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# Digital Transformation in the Social Economy Organisations in Portugal: a preliminary study

**Mariana Curado Malta**

*CEOS.PP – Polytechnic of Porto  
Algoritmi Center – University of Minho*

**Ana Isabel Azevedo**

*CEOS.PP – Polytechnic of Porto*

**Susana Bernardino**

*CEOS.PP – Polytechnic of Porto*

**José Manuel Azevedo**

*CEOS.PP – Polytechnic of Porto*

## Abstract

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Digital Transformation (DT) is critical to organisations. The use of Information Systems and Technologies (IST) in the activities of organisations is beneficial since it makes organisations more efficient and enables the creation of new digital-based services. Social economy organisations (SEO) are no exception. SEO need human resources (HR) to handle IST and innovate digitally for a true DT to be possible. Moreover, they need to be equipped with IST that support this digital innovation. This paper communicates the results of a study that aimed to understand how capable SEO are of meeting DT's challenges, using a quantitative approach based on a survey of SEO in Portugal. The results reveal that the SEO have, to some extent, started the DT process. However, there are many limitations in tackling its potential: lack of vision for DT, lack of digital training for HR, and shortage of financial resources to acquire state-of-the-art technology.

**Keywords:** digital transformation, social economy, organisations, digital innovation, survey

## Resumen

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La Transformación Digital (TD) es fundamental para las organizaciones. El uso de tecnologías y sistemas de la información (TSI) en las actividades de las organizaciones es beneficioso, ya que las hace más eficientes y permite la creación de nuevos servicios de base digital. Las organizaciones de la economía social (OES) no son una excepción. Las OES necesitan recursos humanos (RH) que manejen las TSI e innoven digitalmente para que una verdadera TD sea posible. Además, necesitan estar equipadas con TSI que apoyen esta innovación digital. Este artículo presenta los resultados de un estudio que tiene como objetivo comprender la capacidad de las OES para hacer frente a los desafíos de la TD, utilizando un enfoque cuantitativo basado en una encuesta a las OES en Portugal. Los resultados revelan que las OES han iniciado, en cierta medida, el proceso de TD. Sin embargo, existen muchas limitaciones para abordar su potencial: falta de visión respecto la TD, falta de formación digital de los RH y escasez de recursos financieros para adquirir tecnología de punta.

**Palabras clave:** transformación digital, economía social, organizaciones, innovación digital, encuesta

## Expanded abstract

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Digital transformation (DT) is a term widely used nowadays. It has become present in all government speeches. Even secretaries of state and ministries integrate this term in their name in so many past and present governments of countries that are part of the European

Union. DT is a process of transforming an organisation in which technologies, information systems and processes are side by side. It is about performing tasks in organisations by integrating technologies and information systems in order to dematerialise processes, creating information flows internally (between organisations' departments) and externally (relationship with stakeholders) enhancing interoperability. All this is beneficial for organisations because it makes them more efficient, frees human resources and promotes the creation of new digital-based services. According to the new policies of the EU, DT is a train that all organisations need to step in; the social economy organisations are no exception. In this context, it is important to study the state-of-the-art of social economy organisations regarding their installed capacity to understand whether they are prepared to face the necessary DT.

Aware of the importance of this topic, the Portuguese Confederation of Social Economy (CPES) - a collective organisation of private nature that represents all the different families of the Social Economy in Portugal and that aims to promote the social economy in Portugal - created a task force for DT & Social Innovation. This task force was composed of the different representatives of the CPES organisations and academics. This team has been granted the mission to analyse the state-of-the-art of social economy organisations in Portugal in terms of digital transformation. The group defined as specific objectives to understand: (i) how social economy entities are equipped in terms of technology, (ii) what are the digital skills of the human resources of these organisations and also (iii) what are the technological and digital practices of these organisations.

The task force decided to do an empirical study using a quantitative research approach to obtain answers to these goals. The data was obtained through a questionnaire survey addressed to the persons in charge of the social economy organisations. The task force defined the questionnaire and applied it in July 2021. The collaboration of the various member organisations of CPES was crucial to spreading the word so that the study could benefit from answers coming from different social economy organisations.

The data collection process allowed us to obtain answers provided by 497 social organisations located in all the Portuguese territory and with different legal statutes and dimensions.

The implementation of the study allowed us to draw a picture of the technological resources and capabilities of these organisations and to identify the main limitations and improvement opportunities for the sector.

