

## Reviving the rural areas 2030

### DigiFarmTour Living Lab

The goal of the Croatian Living Lab, located in the Croatian Adriatic Region, is to explore possible connections between small sustainable farmers, tourists and consumers. The first objective is to find an appropriate way to create the political and infrastructural means for sustainable rural living. With current trends, a great number of villages and farms will be increasingly “deserted” until 2030, calling for solutions.

Advancements of agriculture and the overall digitalisation of government and society will enable the needed infrastructure for the development of commerce and direct sales of agricultural products. Main identified challenges in the process of reviving rural areas are socially and technologically related. Enabling of a decent life in rural areas with a “civilisation infrastructure” proper health care for all age groups, education, government facilities and e-government are key factors.

#### CONTEXT

The current status of digitalisation in Croatia is mediocre. In terms of digital skills, the younger generation in Croatia (16-34 years old) performs significantly better than the EU-27. The share of farmers in younger age groups (up to 40 years) in Croatia is relatively low (around 12% of farmers), so it can be assumed that the total number of people with good digital skills is low. Other age groups that perform below the EU-27 average in terms of digital skills represent the largest part of the sector and the economy in general.

While Croatia has a good fast broadband coverage (86% nationally and 39% in rural areas), its overall fixed broadband take-up is slightly below the EU average. One of the positive developments in connectivity is the assignment of harmonised spectrum for 5G in August 2021.

Digitalisation of services and availability of modern broadband infrastructure is satisfactory in urban areas and several service providers exist on the market. Prices for the services are higher than the EU average and, in some cases, more expensive in relative costs of life.

Experts from interested sectors, in this case agriculture, tourism and information technology have come together to the DigiFarmTour Living Lab. It was proven

that the use of digital technologies in the form of interactive web applications opens new opportunities for farmers to promote and directly sell their own agricultural products. The context of connecting the agricultural and tourism sectors is the main topic of the Croatian Living Lab (LL). Key issues defined in the LL are the lack of knowledge in the use of digital technologies as well as the uneven coverage of the Internet in rural areas. Although national strategies and policies regarding digitalisation put into force after 2013 identified this problem and planned appropriate interventions, their implementation was unsuccessful. The lack of human resources and skills needed for the use of public funds through open calls for infrastructure investments resulted in slow spread of broadband coverage, especially ultra-high-speed internet.

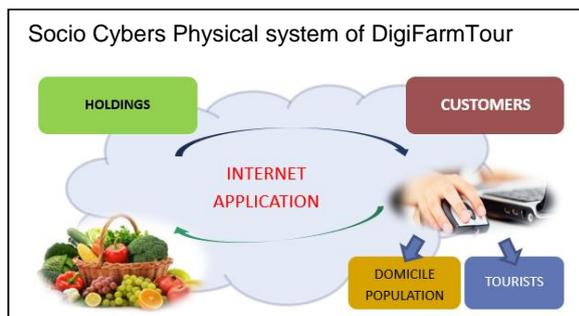
Legal framework for continuous progress in the overall digitalisation context is defined (or about to be defined) and it is expected that the overall digitalisation of Croatian society increases and improvement in development of digital infrastructure and skills is to be expected.

## RESEARCH APPROACH

The Croatian Living Lab focuses on the role of digitalisation in making sales of local products easier to the tourism sector using advances in digitalisation of the society.



**DIGITAL TECHNOLOGIES ARE THE DRIVERS OF CHANGE FOR ALL SECTORS AND ESPECIALLY FOR THE DIRECT SALES OF AGRICULTURAL PRODUCTS.**



The main focus question was **"How digital technologies will improve the promotion and sale of local agricultural products in the tourism market by 2031?"**.

Discussion during the workshops encompassed all factors influencing the LL: The expected future agricultural production (olives and oil production), future of commerce (evolution of online shops), tourism, as well as social aspects of life.

Agriculture production in the region is characterised by pastures and meadows (57%), arable land (21%), olive orchards (10%) and vineyards (5.5%). Average farm size is in the Adriatic region small (1.1 ha). Tourism, with a share of around 20% of the GDP (national richness), is the most important economic activity in this region. Therefore, a comprehensive approach to the development of this region is not possible without connecting agriculture and tourism.

