

## REQUIREMENTS FOR ACHIEVING A SUSTAINABLE RURAL FUTURE

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### Abstract

*In Romania the Government Decision no. 877/09.11.2018 for the approval of the “National Strategy for Sustainable Development of Romania 2030” reflects the decision to implement the sustainable development goals (SDGs) of the 2030 Agenda in a balanced way on the three dimensions of the sustainable development - economic, social and environmental. On appreciate that in the National Strategic Plan post-2020 it will be necessary to identify ways, measures and solutions for the agro-food sector and for rural area in order to achieve a realistic and active materialization of the SDGs, an opportunity for which at least the following requirements will have to be ensured: access to information; addressing personalized solutions for sustainable development of the rural area by bringing together, at local level, the natural, physical, social, human, cultural and informational capital; identifying solutions that meet the complexity of the system requirements for sustainable development of the rural area.*

**Keywords:** sustainable development goals; national strategic plan; knowledge

**DOI:** 10.24818/CAFEE/2019/8/06

### Introduction

The socio-economic evolution of the human activity sectors, including the agro-food sector and rural space in the era of the digital revolution is, in a way, unconventional compared to the other industrial revolutions. All the previous industrial revolutions traced at enforce a new production mode, diminishing the effort of the labor force, increasing the income of the workers, focusing the activity in large companies.

In the era of the digital revolution, the trend is to miniaturize, to set-up and use the networks and platforms for access to knowledge and information, but also to control the current activities, to assume dispersed organization and functioning systems, to increase the half-life of the skills learned<sup>1</sup>, to acquire clean food products that can ensure the protection of human health and, last but not least, the intensification of environmental protection and climate change mitigation concerns.

In 2015, the UN approved the 2030 Agenda, which look for to give a new course, for the issues of present planet protection. The 2030 Agenda defines the main action directions of the UN member states for the implementation of 17 Sustainable Development Goals (SDG). Worldwide, The Agenda 2030 gives a new paradigm of development in a climate of peace

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<sup>1</sup> For example, in the 80s the half-life of the skills learned was 15 years, and in 2010 those reached 2 years.

and security by removing any shape of discrimination, involving citizens, in especial young people, and also through a more good governance of the planet's resources.

On the EU level, the Council conclusions of 20 June 2017 about The 2030 Agenda were incorporated in the document "EU response to the 2030 Agenda for Sustainable Development – a sustainable European future". Also, since the launch of the 2030 Agenda by the UN, the EU has committed itself to become the world leader concerning implementation of the 17 SDGs of the 2030 Agenda.

In Romania, the Government Decision no. 877/09.11.2018 for the approval of the "National Strategy for sustainable development of Romania in 2030" reflects the will to implement the SDGs from The 2030 Agenda in a balanced way on the three dimensions of sustainable development - economic, social and environmental issues. By implementing the SDGs, Romania contributes in ensuring a better future for present and future generations.

In parallel with the actions engaged from the central level to organize the implementation in Romania of The 2030 Agenda, respectively the provisions of the Government Decision no. 877/09.11.2018 on consider that it will be necessary to identify ways, specific requirements of the agro-food sector and of the rural area in order to accomplish a realistic and active materialization of the SDGs from The 2030 Agenda, an opportunity for which at least the following requirements will have to be provided: (i) access to information; (ii) ability to design the approval of integrated sustainable development solutions in the villages bringing together natural, physical, social, human, cultural and informational resources; (iii) identifying solutions in view to provide a sustainable development to meet the complexity of the requirements system.

## **1. Access to knowledge and opportunities in a sustainable developed rural area**

The first condition refers to the uneven distribution in the rural area<sup>2</sup> of the natural, physical, social, human, cultural and informational assets necessary to have access to the knowledge and to capitalize the opportunities offered by a sustainable development. Failure to adopt or a delay in the adoption of sustainable development principles and goals could influence the gap between social groups and territories, leading to the social and economic marginalization, negligence for environment and lack of responsibility for the climate change phenomenon. This type of threatening is known in specialized literature as a sustainable development gap. In the rural areas, the risks of the sustainable development gap have a significantly greater negative impact than in urban areas, given their specific features like: infrastructure, including information circumstances; the age structure of the human population - in which the age group over 65 years is dominant; income level; the education level of human capital, etc. To all these circumstances of favoring the sustainable development gap in the rural area, also, contributes the phenomenon of neglect on the part of the political decision makers regarding the functionality of the present institutional and legislative structures/ entities.