The research indicates that Portugal's social organisations have already started a digital transformation process, even with limitations. The study shows that these organisations tend to have some technological endowments, as they are equipped with desktop computers (89,1%), laptops (76,7%), mobile phones (82,1%) and scanners (90,1%); also mobile phones with a data connection (68,6%), computers equipped with cameras and microphones (62,2%), and their own server (50,9%). Nevertheless, the technological equipment held is sometimes seen as insufficient, especially native systems of video conf, equipment for digital signatures, computers equipped with cameras and micros and Virtual Private Networks. The recognition by the social organisation of their necessity could signal the importance of DT in the social economy and the desire to go further in this area.

Few social organisations reported not having access to the Internet, for which not having the ability to afford it is the main reason. The most common connection held by the organisations is fibre optics (60,8%). However, some of them also rely on other modalities such as coaxial cable (20,5%), asymmetric digital subscriber line (ADSL) (6,4%) or cell phone data (2,2%), among others. Nevertheless, wireless reach in the social economy organisations is limited in some organisations (31,2%).

A large proportion of employees tend to have access to the Internet on the organisations' premises. However, a quarter of the organisations report that employees do not use computers in their activities, revealing that there are still some opportunities for the digitalisation of the processes in the social economy.

The study indicated that the human resources of these organisations have low qualifications and that this is an obstacle to their capacity for digital innovation, as more than half (55,1%) of the organisations say that their human resources are not comfortable with the handling of digital tools. Many organisations still lack IT training programs. According to the organisation's development plan, the ones that have training courses tend to do it in a very casuistical way, performed when necessary and not in a strategic approach, as 77,1% of the organisations have no training strategy.

Some limitations are also found concerning security, backup plans (that are not performed at all or backed very sporadically) or big data. The study also indicates a high dependence on outsourced external entities to provide IT support to the organisation, with few organisations having internal employees qualified for this purpose (only 17,5%).

Regarding the software use, we observe that most social organisations already use office tools and videoconferencing software. However, there are more significant constraints related to the use of systems for collaborative work and integrated management systems, which could help social organisations be more effective and efficient.

There is low use of digital means outside the organisations' physical premises, except for holding meetings by videoconferencing. This pattern is highly constrained by the scarcity of resources and employees' capacitation.

Social organisations tend to use digital communications tools and social media to connect with stakeholders such as clients/members and others. Their presence in digital media through their own Website is relatively common among social organisations, allowing them to communicate and develop some digital activities, such as sales.

As future work, we intend to deepen the analysis to understand better the phenomena identified, especially drawing conclusions from more granular analyses.

## 1. Introduction

With the opening of Europe to a common market, new laws allowed the rise of data interoperability which leveraged many new businesses. Companies must face a digital transition process that progressively incorporates the necessary technologies and conducts to the dematerialisation of the business processes, leading to the so-called Digital Transformation (DT). DT is a commonly used buzzword when referring to the digital transition in organisations. DT can be associated with the introduction of Information Systems and Technologies (IST) in organisations. Usually, DT appears connected with both terms Digitalisation and Digitisation. Despite referring to three distinct concepts (Meira et al., 2022), these terms are often used indistinctly in the literature (Kutzner, Schoormann, and Knackstedt, 2018).

The EU publication "New technologies and digitisation - Opportunities and challenges for the social economy and social economy enterprises" (Gagliardi et al., 2020) focuses on how the social economy organisations face the challenges DT poses. It was already emphasised in 2018, in the "Digital Transformation Scoreboard 2018 - EU business", that the future of organisations would be digital (Probst et al., 2018). The study from Martins and Pinto (2021) shows that social economy organisations struggled with digital illiteracy from their beneficiaries. However, only 2,3% of them pointed to the need for support for the digitalisation of the organisations.

Given the increasing importance that DT has achieved over the past years, the Portuguese Confederation of Social Economy (CPES) created a task force for DT & Social Innovation to assess the state-of-the-art of the Portuguese social sector in terms of the digital transition. The task force implemented a survey study to analyse the technological endowments and capabilities of the social organisations in Portugal and to identify the main technological and digital practices adopted by these organisations. The specific goal of this study was to understand: (i) how Social Economy organisations are equipped in terms of technology, (ii) what are the digital skills of the human resources of these organisations and finally, (iii) what are the technological and digital practices of these organisations.

This article presents the main results obtained from this preliminary study. This study consists of a survey by questionnaire taken to the Social Economy Organizations (SEO) members of CPES. The questionnaire was available online and distributed to a mailing list of CPES contacts. The analysis of the data obtained was based on a quantitative approach.

