

Expanded abstract

How can the digitisation vector of recovery funds affect the social economy?

Objectives

This paper analyses the composition and definition of these funds and their possible contribution to the recovery of social economy enterprises that have been affected by the crisis resulting from the pandemic, as well as the possibilities for the creation of new digital-based projects, some with more disruptive approaches and attractors of human talent.

The role of the social economy in the post-covid economic recovery may be particularly relevant, given the traditionally greater vulnerability of small and medium-sized enterprises and the capacity of social firms to adapt to environments that require entrepreneurship and innovative perspective at the initiative of their partners or promoters.

Context and approach

The social economy is characterised by its general localist character and by being glue to the ground, which enables new options to be discovered in the context of the opportunities offered by the accelerated digital transition as a result of the pandemic. Issues such as the so-called urban and rural agenda, the digitisation of what is known as “empty Spain”, the introduction of new technologies in extractive and productive processes in the agricultural and livestock or manufacturing sectors and the exploitation of the relocation of professionals, better known as digital nomads, allow us to foresee the opportunity that social economy organisations have with the boost they may receive from the recovery funds that will be distributed over the next three years.

Design and development: it is appropriate to analyse the dimension and characterisation of the Next Generation EU (NGEU) European Recovery Programme, which plans to mobilise a total of 750 billion euros between 2021 and 2023, of which Spain will be able to receive up to 140 billion euros in transfers and credits in the period 2021-2026. This programme is structured around three pillars: economic recovery and reinforcement of the health system; green transition; and digital transformation.

Under the heading of recovery funds, a series of national plans are grouped together in accordance with European guidelines, such as:

- SME Digitalisation Plan (envisages public investment of close to €5 billion until 2023 in order to accelerate the digitalisation of 1.5 million small and medium-sized enterprises for the integration of digital technologies into the productive fabric.

- National Digital Skills Plan (3.75 billion euros in the period 2021-2023): Improvement of human capital.
- Connectivity Plan (more than 2.3 billion euros until 2025): extending high-speed broadband internet coverage to the entire territory. It includes the strategy to boost 5G (2,000 million until 2025) to promote hyperconnectivity and will act as an enabler of other technologies (Industry 4.0, autonomous vehicles and other developments).
- Public Administration Digitalisation Plan (€2.6 billion over the next three years): to improve the accessibility of public services and boost the digitalisation of areas such as healthcare and justice.
- National Artificial Intelligence Strategy (600 million euros in the period 2021-2023): to foster the penetration of this technology in our economy and promote scientific research and innovation in AI. Prior to this, infrastructure development and workforce training are needed.

Together, these initiatives foresee €16.25 billion in public investments, of which €15.4 billion will be financed by European funds from the Next Generation EU (NGEU) Resilience and Recovery Mechanism. In total, adding to this amount other smaller programmes, there will be 20 billion euros in non-refundable transfers from the NGEU to the digital chapter, which represents close to a third of the total funds that Spain will receive from the Recovery and Resilience Mechanism, some 69.5 billion euros distributed among its ten main policies.

Results

The work dissects the possible destination of these funds with special emphasis on particularly significant sectors in the field of joint ventures, such as agriculture and livestock. Precisely, the opportunity of using these funds for projects linked to the rural environment and with a preponderant digitalisation vector is assessed. Specifically, the adoption of technologies such as artificial intelligence, IoT connectivity, cloud computing or the traceability properties of Blockchain can be a revulsive to also face an evolution towards an “Agro 4.0” environment in similarity with the current revolution of the so-called Industry 4.0.

Implications

The so-called empty Spain must also take advantage of the centrifugal force of talent mobility from cities brought about by teleworking and digital nomads. It must also generate sufficient talent to accompany the goal of the digital transformation of depopulated areas. A roadmap is needed to mark the path towards the “Agro 4.0” environment from which a substantial part of the companies and organisations that make up the social economy can benefit.

Artificial intelligence therefore has great potential for transformation from a technological, economic, environmental and social point of view, given its cross-sectoral penetration, high impact, rapid growth and contribution to improving competitiveness.

Thus, the Food and Agriculture Organisation of the United Nations (FAO) (FAO, 2021) indicates that, as cyber-agriculture technology advances, AI is beginning to be applied in three

main agricultural areas: agricultural robotics, soil and crop monitoring, and predictive analytics. In a context of climate change, population growth and natural resource depletion, progress in these areas can make a major contribution to soil and water conservation, which is becoming increasingly important for sustainable food security.

Social economy enterprises can and must incorporate artificial intelligence into many of their processes to remain competitive. Technological advances create gaps and progressively polarise the business fabric, distinguishing between advanced and lagging companies. This is why it is important to train the managers and directors of these social economy organisations, the capacity to assimilate new technological solutions and the internalisation of this need by employees and partners.

In addition, traceability applications in all links of the value chain through blockchain systems that reach the end consumer, the digitisation of markets and the cross-referencing of supply and demand on new platforms, as well as the growing awareness of consumers who are more sensitive to knowing the origin of their products, The value of a traceability system for agricultural cooperatives based on blockchain technology could revolutionise production-distribution models in the agricultural sector, given the value that a traceability system based on blockchain technology would bring to solving the crisis of consumer confidence in the agri-food supply chain. The application of blockchain techniques to agricultural product traceability supports the generation of trust between the different agents in the chain. Likewise, blockchain makes it possible to give authenticity to what is understood as “collaborative” given that its decentralisation properties mean that the value of the ecosystem is not centralised in a central company or brand, but that the final value generated is fairly distributed among the participants who have contributed initial value to the community.

Conclusions

Improved digital communications infrastructures, the irruption of 5G connectivity, more affordable robotics and artificial intelligence applications in many processes can mark a relevant change for many social economy enterprises if wisely harnessed.

Constraints to research: Recovery funds do not expressly differentiate according to the legal formula of their recipients; although it is important that the social economy can act as a relevant niche competitor, wielding its specialisation to act wisely through viable and truly value-adding proposals. The funds are a considerable stimulus, but they require decisive managerial action and the appropriate receptiveness and adoption of technological innovations. It is an international race, albeit a local one, to maintain a sustainable competitive advantage in the context of the new digital society.

There may not yet be a sufficient culture of digital transformation, or the application and award mechanisms may lead to insufficient proposals for fundable projects in digital skills training. It may also be the case that the proposals submitted to the calls for proposals are suboptimal due to their limited scope, reduced strategic vision, lack of perspective in their scalability or limited truly transformative action. A short-sighted risk that would turn this opportunity into a failure.