policy and society aimed to support and preserving of Ukrainian village. This analysis provides perspectives of households and proposes some ways for saving rural area.

The aim of this contribution is to show that nowadays households are an integral part of the Ukrainian rural development and to give some vision of their future.

In spite of the fact that households are not highly productive economic structures they play an important role in the national agricultural production. There are about 14,5 million of households in
Ukraine (including 4.9 million in rural area). They work on plots with the surface of 0.5 - 1 ha and more. Their share in total agricultural production is 44.9%. In some sectors it is really crucial: 80% in milk production and 90% in fruits and vegetables production.

In the economic sense households can be considered as sustainable productive units. The main factors of their sustainability are following: necessity to satisfy their own needs in foodstuffs, minimum dependence on market because of diversified natural production; domination of simplified technologies minimizing inflation impact on material and technical resources; close location of parcels and animal buildings; solution of unemployment problem in rural areas.

In the conditions of undeveloped commercial infrastructure in rural territories households are important suppliers of foodstuffs not only for producer's family living in village but also for their relatives living in towns.

Besides these characteristics, households play an important role in keeping local traditions, preventing disappearance of villages, protecting environment.

Nevertheless, every year the rural population is reducing by 147,000 persons. In the last 15 years 460 villages disappeared from the map of Ukraine.

This can be explained by aging of rural population, as young people go to towns realizing weak sides of households as economic units: difficult to compete with big structures, impossibility to provide higher quality of some products, limited access to market and finances, low life quality.

During a long period the State didn't take care about households, limiting their access to finances, creating fiscal and administrative obstacles. Households were considered as not viable forms of economic activity. Indeed their production is not oriented to economic efficiency but mainly to satisfaction of family's needs. But surplus of products are commercialized outside and this activity is submitted to market laws.

According to scientific estimations, in future one part of households will be transformed into small farms with further transformation in bigger productive units, the other part will be transformed into "hobby-farms".

Nowadays a big challenge is to make this transition positive and to preserve villages. So, during last period some positive tendencies in the State attitude have taken place. Thus, the support of small producers was defined as one of priorities of the State strategy of agricultural and rural development for 2015 – 2020. The first important law "On the decentralization", adopted in 2015, gives the right to local communities to merger, obtaining autonomy in management of their budget, in arrangement of their areas etc. Then in 2016 the Ukrainian Parliament adopted the law “On farms” which attributes the official status of agricultural producer to households. Being officially registered as family farm legal or natural body, household will obtain the right to beneficiate State aids. The new law "On self-
regulatory organizations in agriculture" is being developed as well. It will allow family farms and other agricultural producers to create non-governmental organizations for obtaining delegated rights from State authorities to regulate their own activities.

A special fund of regional development was created for financing projects of united rural communities, aimed to improvement of life quality, solution of environmental problems and development of small business.

Several initiatives were launched recently by NGOs, big business and European partners. Some of them are: creation of milk collecting centers providing necessary equipment and training aimed to improvement of milk quality; enabling access to innovative technologies (Danon and Heifer fond); organization of national competition «Incredible villages of Ukraine» to promote development of small and medium rural businesses and rural communities, to popularize life in countryside, to recall historical and cultural heritage (Ukrainian club of agrarian business), creation of public platforms in 6 pilot regions for small business development (NGO “Primavera” with Dutch government), valorization of local traditional products in Lviv region (French Ministry of agriculture).

But still small agricultural producers don’t have a real comprehension of their economic opportunities and social role. They don’t hurry to be officially registered as they don’t believe in State aids and are afraid of fiscal charges. Cooperatives look like best solution for small producers, but they don’t want to join their means. It is a negative impact of communist system when cooperation was associated with expropriation of private property. The advisory services supposed to provide the access to innovations remain undeveloped.

To save Ukrainian village and to enhance rural development the following measures should be undertaken:

- further work aimed to creation of join structures: cooperatives, clusters, united communities (based on the State support and participation of the society, dissemination of successful examples in order to create the trust);
- development of niche products (organic, traditional products under GI) and rural tourism;
- enabling access to innovations by the development of advisory services;
- active involvement of households in local initiatives (this role belongs to rural communities).
Poster abstracts

Efficiency of Polish organic holdings on the background of the conventional holdings

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In 2004-2015 the organic farming in Poland has developed importantly. Both the number of organic holdings and organic food processing enterprises increased. The total number of organic producers in that period raised about 6 – fold. In 2015 there was 22.9 thous. of organic producers and they cultivated 552.5 thous. ha of land (fully converted organic crop area) which means 3.5% share in the total UAA. According to Eurostat data the average share in UE-28 amounts to 6.2% and the highest importance of the organic sector in the total UAA concerns Austria (19.1%), Sweden (15.4%) and Estonia (13.3%) (Eurostat 2017). Based on the wide literature it could be said that there is a potential for development of organic holdings in Poland due to the natural factors. But the development of this type of farm also strongly depends on economic factors, mainly prices of organic products, demand and the level of producers support. Among other factor influencing the economic results are the effective use of the factors of production and relations between them.

The aim of the study is to compare the economic situation of organic and conventional holdings in Poland. The statistical data of the Polish Farm Accountancy Data Network (Polish FADN) for 2014 were used. The comparative analysis of the relations of production factors, structure of production, organization indicators, efficiency and profitable was presented. Five types (fieldcrops, other permanent crops, milk, other grazing livestock, mixed) and six economic size of holdings were taken into consideration.

The research shows that organic and conventional holdings differ by the organization of plant and animal production. Particularly the share of fodder crops in UAA of organic holdings is much bigger (about 43% against to 18%) and stock destiny is lower (0.5 against to 1.8 LU/ha). Production in organic holdings is usually more labour intensive than conventional. This would be due to the limitations in using capital inputs and agricultural practices. In organic holdings 1 AWU was occupied on average 7.5 ha of UAA compared to 14.5 ha in conventional holdings. The total value of assets per 1 AWU is about 60% lower in organic holdings. Both in the two types of farms, growth of economic size was accompanied by growth in the land and capital per 1 AWU. The differences in the organization and in relationships between production factors co-determine their efficiency and profitability of production. The efficiency of land and labour measured by the added value was nearly 40% higher in conventional holdings. This affect much lower efficiency of production in organic holdings. Moreover, subsidies plays a greater role in the income situation of organic holdings. They accounted about 80% of the farm income against to 47% in conventional holdings which means stronger dependents on external support. In policy planning it shall be taken into consideration that organic farms may encounter in the future a development barrier stemming from its lower efficiency in comparison with other types of farming.
Innovation of evaluation of RDP programme in Czech Republic

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Introduction: The Rural Development Programme Program (RDP) aims at restoration, preservation and improvement of the ecosystems dependant on agriculture mainly by the agri-environmental measures, investments to competitiveness, innovation of agricultural holdings, supporting the enter of young people to the agriculture, and diversification of economic activities in order to increase the employment and enhancement of the landscape infrastructure. Therefore, it was decided by the European Commission, based on the directive of the European parliament, that there will be provided more than 3.1 mil. EUR for the rural development in the programme period 2014–2020. The aim of the paper is to describe the innovation of evaluation procedure of the projects in 2017, securing the database of the inputs for assessment and the construction of model calculator which would serve to the evaluation of the RDP projects itself.