This paper enrolls as follows: The next session presents a short theoretical framework regarding digital transformation and the importance of this transformation to leverage digital innovation in organisations; section 3 presents the methodological approach of the study implemented; section 4 presents the results of the study; section 5 a discussion based on the results obtain and finally section 6 concludes the paper.

## 2. Digital Transformation

Digital Transformation (DT) is a term that has been coined in the last few years; it is considered crucial for the competitiveness of organisations. DT is about integrating digital technologies in

the organisations' procedures to speed up processes, make organisations more efficient and perhaps more intelligent, and enable digital innovation. According to Yoo, Youngjin, Henfridsson, and Lyytinen (2010, p. 275), digital innovation is "the carrying out of new combinations of digital and physical components to produce novel products". DT is the ability to use digital technologies, integrate them into the organisation's various business areas, enhance interoperability with business partners, be them other organisations, end customers, or even government agencies. A DT process is not only about introducing technology in organisations; DT implies changing ways of doing things, changing old procedures and adding new procedures, training human resources to deal with these new procedures and the technologies introduced. Furthermore, for this reason, a DT process is not easy to implement in organisations because it implies some disruption in the functioning of the status quo; it means taking people out of their comfort zone to learn how to do things differently and with different tools.

European organisations already use technologies broadly in our days to support their management activities and provide services. However, DT asks for organisations to improve the interoperability of software applications, for big data, for devices that integrate the Internet of Things (IoT), and asks for the use of techniques of artificial intelligence in the software systems. Moreover, these systems should be open source software, and the organisations should use cloud computing and distributed ledger technologies (e.g. Blockchain) to enhance DT. All these new technologies or practices can be integrated into digital platforms to transform the way organisations interact with their stakeholders. The more common now is to use technologies to support the services. However, DT will allow climbing the stairs on the level of innovation so that technologies will permeate the service, and finally, in the near future, technology can be the service (Gagliardi et al., 2020).

The use and application of digital technologies improve the performance of organisations and enable digital innovation (Gagliardi et al., 2020; Kutzner et al., 2018). Digital innovation allows organisations to open up to new digital products or services enabled by technologies to create new lines of business and new fields of work in the organisations (Probst et al., 2018). These innovative technologies allow communities to organise their activities around digital platforms in the social economy context. Digital platforms profit from global reach, dematerialisation, customisation and personalisation, which are characteristics that enhance activities on the Internet (Laudon & Traver, 2021). Examples of these digital platforms can be seen in several parts of the world; Scholz (2016) analyses the activities developed by "platform cooperatives", a special type of digital platforms, and creates a framework for categorising the platforms.

### **3. Methodological Approach**

The acknowledgement of the need to conduct a study was highlighted by the Portuguese Confederation of Social Economy (CPES, Confederação Portuguesa De Economia Social), which was aware of the need to understand better the positioning of social organisations in the digital domain. CPES is a collective organisation of private nature, founded in 2018, bringing together the representative organisations of the different families of the Social Economy in Portugal. Its main objective is to promote the Social Economy, protect the interests of its

members, represent the social sector internally and externally, dialogue with the state and participate, as a social partner, in the consultation, definition of public policies and strategic guidelines for the Social Economy. In its constitution, CPES has counted on the following founding Portuguese organisations that are representative of different branches of the social economy: Union of Portuguese Misericordies (UMP); National Confederation of Solidarity Institutions (CNIS); National Confederation of Agricultural and Farm Credit Cooperatives of Portugal (CONFAGRI); Portuguese Foundations Center (CPF); Portuguese Confederation of Culture, Recreation and Sports Collectivities (CPCCRD); Union of Portuguese Mutual Societies (UMP); the Portuguese Association for Local Development (ANIMAR); the Portuguese Cooperative Confederation, (CONFECOOP); and the Portuguese Association of Mutualities (APM).

The specific objectives of the study are (i) to identify how Social Economy organisations are equipped in terms of technology, (ii) to understand the digital skills of the human resources of these organisations and (iii) to know what are the technological and digital practices of these organisations.

Two online meetings were organised with representatives from all CPES organisations and a higher education institution team to launch the study to discuss its objectives and the methodological approach to be adopted. The decision was to use a quantitative approach using an online questionnaire survey<sup>1</sup> administered to the heads of the social organisations in Portugal.

