

## A key decade in terms of digitalisation for the Maestrazgo and Gúdar-Javalambre rural areas

The present policy brief summarises the work performed in the Maestrazgo and Gúdar-Javalambre Living Lab (LL). This LL works around the topic of how technology can help to increase the attractiveness of the territory. In order to work on scenario planning, we organised a workshop with stakeholders chosen by their experience, relevance in the LL context, expertise and strategic views. Together, we worked around one scenario question: **How digitalisation and the 2030 agenda will change Maestrazgo and Gúdar-Javalambre by 2031?** We also worked on 4 scenarios: Worse not worst scenario, better not best scenario, dystopia and utopia scenarios. In this policy brief, more information is provided on two most plausible scenarios. Around those scenarios, discussions on policies emerged, especially on policies that will be able to boost and increase the attractiveness of the LL. Digital innovation is needed from a rural area point of view. To achieve that, further training on digital skills will be needed, especially for the aged population, as well as services to accompany older people in the process, with the aim of leaving no one behind.

### CONTEXT

Our Living Lab is placed in the territories of Maestrazgo and Gúdar-Javalambre, located in Teruel, in the southeast of Aragón (Spain). Both areas are known for having a great territorial dispersion among their villages with a low population density, representing less than 1 percent of the regional population in a territory that occupies 7.44 percent of Aragón's surface area.

In terms of digitalisation, Spain ranks 11 out of 28 EU Member States in the 2020 edition of the Digital Economy and Society Index (DESI). Over the last ten years, National and Regional public authorities have developed public policies, projects and actions to promote the development of the information society across the country and region, respectively. However, despite the many initiatives towards broadband coverage and despite the good results of the country in general, the area covered by the LL could be described as greatly affected by white and grey areas (without connectivity or with service degradation due to the use of obsolete connection technology).

The complicated orography of this territory, with mountainous areas, a large forest mass, heavy snowfalls or strong storms, makes the communication and access to digitalisation difficult.

This situation has been clearly exposed with the COVID-19 crisis. Although Spain is quite well positioned in terms of digital public services and open data, digital skills remain an issue for a high percentage of the aged population.

Great expectations are placed on the possibility of achieving the expected infrastructure. Digitalisation and the implementation of new technologies must be promoted in order to give a real leap towards digital transformation and generate products with greater added value. Accessibility is fundamental and high quality broadband is needed in first place to improve the actual deficient communications.



## RESEARCH APPROACH

The scenario question this LL worked with was: **How digitalisation and the 2030 agenda will change Maestrazgo and Gúdar-Javalambre by 2031?** In order to work on the scenario planning, we organised a hybrid face-to-face and online event with 7 stakeholders that were chosen by their experience, relevance in the LL context, expertise and strategic views.



**THIS DECADE IS A KEY DECADE FOR OUR LIVING LAB. AN IMPROVEMENT ON DIGITALISATION IS EXPECTED TO MAKE THE TERRITORY MORE ATTRACTIVE FOR VISITORS AND FUTURE INHABITANTS.**

We identified those Social, Technological, Environmental, Economic and Political external and internal parameters (drivers of change) that can or cannot be influenced by stakeholders within the scenario. Working with those drivers we developed four assumptions that led to 4 scenarios: Worse not worst scenario, better not best scenario, dystopia and utopia scenarios.

Our LL was described by the stakeholders as a geographically exhausted model, with underutilised resources. The final aim is to be able to really encourage people to move to rural areas in order to avoid complete depopulation and the abandonment of sparsely inhabited villages.

Also, they feel there is a need to really change the discourse, stop talking about the "España vaciada – Emptied Spain" and be able to better sell their territory.

## SCENARIOS DEVELOPED

The two main scenarios used for this LL are the worse not worst and better not best scenarios. In the first one, the potential positive impacts of digitalisation have not improved the future of the LL by 2031. Demographic does not change significantly and rural ageing and population density is the same. Even though some new digital services are emerging, they are not linked to the requested level of infrastructure. Employment levels are the same, with no new job offerings but at least the

availability of labour force is not a worrying issue anymore. The region has not been able to catch the attraction of young people and local administration has not been able to gain importance. In fact, the territory feels like it has been forgotten.



**Figure.** Stakeholders' workshop

For the second scenario, the positive impacts of digitalisation have in fact improved the future of the LL in 2031. Even though the demographic situation remains the same and that there is still an ageing situation, digital APPs and services are emerging and new services are being implemented thanks to a better connectivity and broadband access. Among those APPs can be found the ones related to Administration and Education uses, as well as a new APP for the renewal of previously abandoned houses.