Data and methods: The method of financial evaluation was chosen for the evaluation of the projects implemented in the framework of RDP. The effectiveness was evaluated in the years 2014-2016 only by a ratio of sales to subsidies compared to certain marginal threshold. This assessment was inadequate and economically incorrect. There were not covered other financial flows (costs and financial support). Nowadays, the system is innovated to include also other variables.

For this purpose, a normative database of inputs was elaborated. Normative database of inputs is extensive data source which feeds the RDP model PRV for calculation and evaluation of the projects. The database currently includes 46 the most common commodities that are produced at the area of the Czech Republic. For each commodity there is calculated the price (in prediction for 10-year horizon and the average of the price in last 5 years), shadow price index of the commodity (SPR price index) (two different types of the calculations origination from SPR-SUBmodel), costs items (in prediction for 10-year horizon and the average costs per one unit of production in last 5 years), average amount of subsidy per one unit of production (in last 5 years) an average intensity of production (average for last 5 years). This database utilizes to wide extent the information from cost survey NAKL by IAEI. The predictions of input data are updated annually.

Special models developed by IAEI are used for price predictions. Particularly, the calculations are done using the following methods: (1) Deriving from the European and world prices through price indices growths, (2) Least Squares Method, (3) Winters Method, (4) ARIMA models, (5) Combination of the above methods. Prediction of individual cost items are calculated using seasonal trends. Prediction of individual cost items are calculated using seasonal trends.

Since the RDP project assessment procedure is continuously developing and evaluation rules are changing with each round of call for application for subsidies, it is necessary that the model could work with both, averages (which are currently used up to the third round), as well as with predictions, which is from the point of view of the of CBA methodology a better
solution. RDP Model can combined these average inputs by any way and also allows the insertion of own values (for example commodity prices and costs or intensity of the production), which are limited by maximum or minimum thresholds that were measured in the Czech Republic in the framework of cost investigation NAKL.

**Results:** The result of the research is elaborated RDP Model that consists of the database of the normative inputs, submodel SPR-SubMODEL and the evaluation mechanism of the projects itself.

RDP Model can assess the project with maximally ten produced items (the combination of the investments to animal and plat production is possible). For making the decision about the acceptability of the project is used the indicator “project payback period”. It is calculated as the value of all valuated cash flows in the project for the whole duration of the project divided by the initial investment (subsidy). The payback period of the project is compared with depreciation period for tax purposes of the acquired asset groups, which in the case of more types of investments within a single project is calculated as weighted average of individual investments. The criterion of acceptation, i.e. the project is efficient, when the project payback period is lower than its depreciation period.

**Conclusions:** CBA analysis is very complex and complicated that is extremely demanding on the calculation of all cash-flows. Therefore, the RDP Model is being continually improved and the database of normative inputs widened not only by financial items of commodities, but especially by externalities expressed in financial terms. It is assumed that the model will be able in the future to perform all Cost-Benefit Analysis and to calculate the indicators for decision-making.

**Regional differentiation in the implementation of Polish agri-environmental schemes**

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In current sustainable European agriculture the fundamental issue is the concurrent and non-confrontational approach to environmental and economic objectives in farming. Environmental issue become the most important aspects of rural economy. Agriculture, which uses over 60% of the total area of Poland, has large responsibility and impact on the natural environment. But farmers operate on free market, where the goal of business entities is to maximise the production and economic effect. The objective of the agri-environmental scheme is not only the improving of agricultural environment but also taking account of the economic and social significance. The effect and assessment criteria of the scheme should be the environmental and economic impact. The measuring of environmental results is extremely difficult and sometimes impossible or even immoral. In that case, the agri-environmental results will directly relate to the economic dimension of this policy. The opportunity to obtain a macroeconomic effect (to maximise the economic outturn in the form of farm income) will determine the farmers interest in implementing this mechanism. High profitability of the measure will encourage the potential addressees (farmers), which in turn will increase an
achievement of non-economic goals: environmental impact. The effectiveness of the scheme depends not only on its payments and requirements, but mainly on the performance of the particular farm. Thus, research concerns two dimensions of the agri-environmental scheme implementation. The first is to establish the characteristic features of agri-environmental scheme beneficiaries. The second aspect of study concerns changes that took place in the studied farms - beneficiaries. Dynamic analysis will allow to study impact of scheme implementation on economic and production situation of farms implementing the agri-environmental. The key element of the analysis is determining the role agricultural policy support, mainly the agri-environmental payments. Both dimensions (beneficiary profile plus scale and the direction of changes) will be the basis for evaluating regional diversity in implementation of agri-environmental. Spatial approach of the study is determined by huge regional differentiation of the Polish agriculture (Karwat-Woźniak 2011). Many factors affect on real and potential capability for implementing the mechanism of the agricultural policy - the agri-environmental measure in this case. On the regional level there differentiation may be caused by the farming systems (Onate et al. 1998), production factors use by agricultural farms, the structure of farms, equipment to the technical means of production - the technical intensity of land use, quality of the labour resources, the investment activity, productivity, economic outturn. Identifying the influence of these factors is a task of this research.

This study will use agricultural accountancy data from the FADN (Farm Accountancy Data Network). The basic advantage of FADN is its methodological uniformity, which makes it possible to compare a number of farms. FADN is the only system in Poland to provide information on production potential (size and structure of assets owned by farms), value of production, scale and structure of cost borne by them, or finally - their economic outturn. To evaluate the policy mechanism, the farms were divided into two groups: beneficiaries of the agri-environmental scheme and other farms\textsuperscript{11}. Both beneficiaries and the comparison group (farms without receiving any agri-environmental payments) consisted farms that continuously participated in the Polish FADN system in 2004-2014.

In addition to the accounting data, the results publish by the Agency for Restructuring and Modernization of Agriculture and the reports of the Ministry of Agriculture and Rural Development will be used.


\textsuperscript{11} Osterburg applied the similar methodological approach
Spectrum of Social Innovation Activities in Austrian Rural Areas

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Keywords: Agricultural Policy, Rural Development, Social Innovation

The Horizon 2020 project SIMRA (running from 2016-2020) seeks to advance understanding of social innovation and innovative governance in agriculture, forestry and rural development. Its objective is to show how to boost them, particularly in marginalised rural areas across Europe with a focus on the Mediterranean region (including non-EU). It encompasses the complexities and various dimensions and understanding of how to support enhanced governance and social innovation, addressing specificities and priorities of social needs and new social relationships and collaborations. A first step in the project is to collect examples of innovative activities in rural regions and to show their wide range and diverse characteristics.

