

**The CAP and national priorities  
within the EU budget  
after 2020**





INSTITUTE OF AGRICULTURAL  
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# The CAP and national priorities within the EU budget after 2020

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CHALLENGES, CHANCES, THREATS, PROPOSALS

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## 4. To whom belongs the future of rural prosperity 2020+?

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### **Abstract**

The broad society had already issued the question about the EU support distribution principles for agriculture of ongoing period with regard to chief beneficiaries from direct payments and other support measures. The changing understanding of responsibilities, which arise alongside the farming activities, keep shaping the industrial meaning of agriculture as public goods' provider. This study argues that the upcoming EU agriculture 2020+ will inevitably be guided by much broader understanding of 'innovating', 'networking' and 'giving back to society'. The key driver of success in the upcoming period will be innovations, especially in its soft, i.e. social, sense, which will enable networked collaboration between the small and flexible in the countryside, and the smart and quick in the city.

Based on original empirical data, collected in Lithuanian in 2017, this study gives evidence for the variety of activities in the name of 'innovating', 'networking' and 'giving back to society' in the countryside are most often the work of small farmers, in contrast to the large ones, despite the actual amounts of absorbed EU support. Therefore, it is suggested to broaden the variety of support schemes for the EU agriculture 2020+, focusing on small innovative farms, that 'gives back to society' and thus adds more to prosperous rural development.

**Keywords:** innovations, networks, social responsibility, rural prosperity, farmers

**JEL codes:** M14, O18, O31, R11, D85

### **4.1. Introduction**

The new rural development paradigm faces new challenges due the greatly changed overall development in the world. Since the establishment of the Treaty of Rome and Common Agricultural Policy (CAP), the overall development in rural areas underwent numerous transformations. Industrialization greatly affected work processes due to mechanization, farm electrification, installation of irrigation and amelioration systems, chemical production technologies, including artificial fertilizers, herbicides, insecticides, fungicides, etc., thus composing grassroots for later side effects to arrive. The so-called progress in

these processes is lately exponentially accelerated by growing application of various knowledge and new technology-based soft (non-technical) and hard (technical) innovations in agricultural processes and production.

These and many other transformations caused significant changes both in rural landscapes and everyday life in the countryside, which is referred in scientific discussions as a shift in rural paradigm. Systemic explanation of social, cultural and economic transformations in terms of a shift from industrial to post-industrial phase of development is often addressed to the increasing role of knowledge and its empowerment [Vidickiene and Melnikiene, 2014].

Established agricultural policy and support schemes shaped the activity and well-being of farmers and rural residents. Recent statistics from the European Commission give evidence that >1/3 of the EU budget goes to CAP and Rural Development [European Commission, 2017]. Direct payments to farmers had reached 70% of the total EU CAP expenditure. Farmers are responsible for the provision of public goods on more than half of the territory of the EU [European Commission, 2018]. Thus, the understanding of responsibilities, which arise alongside the farming activities, keep shaping the industrial meaning of agriculture as public goods' provider. Future rural prosperity highly depends on political drive with precisely defined new direction, taking into account previously described dramatic shift in rural development paradigm.

The changed understanding of quality of life in rural areas raises the discussion about future value for rural prosperity 2020+, demanded by rural residents. Some studies argue that educated and skilled people in the countryside communities with innovative success baggage, filled-in with abilities to network, innovate and share acquired advancements with local residents, significantly affect the development of rural areas. However, there is still lack of scientific discussions in literature related to future rural prosperity with regard to the combination of new success factors, i.e. networking, innovating and 'giving back to society' by sharing gained advancements with local residents.

The main aim of this study is to explore major factors that are promising to moderate the rural prosperity in 2020+. To reach the aim, theoretical assumptions made through scientific literature analysis are proved with representative empirical evidence, collected using survey method in Lithuanian farms in 2017.

