

## **DIGITIZATION OF THE SOUTH-EAST REGION'S AGRICULTURAL SECTOR**

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### **Abstract**

*Agriculture can be seen as a better future for generations to come. With a view to the development of the agricultural sector, making it more efficient, more precise and more competitive, it is intended to promote the use of new technologies and, in particular, to digitize companies and farms.*

*In this paper, we reported on the need for monitoring and control systems that could lead to low labour costs, improve crop yields and minimize equipment maintenance costs.*

*The development of the agricultural environment through digitalization leads to technological innovation, and above all, creativity, animal welfare, significant reduction of the negative impact on the environment.*

**Keywords:** *development, digitization, indicators, agricultural sector, labour force*

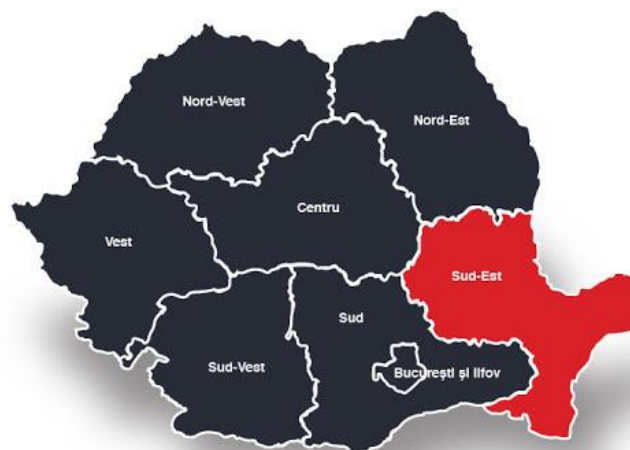
### **1. INTRODUCTION**

The development of digitalization leads to market growth and job stimulation in a region. Investments in areas such as health, agriculture, infrastructure, education, tourism are key instruments in the implementation of the digitalization activity.

It is very important to have a connection at both regional and national level between investments in the information technology sector.

Sustainable development has its foundations on the following issues, namely:

- Reducing poverty levels and improving living conditions;
- Reducing climate change through efficient management of natural resources;
- Development of the job sector and simulation of the human resources;
- Conservation of the environment around us.



**Fig. 1.** South - East Region

Source: <http://www.q-service.ro/reteaua-q-service-truck/sud-est/>

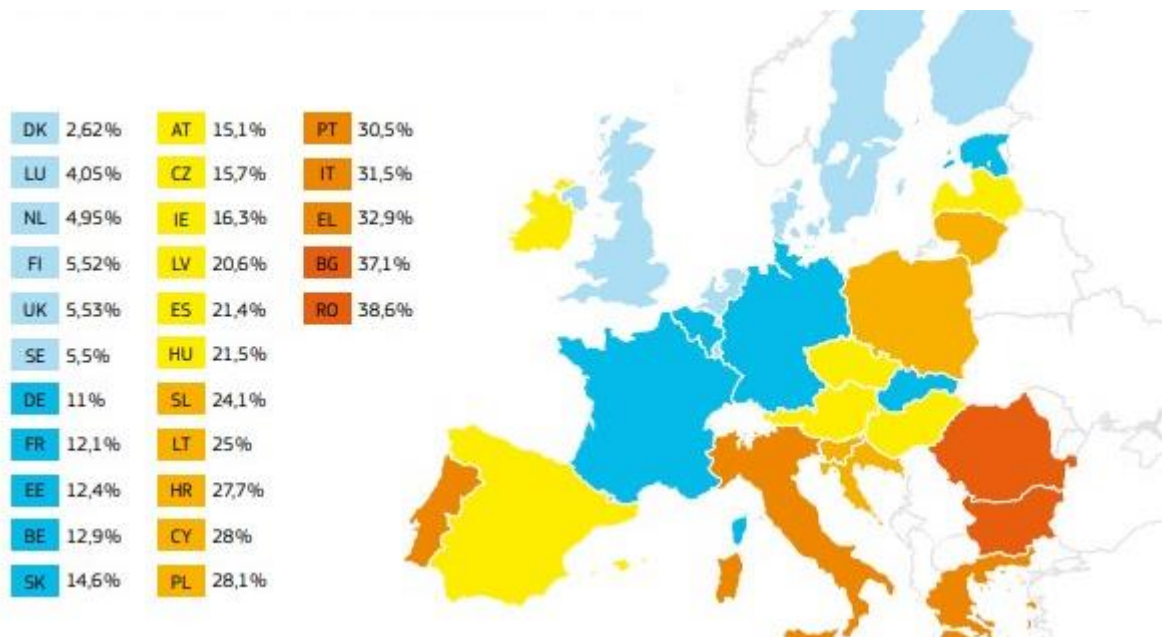
In this paper we will discuss the process of digitization and its need for rural development in the South-East Region. In the first part we will debate the need for digital development in this region, and in the second part we will talk about the need for investment in the human resources sector.