In recent years, numerous innovative activities have been developed in rural regions in Austria. They differ from each other with regard to their degree of profit orientation, social aspects and objectives, public participation and local or regional, direct or indirect impacts.

Community Supported Agriculture usually is a partnership between a farm holding and a group of consumers (“harvest-sharers“). The consumers cover the expenses of food production and (to a varying degree) of investments and get a share of the harvest in free periodic takeouts. In this way, farmers may face lower marketing risks and costs and may benefit from an increased financial stability of their farm. In turn, CSA members are more actively involved in food production and are more aware of the production standards and the quality of the food. Farmers and consumers share the risks, responsibilities and rewards of farming.

(https://communitysupportedagriculture.org.uk/; http://laszlo-zsolnai.net/content/collaborative-enterprise-creating-values-sustainable-world)

Crowd funding or voucher based projects are often designed as marketing instruments but have also indirect effects such as the reduction of risks for the entrepreneurs, raising customer loyalty and awareness for food production and enhancing mutual understanding among customers and producers.

Food cooperatives are self-organised co-operations of persons and households who get their food (in most cases organic) directly from local farm enterprises. They attach great

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12 Compiled in the frame of the H2020 project SIMRA, coordinated by the James Hutton Institute, UK. www.simra-h2020.eu This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement 677622
importance to the quality and sovereignty of food, sustainable production and avoid intermediate trade and negative environmental effects caused by long distance transports.

Land management projects can be designed to maintain cultural landscapes which often are esteemed by society but their maintenance has no sufficient value on the market for long term preservation. People who, for example, volunteer to maintain alpine meadows or infrastructure gain experience in community work in the countryside, may counterbalance office-work and become aware of the relations between landscape and food production.

Innovation platforms aim at connecting individuals with different backgrounds and interests to share and further develop solutions to common problems and to achieve common goals. Innovation platforms may address challenges and opportunities at different levels: at a territorial level or throughout a value chain. Regional management agencies, for instance, may link with and involve broad sections of the population by providing and hosting an online innovation platform and accompanying participatory events. (https://assets.publishing.service.gov.uk/media/57a08a2840f0b652dd0005bc/Brief1.pdf)

Green Care projects combine the social, agricultural, health and education sectors and aim at strengthening the general well-being and the health of people. Green Care includes all activities that use agricultural resources, both from plants and animals, in order to promote (or to generate) therapy, rehabilitation, social inclusion, education and social services in rural areas. It is related to farm activities where groups of people can stay and work together with family farmers and social practitioners. In Austria, Green Care is relatively new and therefore offers a lot of opportunities.
Interactive Gross Margins – A versatile online application for 72 agricultural production activities

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Introduction
Developing and implementing innovation involves many different tasks, such as testing and revising ideas; communicating and cooperating; compiling resources; building infrastructure or fulfilling regulatory requirements. It is necessary to be in control of the economic situation and have available sufficient funding. Planning is essential and it may prove challenging to carry out and coordinate all tasks within the aspired period of time. In order to use resources efficiently, the innovator could revert to readily-available solutions for some of the tasks. For instance, the economic assessment of an idea involving agricultural production will likely include gross margin calculations. The aim of this poster is to present one of the available tools, the ‘Interactive Gross Margins’ (IGM) and its utility for planning innovation.

Scope
The IGM are provided by the Federal Institute of Agricultural Economics (https://idb.awi.bmlfuw.gv.at/; developed in cooperation with the Bavarian State Research Center for Agriculture). This online application can be accessed free of charge and without registration to the platform.

The IGM are Austria-specific. Of the 72 activities covered at present (22.08.2017), 39 are crop production activities (22 conventional, 17 organic), 16 are feed and energy plants production activities (9 conventional, 7 organic) and 17 are livestock production activities (10 conventional, 7 organic). Variants are available for many IGM activities to differentiate the activities based on pre-specified criteria regarding outputs (e.g. types and qualities), production area (e.g. Austria, 9 provinces), production conditions (e.g. climate type; slope) and management variants (e.g. tillage system; plant protection intensity; labour type and machinery).

Approach
The IGM rely on the simple concept of gross margins (= revenue minus variable costs). However, the underlying data is very detailed and where possible, functions are used to capture the complexity of agricultural production. For instance, revenue as well as some costs are yield-dependent; they are updated automatically if the yield value is overwritten. The IGM have a modular structure (Figure 1).
<table>
<thead>
<tr>
<th>Module</th>
<th>Contents / examples [indicated as …]</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic information</td>
<td>basic specifications/assumptions for the production activity</td>
<td>e.g. quality of output, observation period, calculations incl. or excl. VAT</td>
</tr>
<tr>
<td>Yields and producer prices</td>
<td>yield per unit [e.g. tonnes/hectare, kg/animal]</td>
<td>yield, producer price per unit: indicated for principal and by-products (e.g. crop and straw; milk, meat and manure), differentiated by quality; yield: corrected for quantity not sold (e.g. on-farm use, losses); prod. price weighted: calculated from yield and prod. price per unit</td>
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<td></td>
<td>producer price per unit [e.g. €/tonne, €/kg]</td>
<td>producer price weighted [e.g. €/ha, €/animal]</td>
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<tr>
<td></td>
<td>producer price weighted [e.g. €/ha, €/animal]</td>
<td>revenue of each product = yield per unit × prod. price weighted; optional: additional revenue from products; revenue total: total revenues of all products</td>
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<tr>
<td>Revenue</td>
<td>revenue of each product [e.g. €/hectare, €/animal]</td>
<td>revenue of each product = yield per unit × prod. price weighted; optional: additional revenue from products; revenue total: total revenues of all products</td>
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<td></td>
<td>revenue total [e.g. €/ha, €/animal]</td>
<td>revenue total: total revenues of all products</td>
</tr>
<tr>
<td>Variable costs</td>
<td>input quantity per unit [e.g. kg/ha; kg/animal]</td>
<td>input quantity per unit, input price per unit: where possible and meaningful, differentiated by production characteristics (e.g. climate type) and management variants (e.g. tillage system); variable costs by variable cost item = input quantity per unit × input price per unit; variable costs total: total costs of all variable cost items</td>
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<tr>
<td></td>
<td>input price per unit [e.g. €/kg; €/application, €/labour hour, €/hectare, €/animal]</td>
<td>variable costs by variable cost item [e.g. €/ha, €/animal]</td>
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<tr>
<td></td>
<td>variable costs total [e.g. €/hectare, €/animal]</td>
<td>variable costs total: total costs of all variable cost items</td>
</tr>
<tr>
<td>Gross margins and further indicators</td>
<td>gross margin total [e.g. €/hectare, €/animal]</td>
<td>optional: additional income (e.g. agricultural payments, as they are excluded in the default settings)</td>
</tr>
<tr>
<td></td>
<td>gross margin per unit of output [e.g. €/tonne produced, €/kg produced]</td>
<td>gross margin total = revenue – variable costs; gross margin per unit = gross margin total / no. of units</td>
</tr>
<tr>
<td></td>
<td>gross margin per unit of input [€/labour hour; €/day fed; €/animal-rearing space]</td>
<td>resource requirements [e.g. labour hours/animal and year; energy/animal and year]</td>
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<td></td>
<td>resource requirements [e.g. labour hours/animal and year; energy/animal and year]</td>
<td>resource requirements [e.g. labour hours/animal and year; energy/animal and year]</td>
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**Figure 1:** Modular structure of the ‘Interactive Gross Margins’ application  
([https://idb.awi.bmlfuw.gv.at/](https://idb.awi.bmlfuw.gv.at/))