## **4.2. Theoretical assumptions for rural prosperity**

Systemic explanation of social, cultural and economic transformations in terms of a shift from industrial to post-industrial phase of development is often addressed to the increasing role of knowledge and its empowerment [Murdoch, 2000; Mather, Hill and Nijnik, 2006; Horlings and Marsden, 2014; Vidickiene

and Melnikiene, 2014; Lavesson, 2017], which greatly change the rural development paradigm and give new set of elements for success. Modern conditions for rural prosperity from various sources of literature might be summarized under the three major factors that call for rural prosperity: networking, innovating and ‘giving back to society’. Therefore, future prosperity and success in modern conditions might be illustrated through continuous movement on the infinite pathway of networking, innovating and giving back to society (see Fig. 1).

Success in modern conditions arises through networks, which compose particular quick-response platform to innovate and spread innovation by sharing – giving back – knowledge and experiences in the quickest way through networking channels.

Figure 1. Continuously interacting factors for rural prosperity 2020+



Source: prepared by authors.

Networking is perceived as an important strategic tool in attaining innovation. It is beneficial to capture ideas, reduce distance with policy makers, prevent them from insulation, know the right people and places to obtain information [Lambrecht et al., 2015; Madureira et al., 2015]. Networks give access to complementary resources, skills, capabilities, and knowledge that are not internally available [Pittaway et al., 2004; Vacaro et al., 2012; Whitby and Willis, 2017]. Knowledge networking and multi-actor knowledge networks that facilitate knowledge exchanges, joint learning and the generation of new, more integrated solutions, are crucial if agriculture is to become sustainable and resilient [Liu and Li, 2017; Sumane et al., 2017].

Many authors state, that innovativeness is often referred as the key success factor in modern world [Chrisman et al., 2015; Dunne et al., 2016; Kusano, Wright and Conger, 2016]. Farmers that focus on innovation as a core value are finding success in business [Madureira et al., 2015; Reimers-Hild and Dye, 2015a; 2015b; Neumeier, 2017; etc.]. Innovative rural communities are creating better quality of life [Pittaway et al., 2004; Vaccaro et al., 2012; Esparcia, 2014; Salemink, Strijker

and Bosworth, 2017]. However, a lot of innovative initiatives fail and there are numbers of reasons behind that [von den Eichen, Freiling and Matzler, 2015].

Innovating calls for a need to compose appropriate network – this might serve as a platform to exchange most important information among actual stakeholders. Network might be elaborated from personal, informal and formal contacts, taking into account actors in the field from both close and remote environment. Literature suggests that networks normally cover colleagues, input industries, traders, researchers, extensionists, government officials, civil society organizations, etc. [Pittaway et al., 2004; Vacaro et al., 2012; Lambrecht et al., 2015; Madureira et al., 2015; Sumane et al., 2017].

Innovations in the field of rural development are specific, but not as exceptional as it might at first appear. For the spread of innovative knowledge concerning rural issues modern networks in all their forms perfectly serve for ensuring the sufficient flow of information regarding innovative products and services proposed by farmers and rural communities to the customers [Vacaro et al., 2012; Lambrecht et al., 2015]. According to Sumane et al. [2017], the most important accelerator is putting together actors from different spheres into one network and organization of knowledge sharing among network members. There is no need for any specific infrastructure (e.g. electronic devices, software, etc.) to get involved in innovative rural networks. Using ordinary software applications for modern communication equipment, various popular applications compose successful joint local community and farmers' contact system [Madureira et al., 2015; Salemink et al., 2017]. The system might become successfully moderated by community leader to become a platform for innovating together.

The dynamic contexts, complexity and the local specificity of the current challenges facing agriculture, and the many roles it is being asked to fulfil, require more inclusive, flexible modes of governing the generation, integration and sharing of knowledge [Pittaway et al., 2004]. All stakeholders, including farmers, need to be recognised as equal co-authors of knowledge generation, and all kinds of knowledge, both formal and informal, need to be brought together in innovation processes [Sumane et al., 2017].