The changes on the extreme weather conditions have led to new economic activities. Due to the improvement of rural infrastructures, basic services and broadband connectivity, there is a slight increase in employment and people are able to work from home, which also help to increase the number of inhabitants that have decided to move from urban areas to rural ones. National implication is achieved, which translates into new strategies and funding for the provision of services.

## POLICY RELATED DISCUSSION

The context of this LL is complex, as briefly explained above. The territorial dispersion and distribution of this region is one of the reasons of the difficulties found so far, being an extensive and depopulated territory with a great natural and cultural richness and with a deficient infrastructure from the technological point of view (lack of broadband and telephone coverage). The number of inhabitants is not high enough and strategically, they are not profitable for large companies.



**THE COVID-19 PANDEMIC HAS SHOWN THAT THE DEFINITION OF BROADBAND USED IN RECENT YEARS APPEARED TO BE INSUFFICIENT FOR CITIZENS AND BUSINESSES TO OPERATE EFFECTIVELY WITH THE PROLIFERATION OF CONFERENCES, ONLINE MEETINGS, REMOTE WORK, E-LEARNING, ONLINE SHOPPING AND ENTERTAINMENT SERVICES THAT HAVE BECOME PART OF EVERYDAY LIFE.**

Those difficulties have affected all levels of the rural population, resulting in a poor perception of the rural environment as a potential location for entrepreneurial initiatives.

The limitations of broadband extend to agricultural workers, as they do not have a fixed place to carry out their activity, but work in large areas of the countryside where it is more difficult for telephone signals to reach them. That is why the Agriculture and Forestry sectors are supported with a digitalisation strategy launched in 2019 and a great impulse will be given in the following years because of the number of plans emerging from the COVID-19 crisis and the recovery plans. One year later, in July 2020, the Spanish Digital Agenda, Digital Spain 2025, was presented. It is expected that it will help the country's digital transformation by guaranteeing digital connectivity, deploying 5G, strengthening cyber security capacity and digitalising public administration and companies.

That same summer, in June 2020, Aragón presented The Aragonese Strategy for Social and Economic Recovery with the aim to implement a programme to fight the effects of the social and economic crises caused by the pandemic in Aragón. This strategy includes specific lines to promote digitalisation, to facilitate the access to infrastructures and to offer the necessary training services so the digital transformation is really achieved.

Therefore, the discussion during the workshop did not focus on the need of new policies but on the need to focus on those **policies that will be able to boost and increase the attractiveness of the LL.** This is linked to policies that will be **able to encourage life in villages.**

**Digital innovation** is needed from a rural area point of view.

To achieve that, **further training on digital skills** will be needed, especially for the aged population, as well as **services to accompany older people in the process**, with the aim of leaving no one behind.

Remote services offered by Administration, Medical services and Online Education were among the scenarios discussed with the LL so the policy options listed thereafter endeavour to cover a balanced implementation of all these services in the territory.

Even Metaverse (a virtual-reality space in which users can interact with a computer-generated environment and other users) appeared in the discussion for activities such as shopping, online classes and medical consultation.





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## POLICY OPTIONS

### **To boost and increase the attractiveness of the territory**

- The territory needs to be able to learn from some next-by examples and really be able to improve their image in terms of communication. In other words, it needs to be able to better "sell" the attractiveness of the territory and use the digital tools at hand for it.
- In that respect, a change in the discourse from the inside is encouraged. The selling image for the last 50 years has been the same and it is now time it is time to enhance the value of the territory.

### **To encourage life in rural environments**

- The horizon faced by future generations worry this LL, because of the lack of opportunities for them. That is why digitalisation should help to increase the vision of the attractiveness of rural areas and village life while also focusing on protection of natural resources and of the environment.
- With the emerging possibilities of remote working we think this recommendation should be one of the first to be tested.

### **Designs applied to rural areas**

- Planning from the point of view of villages and rural areas instead of cities.
- With special tax benefits to encourage investment in innovation and digitalisation.

### **Training on digital skills**

- The digital inclusion of all citizens is needed, so equipment and training to achieve an increase of digital literacy and the use of internet in homes to reduce the existing digital gaps are also required.

### **To introduce a facilitator service for older people**

- To really achieve an optimal digital transformation and specially, to avoid leaving anyone behind, older people need to be accompanied in the use of all the new emerging digital services.
- In order to do that, we recommend introducing liaison persons, facilitating agents to be the connection between the population that needs it and the new digital services implemented.

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