**Source:** Own compilation.

**Data**

When a user selects a specific IGM activity, the calculation scheme is populated with default values. These default values are averages for the selected area in the selected observation period and subject to the chosen variant. These data are mostly based on published data (e.g. output prices, standard values for machinery costs; provided by public agencies) or on functional relations (e.g. nutrient uptake of crops; nutritional requirements of livestock). Unpublished information (e.g. input prices, input quantities; provided by suppliers, farm advisory services or other experts in the field) is used where published data or functions are lacking, where their quality is not compatible with the other specifications in the IGM activity, or where their quality is not satisfactory. The IGM data are updated periodically. Farm advisory experts validate the underlying assumptions (e.g. technical coefficients) when
needed. The user can overwrite almost any parameter to tailor the calculation to their specific problem statement.

**Discussion**

The IGM were primarily developed for farm advisory services and for farmers wishing to evaluate their own activities. Both the calculation scheme and data are provided, updated regularly and validated when necessary. The default values give a quick indication of average values in the selected variant. However, in order to analyse specific questions (e.g. product innovation, changes in the farm system or in its environment), it is necessary to overwrite the default values with own data capturing the situation of interest as accurately as possible. As a versatile and highly flexible tool, the IGM can be used for many purposes and problem statements, including: analysing situations of the present and the past (using current or historical data, respectively); planning for the future (using planning data); scenario analyses (e.g. best, worst or most likely case); calculating the gross margin of a crop sequence (see e.g. Brückler et al., 2017) or other combinations of activities. Calculations can be exported for documentation or further analysis in pdf format or as a spreadsheet file. Going forward, further agricultural activities will be added to the IGM application.

Like other tools, the IGM have some limitations to bear in mind. As an engineering data set, the IGM require a large amount of information; not all of it is sourced easily (e.g. yields and prices for organic activities) or fully compatible with the activity and other data in question. Given the issue of data availability and compatibility, it is difficult to validate some of the assumptions made in the IGM. However, this limitation does not apply where default data are overwritten. Where own data is not available, users may decide to work with the default values. Source and properties of the latter are indicated in the IGM; that way, the user has a better understanding of the significance of the data and can decide if the information is appropriate for the problem statement.

Innovators can benefit from the IGM particularly regarding the readily-available calculations and data as well as its user-friendly interface, documentation and export options. With these features, gross margins may be identified in a detailed manner, yet efficiently, thus freeing up time for other tasks.

**References**


Innovation and investment activities are very closely related to diversification of farm activities in rural areas. Investments in new technologies enable creation of new products and new entrepreneurial activities. Barnes et al. (2015) concluded that diversified farms in the sense that they obtain revenue from two or more agricultural activities are more viable. The other important factors which affect viability are to be structural or institutional, including investment activities within the EU’s Common Agricultural Policy. Diversification activities may be undertaken for economic reasons but may also be due to other factors not related to the economic situation of the farm (Barnes et al., 2015). The role of investment and innovation in increasing a farm’s competitiveness is directly linked to technical progress that is an important factor of growth in modern agricultural growth models (Rembisz and Florianczyk, 2014, cited by Wieliczko, 2015) and it drives productivity and efficiency in production and enhances farm profitability.

Diversification strategy is commonly considered as growth strategy. Ilbery et al. (2006) also tried to define the term “diversification in agribusiness”, moreover, they help themselves to understand by introducing the term “pluriactivity”. Pluriactivity incorporates all profitable activities done by a farmer as a supplement to the conventional agro production, whereas the diversification incorporates only such profitable activities that are done within a farm.

McNally (2001) has a similar point of view, he links diversification with development of the non-farm, or more precisely, the non-food production. The most often determination is diversification of income sources. The second approach is focused on production factors of agribusiness and sees their usage more in other area than conventional agriculture. The third approach emphasizes on farmer as a businessman (Hron et al. 2009).

Results of the study in Sweden (Hansson, Ferguson, Olofsson, 2010) show that degrees of specialization and diversification are influenced by characteristics of farms structure, financial and demographic conditions. Rurality and touristic development are considered important factors of diversification and innovation in Eastern Germany (Lange, Piorr, Siebert, Zasada, 2013). A study from north-western Spain (Garcia-Arias, Vazquez-Gonzales, Sineiro-Garcia, Perez-Fra, 2015) showed that the trend to diversify seems to be more dependent on the type of product specialization than on the farm’s size, income, or the age of the owners. There are not only economic factors affecting diversification of farms. The paper (Vik, McElwee, 2011) addresses the question of motivation for farm diversification using Norwegian data. The results demonstrate that social motivations are as important as economic motivations, that is, there are substantial differences in which motivations underpin different types of diversification.

Survey evidence from three Central European Countries (Czech Republic, Hungary, and Poland) was analysed to identify the degree of non-agricultural farm diversification (Chaplin,
Davidova and Gorton, 2004). The results indicated that the level of diversification was relatively small. The farmers are also motivated by Rural Development Programme (RDP). The RDP supports among others redevelopment (reconstruction, upgrading, static reinforcement); purchase of buildings, machines, technologies, equipment for plants and workshops; construction of decentralised facilities for the use of renewable sources of fuels and energy (biomass or biogas); agro tourism, etc. The support and diversifications continues also in the programming period 2014-2020, priority 6.

The aim of the paper is to evaluate the level of diversification of various farm types in the Czech Republic regarding the support from RDP. We assessed Czech farms based on the FADN CZ database, period 2011-2015. We examine different factors, such as legal form, farm specialization or economic size. The development of other production was generally more favourable in mountain less favoured areas and in farms with specialization on cattle breeding. Regarding priorities supported by RDP, agro tourism plays more important role in small farms, renewable energy is more important (higher share on other production) in large farms. Approximately three times higher share of other production on total production show legal entities comparing to natural persons (this group of farms represent lower level of diversification). Regarding the structure of other production, natural persons are more focused on agro tourism, while legal entities on renewable sources of energy.