However, there is one more essential factor, which should exist aiming to accelerate rural people, including local community and farmers, for prosperity – willingness to 'give back to society' in a form of shared knowledge and experiences through networks. The initial idea of 'giving back to society' stems from business literature of the mid-1950s [Bowen, 1953] after the emergence of the theory of corporate social responsibility (CSR). The main idea of the theory is that every operating unit holds responsibility for the society at a large or locally in its operating area [Schwartz, 2017; Carroll and Brown, 2018]. CSR theory

says that the way of running business beyond the law is equally important to the aim of earning profits and increasing productivity. Most often CSR is explained as a three-fold responsibility of any operating unit, including economic environmental and social responsibility [Carroll and Brown, 2018]. In agricultural literature CSR appeared in the first decade of the 21<sup>st</sup> century and is referred to as a toolbox which might help implement the sustainable development goals [Mazur-Wierzbicka, 2015].

‘Giving back to society’ is tightly related to the so-called ‘openness’ of innovation, which conditionally determines the willingness to innovate together in close and remote environment. It overwhelms the spread of the affected area thus giving evidence on both internal and external effects of innovation for local community implementation, especially with regard to distanced social systems in regions with the help of networks. This sometimes also refers to ‘responsible innovation’, as it is intended to make a positive change for society in the region. Therefore, it becomes evident how important is innovating together - spreading the externally acquired knowledge to local community members when raising its potential to innovate [Duh and Kos, 2016; Specht, Zoll and Siebert, 2016]. Local farmers may become a networked driving force for bringing innovations to and sharing them with local community, thus making a tremendous contribution to the development of rural regions and local communities itself. In this research openness for local rural community and willingness to share acquired knowledge and skills is called ‘giving back to society’.

The above-implemented theoretical studies of recent actual scientific literature helped elucidate, that there is still lack of scientific discussions on the impact of infinite networked collaboration for innovation and its spread thus ‘giving back to society’. It has never been defined before in such continuous relation and interaction. Therefore, it is suggested to use proposed theoretical model (see Fig. 1) to define the future rural prosperity 2020+ as a combination of new success factors, i.e. networking, innovating and ‘giving back to society’, by sharing gained advancements with local residents. Proposed theoretical model is further supported with empirical findings.

### **4.3. Methodology**

Research is based on positive methodology approach. Conceptual framework was built using scientific literature review, systematization and theoretical modelling methods. Focused review of scientific literature in the field of issue-specific innovations, networking theories and conception of social responsibility as ‘giving back to society’ helped identify relevant themes and possible influencing factors for rural prosperity 2020+.

Reliability of primary theoretical findings was checked with the help of two-stage expert evaluation. Nonprobability criterion sampling procedure was applied when attracting voluntary international experts, who proved suitability of theories and selected factors to be employed in the agrarian discourse. The first stage of expert evaluation consisted of rating the theoretically selected approaches towards rural prosperity from most suitable to least suitable concerning innovations, networking and social responsibility theories in the agrarian discourse. The second stage was devoted to test the probability of theoretically selected most relevant factors in this discourse. Sufficiency on the agreement among expert opinions was assessed using Kendall's coefficient of concordance  $W$  which was found close to 1. Therefore, aggregated expert evaluation results approved theoretical findings.

The research question was formulated as follows: "Which factors are promising for rural prosperity 2020+?". The three main themes theoretically approved for further empirical investigation of rural prosperity research for 2020+ were 'networking', 'innovating' and 'giving back to society':

- 'Networking' theme was encompassed in relation to innovations (networking with universities) and giving back to society (sharing acquired knowledge with local community), as well as channels used to sell products (5 options of both ordinary and networked channels and open position for listing other).
- 'Innovating' theme was researched by questioning farmers, how often (i.e., less than 1 time per year, 1 time per year or more than 1 time per year) they buy new and upgrade the existing technical infrastructure as well as processes in their farms.
- 'Giving back to society' theme was researched by asking whether farmers consider their self as local community members who may contribute to its development using polar (yes or no) question and list of more concrete 10 activities (1 to 5 Likert scaling) to be performed in the name of 'giving back to society'.