## 2. MATERIALS AND METHODS

The definition of rural devotioin is embedded in a border concept, that of the rural economy, as a branch of economic science intersecting with rural space and agriculture, with the environment economy and the development economy. At the base of the rural economy is the economy of the agricultural holding with its market-related valences, agro food industries which makes the analysis of the rural economy associated with rural policy, agro-food, consumption and agricultural policy. (Boussard J.M., " Introduction to l 'RuralEconomy', GILLAS Publishing House, Paris, 1992).

In the last few years, investments have taken place in information technology infrastructure with a view to the successful development of this very important area today, almost indispensable.

In the figure below we see the population aged 16 to 74 who have never accessed an internet network in the whole of Europe. The highest percentage registered in our country.



**Fig. 2.** Distribution of people who have not used the internet in Europe

Source: [https://ec.europa.eu/regional\\_policy/sources/docgener/panorama/pdf/mag53/mag53\\_ro.pdf](https://ec.europa.eu/regional_policy/sources/docgener/panorama/pdf/mag53/mag53_ro.pdf)

The detailed market study, given the real development potential of the region, has shown the need for the introduction and use of digital services. As a result of the needs discovered, the following aims are pursued, namely:

- Increasing the share of expenditure required in research and development and innovation in regional gross domestic product;
- Increasing the number of public-private partnerships to carry out research and development activities;
- Increase the number of staff responsible for research, development and innovation activities and their financial stimulation.

Developing tools to facilitate the transfer of research results and information to users such as economic agents, public enterprises or ONG. (Regional Operational Programmer South-East Development Region, 2021-2020, Draft 1).

The document to intelligently specialize the South-East Region established the sectors with the greatest potential for development and innovation. In the figure below we see these areas of intelligent specialization.



**Fig. 3.** Areas of smart specialisation in the South-East Development Region

Source: [http://www.adrse.ro/Planificare/RIS3\\_2021-2027.aspx](http://www.adrse.ro/Planificare/RIS3_2021-2027.aspx)

The areas of smart specialization at the level of the South-East Development Region are:

- Engineering and shipping;
- Clothing industry;
- Agri-food and biotechnology;
- Aquaculture and fisheries sector;
- Tourism;
- TIC.

An important tool for development is qualified human resources in this sector. This is why it is very important to develop qualification programs that enable them to be trained and supported.

The priorities of smart development are:

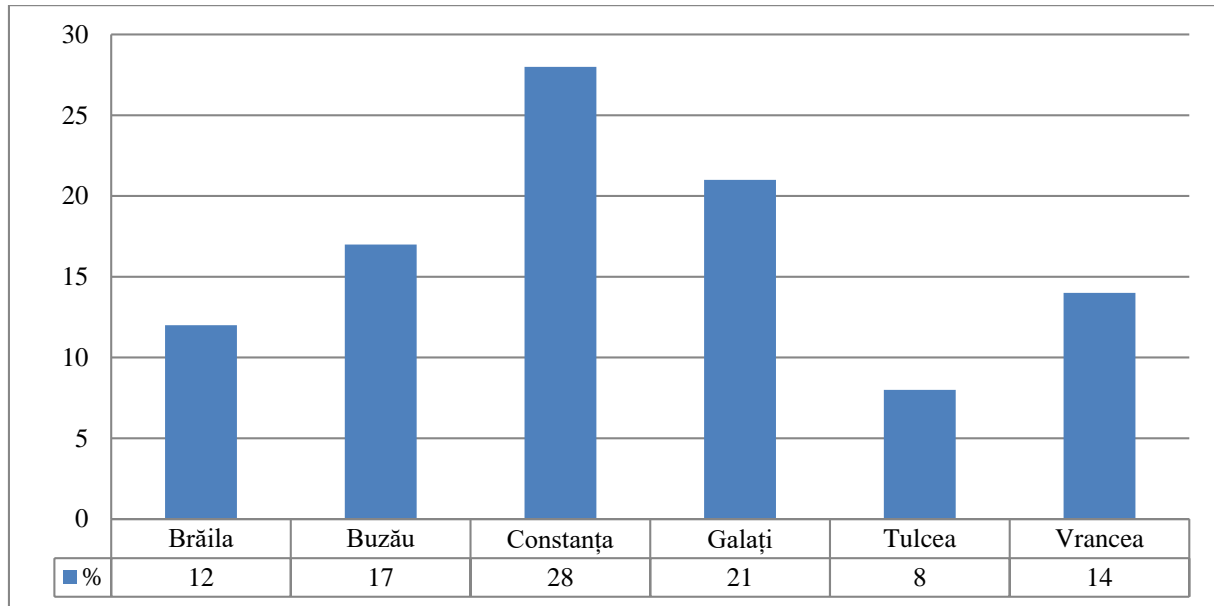
- Use of biotechnology to reduce environmental pollution levels;
- Adoption of SmartCity ideas within the region;
- Efficient use of energy sources;
- Promoting tourism;
- Innovative solutions in the agricultural sector.