References
A Typology of the EU Candidate Countries and Eastern Partnership Countries According to Their Self-Sufficiency in Main Food Products

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The article compares the European Union (EU) candidate countries (CC) and the Eastern Partnership countries (EPC) in terms of their self-sufficiency in main agricultural products by analysing the average consumption of these products between 1990 and 2013. The data was obtained from the FAOSTAT database. The countries were grouped according to their self-sufficiency ratios in main food products by means of Ward’s method of cluster analysis. In consequence, the countries were divided into two groups. The first group included Belarus, Moldova, Serbia and Ukraine. These countries were characterised by greater self-sufficiency in most of the products than the other group. Their self-sufficiency was particularly noticeable in cereals, excluding beer production, beef, pork and milk, excluding butter production. The other group of countries, i.e. Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Montenegro, Macedonia and Turkey, was particularly self-sufficient in the production of fish and seafood. Both groups of countries were characterised by very similar self-sufficiency in fruit, mutton and goat meat. Several countries in this group, i.e. Belarus, Moldova, Serbia, Turkey and Ukraine were characterised by surplus in the production of most foods. In the future, after consecutive extensions of the EU, these countries may be competitive to the old EU member-states. Studies proved that during the period under investigation the increase in the self-sufficiency of these countries resulted from greater production, lesser loss during production and lower consumption of the products under analysis. The novelty of the research suggests a comprehensive approach to research topics and their multidirectional analysis (it is important for both the countries surveyed and the EU).

Assessment of Strategic Factors for Local Administrative Units

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The complexity and multifaceted nature of problems emerging in local development studies often make them difficult to overcome. The complexity and importance of issues involved in the assessment of local development requires a complex and methodological approach, which may be the basis for planning the most desirable events and conditions of local administrative units (including rural areas) from the perspective of their future situation. However, there is no standard model used in the process of assessing the development of local administrative units. Analysts and decision-makers employ different assessment methods (cf. Cohon 2003). Usually, classic statistical methods are applied, involving some limitations which often result in an excessive simplification of the actual course of phenomena. This is because the data that describes the development phenomena is usually bi-dimensional, i.e. includes qualitative and quantitative aspects. Also, it is often ambiguous, imprecise or uncertain in nature. In order to solve these problems, methods based on the fuzzy set theory could be proposed. This theory extends and supplements the classic set theory to describe complex phenomena or non-metric
features, such as the local development and related descriptive features (e.g. sustainable socio-economic development).

The main aim of the study was to assess the strategic factors (objectives, tasks) for local administrative units (LAU). To solve this problem, the fuzzy analytic hierarchy process (FAHP) (Chang 1996) based on experts’ opinions was used. The essence of this process is to build a hierarchy structure for the problem considered which consists of the main goal, the sub-goals detailing it and the tasks enabling their achievement. The tasks may also be decomposed into secondary ones. The number of levels in the hierarchy depends on the expected degree of generalization in the study. At each hierarchy level, the importance of strategic factors is pairwise compared by experts. Experts’ opinions are the basis for the assessment of each strategic factor.

The research was based data from a survey with the councillors of the urban and rural municipality of Bogatynia in 2017. The direct use of the FAHP implies making certain assumptions as to the elements of the hierarchy that impact the local administrative unit. This study assumes that the main strategic goal should be the sustainable socio-economic development for LAU while the sub-goals ought to involve: the improvement of standard of living, the economic development and environmental protection. A set of tasks (directions) is to be specified for each sub-goal. As showed by the analyses, the FAHP can be useful for quantifying the importance of goals and strategic tasks. The application of the FAHP extends the variety of the analytical tools used for building development strategies and enables making more detailed plans. At the same time, it allows the assessed strategic factors to be arranged in a hierarchy of importance which should lead to a more realistic distribution of the planned activities over time, thus accelerating the development of the territorial units.

In summary, it must be emphasized that the proposed approach to the assessment of strategic factors for local administrative units is a universal tool. Therefore, it may become useful for tracing the development paths, drawing up the development plans or programs for local administrative units (including in rural areas). Also, it could be used for regional development planning.

**Bibliography**


Role and Innovation Potential of the ÚZEI in the AKIS in the Czech Republic

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Keywords: Agricultural Knowledge and Information System (AKIS), Institute of Agricultural economics and Information (ÚZEI), Innovation, Advisory services.

Recent calls of a society to farmers are more and more focused on the protection of the nature and providing public goods. At the same time a development of climatic change emphasizes a need of the environmentally friendly farming (MZe, 2014). These requirements are reflecting in the numbers of new regulations and other restrictive and motivative measures. In order that farmers should be able to react on these challenges, there is need to establish system where the farmer could get new abilities and in cooperation with research seek for innovation. This issue was partly tackled in the FP7 project PRO AKIS (Pulkářek J., Pazderu K., 2014) and will be deeply analysed in the Horizon 2020 project AgriLink. Meanwhile there will be investigated further innovation potential of the ÚZEI. In this poster, we are mapping the current position and innovation potential of the ÚZEI by using a desk research and semi-structured interviews.

Method:
This poster is prepared based on the desk research and semi structured interviews to map the current role and innovation potential of the ÚZEI in the Czech AKIS. The description part includes history, policy, funding and a section about the way in which the Farm Advisory System (FAS) was implemented in Czech Republic. Semi structured interviews reveal an actual situation and further potential based on the opinion of the actors. The evaluation criteria were inspired with standing key initiatives (action points) of a Europe 2020 Initiative (Innovation Union, 2010). Respondents included in the research were consisted from advisors, coordinator of the advisory services, coordinator of the advisory services in Ministry of Agriculture etc.

Findings and arguments:
The main parts of AKIS in the Czech Republic are the Division of Education and Advisory services MoA CR, Institute of Agricultural Economics and Information (ÚZEI), National Rural Network of Paying Agency (NRN PA), research and educational institutions, non-governmental non-profit organisations (for example Agrarian Chamber) and advisors. ÚZEI plays significant role in this process since 1992 (MZe, 2014). Private companies supporting agriculture by different means (transfer of vocational information) are also supported by ÚZEI in information (software and database) in the form professional assistance. The Ministry of Agriculture delegated a part of its implementing power in the field of AKIS to the contributory organisation ÚZEI. The duties of ÚZEI are accredited of private advisory bodies that will operate in the Farm Advisory System (FAS). Other duties are also providing basic information accessible for free to users about technological standards, methods and working instructions, norms and table data about sectors of agricultural production, marketing information, estimated developments of domestic and foreign markets, and other information.
which is important for decision-making by entrepreneurs in the market environment. So far, ÚZEI consists from Advisory Services Department, Research Department and Agriculture Library and Information services. Cooperation among all departments creates huge potential for development and transferring information and innovation in AKIS.