Scientists' team performed pilot face-to-face interviews with 100 Lithuanian farmers. After insignificant corrections original representative empirical data was collected by experienced subcontractor. General population of Lithuanian farmers equals to 138.9 thousand [Agriculture and food sector in Lithuania, 2016]. Calculated representative population under statistical conditions of 3% error ( $\epsilon=0.05$ ) and 95% ( $p=0.5$ ) confidence level is  $n=1059$  [Schwarze, 1993]. Respondents were selected using systemic sampling of research subcontractors' database. Data were collected using telephone interviews of Lithuanian farmers in January-February 2017. Potential respondents had been telephoned 3211 times, 1491 times without response, 612 farmers rejected the suggestion to take part in the interview. Finally 1108 interviews were acknowledged suitable for further investigations which satisfies defined statistical conditions.

The obtained data was processed with descriptive statistical analysis. The percentage age distribution of respondents' answers was calculated, comparing data between the groups by using  $\chi^2$  test (significance level  $p < 0.05$ ). The sample size of the study allows ensuring that the statistical error of the results does not exceed 3.1%. Statistical analysis of data was performed using the SPSS 22.0 program. A two-stage variable  $\chi^2$  independence test was performed to determine whether the respondent's characteristics (sex, age, etc.) affect the distribution of answers to questions. Only those answers are used as evidence, in which the test showed that the distribution of answers depends on the respondents' characteristics.

The interviewed Lithuanian farmers represent all the municipalities of the country, different natural areas; reflect various farming conditions and the corresponding characteristics of farmers and farms: sex, age, education of the farmer, size of farm, duration of farming activity, and type of farming [Agriculture and food sector in Lithuania, 2015].

#### **4.4. Results and discussion**

Implemented research results reveal important role of all three theoretically explained counterparts of rural prosperity 2020+, including infinite flow of knowledge, creating innovations through networks and bringing it back to society.

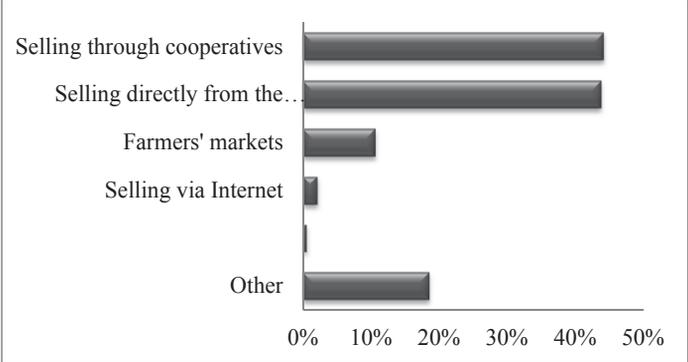
The necessity of Lithuanian farmers to network is simply defined by the size of farms. It is evident, that almost half of Lithuanian farmers (48.1%) hold less than 5 hectares of land (ha) and are too small to compete on the market equally in gaining knowledge and innovating with the large farms with great resources to innovate. All in all, 21.8% of Lithuanian farms hold from 5.1 to 10 ha, 13.5% of farms hold 10.1-20 ha, 8.9% holds 20.1-50 ha, and only the rest 7.7% of farmers hold 50 ha and bigger farms that have enough resources and potential to act in knowledge market and innovation process their self, without advantages assured through networking.

'Networking' theme was also covered in relation to innovations as networking with universities – acquisition of innovative knowledge through direct knowledge creators and providers. Research reveals that Lithuanian farmers quite rarely consider universities as networking and innovation partners, since they are very passive in collaboration with universities. Only 3.4% of farmers continuously collaborate with universities and research laboratories, 8.3% stated they do this often. Rare collaboration was stated by 13.6%, very rare by 9.4% or Lithuanian farmers, 65.3% of farmers responded, they have never collaborated with any university or research laboratory.

Another important part of networking, included in parallel with ‘giving back to society’, helped to show openness of acquired knowledge and innovation through networks. Sharing acquired knowledge with local community was defined as ‘never done’ by 36.7%, ‘very rare’ – by 9.0% and ‘rare’ by 18.3% of Lithuanian farmers. 9.7% farmers constantly share their knowledge with local community, and 26.3% do this quite often.