The global market is saturated with cheap mass-produced agricultural products, often an insufficiently known method of cultivation. Local and authentic food becomes an important factor of tourist attractiveness of the location. One solution in such a situation is the direct sale of own agricultural products. The use of digital technologies in the form of a specialised,

interactive web application opens new opportunities for farmers to promote and directly sell their own agricultural products. Small farms thus get a quality-marketing tool for direct communication with end customers.

## SCENARIOS DEVELOPED

Two main scenarios were developed: The "Digitally coloured rural life (DCRL)" and the "Elite, local, ecological, digital tools (ELEDA)".

### Digitally coloured rural life (DCRL)

In the case of DCRL, a young couple decides to change their lifestyle and to replace the urban environment with a rural one. Good conditions and various incentives give them the courage to decide living in the countryside. The idea is to make a living from the products they produce on their own land. The source of income through diversification of their farm within a good economic and political situation offers them security and promises a high standard.

Immediately after arriving and realising that their knowledge is not sufficient, practical as well as theoretical about life in rural areas and food production, they seek some advice and apply to the local agriculture advisory service that is free and offer tailor made advice based on their needs. As part of the advisory package, they receive all relevant information from the production and processing of their own products to the registration of tourism and hospitality technical and legislative activities. As part of the advisory service, they found a partner who will work with them to solve all the challenges they face and also get in touch with other producers with similar problems. Thanks to all that they have more courage and feel like a part of a community and certain safe net in 2031. The Croatian Adriatic coast is known as one of the safest places in the Mediterranean, and with the help of an application that offers tourists all the necessary information, it has established itself as a place of elite tourism.

The products of rural farms are in high demand and relatively expensive and can only be afforded by a certain number of people due to limited production. Producers of agricultural, food products and providers of various services on farms in rural areas are connected in a network of digital services that allows them access to specific information, services (e.g. harvests machines, production robots, distribution with cargo drones etc.) and contacts of all relevant factors of agri-rural-tourism sector.

Such families have the security and desire to raise their children in a well-organized rural area. The second generation no longer has pioneering problems like their parents and can dedicate themselves to raising the quality of work and life.

Thus, we have successfully revived the rural area, preserved the culture and heritage of the rural areas and ensured a better quality of life for its inhabitants. Rural life is no longer stigmatized as less valuable and people in rural areas do not feel isolated or unappreciated because of their way of life but instead see their way of life more meaningful and fulfilled than in urban and suburban centres.

### **Elite, local, ecological, digital tools (ELEDA)**

With the implementation of a new law that allows all EU citizens to buy land in the Republic of Croatia come large companies but also a number of small producers looking for fertile healthy land for agricultural production. Due to the war and other socio-political factors, a large part of the Croatian agricultural land has been uncultivated for over 30 years, where the production of high-quality organic products is possible.

Thus, in addition to food production, new farmers returning to life in rural areas see their opportunity to earn money through some form of agri-tourism. Most people who decide to move to rural area and engage in agriculture are not so skilled in agriculture and need advice and knowledge. The question is how much they will be able to get the requested

information from various advisors or consultants and how much it will cost them. The Covid pandemic has left its mark on tourism sector. Tourists are now looking for smaller places with an indigenous experience, which brings various providers of tourist and catering services to rural areas. In the absence of a comprehensive development strategy in the agri-rural-tourism sector, exclusively tourism companies are coming to rural areas along with farmers, wanting to take advantage of the trend in tourism. Professional tourist companies are unfair competition for farmers who also want to host tourists and offer them an indigenous experience of life in a rural area, and offer products of their own economy and on-site production. Such exclusively tourism systems do not develop life and do not revive rural areas and their heritage, but only work during the tourist season and are closed the rest of the year (becoming "dead" again). Basically, there are all the prerequisites for the formation of a tourism network of food production and revitalisation of rural areas but all these individual parts are not connected meaningfully through a common strategy.

Local economy does not benefit much from such tourism as we could see now that due to Covid these areas have missed two tourist seasons; yesterday's lively tourist places collapsed like "towers of cards", leaving people in severe poverty.