Conclusion and recommendations:
ÚZEI plays significant role in advisory services mainly regarding to compulsory and administration requirement. The potential for AKIS is in the cooperation of the Advisory Department, Research Department and Information Services, which will be further analysed in project AgriLink.

References:

Competitiveness of Polish agriculture with agriculture of selected EU countries under the CAP

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Poland’s accession to the European Union and the regulations of Common Agricultural Policy have changed the conditions of functioning of Polish agricultural sector. Apart from the significant financial support of this sector, the foreign trade opportunities for agri-food products have increased as well.

At the same time, Polish agricultural producers and exporters have had to cope with foreign competitors on the Single European Market. At the same time, Polish agricultural producers and exporters have had to cope with foreign competitors on the Single European Market.

The ability of agricultural sector to deal with competition is linked to the competitiveness of factors of production and their productivity as well as of the scale and direction of structural changes and the effectiveness of production. The analysis of the competitiveness of Polish agriculture in the prism of factors of production is important not only because of the significance of this sector in Polish economy (it accounts 2.3% of GDP and employs 16% of
population) but also because of the importance in the European agriculture (it accounts 20.5% of labour force of EU-28, 13.2% of EU-28 number of farms and over 8% of utilized agricultural area of EU-28). Polish agriculture is characterized by many structural weaknesses affecting its competitiveness, *inter alia* a lot of small farms, lack of specialization, small scale of production.

Therefore, the aim of the research is to assess the changes of competitiveness of Polish agriculture compared to the other European countries with similar structure of production: Denmark, Germany, Czech Republic, Slovakia, Hungary, Estonia, Latvia and Lithuania. The selection of countries was based on similar structure of crop and animal production – the share of cereals, industrial crops, vegetables and horticultural crops, fruits in the crop production value and share of cattle, pigs, poultry, milk and eggs in animal production value.

The research will be conducted for the years 2003-2013 based the European Commission Rural Development Report and EUROSTAT data. Competitiveness of agriculture will be indicated by the potential of production (i.e. resources of factors of production, relations between them, structure of farms) and values of agricultural production, income and productivity of production’s factors. The attempt to indicate the synthetic measure of competitiveness will be taken on as well as to identify the correlation between the changes of the competitiveness and the level and structure of financial support within the CAP in selected European countries. The multivariate methods (cluster analysis and synthetic measure) as well as methods used in regional structural analyses will be applied in the research.

**Quality of Life in the Municipality Opalenica in the Opinion of its Residents**

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The aim of the publication is to assess the quality of life in urban–rural commune based on the opinions its inhabitants. Recent years are for Poland the period of significant changes which are results of the accession to the European Union and the use of funds allocated to cohesion policy and the common agricultural policy. Notably, executed projects have local dimension. It concerns both investments made by local governments, local entrepreneurs and NGOs. In its assumption, these actions are expected to improve quality of life in many aspects, for example aesthetic, improvement of road safety, environmental protection, and finally the possibility of finding a job. It should be noted that a significant part of these projects is carried out at the lowest administrative unit, which is the commune. Besides self-government and freedom of economic and social activity has to encourage the development not only in the context of EU funds, but also with the use of national and local sources. So it is important to examine whether this is in fact. Analysis of effects of the projects should first of all refer to (instead of the amounts of disbursed funds or its physical size) a subjective perception by the local community, which is the final recipient of these projects. On this basis, referring to the dilemmas of local development, there was conducted a survey of urban-rural commune Opalenica, where in recent years was made a number of projects, mainly
concerning infrastructure, but also environment and new workplaces. Citizens of the commune (103 men and 107 women) were asked about their opinions about the current quality of life in aspects such as the state of infrastructure, social and political conditions, and finally connected with the functioning of the local economy. The social aspects of life, including the functioning of the private sphere were rated the highest. Respondents relatively positive assessed the state of infrastructure, that is probably the result of a number of investments made in recent years. As the biggest disadvantages were recognized economic conditions, particularly the amount of earnings. It is reasonable, because possibility of finding work and earnings determine the most basic - individual and family - standards of life, so their assessment is the most critical. It is different in case of the environmental quality, which was noted as average. This may be result of the fact that it is socially important issue, but far from the direct and individual needs.

The determinants of farms’ income in the EU-15 countries

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Socio-economic development contributes to increasing links between countries and regions as well as economic entities operating in their area. It also intensifies the processes of integration and globalization. This results in the influence of many factors on economic phenomena and processes, including the effectiveness of the activities of the various units (Kisielińska and Stańko 2009). This multiplicity of factors influencing a given phenomenon, but also their variability over time, also applies to results obtained on farms, including income (Kołoszko-Chomentowska 2007). The level of farms’ income depends on internal and external factors. According to Runowski (2014) endogenous factors include the structure and volume of production, the level and structure of outlays and the rationality of their use, as well as the entrepreneurship of agricultural producers. As a basic exogenous condition of the income situation, he considers the agricultural policy. Many authors believe that internal factors are more important for shaping agricultural incomes. E.g. Gołębiewska (2008) notes that under given conditions, internal forces are key for achieving success in the market. In turn Rembisz (2006) emphasizes that they are dependent on the manufacturer and influence on improving the efficiency of production, especially labor productivity. However, one should bear in mind the important role of agricultural policy instruments and, in the EU environment, especially direct payments. According to Baer-Nawrocka (2015), these are the key external determinant of the income of agricultural producers in the EU. Their significance is also highlighted by, among others, Runowski (2014), Mądra (2010) and Poczta, Średnińska and Mrówczyńska-Kamińska (2009).

The main objective of the work will be to determine the factors shaping the income of agricultural holdings in EU-15 countries. Regional data from Farm Accountancy Data

13 The author has already carried out adequate research for the countries of Central and Eastern Europe belonging to the EU.
Network from 2011-2013 will be used to achieve this objective. It is planned to use a three-year time band due to agriculture-specific high variability in prices and volume of production due to weather conditions and other exogenic factors. This will reduce the impact of any unforeseeable factors on the data analyzed and the results obtained. Moreover, this procedure will also allow for increasing the number of cases for factor analysis. The study will use data for 312 FADN macro-regions from the EU-15.