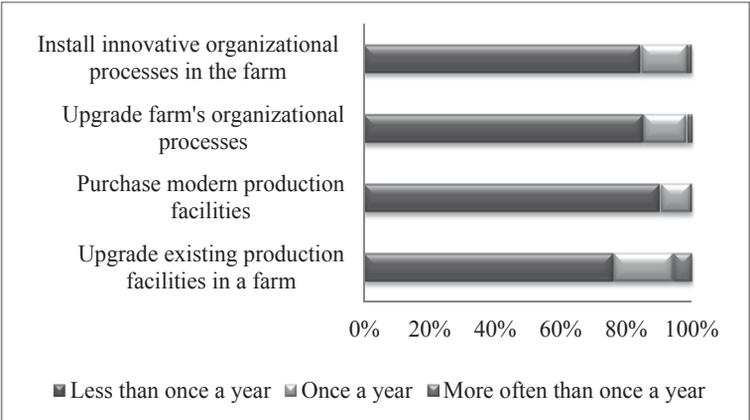
Everyday networking activity, implemented by Lithuanian farmers was also investigated using more practical aspect – channels used by farmers to sell their products (see Fig. 2).

Figure 2. Types of networks used by Lithuanian farmers to sell their products



Source: prepared by authors.

Figure 3. The intensity of upgrading and installing facilities and organizational processes as innovations in Lithuanian farms



Source: prepared by authors.

Most of Lithuanian farmers sell their products via cooperatives (44.0%) and directly from farms (43.7%). Small farmers' markets are acceptable for 10.5% of farmers. Among the other product distribution network possibilities (18.5%) most often mentioned co-operators were found processors of agricultural raw materials. It might be summarized, that all researched types of networking are most actively used by farmer's who hold 20.1-50 ha of farms, have turnover of up to EUR 4000, are aged between 40-64 years and hold professional or higher education, acquired before 1990.

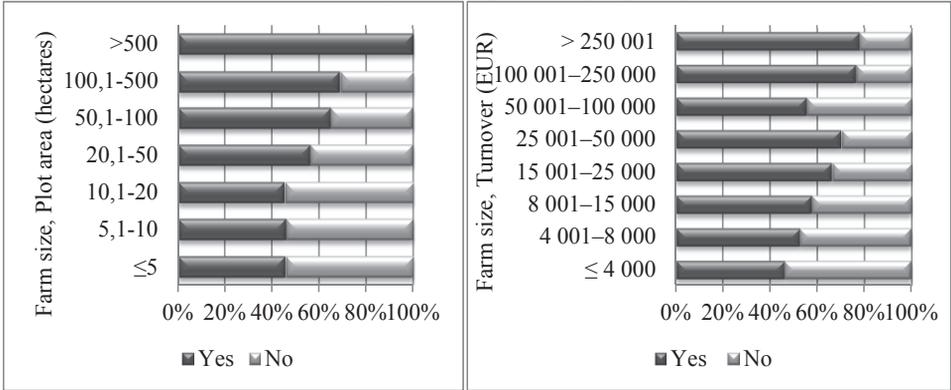
'Innovating' part helped to show, that most of Lithuanian farmers are passive innovators due to upgrade of organizational processes and technical equipment (see Fig. 3).

In upgrading the existing production facilities dominant position, represented by 76.1% of farmers, is less than once a year. Organizational processes are also very rarely upgraded – 85.2% of interviewed farmers said they do this less than once a year. The question concerning the purchasing of modern production facilities was mentioned as performed rarer than once a year by 90.2% of respondents. Installing innovative organizational processes less than once a year is done by 84.3% of Lithuanian farmers.

