

SUSTAINABILITY OF RURAL AREAS THROUGH INNOVATIVE ACTIONS

Liviu-Marian DOBROTĂ, Laura-Maria SIMESCU,
Maria-Magdalena TUREK-RAHOVEANU

“Dunărea de Jos” University of Galati, Faculty of Engineering and Agronomy Braila, 29 Calarasilor Street, 810017 Braila, Romania, Phone: +40239612572, Emails: liviudobrota82@gmail.com, laura_simescu@yahoo.com, mturek2003@yahoo.com

Corresponding author: mturek2003@yahoo.com

Abstract

At EU level, there are a number of concerns among specialists to promote and create some specific information to support sustainable revitalization of rural areas as a place of work and work. We note that it is necessary to start a new regional policy, to increase rural prosperity and the viability of rural areas, given that there can be a balanced territory to ensure socio-economic and environmental sustainability. For agriculture and rural growth, the new regional policy aims to better mobilize all local and regional actors for investigations in the distribution and transport network. In our study, we aim to follow the way of achieving the objectives of the new policy, to target the intelligent villages for 2020, to take care as a starting point of definition and to apply "intelligent tools" based on the reality of the area under consideration, Chiscani Commune, Braila County. In order to be able to use functional, efficient and sustainable tools, it is not desirable to realize or analyze the reality of Chiscani Commune, Braila County, if the role of local and regional authorities can be applied in the application of a policy framework, knowing the concept of "intelligent villages" such as and the notion of "smart rural area" and include initiatives in the local rural agenda so that synergies can be encouraged and created and spread in small communes, in smart rural areas.

Key words: *smart village, smart rural areas, smart cities*

INTRODUCTION

Bottom-up approaches to local development, such as LEADER and, more recently, through community-led local development (CLLD), believe that innovation brokers should play a catalyst role for the potential of rural areas.

Innovation brokers are those who identify the strengths and opportunities of the village/ rural area concerned and bring together the relevant institutions (third level, local authorities, funding sources, etc.), to coordinate present and future activities and potential sources of financing. It is their responsibility to involve and inform the community and to get its support to develop a vision, take responsibility and share the benefits [7]. These innovation brokers can stimulate product development by small businesses and can help remove obstacles to the functioning of the internal market, encouraging proximity consumption and short supply chains with agri-food products. Local and regional authorities are in the ideal position to perform this function; In some cases, they already play such a role,

through development councils, business support offices, public procurement procedures, etc. it is essential to have access to funding for small-scale projects, accessible to local authorities. It should also include support for innovative projects and initiatives that can be tailored to the specific needs of rural communities across the EU, including in outlying regions. Chiscani City Hall and Braila County Prefecture can be a real facilitator by integrating a "smart" approach in the planning and spatial planning strategies. Such strategies may include the assessment of regional resources and capabilities, the identification of sites that offer the possibility of grouping services and the adoption of economic policies that facilitate this approach.

MATERIALS AND METHODS

The starting point of our analysis is the Cork Declaration, which defines ten guidelines that strongly support the European policy and

which we want to identify in Chiscani Commune, Braila County, as follows:

- What is the situation of the investments in the connection to the broadband networks in Braila and Galati counties? There are measures planned to overcome the digital divide through fast and reliable broadband investments. Thus, ICT infrastructure is proving to be a determining factor for the potential of Union regions in the area of area development. We refer here to the lack of access to the most important public services.

- Are there any measures in the Local Development Plan to combat long-term depopulation? Revitalizing rural areas through actions that encourage and support sustainability, renewal of generations and the ability of rural areas to attract newcomers is a vital goal.

- Are the initiatives of the local authorities known to take simple, easily reproducible and accessible actions even for very small communes, which do not have intelligent actions?

- What are the challenges facing peripheral rural regions, which, in addition to the problems related to broadband infrastructure, are facing major difficulties in terms of connectivity in the field of transport and energy, knowing the concept of "testing in rural areas" and integration into the initiative for smart rural areas, for the development of general initiatives, with implications for rural areas;

- Peripheral border regions are facing increasing difficulties and the need to strengthen opportunities and programs for cross-border cooperation to address these challenges [3].

RESULTS AND DISCUSSIONS

We consider that the starting point in the existence of the smart village is related to the provision of Internet networks, more precisely, the access of the individual households in the rural area, a computer connected to the Internet (Fig. 2 and 3).

The expansion of broadband networks in rural areas and the challenge of connecting up to the last kilometer are directly linked to the

dominant position on the market and the role of traditional providers. It has succeeded in giving it local speed in agriculture to create a time-resolved problem that will allow the rule to stimulate the introduction of alternative operators for general access to generations and encourage innovative investment for the initiative local actors.