Variables recognized as factors influencing income from a family farm will be selected on the basis of substantive and statistical premises. Basic position and variance measurements will be calculated for them, i.e. minimum, median, maximum and variation coefficient (based on median and quadratic deviation). The following features are planned to be used: total workload, farmland area, value of assets less value of land, permanent crops and production quotas, technical equipment used at work, technical equipment used in farmland, land used for work, current assets per ha, fixed assets per ha, total production value, crop production per ha of farmland, operating activity subsidies. To achieve the main purpose of the study an attempt will be made to use the factor analysis. There will be used Statistica 12 package. Research will start with the analysis of the correlation matrix of variables – factor analysis is only valid if at least some of the variables are correlated (Poczta-Wajda 2010). Then one will decide on the number of factors. For this purpose it is planned to use the Kaiser criterion and the Cattell’s scree. The main component method will probably be chosen to isolate factors from the correlation matrix (Stanisz 2007). Rotation of factors, i.e. linear transformation, will be performed if necessary. This is to achieve a situation in which each variable has a high charge only on one factor, and each factor has at least a few high loads (Poczta-Wajda 2010 after Górniak 2010). Thanks to such a treatment one can obtain a collection of factors that are easier to interpret than the factors originally obtained. It is planned to use standard varimax rotation. This is an orthogonal rotation, which allows you to identify factors unrelated to each other (Stanisz 2007, Bartkowiak and Poczta 2012).

**Differences of capabilities in obtaining RDP funds and the financial impact of the support in the Wielkopolska Region**

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In Polish law communes are basic local government units. They implement the largest number of public tasks assigned to the entities of the local government sector. We can distinguish between three administrative types of communes: urban, rural and urban-rural communes. Rural communes are the largest group, because they make more than 60% of the total number of communes in Poland and they are the most diversified group of commune governments among all administrative types. These communes are characterised not only by their fundamental agricultural function, but also, especially in recent years they have been losing this function in favour of the service-providing and residential functions, which are characteristic of other administrative types. Due to the progressing suburbanisation processes they are the most convenient places to live and run a business. Thus, they are becoming a residential, production
and logistic base. On the other hand, communes with natural values are often transformed into specialised centres of tourism and recreation. In communes with natural resources, the development of other than the industrial function usually does not make sense. The industry often becomes the main source of income for the local community. The change in the significance and role of rural communes results in a larger number of investments adjusted to the needs of new inhabitants, investors and tourists. The implementation of these tasks requires considerable funds. Now they feel that they have a unique opportunity to use the EU funds and make numerous capital-intensive investments with a minimal amount of their own funds.

In Poland EU funds come from structural and regional funds. The main goal of RDP is the improvement of competitiveness of Polish agriculture, sustainable management of natural resources, climate-oriented measures and sustainable territorial development of rural areas. RDP supports Polish rural area by instruments: *improvement of the quality of life in rural areas and diversification of rural economy* and *LEADER*. Polish rural communes use both instruments. The RDP finance a number of investments, particularly in the areas of water supply and sewerage infrastructure, waste management, cultural heritage.

The aim of the article is to analyze the diversification of RDP resources and beneficiary's financial situation on the example of rural communes of the Wielkopolska Province. The geographical scope of research has included the area of the Wielkopolska Province, because of its high level of EU funds absorption. The research is based on the unpublished data from the Ministry of Agriculture and Rural Areas (projects of RDP) and published by the Ministry of Finance (Indicators for Assessment of the Financial Situation of Local Government Units and the Central Statistical Office (Local Data Bank – Public Finance). In the first part of the research basic methods of descriptive statistics are used to process the empirical data collected from the database so as to analyze the acquisition RDP funds by rural communes in Wielkopolska Province. First of all, attention is paid to the degree of differentiation of obtaining these funds. The results are shown in box plots. In the second part of the research taxonomic method (logistic or discriminant analysis) are used to build a model enabling prediction of obtaining of RDP funds of rural communes and identification of chief financial factors causing the obtaining this funds.

**Regional diversification of income situation of rural households in Poland**

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The differences between urban and rural households justifies the diverse means of earning income and other ways of distributing them. In the household budget, these differences are due to the explicit penetration of the productive and consumer nature of rural households.

The conditions in the education market, the labor market as well as technical and social infrastructure affect the living standards of households in the given region of the country. These elements of environment determine in consequence differences in disposable incomes of households in particular voivodships and affect the social stratification within them.
Poland's accession to the European Union was an important incentive to reduce inequalities in the level of socio-economic development, including the improvement of income situation of rural households. Funds from the implementation of various EU programs, including Common Agricultural Policy and Cohesion Policy contributed to this. They undoubtedly affected the improvement of financial situation of households, especially those living in rural areas, and helped to reduce the distance separating them from urban households. However there is still a problem of low income level of many households living in rural areas and its regional differentiation, which creates a barrier to the implementation of sustainable development concept. The aim of the study is to analyze the income situation of households living in rural areas, in regional terms, in Poland in the years 2005-2015. The information will be based on the unit data from the Household Budgets Survey in 2006, ..., 2015, carried out by the Central Statistical Office.

The observation and diagnosis of transformations in the spatial dimension of rural household income differentiation in regions is an important element of each country's policy. It identifies new areas of government activity in terms of social and economic policy objectives. In addition, significant disparities in household incomes in the spatial dimension contribute to the intensification of migration processes both within the regions as well as in the European Union (EU). Significant income disparities in the long run lead to increased dissatisfaction of the community, development of claims and deterioration of investment climate in a given region.

**Rural communities engaged with positive energy**

*Veronika VALENTAR, Institute of Agriculture and Forestry Maribor – Chamber of agriculture and forestry of Slovenia*

After the adoption of Paris Agreement, the International Energy Agency provides the increased use of renewable energy sources in energy production until 2040, but on the other hand, also an increase of greenhouse gases (GHG) to the atmosphere. Nevertheless, by the 2100, the reduction of GHG should decrease the temperature of the atmosphere for about 2°C in comparison with pre-industrial era. Thanks to the numbers of agreements, reports, projects and political documents on RES, climate changes and possible solutions, the project team from 10 Mediterranean countries started with COMPOSE project. Considering the solutions, developed in previous GREEN PARTNERSHIPS project, it bases on natural, economic and human resources of Mediterranean cities and regions. The innovative potential of COMPOSE project is built on its common implementation approach, which actively connects stakeholders and looks for the support at the local, regional and European level. This project is a network of potentials for achieving common energy goals. In this sense, the project takes into the account the needs of local communities and the involvement of local supply chains. At least 15 pilot actions, carried out in partner’s regions, include more hundreds stakeholders: experts, suppliers, policy makers and potential investors. They will result innovative technical solutions, supported by financing funds, crowd funding, new energy partnerships and community initiatives. Identification of common needs bases on technical documents and
local energy strategies, but for its successful implementation, project builds specific local action groups, consist from numerous experts, administrators, investors and public, which has to approve solutions, based on renewable energy sources or energy efficiency. According to the reports of EUROSTAT, Mediterranean countries and south-east European countries are recognized as countries with rising energy poverty. Energy poverty is indicated with the combination of high-energy cost and relatively low incomes per capita. These regions are extremely exposed not just to the climate changes and nature protection requests, but also to the pressure of economy, which demands comfortable touristic standards, new working places and new traffic infrastructure, what all cause higher consumption of energy. All this expectations cause intersectional conflicts and rising dependence on fossil fuels or import of energy, produced by nuclear or fossil power plants. The combination of energy poverty and environmental risks, caused by fossil fuels and heavy traffic, need innovative solutions, which could be solved throughout smart intervention logics, respecting rules of sustainability.