The questionnaire<sup>2</sup> was composed of four sections: the first aimed to obtain information about the characteristics of the organisation; the second to obtain information about the organisations' equipment and practices; the third to assess the use of digital media by social organisations, and finally; the fourth was focused on the characteristics of the organisation's employees. We gave preference to closed-ended questions, although we allowed the respondents to give additional comments on some questions.

Before its implementation, the questionnaire was analysed and pre-tested by individuals from some CPES organisations.

The questionnaire was administered from July 13 to July 03, 2021, and received the support of the various member organisations of CPES, which sent an email to their affiliates requesting their participation in the questionnaire, thus obtaining a random sample from the universe of all the organisations' members CPES [71 885]. This process allowed us to obtain 497 valid responses, corresponding to a sample with 95% confidence and a 5% margin of error (Krejcie and Morgan, 1970). The data analysis was done with the SPSS software.

## **4. Results**

### **4.1 Sample characterisation**

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<sup>1</sup> Using Limesurvey (<http://limesurvey.org>) software installed in the CEOS.PP server

<sup>2</sup> View the pdf file exported from the limesurvey at <https://doi.org/10.5281/zenodo.6481658>

The study had the participation of organisations from different locations in the national territory, as shown in Table 1. Most of the responding organisations are located in the North of Portugal and Great Lisbon with 36,2% and 28,4%, respectively. The smallest number of respondents was from organisations located in the Islands (Madeira and Azores), with only 2% of the respondents.

Table 1. Location of organisations by area of the country

<i>Location*</i>	<i>Count (N)</i>	<i>% of N in column</i>
North	<b>180</b>	<b>36,2%</b>
Great Lisbon	<b>141</b>	<b>28,4%</b>
Center	<b>90</b>	<b>18,1%</b>
South	<b>76</b>	<b>15,3%</b>
Islands	<b>10</b>	<b>2,0%</b>

\* North: Aveiro, Braga, Bragança, Porto, Viana do Castelo, and Vila Real districts; Center: Castelo Branco, Coimbra, Guarda, Leiria and Viseu districts; Great Lisbon: Lisboa and Setúbal districts; South: Beja, Évora, Faro. Portalegre and Santarém districts; Islands: Açores and Madeira islands

Most of the responding organisations have a *local* (65,4%) or *regional* (35,2%) scope of intervention. Only 4,2% of the respondents work at an *international* level (see Table 2).

Table 2. Scope of intervention of the organisations

<i>Type of Intervention</i>	<i>Yes</i>		<i>No</i>	
	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>
Local intervention scope	<b>325</b>	<b>65,4%</b>	<b>172</b>	<b>34,6%</b>
Regional intervention scope	<b>175</b>	<b>35,2%</b>	<b>322</b>	<b>64,8%</b>
National intervention scope	<b>114</b>	<b>22,9%</b>	<b>383</b>	<b>77,1%</b>
International intervention scope	<b>21</b>	<b>4,2%</b>	<b>476</b>	<b>95,8%</b>

The study included organisations with different legal natures, as shown in Table 3. Most organisations identify themselves as *Private Social Solidarity Institutions not covered by the remaining categories* and as *Social Solidarity Associations*. About half (49,4%) of the respondents is the sum of these two legal natures. Then we have the *Associations with altruistic purposes (cultural recreational, sport and local development)* with 17,1% of those who responded, the *Cooperatives* with 8,9%, the *Foundations* with 7,8%, the *Mercies* with 7,0%, the *Mutualist Associations* with 5,0% and finally 4,9% of the organisations that responded categorise themselves as *Other organisations*.

Table 3. Legal nature of the organisations

<i>Legal Nature</i>	<i>N</i>	<i>%</i>
Private social solidarity institutions not covered by the other categories	<b>124</b>	<b>24,9%</b>



Social Solidarity Association	<b>122</b>	<b>24,5%</b>
Association with altruistic purposes (cultural recreational, sport and local development)	<b>85</b>	<b>17,1%</b>
Cooperative	<b>44</b>	<b>8,9%</b>
Foundation	<b>39</b>	<b>7,8%</b>
Mercy	<b>35</b>	<b>7,0%</b>
Mutualist Association	<b>25</b>	<b>5,0%</b>
Other organisations	<b>23</b>	<b>4,6%</b>

Concerning the size of the organisations, there is considerable heterogeneity among the organisations that participated in the study. Table 4 shows that half of the organisations surveyed (47.3%) have 50+ members, 16,7% have between 20 and 49 members, 21,9% have between 10 and 19 members, and 14,1% have less than 10 members.