In Fig.1, it is shown that 51.9% of the number of rural households have access to a home computer in 2017, up 14.4% from 2013 [2]. This growth is much faster than the urban average. Given the location of the study in Chiscani Commune, Braila, where agricultural activities are a priority, we believe that farmers and the agricultural sector as a whole should be the main beneficiaries of the digital training measures, in order to facilitate the implementation and development of digital tools and methods in this sector [2].

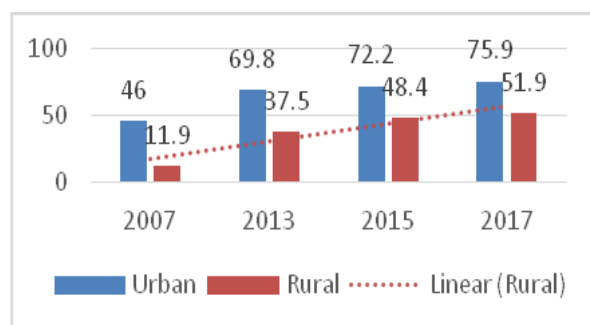


Fig.1. The share of households that have access to a computer at home, between 2007-2017

Source: own processing based on statistical data, NIS, 2020 [2].

The emergence of the new Wifi4EU program, meant to improve internet connectivity in local communities, but we note that the projects were selected on the basis of the "first come, first served" principle, and did not have the expected effects.

In our localization, the project selection process should take into account more of the additional obstacles that the local rural authority faces, because it does not have financial resources such as the urban.

authorities, when we talk about co-financing.

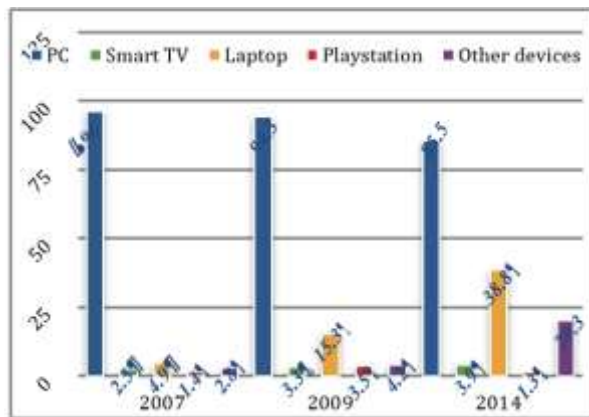


Fig. 2. Evolution of the number of households that have access to the Internet at home, in the rural area during 2007-2014

Source: own processing based on statistical data, NIS, 2020 [2].

Although urbanization leading to the emptying of rural areas is a general phenomenon in Europe, the trend is also dramatic in Romania. The territory of Romania has a population density of 84.5 inhabitants/km², one of the lowest in Western Europe, as well as Spain, Greece, Cyprus [2].

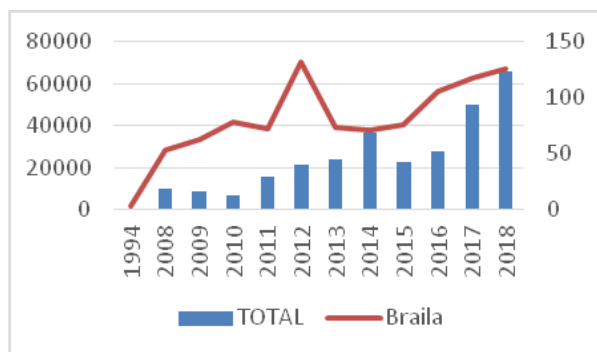


Fig. 3. Evolution of the number of immigrants in the 2008-2018 session, in Braila County

Source: own processing based on statistical data, NIS, 2020 [2].

The lack of young people means that the population does not recover, and the regions lose entrepreneurs who could generate jobs and stimulate the local economy. Measures in Spain have recently been proposed by reducing taxes for areas with less than 8 inhabitants/km². Countries where governments have supported entrepreneurship by improving business infrastructures and facilitating access to loans to finance investments have the best economies.

The successful economic model in Europe is characterized by a dynamic private sector,

which promotes entrepreneurship and social responsibility, and is supported by a simple and efficient regulatory framework.

It promotes profit-oriented economic activity, along with social and environmental responsibility. The 2000s promoted the European social model and became the official project of the European Union, reiterated in the Lisbon Agenda as a solution for the development and growth of employment in Europe.

In our study, the Chiscani City Hall, in the survey we carried out in 2019, showed that it does not have a development plan oriented to family businesses with simple actions, accessible to future entrepreneurs even for very small companies, which do not have smart actions.