Deeper descriptive analysis of research results reveals, that experienced farmers who hold the farm for 11 and more years are those farmers who responded that they use innovative activities once per year and more than once a year. Innovations are more acceptable to install and apply on mixed farms (56.77%), than on crop farming (25.54%) and livestock farms (17.69%). It was unexpected to find that the bigger the farm is due to its annual turnover, the less it is active in upgrading equipment and organizational processes. Similar situation was found with purchasing new equipment and installing innovative organizational processes. It became evident from this point of view that most active innovators both using technical and organizational innovations are farms with turnover up to EUR 50 000. Research results demonstrate that most active innovators are between 45 and 65 years old.

'Giving back to society' part results were diverse. The first part of findings demonstrates farmer's intent to 'give back to society' from farm size (economic units and plot area in hectares), farmer's sex, age and education perspectives. Research results reveal that the greater the farm size (both in economic and plot area aspects), the greater the farmer's consideration to contribute to the local community development (see Fig. 4).

Figure 4. The relation among farm size and farmer’s self-consideration as contributor to its local community development by ‘giving back to society’



Source: prepared by authors.

Farmers who consider themselves as local community development contributors (53.8%) or non-contributors (46.2%) were divided almost equally half-by-half. In depth descriptive analysis reveals that men-farmers consider themselves as community developers more often (57.0%) than women (49.5%). It was found that age acted as a significant factor for ‘giving back to society’. The younger the farmer was, the greater intent to contribute to local community development he/she held: positive answers were received from 83.3% of respondents under 35 years old. Education was also found among significant factors: the higher the farmer’s education level was, the stronger his consideration to contribute to local community development rose. Significant finding was made with regard to the relation between period of time when first higher education was acquired (i.e. before Lithuanian regained independence in 1990s; before Lithuania’s accession to the EU 1990-2004; after Lithuania’s accession to the EU – 2005 and later) and farmer’s intent to contribute to local community development. It was found much greater intent to contribute to local community development for farmers, who acquired their higher education level in 2005 and later.

The second part of results helped rate the activities performed by Lithuanian farmers for local community development in the name of ‘giving back to society’. Among the proposed 10 options of possible activities top three ranks (according to Likert scale accumulated results of ‘frequently and ‘often’) were: first – supporting transparency and keeping public-interest-protecting position in relations with local government representatives (47.2%); second – taking into account the interest of local indigenous people when developing a farm (42.0%); third – taking active role in local events and traditional festivals in the community (39.8%). All in all, 36.0% or questioned farmers constantly and often share ac-

quired knowledge and experiences with local community. However, given the fact that Lithuanian farmers pay the least attention to cooperation with various research laboratories and universities (the last position: ‘never’, ‘very rarely’ and ‘seldom’ – 88.3% of farmers), it can be argued that so far Lithuania farmers are more likely to share their practical experiences with community members than innovative knowledge acquired through seminars and other educational events organized by universities and research laboratories as knowledge dissemination activities.

#### **4.5. Summary and conclusions**

Rural prosperity 2020+ calls for collective, innovative and responsive actions via networking which might help accelerate the access and acquisition to brand new knowledge as well as spreading these ideas for community in the region, which in total would lead to opening the innovation. Rural prosperity 2020+ might come into action in case of existence of the 3 main factors: first – accelerated networking – the size of farms and rural enterprises due to the limited number of employees; second – the shift from technical to organizational innovations; third – the shift from individual development actions to responsive territorial rural development strategies by sharing advancements with local people.

Empirical investigations suggest that the dominance of small farms in Lithuania leads to the use of cooperation and networking as tools for success of their activity. Farmers of small farms should focus to the implementation of the collaboration strategy, to use various two-sided networks and its platforms to start close cooperation between farmers and users of their products. The state of technical (production facilities) and organizational (farm organizational processes) innovations in Lithuanian farms demonstrate poor farmer’s attention as well as inputs with regard to these innovations. The measured intensity to acquire new knowledge and experience through collaboration with research laboratories and universities and willingness to share this knowledge and experience with local community defined the nonexistence of the shift from sectoral to territorial strategies in the name of local community involvement in innovation and rural prosperity process due to the ‘giving back to society’.

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