Table 4. Number of members of the organisation

<i>Number of members</i>	<i>N</i>	<i>%</i>
>50	<b>235</b>	<b>47,3%</b>
> 20 & < 49	<b>83</b>	<b>16,7%</b>
> 11 & < 19	<b>109</b>	<b>21,9%</b>
<10	<b>70</b>	<b>14,1%</b>

The average number of employees of the organisations that participated in the study is 402 (See Table 5), the average number of volunteer leaders is 21, the average number of volunteer collaborators is 42, and the average number of people supported by/clients of the organisation is 10 336.

The maximum number of employees is 88 910, volunteer leaders 5 700, volunteer collaborators 15 166, and finally, the maximum number of people supported by/clients of the entity is 4 500 000. Nevertheless, we can see that 75% or less of the organisations have fewer than 50 employees, 12 volunteer leaders, 10 volunteer collaborators, and 450 people supported by/clients of the organisation. Therefore, we may conclude that most of the organisations surveyed are small in size.

Table 5: Summary regarding the size of the organisations

	<i>Average</i>	<i>Standard Deviation</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Percentile 25</i>	<i>Median</i>	<i>Percentile 75</i>
Number of employees of the organisation	<b>402</b>	<b>5 581</b>	<b>0</b>	<b>88 910</b>	<b>5</b>	<b>22</b>	<b>50</b>
Number of volunteer leaders	<b>21</b>	<b>256</b>	<b>0</b>	<b>5 700</b>	<b>5</b>	<b>7</b>	<b>12</b>

Number of volunteer collaborators	<b>42</b>	<b>682</b>	<b>0</b>	<b>15 166</b>	<b>0</b>	<b>3</b>	<b>10</b>
Number of people supported by/ clients of your entity	<b>10</b> <b>336</b>	<b>201 928</b>	<b>0</b>	<b>4 500 000</b>	<b>50</b>	<b>141</b>	<b>450</b>

## 4.2 Technology endowments

This section aims to understand how Social Economy Organisations are equipped in terms of Technology.

Table 6 shows the state-of-the-art regarding Internet connection and Internet technology. Most organisations have an Internet connection through fibre optics (60,8%), other 20,5% through Cable. The ADSL technology is still used in 6,4% of the organisations, 2,2% use a satellite connection and 2,2% use only mobile phone data connection. It should be noted that 2,4% of the respondents say they do not have an internet connection (N=12).

Among those having Internet, 38,8% say having total wireless reach, 30% say not having wireless everywhere, but they have where it is needed, and 2,4% say not having wireless.

Among those that do not have Internet (N=12; 2,4%), N=5 do not have it since they cannot afford it; N=2 do not have it because they do not need it, and only N=1 mentioned they do not have Internet since there are no Internet providers where they are located. The respondents that answered "Other reasons" referred to "suspension of activity" or not having facilities (telework) or not having equipment available.

Table 6- Internet connection and technology

<i>Communication technology that supports the Internet connection</i>		<i>N</i>	<i>%</i>
	Asymmetric Digital Subscriber Line (ADSL)	<b>32</b>	<b>6,4</b>
	Satellite	<b>11</b>	<b>2,2</b>
	Coaxial Cable	<b>102</b>	<b>20,5</b>
	Fibre optics	<b>302</b>	<b>60,8</b>
	LTE/4G	<b>11</b>	<b>2,2</b>
	Cell phone data	<b>11</b>	<b>2,2</b>
	None	<b>12</b>	<b>2,4</b>
	Does not know / No response	<b>16</b>	<b>3,2</b>
<i>Reach of wireless in the entity</i>		<i>N</i>	<i>%</i>
	Everywhere	<b>177</b>	<b>38,6</b>
	Not all, but the necessary ones	<b>138</b>	<b>30,1</b>
	Zones with no coverage	<b>132</b>	<b>28,8</b>
	No wireless	<b>11</b>	<b>2,4</b>

The organisations' allocations in terms of technological equipment are summarised in Table 7.

The results show that a large percentage of organisations say they are equipped with desktop computers (89,1%), laptops (76,7%), mobile phones (82,1%) and scanners (90,1%); also, 68,6% say they have mobile phones with a data connection, 62,2% that they have computers equipped with cameras and microphones and 51,9% that they have their own server.