This development is an innovative alternative to developing the entrepreneurial environment by increasing economic competitiveness.

### **3. DISCUSSION: WORK FORCE OF THE SOUTH REGION – EST**

In recent years, the total population in the South-East region has seen a slight decrease, this being caused by the reduction in birth rates, the recording of a large number of deaths, the acceleration of the migration phenomenon and the unfavorable economy.

In the figure below we see the distribution of the inhabitants of the South-East Region by counties, the majority being in Constanta and Galați, and the fewest in Tulcea and Brăila.

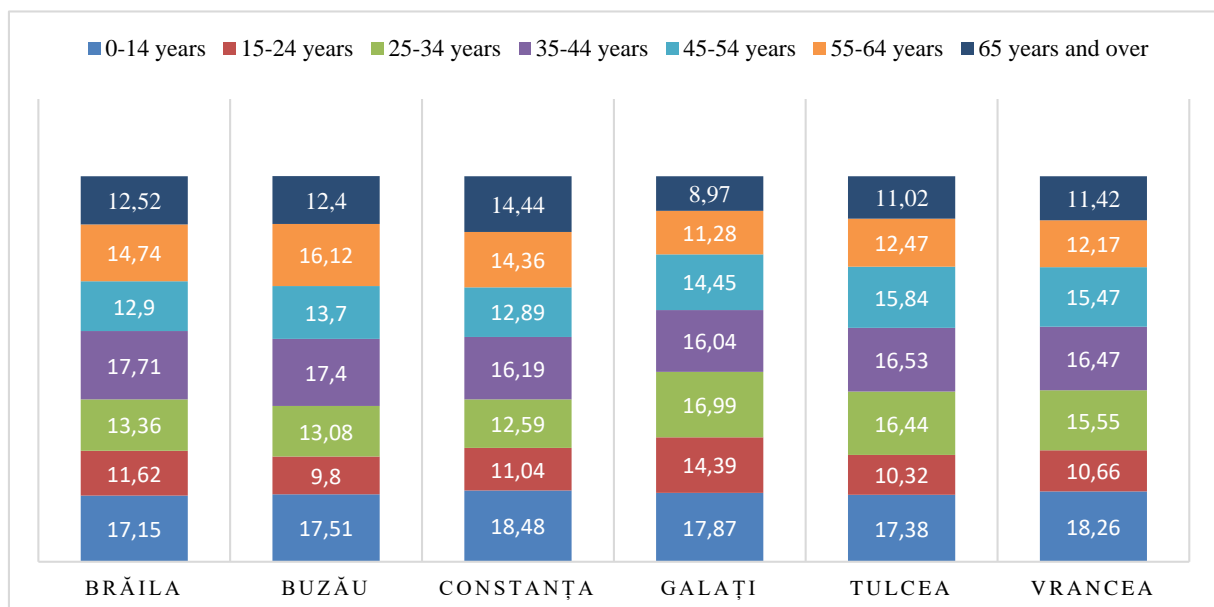


**Fig. 4.** Population distribution by counties in the South-East Region (2018)

Source: Own processed data from the National Statistical Institute, TEMPO Database, 2019

If we refer to the distribution of the population by residence averages, urban or rural, the majority live in urban areas, 53.07% of the total region. Most urban residents are located in Constanța, and most of them from rural areas are in Vrancea.

In the figure below we see the distribution of the population of the South-East Region by age group.