We consider that the future Local Development Plan of the Chiscani Commune should include objectives with short-term results, namely [4]:

(a) Supporting immigration is the key to repopulating the area, creating layer-ups and increasing jobs. Entrepreneurs and family businesses need an economic environment in which they can thrive, and this entrepreneurship should be rewarded (Fig. 4).

(b) Providing support for honest entrepreneurs who have failed to quickly get a second chance;

(c) Applying the rules according to the Think small principle;

(d) Adaptation of public instruments to the needs of SMEs: facilitating the participation of SMEs in public procurement and the more judicious exploitation of the possibilities offered to SMEs to benefit from state aid

(e) Encouraging and supporting SMEs to take advantage of the growth of global markets. Among other examples of opportunities for the rural environment, it refers to the production of wind, solar, as well as biomass and biogas for electricity production, the role of biomass (for example wood) and/or biogas for heating. We emphasize here the need to give local and regional authorities the power to initiate and manage targeted environmental measures and to allow them to introduce territorial contracts, jointly signed with the rural fuel/electricity suppliers of local origin. We present in Fig. 5, the evolution of the different types of energy at

national level. We observe the increase of the importance of the different energy, wind and solar after 2013.

An explanation would be the simplification of the access procedures to the sources of financing, it is necessary in the current period of rural development, because there is a considerable gap between the number of requests for expression of interest and the much smaller number of complete applications, which is due difficulties in meeting the requirements of such an approach [6].

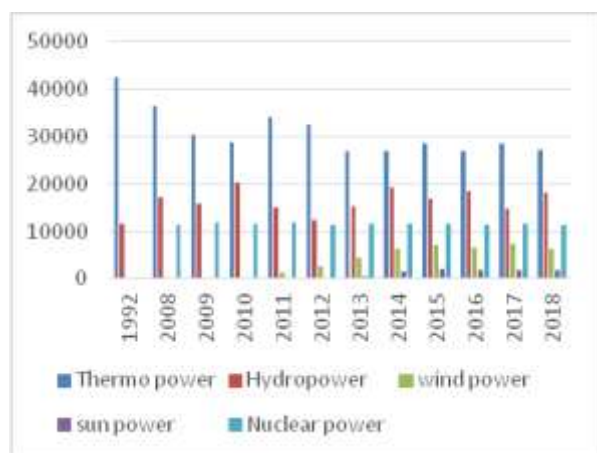


Fig. 4. Connectivity to different types of energy in the period 1992-2018 in Romania (KW/h)
 Source: own processing based on statistical data, NIS, 2020 [2].

At European level, there is a digital platform, when high-speed broadband connections are available in every home in the rural area, generally available in the specialized center. A number of benefits and care centers, care cannot solve the digital divide, but it does require a role to play in situations, revitalizing a satellite to centers, providing jobs and training opportunities for rural residents.

We do not intend to present a model of functions for a digital platform, as a point of care for electronic services, such as: electronic health (online consultations), electronic legal advice (legal advice), electronic governance (electronic vote, tax declaration) online, applications for social benefits), e-commerce (online banking, agricultural products sales, etc.) specific to the analyzed rural area.



Fig.5 Connection to the smart rural area
 Source: own processing based on statistical data, NIS, 2020 [2].

According to the model of smart cities, one can consider the smart rural area that must adopt a comprehensive country approach and an innovation, which should take care to include all dimensions of the family.

We mention that this configuration is based on the results of the survey carried out in 2019, conducted at the level of a focus group, with representatives of local companies and the local community but also of the conclusions of the SWOT analysis in 2019.

The concepts of "smart city", respectively "smart rural area/smart village" (Fig. 5) should not be viewed as contradictory, but should be viewed as complementary, each supporting and enhancing the success of the other [6].

Strategically, a rural area does not end at its administrative border, but interacts with neighboring, rural or urban entities and plans its development in harmony with its environment. Consideration should be given to establishing mutually beneficial relationships between the rural and urban population, without the rural environment becoming a mere service provider for urban areas [9].

A housing system, to be considered as a whole, will not be viable without ensuring the viability of all its elements, from large cities to small villages.

The smart cities model can rely on a large number of actors to promote and carry out different initiatives, while this is not valid in rural areas, where the level of human and administrative resources is generally more limited. These differences should be reflected in the elaboration of the future policy framework and funding possibilities.

The European Innovation Partnership (IEP) Program on "Smart Cities and Communities", which seeks to promote and consolidate experiences in smart areas of the EU, but

regretted, so far, rural areas have not been included as well. before activating these activities.