The danger in absence of a comprehensive rural development strategy is that these rural areas do not exist without tourism. With the arrival of foreign and domestic companies but also individuals in rural areas that have been abandoned so far, villages and life in them are revived. People of various backgrounds are trying to create communities where they will form a rural idyllic life.

Due to health-socio-political insecurity they cannot achieve the desired standard and feel deprived towards people in urban areas. The second generation is thinking about leaving the rural environment and does not feel proud or special because they are engaged in agriculture and live a rural life.

During the workshops, several key challenges were identified. They can be divided into categories of agriculture, commerce and social challenges. With advancements in agriculture and increasing of digitalisation and automation it is expected that in 2031 a small family farm can be sustainable and live a decent living. The risk of market fluctuations having devastating effects on the producers. Because of relatively low incomes for people living in Croatia, the target population for such products are the tourists (either through individual tourist routes or through the catering and hotels). Before the COVID-19 crisis, almost 19 million tourists visited Croatia annually, mostly in the region of the LL. Overall, digitalisation will enable transformation of sales of agriculture products and probably enable cheap enough delivery options. In addition, the motivation of the young generation to live in rural areas is increasing.

Differences in successfully overcoming these challenges guide possible scenarios. If the government and the society manage to find the right policies that will enable progress and create a positive climate, the situation will be like 'rural idyll'. If not, depression and further breaking-up of villages and rural areas will be inevitable.

### **POLICY RELATED DISCUSSION**

The Croatian economy is very dependent on the tourism representing around 20% of the GDP. Main occupation and source of income in rural areas is agriculture. Current active government strategies for agriculture are focused on the transition of agriculture to profitable and technologically advanced agricultural production (vegetable production, fruit, olive, grape/wine), the diversification of the family farms, as well as the highest possible level of products processed on-farm. Digitalisation of the government and economy is also increasing and was further accelerated by COVID-19 and the resulting pandemic measures.

Legislation regarding on-line shopping also adapts as quickly as possible.

Crucial impacts in rural areas will be the implementation of social and demographic policies with the aim to incite young people (families) to return to rural areas and start a business / modern farm.

The lack of a clear policy and economic strategy for rural development does not offer them any financial or advisory assistance in solving problems.

Climate change has made severe weather events very common and the production is unstable and unreliable. To be a successful producer, the farmer need to use all available technologies (irrigation, frost protection nets, frost hunters, etc.) but they are very expensive and unaffordable to most of them. Market is very demanding and only want 'perfect products' and product availability throughout the year. Farmers' income is low as the machines and production costs are very expensive, division between rich and successful and poor, urban and rural is significant.

The main challenge is how to assure all the necessary civilisation achievements that one expects in the 21st century (health care, education for the children, culture) in the rural areas that are depopulated and distant from the cities and basic infrastructure (e.g. hospitals).

Mutual approach of agriculture, commerce and social (health, education, culture, etc.) policies to enable descent life of agricultural producers in rural areas is crucial for the survival of Croatian rural areas. Descent living is not about money but related to the quality of life.



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## POLICY OPTIONS

### Croatian Recovery and Resilience Plan

The Croatian plan, which involves a total investment of approx. EUR 6.3 billion, includes digital investments of a total of EUR 1,285 billion (20.4% of the plan's budget). It is structured around five priorities: (i) the economy; (ii) public administration, the judiciary and the State; (iii) education, science and research; (iv) labour market and social security; and (v) healthcare.

- Digital transition investments with a total of EUR 576 million.
- Public administration investments of EUR 437 million.
- Education, science and research component investment of EUR 158 million.
- Labour market and social component investment of EUR 57 million.

All those priorities are and must be equally represented because they act as a chain. Therefore all legislative in different sectors should be synchronized.

### Organic legislative

- Following the National Rural Development Plan 2023 – 2027 adopting national strategy and action plan for organic agriculture and production of organic agricultural and food products.

### Law on State Information Infrastructure

- Development of e-public administration following the European guidelines commissions and the development of e-services, e-services for citizens and e-services for business entities.

### National Digital Agenda

- Following the National Plan for Broadband Development 2021-2027 and 5G implementation adopting a policy framework for the inclusion of autonomous and smart machines in the agro-production cycle.

### Transformation of the advisory service and integration with socioeconomic topics

- Quality education available to everybody under equal conditions considering lifelong learning principles.

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