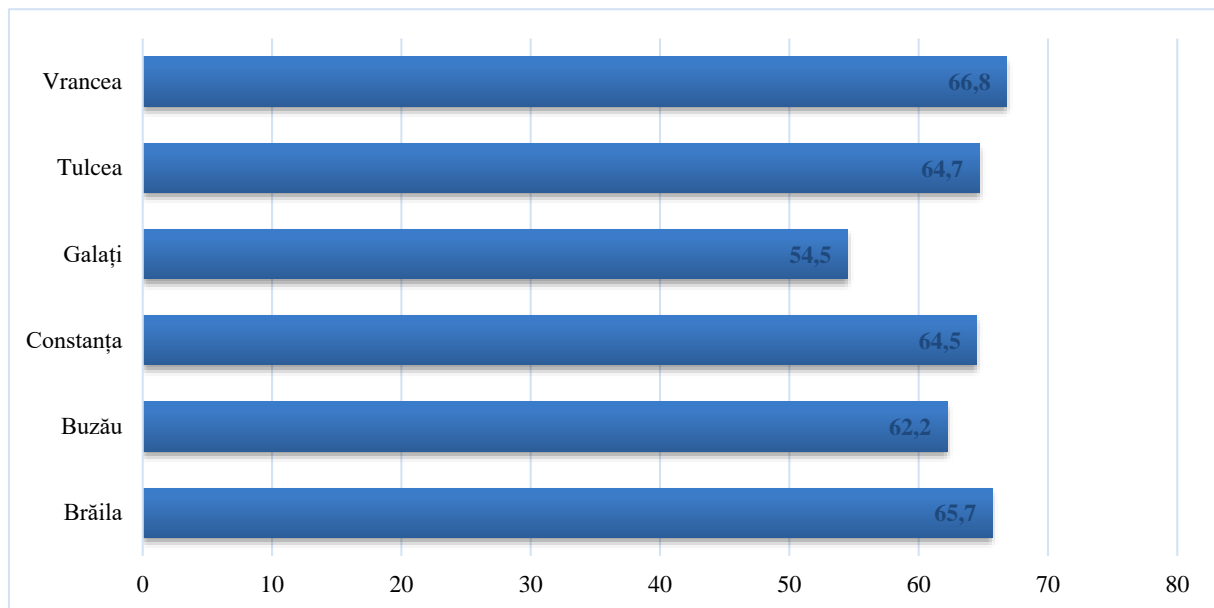
**Fig. 5.** Resident population by age group, 2018

Source: Own processed data from the National Statistical Institute, TEMPO database, accessed on 17.04.2021

In terms of employment rates, the Region has seen a slight increase in recent years. Vrancea occupies the first position in relation to the occupancy rate of the inhabitants, and in the last place is the county of Galati, due to the low economic activity. The exception is the municipality of Galati.

If we look at the employment rate of the population by sex, although women have outperformed the male sex, in recent years things are the other way around, the employment rate among men has oscillated.

In the figure below we see the evolution of the occupancy rate at the level of the Region.



**Fig. 6.** Occupancy rate in the South-East Region

Source: Own processed data from the National Statistical Institute, TEMPO database, accessed on 17.04.2021

The development of the South-East Region must produce an improvement in unfavorable communities and good social inclusion. On employment, the region faces the following difficulties, namely:

- Lack of access to information, especially in the rural sector;
- Existence of a limited number of vocational training courses;
- Non-existence of jobs;
- High unemployment rate;
- Lack of small and medium enterprises especially in rural areas, which leads to a decrease in residents' incomes;
- Small number of employment contracts, especially in rural areas.

#### **4. CONCLUSIONS**

The implementation of a development plan shall take place by means of the identification and in-depth study of territorial characteristics, as well as the specific needs of one region and its potential.

In this article we gave a presentation of the most important instruments that lay the foundations for the economic development of the South-East Region by analyzing the main economic indicators that relate to the labour market, the research and innovation sector.

In this paper we highlighted the need for intelligent, sustainable and sustainable development with the following tools:

- Research and innovation;
- Development of the information and technology sector;
- Increasing the competitiveness of small and medium enterprises;
- Reducing pollution levels;
- Combating and mitigating climate change;
- Efficiency of environmental resources;
- Development of transport infrastructure;
- Development of employment;
- Developing the level of education and training;
- Increased competence of public administration.

Respecting all these elements, the labour market in the South-East Region can experience a fabulous evolution and positive dynamics.

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