Among the actors, measures and solutions that should be mobilize to contribute to the local start-up of a sustainable rural society, on can mention: the involvement of the villages inhabitants, especially the young people; increasing the education level, especially for the using of the available digital facilities.

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<sup>2</sup> In 2018 Romania rural areas has an area of 161,678 km<sup>2</sup> (67. 8 % of the total surface of Romania), and 10,540 thousand inhabitants (53.7% of total). In the EU the rural area has 1,964,690 km<sup>2</sup> (43. 9% of the total surface of the EU) and 97,498 thousand inhabitants (19.2% of the total).

Source: [https://ec.europa.eu/agriculture/cap-indicators/context/2018\\_en](https://ec.europa.eu/agriculture/cap-indicators/context/2018_en)

### **1.1. Inhabitants of villages, especially young people, as key actors which can contribute to sustainable development**

For the rural citizens, especially for the young ones, it is need to set-up a national program dedicated to the youth farmers, in order to convey sustainability for their activities. In this context, on consider that it is necessary as within the National Strategic Plan elaborated in the context of Common Agriculture Policy 2012-2027 to initiate a "National Sub-Program dedicated to young farmers, in view to ensure the sustainability of their future actions" - on it means to assure a supplementary support by public funds not only for their installation premium, which is a very good measure, but also to recognize new financial allocations - for farm capital investments – in view to ensure the continuity of their activities.

In addition, the level of this subsidy will have to be reexamined. At present, if we consider that the average investment fund required for a modern and efficient agricultural farm would be between 450-500 thousand euro/ha , current premium allocated to young farmers (the 100,000 euro/ ha<sup>3</sup>), granted today through the NPRD, represents a minor contribution for a "start-up", an entity that wants to perform.

At the same time, the competitiveness of the agro-food market - both domestic (the gap between large and small farms) and out of the country (qualitative requirements regarding ecological and sanitary-veterinary issues) - will require new selection criteria for accessing to public funds (European and national ones), in view to meet the requirements imposed by both the development of activities environmentally friendly and to consumer - certified as organic, and with high quality standards. In this context, the basic reason is that public funds will have to support businesses which are real "engines" of performance for the new ecological markets. Further, step by step, it will be essential to be re-orient the majority of the subsistence activities from the rural areas, also.

### **1.2. Raising the interest for intensifying the use of the digital facilities**

The performances evolution in the agricultural sector and its alignment with the norms of the international market requires the extension of the networks for evaluation and monitoring the state parameters of the crops and of the farms in order to optimize the production costs and therefore to increase their productivity. In this context, Romania registers an important digital gap.

According to Eurostat data, access to the Internet in households, according to the degree of urbanization, 2017, was in the EU-28 of 82% in the rural, compared to the EU-28 average of 87%. In Romania, the Internet access of the households was 65% in the rural areas, compared to 76% average of the country. Levels close to Romania regarding the Internet access of rural households were recorded in Lithuania (67% in rural and 75% national average), Greece (57% and 71%) and Bulgaria (52%, respectively 67%). The highest levels of Internet access of rural households were recorded in: The Netherlands (97% in rural areas, respectively 98% national average); Denmark (96% and 97% national average); Luxembourg (98% and 97% national average); Sweden (92% and 95% national average); Finland (91% and 94% national average); The United Kingdom (94% and 94% national average); Germany (92% and 93% national average). Regarding the MS of the EU-28 with the highest levels of access to the

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<sup>3</sup> This level was determined based on the investments made by the company AGRICOST S.A., Brăila the largest and modern entity from Romania with an area of 57,000 ha and with investments of 28 million euros in advanced agricultural technologies, equipment and machinery.

Internet of rural households on is worth to mention the close correlation with the national average, except Luxembourg, where the reference indicator was above the national average. Another indicator that reflects the state of the digital devices use in rural areas and which will have to be given a maximum attention, in the future, is “ *The Share of People in the Age Group 16-74 Years Old, Who Used a Laptop or a Portable Device to Access The Internet Away From Home or Work*”. In the case of Romania, this reference indicator was 53%, in 2017, up with 46 percentage points (pp) compared to 2012 (7%) . Below Romania's levels of the reference indicator were: Croatia (38% in 2017, with 13 pp gap compared to 2012, respectively 51%); Poland (22%, with 18 pp gap compared to 2012, respectively 40%); Italy (16%, with a gap of 16 pp compared to 2012, respectively 32%). On can mention that although in these EU MS the reference indicator – *The Share of People in the Age Group 16-74 Years and Who Used a Portable Computer or Handheld Device to Access The Internet Away From Home or Work* – raised, in 2017, lower than in Romania still lags recorded benchmark against national averages were much smaller which shows that our country needs to record rapid progress in using device's in the process of monitoring the performances and activities developed in the agricultural sector and rural areas, thus supporting the objectives of the "The National Strategy for the Sustainable Development of Romania – 2030". In this context, on appreciates that in the next National Strategic Plan (PNS) 2021-2027 will have not to miss the priority of reducing the digital gap in rural area, a fact sustained by the Eurostat from the survey "Science, technology and digital society" according to which, in the future, on will have to act at least on the following directions:

**a.** Reducing the number of "persons who have not used the Internet in the last year". At this indicator Romania with 35 % of people from rural, which not used internet during the last year, has a gap of 2 percentage points compared to the next countries: Portugal (37%); the lowest levels below 10% of this indicator were registered in Finland (9% of people who has not used the Internet in the last year); Sweden and Germany (each of them with 8%); UK (6%); Denmark (4 %); Netherlands (3 %); Luxembourg ( 2 %)⁴ .

**b.** Increasing the knowledge learned by using the available facilities of devices. Their stage where assessed⁵ by selecting three indicators: the share of people who know that cookies may be used to track their movements on the Internet; the share of people who have ever changed their Internet browser settings to prevent and/or limit the amount of cookies installed on their own devices; the share of people who ordered goods and/or services on the Internet for private use in the last 12 months previous the date of conclusion of the investigation.

The main findings regarding the increasing of the knowledge’s learned by using the available devices show the following issues:

**(i)** For the Eurostat indicator *The share of people who know that cookies may be used to receive follow movements (searches) on the Internet* – Romania held last place, in 2016, with 38% of people who used the Internet in the last year, mentioning that the EU-28 average was 71%; on this indicator, on the first places were The Netherlands (89% people who have used the Internet in the last year); Germany and Finland ( 85% for each country); Denmark (81%);

**(ii)** For the Eurostat indicator *The share of people who have ever changed their Internet browser settings to prevent or limit the amount of cookies installed on their own devices* – Romania was again on the last place, in 2016, with 15 % of people who have ever changed their Internet browser settings in the last year; on mention that the EU-28 average was 35%;

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⁴ Source: Eurostat (online data code: isoc\_ci\_in\_h)

⁵ Source Eurostat , survey "Science, technology and digital society" (online date code: isoc\_ci\_im\_i)

at this indicator levels close to Romania had Bulgaria (14% people who have ever changed their web browser settings in the last year), Cyprus (13%) and Latvia (12%); at the same time, on the first places were: Luxembourg (54% people who have ever changed their web browser settings in the last year); Germany (49%); Finland (47%); Austria (42%); The Netherlands and the United Kingdom (each of them had 40%)<sup>5</sup>.

(iii) For the Eurostat indicator *Persons who ordered goods or services on the Internet for the private use in the last 12 months previous to the survey* - Romania held the last place, with 16 % persons aged between 16 and 74 years; on can mention that the EU-28 average for this indicator was 57 %; at this indicator, in 2017 compared to 2012, Romania registered a real progress (from 5% persons with the ages between 16 and 74 years who ordered goods or services on the Internet for private use in the last 12 months previous to the survey from 2012, to 16% in 2017); the first places at this indicator were in: The United Kingdom (82 % persons between the ages of 16 and 74 years who ordered goods or services on the Internet for private use in the last 12 months previous to the survey); Sweden (81 %); Denmark and Luxembourg (each of them with 80 %); Holland (79%); Germany (75%).

Taking into consideration the above data and information, on can be stated that the Romanian NSP Post 2020 will need to include within its priorities the issue of increasing the concerns of intensifying the use of digital devices in the rural space.

## **2. Design and institutionalization of decision making regarding sustainable development in the villages**

The second type of requirements necessary to implement for starting and sustaining a sustainable rural society, according to the decision of the Government no. 877/11.9.2018 on "National Strategy for Sustainable Development of Romania in 2030" is related to increasing the work in view to design solutions for sustainable development in the villages and for monitoring application of the proposed changes (for example, change relating to: work - applied technologies and knowledge learned; changes in the consumption patterns and market participation; living standards of peasant households, etc.).