The key contribution of the COMPOSE project to the common energy goals is implementation of many small, but successful projects, carried out at the local level. Associated partners support project and are actively involved to the implementation process, what will improve the understanding and implementation of key supports measures. The main advantage of the internationality of the project is in exchange of know-how and best practices approach, not just within the project partnership, but also through the network of associated partners and the expert know-how exchange. The ambassador of the project, prof. Lucka Kajfez Bogataj, the co-winner of the Nobel Prize helps by promoting of smart solutions, respecting natural circumstances and economic power of single region. Regions and partners with long-term experience on RES and EE, will help non-EU regions to improve their natural potentials with taking into account sustainable development of rural regions. Other, the most important part of the project is oriented to the social potential of the project, with emphasize on development planning as a horizontal measure. It will result a memorandum of understanding, signed and confirmed by decision making policy partners and will be daily followed as an integral part of policy planning process. The expectation of the project is the increasing of the share of RES and EE in pilot regions by 12% in rural areas and up to 20% on islands.

Providing sustainability of agri-food chains in Ukraine: priority oriented ways

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Background. Providing sustainability of the agri-food sector has a key importance for Ukraine, as it helps to ensure: stable image of the country as producer and exporter of safe and high quality products; guarantee of the State food security and providing foodstuffs for the population according to scientifically justified norms; enlargement of employment and increasing of incomes for rural population. In the same time the creation of value in agri-food chain is based on joining and synergy of several compounds: reasonable agricultural productivity, guarantee of quality and safety of produced foodstuffs, providing territorial and economic accessibility to foodstuffs for consumers, enlargement of food markets’ geography.
The aim of this article is to carry out the typing of agri-food chains in Ukraine according to the main classification characteristics and to justify proposals for enhancing their sustainability in present conditions.

Nowadays the organizational and economic transformations in the Ukrainian agricultural sector are aimed to transform production in a new system oriented to consumer and capable to enhance its sustainability based on innovations.

We have studied the peculiarities of agri-food chain formation according to the following classification characteristics:

- technological: horizontally integrated, where final products are produced directly at agricultural enterprises or cooperatives; vertically integrated, where chain’s actors participate in different stages of final product production;
- territorial: productive network structure can cover different territories; it can be local, departmental, regional, interregional, transnational;
- sectoral: milk (raw milk – processed milk and milk products); oil (oil crops seeds - vegetable oil); meat (pork farms and poultry farms with closed production cycle); cereals (grains – flour – bread), animal feeds (grains, wastes of processing food production) – mineral and organic additives (premixes); fruit and vegetable conserves (fruits and vegetables – necessary ingredients and other products - conserved fruits and vegetables) etc.;
- organisational: small format; medium format; big format (created by farms and households, small, medium and big enterprises, processing facilities, research institutions, enterprises producing equipment for agro-industrial complex etc.);
- legal: "soft" - actors of agri-food chain have common activity but they keep full legal and economic independence; "hard" – actors have lost completely or mainly their legal and economic independence during organisation or functioning;
- timely and spatial: permanent functioning (agricultural raw materials are supplied daily); seasonal functioning; episodic functioning etc.

Among the export oriented agricultural productions the highest added value is created by sunflower oil production (its share in the world export was 54.8% in 2016). Cereals present the next export oriented chain (39 million of tonnes exported in 2016), but it is characterized by a low added value, as not processed grains are exported. In order to extend the grain chain, favourable conditions for investments in processing technologies, infrastructure and logistic development should be created.

A positive dynamics of added value growing is shown in egg chain, where a reduced number of producers (three powerful agroholdings) cover up to 75% of eggs production and almost 100% of their deep processing. Other chains in animal production target mainly internal market and are not able to increase added value as they can’t ensure quality and safety of products.

So, most of chains need integrated technological and wasteless cycles for safe and high quality production based on innovations. It makes sense to use technological modules
developed by the world practice allowing the implementation of PLM (product lifecycle management) system.

The integration of Ukraine to EU engages producers to respect normative parameters of food raw materials quality and safety. Normally small producers apply traditional and even simplified (because of high prices on chemicals) practices which support natural and environmentally friendly technologies of raw materials production. On the other hand big enterprises apply industrial technologies where all aspects are described in technological cards and their respect is a guarantee of quality and safety.

Nowadays, 1340 management systems are certified in food production, 338 functional systems are being developed and implemented. It covers 87,5% of agricultural enterprises. Only 1100 – 1500 among 77400 agricultural enterprises have implemented HACCP or ISO 22000:2007 and have been audited for the conformity to minimal requirements of ISO/TS 22002-3:2011 (Obligatory preliminary measures for food safety).

According to the framework law of Ukraine related to food safety the group of meat, milk and fish producers providing raw materials to processing was defined. They had to implement the systemic safety methods by 20.09.2017.

The integration of small producers into added value chains is low. We mean chains based on individual partnership contracts with producers, processors, trade companies or on the creation of non-formal organizations (marketing groups etc.), formal organizations (associations, cooperatives etc.). In order to promote creation of cooperatives it makes senses to establish fiscal preferences for 5 years, after their registration as non-profit organization. Also, a big challenge is to implement rural development measures including creation of non-agricultural employments in rural territories.

In order to involve small and medium producers into chains, it is necessary: to enhance the work of the Ministry of agriculture, associations aimed to support small producers in the implementation of safety methods into primary production; to identify sources of dangerous impacts of agri-food chains on environment; to develop and to adopt quantitative indices of tolerable environmental impact; to identify problems leading to social instability inside agri-food chains and among them; to develop tools for the evaluation of every actor contribution into income and added value creation, as well as of their fair distribution among chain’s actors due to inter-branch agreements.
Field trip

The conference fieldtrip comprises some remarkable recent projects concerning innovative social, environmental and cooperative aspects in the Eisenstadt region:

Sulzhof
Sulzhof is an - in former days - big farm estate of the Domain Esterhazy with an eventful history which is now used for an “urban” gardening project in a small village in a rural region. www.sulzhof.at

Seehof
Seehof belongs to Domain Esterhazy too, an old farm estate but still used for agriculture in a bigger scale with specialisation on organic farming, environment and specific marketing of regional products. http://esterhazy.at/de/fnm/landwirtschaft/index.do

Wine House Purbach
The wine-shop Purbach is a cooperation of 64 local vine-growers who present 350 different vines in this shop together with other regional specialities in very modern way and innovative marketing in a historic cellar street surrounding. http://www.haus-am-kellerplatz.at/en/wine-shop.html
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