However, it should be noted that organisations point out a lack of resources:

- 10,9% of the organisations saying that they do not have Desktop Computers, from this percentage, 4,4% state they need it;
- 23,3% of the organisations say that they do not have laptops, from this percentage, 16,5% state they need them;
- 17,9% of the organisations say that they do not have a mobile phone, from this percentage, 9,9% state they need it;
- 6,2% of the organisations say that they do not have scanners and they need them;
- 17,9% of the organisations say that they have data connection through mobile phone, from this percentage, 9,9% state they need it;
- 68,8% of the organisations say that they do not have equipment for digital signatures, from this percentage, 43,5% state they need it;
- 37,8% of the organisations say that they do not have computers equipped with cameras and micros, from this percentage, 31,4% state they need it;
- 74,8% of the organisations say that they do not have native systems of video conf; from this percentage, 43,1% state they need it;
- 49,1% of the organisations say that they do not have their own server; from this percentage, 24,9% state they need it;
- 71,6% of the organisations say that they do not have a Virtual Private Network (VPN); from this percentage, 32,8% state they need it.

Also among those who say to have desktop computers 31,6% say that these are not enough to meet their needs, among those who say to have laptops, 39,8% say that these are not enough to meet their needs, among those who say they have mobile phones, 24,1% say that these are not enough to meet their needs, also among those who say to have scanners, 19,1% say that these are not enough to meet their needs, among those who have data connection through their mobile phones, 14,9% say that these are not enough to meet their needs, among those who say to have equipment for digital signature, 9,5% say that these are not enough to meet their needs, among those who say to have computers equipped with cameras and microphones, 33,4% say that these are not enough to meet their needs, among those who say to have native systems for videoconference, 7,8% say that these are not enough to meet their needs, among those who say to have their own server, 12,3% say that these are not enough to meet their needs, among those who say to have VPN, 6,0% say that these are not enough to meet their needs.

Table 7- Technological equipment

Equipment	<i>Does not exist</i>		<i>Exists</i>		No answer
	<i>and are not needed</i>	<i>but are necessary</i>	<i>but are insufficient</i>	<i>and are sufficient</i>	
Desktop Computers	10,9%		89,1%		0%
	6,4%	4,4%	31,6%	57,5%	
Laptops	23,3%		76,7%		0%
	6,8%	16,5%	39,8%	36,8%	
Mobile Phones	17,9%		82,1%		0%
	8,0%	9,9%	24,1%	57,9%	
Printers	0,0%		0,2%		99,8%
	0,0%	0,0%	0,0%	0,02%	
Scanners	6,2%		90,1%		3,6%
	0,0%	6,2%	19,1%	71,0%	
Data connection on mobile	31,4%		68,6%		0%
	15,1%	16,3%	14,9%	53,7%	
Equipment for digital signature	68,8%		31,2%		0%
	25,45	43,5%	9,5%	21,7%	
Computers equipped with camera and microphone	37,8%		62,2%		0%
	6,4%	31,4%	33,4%	28,8%	
Native systems for videoconference	74,8%		25,2%		0%
	31,8%	43,1%	7,8%	17,3%	
Own server	49,1%		50,9%		0%
	24,1%	24,9%	12,3%	38,6%	
Virtual Private Network (VPN)	71,6%		28,4%		0%

	38,85	32,8%	6,0%	22,3%	
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Table 8 shows the percentage of workers with Internet access. Around half of the organisations (47,5%) state that most workers (more than 75%) have access to the Internet. Nevertheless, almost a quarter of the organisations (21,5%) state that less than 25% of the workers have access to the Internet.

Table 8 - Percentage of workers with Internet access

	<i>N</i>	<i>%</i>
< 25%	<b>107</b>	<b>21,5</b>
> 24% & < 49%	<b>56</b>	<b>11,3</b>
> 50% & < 74%	<b>59</b>	<b>11,9</b>
>= 75%	<b>236</b>	<b>47,5</b>
No answer	<b>39</b>	<b>7,8</b>

### 4.3 Human resources

The goal of this section is to understand how the human resources of the Social Economy Organisations are skilled in the use of digital technology

#### 4.3.1 Level of education of the human resources

When analysing the results of the educational level of the employees (Table 9), it can be concluded that the social organisations are typically composed of human resources with different qualifications levels. The vast majority of the organisations (79,3%) have lower secondary education employees, as only a small percentage (20,7%) mentioned not having employees holding this lower qualification level. Nevertheless, for most organisations, the percentage of employees having this education level is not very high. As shown in Table 9, 36,4% of the organisations mentioned that less qualified workers represent less than a quarter of their workforce. On the other hand, the proportion of employees with secondary education is high, as 29,4% of them said they represent up to half of their workforce and 33,4% up to a quarter. Although most organisations report having highly educated employees, these generally do not represent a significant proportion of the workforce. For 38,8% of the organisations, employees with a bachelor's degree represented less than a quarter of their workforce. For half of the organisations (49,9%), employees with a master's degree account for less than a quarter of their teams. It should also be noted that the vast majority of organisations (86,1%) indicate that they do not have a PhD among their staff.