Mainly the solutions for sustainable development initiated by The Agenda 2030 are to reduce environmental impact and to support the climate change mitigation. They are, also, for increasing the added - value of results from agriculture, to assure for the consumers of healthier foods, but all of them are not only for the present generation, they are for the next generations and for the perpetuation of the earth life.

On general, the problems (gains and/ or losses) that might arise, in the absence of a coherent concept of sustainable development in the rural areas, are consequences of the inappropriate distribution of the capacity to understand and implement the solutions proposed from the central/regional level. On appreciate that the losses arising from the absence of a coherent concept of sustainable development in the rural areas are so many "risks". This category may include problems, such as human skills (changes in the quality of jobs, the need for learned knowledge, etc.), the possible "threats" induced by the technologies used, the need to learn new skills, the work of monitoring the compliance with existing environmental protocols, the stress induced by adopting of the new production practices, designing-based "discrimination" that has effects on performance, etc.

**Box 1. The single digital market**

The single digital market is one of the 10 European Commission (EC) priorities for 2014-2019. In May 2015, the *Strategy for the Digital Single Market* was developed. In the EC view, the single digital market represents a smaller number of barriers, more opportunities in the online environment.

EU Strategies for the Digital Single Market are based on *three domains or "pillars" of action, such as:*

\*Facilitating the access of consumers and businesses to online products and services by encouraging online commerce, outside borders.

\*A networked environment and digital services which can be developed by elaboration of rules, which keep up with technology and support infrastructure development.

\*Transforming the digital sector into a "growth factor" by encouraging the economy, businesses and the workforce to maximize the benefits of digitalization.

*Source: [https://ec.europa.eu/commission/priorities/digital-single-market\\_ro](https://ec.europa.eu/commission/priorities/digital-single-market_ro)*

Avoiding the risks related to the absence of priorities regarding the sustainable development dedicated to the rural areas could have as result:

- i. The transition from the "standard/theoretical concept" of sustainable development, from the macro-economic level to the building and development of socio-economic, cultural and informational structures appropriate to the rural area;
- ii. A revival of rural areas based on local resources (human, material, financial, informational), state of environment, of the biodiversity and of the climate;
- iii. Activation – by supporting the idea of using the local existing resources and biodiversity from rural areas – and build-up their own infrastructures based on:
  - Inventory, conservation and restoration of resources, as well as the biodiversity;
  - Environmental protection;
  - Ecological Restoration – wholly and/or partially of natural areas – where it is necessary;
  - Development of the rural local economies based on the communities capacity to embrace new knowledge and traditions;
  - Providing consultancy, as well as, by setting up centers for learning skills in accordance with SDG from the 2030 Agenda developed by Romania and necessary to implement it on local level;
- iv. Knowledge following the assessment of the need for ecosystem services in view to guide the general development of rural communities and, consequently, for a better allocation of public funds;
- v. Reassessing the aim of stabilizing and maintaining the place, role and importance of local resources, including the biodiversity;
- vi. Integration, adequacy and dissemination of existing knowledge regarding resources, biodiversity, ways of adaptation to climate change and reconstruction of the rural environment, both by identifying local priorities and by augmenting the development of several activities on a horizontal level;
- vii. Assumption of new ways to protect the environment and/or preservation of the local resources in accordance with: multi, inter and trans- disciplinary knowledge capacity of the rural area; the level of development of science and technology; the general level of socio-economic and cultural development; the legislative and institutional capacity of the citizens to absorb the knowledge regarding the processes and phenomena imposed by the protection of local resources and biodiversity of their rural communities where they belong.

The approach of personalized solutions for a sustainable development of the rural area will have to respect, on the one hand, the procedures of the international and national institutions and, on the other, them must to be interrelated (adapted) with the socio-economic and cultural status of the reference communities (property rights, performance, education level, markets functionality - with emphasis on local ones, individual interest, etc.).

Rethinking the level and structure of public local resources allocated to support the sustainable development of rural space is based on rethinking and changing priorities. In this context, the debates at the EC level on this issue for the financial allocation of future European funds (2021-2027), are focused on national priorities, like a challenge for each member state of EU, but they ask a huge responsibility for each country in view to adequate sustaining of activities for sustainable development in accordance with SDGs of The 2030 Agenda, in general, and for rural areas in particular.

At the same time, given the limitations presented by the various resources involved in the implementation of the SDGs, ask rethinking of the sustainable development activities from the rural area which must be realized under the conditions of generating synergies, just in order to ensure the efficiency of the use of the future European money.