The connection and existence of sustainable transport networks are the most important essential to be able to connect the digital figure, to be able to provoke care indications that can be confronted in the area on the point of seeing the dispersed population and the higher costs. The European Smart Satellite Documentation mentions the provision of Europe's Interconnection Mechanisms (MIEs) which may allow an opportunity to extend to the EU to provide an office and request more details on how to handle these finances and can be used for a connection support to rural areas, especially for the more famous remote rural areas.

There are a number of economic, social and ecological opportunities of local energy production (electricity and heat), as well as the possibility of creating synergies with the help of regional and rural regions and with the CAP (pillar 2).

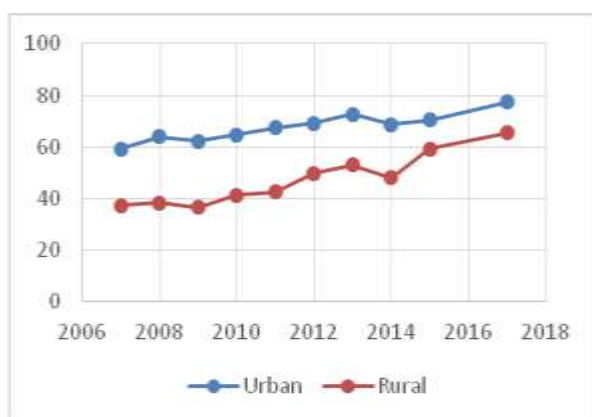


Fig. 6. Evolution of the number of people (16-74 years) who used the computer, by residence environment, on the frequency of its use
Source: own processing based on statistical data, NIS, 2020 [2].

There should be no time gap between urban and rural in terms of using a PC, especially if we are talking about accessing a financing program, in order to maintain an upward dynamic and the current level of development. Specialists believe that in order to be successful, funding applications must encourage networking and clusters and participation in them, as well as cooperation - these issues are usually needed in smart rural

areas to enable the expansion of activities and learning.

CONCLUSIONS

Smart areas could be based on their socio-cultural heritage to develop and manifest a well-defined sense of belonging to the entire infrastructure, especially the general services needed to carry out an economic activity, and to attract the relocation of urban enterprises.

A challenge for local and regional authorities is the need to stay informed about and have access to funding opportunities. An important role in sharing information, supporting networks and providing examples of good practices, including through the work of the European Commission's Broadband Platform, is provided by educational institutions, training and education centers.

For a mobilization in accessing the financing programs, we propose the establishment of an annual award recognizing the achievements of the smart village or the most successful smart zone in the EU. Existing networks such as the European Enterprise Network (EEN) and their local partners in the Member States could also be used to provide up-to-date information on a range of topics relevant to entrepreneurs in villages and rural areas.

Progress is still unsatisfactory and uneven, with disparities still remaining, especially between urban (Braila) and rural (Chiscani). The dimension of the challenge is demonstrated by the fact that in 2019, many of the households in Braila county did not yet have a fixed broadband network, and 90% of them were in rural areas. In our opinion, efforts are needed to guarantee the same capacity of the high-speed telecommunications network throughout the region, as a prerequisite for then competitiveness and economic growth of rural areas.

At EU level, the goal is to have connections faster than 30 MB/s by 2020, throughout Europe, including in rural and remote areas. This is, however, only an average value at EU level, with considerable variations between different states and areas, especially in rural areas and in the most remote regions, where speeds of 10 MB / s are encountered quite

often, even in more economically developed member states.

10 MB/s is the usual speed for a typical household, in order to benefit from the most popular online services. The lack of broadband connections fast enough represents a serious challenge for territorial cohesion at present.

At European level, efforts will be intensified to develop high-speed internet in rural areas, recognizing internet access as a public interest service by setting acceptable minimum standards for broadband connections, which, beyond reliable Internet access [5].

In Switzerland and Finland, where access is guaranteed up to the "last kilometer". In any case, this should be considered at least as an ex ante conditionality for any kind of financing for smart villages [8].

Based on the obtained results, the following recommendations are made:

A first recommendation would be to encourage collaborations between local public administrations and companies for reusing the developed solutions, while facilitating their interoperability. Support the provision of training courses for different age categories on how to use digital technologies and adapt teaching to target groups, given the digitization of certain public services at local or other levels (form requests, tax returns, electronic invoices, traceability, CAP, etc.) [1]. It is currently discussing the concept of digital literacy, which will allow all citizens to have access to these training courses in order to carry out elementary tasks in the new digital environment, and calls for them to benefit from funding through structural funds and funding. European investments;

Testing in rural areas. For the local authority, testing in rural areas means evaluating policy options, in order to be sure that the most equitable solutions for rural areas are adopted.

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