Table 9 - Characterisation of the workers' level of education

<i>%</i>	<i>None</i>	<i>&lt;= 25%</i>	<i>&gt;25% &amp; &lt;= 50%</i>	<i>&gt;50% &amp; &lt;=75%</i>	<i>&gt;75%</i>
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Lower secondary education	20,7	36,4	21,1	16,1	5,6
From 10 <sup>th</sup> to 12 <sup>th</sup> grade	11,3	33,4	29,4	17,5	8,5
Bachelor	39,8	38,8	10,6	4,8	6,0
Master	42,1	49,9	3,4	2,2	2,4
PhD	86,1	12,3	0,4	0,6	0,6

#### 4.3.2 Digital practices of the human resources

Table 10 shows that in a very significant percentage of entities (24,1%), most workers (less than 25%) do not use computers to carry out their activities. On the other hand, 10,3% of the organisations state that all workers use computers when carrying out their activities. Many organisations (29,8%) did not answer this question.

Table 10 - Percentage of workers using computers

	<i>N</i>	<i>%</i>
<= 25%	120	24,1
> 25 & <= 49%	66	13,3
>= 50 & <=74%	51	10,3
>= 75 & < 100%	61	12,3
All	51	10,3
No answer	148	29,8

When asked about the comfort of the workers in using digital tools (see Table 11), only 3.6% of the organisations answer *extremely difficult*; 30.2% show *some difficulty*, 21,3% are neutral (*neither easy nor difficult*), 33,4% show *some facility* and 11.5% say it is *straightforward*.

Table 11 - Overall comfort level of the entity's workers in using digital technology

	<i>N</i>	<i>%</i>
Extremely difficult	18	3,6
Some difficulty	150	30,2
Neither easy nor difficult	106	21,3

Some facility	<b>166</b>	<b>33,4</b>
Extremely easy	<b>57</b>	<b>11,5</b>

33,8% of the organisations need to give training to their human resources. Table 12 shows that among these organisations, 21,3% have a training plan, but 42,1% only give training when necessary, and 35% do not give training at all. It should also be noted that two entities refer to doing continuous training in a work context, and two other entities refer to hold meetings specifically for training purposes.

Table 12 - Training on the use of digital tools

	<i>N</i>	<i>%</i>
Tanning plan	<b>106</b>	<b>21,3</b>
Training only when necessary	<b>209</b>	<b>42,1</b>
There is no training	<b>174</b>	<b>35,0</b>
Other	<b>8</b>	<b>1,6</b>

#### 4.4 Technological and digital practices in the organisations

This section aims to understand the technological and digital practices in the Social Economy organisations.

##### 4.4.1 Security

Concerning the organisations' security practices (see Table 12), 37,8% of the organisations refer to having a plan in case of failure of technological services, 85,7% have antivirus software, 22,1% having anti-phishing software, 50,1% having a firewall, 29,0% and 27,8% having mechanisms to control access to computer systems and servers, respectively. Finally, 36,0% of the organisations refer having procedures to deal with phishing emails and other computer attacks.

Concerning the existence of plans for data backup, 20,9% say not having any plan, 30,0% say having a daily backup plan, 14,1% a week backup plan, 6,2% a month backup plan, 17,3% say having a plan with another periodicity than the ones already mentioned. Finally, 11,5% do not answer.

Table 12 – Organisations' security practices

	<i>N</i>	<i>%</i>
<i>In the event of a failure of technological services, the organisation has a plan to deal with the situation</i>	<b>188</b>	<b>37,8</b>
<i>Security practices of existing IT systems</i>	<i>N</i>	<i>%</i>

	Antivirus	<b>426</b>	<b>85,7</b>
	Anti-phishing	<b>110</b>	<b>22,1</b>
	Firewall	<b>249</b>	<b>50,1</b>
	Access control (desktop computers, laptops)	<b>144</b>	<b>29,0</b>
	Access control (servers)	<b>138</b>	<b>27,8</b>
<i>The entity has procedures to deal with phishing emails and other cyber attacks</i>		<b>179</b>	<b>36,0</b>
<i>The entity has a plan for backing up data</i>		<i>N</i>	<i>%</i>
	No	<b>104</b>	<b>20,9</b>
	Yes, daily	<b>149</b>	<b>30,0</b>
	Yes, weekly	<b>70</b>	<b>14,1</b>
	Yes, monthly	<b>31</b>	<b>6,2</b>
	Yes, with another periodicity	<b>86</b>	<b>17,3</b>
	Does not know/ No answer	<b>57</b>	<b>11,5</b>