By adopting such a vision (of synergic sustainable development within the rural level), it is estimated that it will be needed:

- Increasing the number of citizens – especially of young people educated – involved in supporting the sustainable development activities in the rural area in order to increase their implication to the challenges induced by: the new results from research and digitization and the need to integrate them in the social and cultural framework, in the current productive activities, as well and to transform them into components that can generate added-value; a much more involving of the local resources in sustainable economic activities;
- Gradual involvement of a larger number of entrepreneurs /agricultural producers – this issue will be added to the implementation of multi-level and multi-actor approaches. The interactions between all these entities will have to be structured in the network system, on the basis of which there are "partnership agreements", which will have to be the "starting point" of the future actions of common interest regarding the sustainable development of the rural space;
- Increasing the potential of market for knowledge transfer expanding and of digitization both at the level of the big players from the agricultural sector (for large agro-food companies the access to the knowledge market is not a problem, because their economic situation give them capacity to develop own research activities), as well as and for the numerous small and very small farms (about 2.2 million entities<sup>6</sup>, which cannot afford to develop own research activities).

On is estimated that stimulating technical progress through extension of the knowledge transfer will be generated: new challenges at the local level regarding environmental protection and mitigation of climate change; a more efficient re-evaluation and use of local resources and of existent good practices; a multiplication and improvement of public-private partnerships in the domain.

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<sup>6</sup> In accordance with “*Structural survey households*” 2017 in 2016 there were 3.2 million of small and very small farms. If we affect this number with the ones of farms registered with Agricultural Payments and Intervention Agency – APIA (900-1,000 thousand farms) it remain about. 2.2-2.3 million of small and very small farms

### 3. Identifying solutions in view to answer to the complexity of the systems for ensuring sustainable development

Generally speaking, the requirements systems, which must support and generate sustainable village development, are included in the SDGs of The 2030 Agenda. Also, the transfer of experimental results from the Research, Development and Innovation (RDI) sector in practice will sustain the complexity of the rural sustainable development goals from The 2030 Agenda that can be successfully addressed and adapted to the demands of the digital revolution.

#### **Box 2. Principles of responsible research concept and innovation from Horizon 2020 RUR-02 Program**

The Horizon 2020 RUR-02 Program is based on the *four principles of the concept of responsible research and innovation*, as follows:

**(i) Diversity and inclusion** – which involves taking into account a diversity of conditions and actors in order to ensure the results for large communities, in particular, for: agricultural consultancy services, knowledge brokers, SMEs, decision-makers, scientists and many different end-users, such as farmers, foresters, consumers and European citizens, will be actively involved.

**(ii) Anticipation and reflexivity** – which implies that the research require a careful correlation of the goals and possible implications of the research carried out, in parallel with the account of the strategies in the field; this principle of responsible research is based on conducting participatory socio-economic assessments, on the state of the knowledge, the trends of digitization in agriculture and rural areas, in order to identify the impact of current and future challenges;

**(iii) Openness and transparency** – which involves sharing objectives, research methods and, as possible and appropriate, results and information on potential conflicts of interest that can be generated by certain results;

**(iv) Sensitivity and capacity for adaptive change** – which involves from the research side to provide responses to changes, as well as, some of the external influences, in order to adapt the current research plans in the field of agriculture and rural digitization to the exchange of values and social expectations. In this context, it is estimated that regarding the evaluation criteria and the political recommendations resulting from the RDI activity in the field of digitization will refer to activities within the sustainable development goals of the 2030 Agenda.

After all, the Horizon 2020 RUR-02 Program gives a clear public debate on the methods, results and implications of evaluating in the field of digitization in agriculture and in rural space through an appropriate communication strategy. It should be noted that digitization is the one issue that brings changes in the process of innovation, in the processes and phenomena of the real world changing its development speed. At the same time, the Horizon 2020 RUR-02 Program is an opportunity to test new ICT-based on learning and innovation practices. During the next time it will be necessary to sustain to keep within another program the principles and the concepts of a responsible research and innovation, also.

At EC level the problem of the concept of responsible research and innovation, in the context of the system of requirements complexity, for ensuring the sustainable development of the

rural area which is supported by the Horizon 2020 Program aims in view to fill up the existent disparities by the digitization process from agriculture, also.

### **Box 3. Fragments of The "Horizon 2020" Program, the component "Societal Changes"**

The theme "Rural Renaissance" - within The Horizon 2020 RUR-02 Program, the component "Societal Changes - launched in 2017 - includes *as domain of interests*:

- i. Closing of the nutritional cycles (CE-RUR-08-2018-2019-2020);
- ii. ICT innovation for agriculture - Digital innovation centers for agriculture (DT-RUR-12-2018);
- iii. Construction of modern rural policies regarding long-term visions and the company's commitment (RUR-01-2018-2019);
- iv. Socio-economic impact of the digitization of agriculture and rural areas (RUR-02-2018);
- v. Contracts for the efficient and sustainable delivery of public agri-environment goods (RUR-03-2018);
- vi. Analytical tools and models for supporting policies related to agriculture and food (RUR-04-2018-2019);
- vii. Realization of the potential of regional and local economies based on bio-economy (RUR-09-2018);
- viii. Supporting the community of agricultural advisers to prepare farmers for the digital age (RUR-13-2018);
- ix. Digital solutions and online tools for CAP modernization (RUR-14-2018);
- x. Thematic networks that compose knowledge prepared for practice (RUR-15-2018-2019-2020).

The available budget for The Horizon 2020 RUR-02 Program, the Project "Societal Changes - launched in 2017 was 97,426,739 euro. Also, on can mention that 100% funding is provided for research and innovation actions and coordination and for support actions and 70% for innovation actions. All this domain of interests and the financial issues can be considered in the next time as a "pattern" for the future Romanian research projects concerning agriculture and rural development.

*Source: National Union of County Councils of Romania (UNCJR) ,  
<https://www.finantare.ro/cereri-de-propuneri-de-projects-2017-programul-european-orizont-2020-componenta-changari-societale-tematica-renastere-rurala.html>*

The "Horizon 2020" Program, the component entitled "Social changes" – through its topics of interest proposed to the EU RDI system can be considered as another example mean to support and to advise the MS of the EU about the complexity of the requirements for the RDI System in view to ensure the sustainable development of the rural area in the new framework of The 2030 Agenda, respectively of the Council Conclusions (20 June 2017) about "A sustainable European future: The EU response to the 2030 Agenda for Sustainable Development".

### **Conclusions**

The implementation process of the 2030 Agenda in Romania, started by adoption of the Governmental Decision no.877/09.11.2018 regarding the "National Strategy for the Sustainable Development of Romania – 2030", requires also a series of actions regarding the

identification of the appropriate ways to concretize the SDGs operationalization in the rural area. This would be possible by increasing the access to information of the citizens and entrepreneurs from the rural areas; designing and assume integrated sustainable development solutions based on the assessment of natural, physical, social, human, cultural and informational assets.

The understanding process of the need to transform the agro-food sector and rural society, according with the established SDGs can provide:

- The opportunity to build public-private partnerships desired in the innovation processes in the fields of research and development, as well as, the transfer of knowledge, but also the materialization of the SDGs according with the local specificity;
- Ability to support the expansion of information, technology and communications, good practices and digital networks in line with the 21st century challenges;
- Improving the socio-economic cohesion as a prerequisite for a balanced and sustainable growth in agriculture and rural areas.

Given the access, design and complexity of the agro-food sector and rural society and by using a responsible approach in the research and innovation process<sup>7</sup> (European Commission, 2010) it will be necessary to speed up the digitization (in agriculture and rural space) in order to support the monitoring of the sustainable development objectives according with The Agenda 2030. In this context, The Horizon 2020 Program RUR, its component "Societal changes" represents a conclusive pattern of how the RDI can act in the supporting the sustainable development in communities, as well as, in accelerating the rural digitization in next years.

Achieving the SDGs of The 2030 Agenda implies the building up of a knowledge base, which will allow a wide range of actions: assessing the current and future socio-economic impact of innovation; the design of activities related to the SDGs of The 2030 Agenda, which will represent, on the one hand, priorities in the next Romanian NSP 2021-2027 and, on the other ones, a tools for substantiation and decision-making... But, in order to achieve the effects estimated, and mentioned above, it is necessary to take into account certain specific requirements, which implies: the need to know and evaluate the differences between supply and demand in the cases of protection, rehabilitation of the environment and of the natural resource markets, including those of biodiversity; identifying and stimulating knowledge transfer vectors on local rural markets, which are represented by existing local /regional institutions of education, research and development, as well as by NGOs and other actors, which have as aims environmental, biodiversity and mitigation of climate issues.

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<sup>7</sup> See the principles of the concept of responsible research and innovation developed by Horizon 2020 RUR-02

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