#### 4.3.2 IT support

Looking now to the issue of IT support in organisations (see Table 13), most of the organisations outsource it (53,1%), 15,5% refer having a worker with no IT training, 17,5% a worker with IT training, 10,7% any support, and finally, 4,2% refer having another type of support, more specifically: three of the organisations mention that they have their own department and one that has volunteers with training in IT. 69,8% of those without IT support refer to budget limitations as the cause.

Table 13 – IT support

<i>Responsible for IT support within the organisation</i>	<i>N</i>	<i>%</i>
An employee with no computer training	<b>77</b>	<b>15,5</b>
An employee with computer training	<b>87</b>	<b>17,5</b>
Outsourcing	<b>255</b>	<b>51,3</b>
No support	<b>53</b>	<b>10,7</b>
Other	<b>21</b>	<b>4,2</b>
No answer	<b>4</b>	<b>0,8</b>

#### 4.3.3 Software

Looking at the software programmes used by the organisations (Table 14), there is a widespread use of word processors, with no organisation responding negatively to the question. Most organisations also use spreadsheets (97,4%), e-mail (94,2%) and communication platforms (75,3%). In the field left for comments, many of the respondents said they use Office 365 tools, although the use of Google and Open Office tools is also mentioned. Some of the organisations also said that the employees use their own personal computers to use these tools in their homes, confirming the lack of technological resources already mentioned in the previous analysis in Table 7. Concerning the software that asks for management and collaboration, the social economy organisations in Portugal are still far from



fully integrating these tools into their work dynamics. In fact, only 35,2% of organisations use an integrated agenda management system, 18,7% use document management systems, 21,7% inventory management systems, 16,5% point of sale management systems, even though these type of software is used when there are shops (sell of goods), not all may need it. Finally, only 21,7% use Integrated management systems (ERP) and 12,7% use Customer Relationship Management Systems (CRM).

Table 14 – Software used

Software	Yes		No	
	N	%	N	%
Word processor (e.g. MSWord, OpenOffice-Writer)	316	63,6	0	0,0
Folha de Cálculo (e.g. MSExcel, OpenOffice-Calc)	484	97,4	13	2,6
Data Bases (e.g. MSAccess, OpenOffice)	176	35,4	321	64,6
Image handling (e.g. Photoshop, Illustrator)	164	33,0	333	67,0
Project Management Systems (e.g. MSPProject)	20	4,0	477	96,0
Communication platforms (ex: Skype, Zoom)	374	75,3	123	24,7
Email (e.g. Outlook, Gmail)	468	94,2	29	5,8
Integrated agenda management systems (with email, agenda, tasks, contacts, among others)	175	35,2	322	64,8
Document management systems	93	18,7	404	81,3
Inventory management systems	108	21,7	389	78,3
Point of sale management systems (POS)	82	16,5	415	83,5
Integrated management systems - ERP (e.g. Management Systems for Medical Clinics, Management Systems for Complementary Social Security Modalities, etc.)	108	21,7	389	78,3
Customer Relationship Management systems (CRM)	63	12,7	434	87,3

There is low use of digital means outside the organisations' physical premises (Table 15). As an exception, the holding of meetings through *videoconferencing* stands out, used by over half (56,3%) of the organisations, but around 22,9% recognise that the resources are not sufficient.

Regarding the use of digital means during *fieldwork activities*, among the ones that say it is applicable (67,7%), 14,7% say that they would like to use digital means during fieldwork activities, 13,5% say they use but with not enough resources, and 14,3% say they use it with enough resources.

Regarding the use of digital means during *assistance/support activities*, among those that say it is applicable (68%), 17,7% say that they would like to use digital means during activities of assistance/support work activities, 15,9% say they use but with not enough resources, and 16,6% say they use it with enough resources.

Regarding the use of digital means during *social assistance*, among those that say it is applicable (58,6%), 15,1% say that they would like to use digital means during social assistance activities, 11,5% say they use but with not enough resources, and 12,5% say they use it with enough resources.

Regarding the use of digital means during *medical assistance*, among those that say it is applicable (47,4%), 11,9% say that they would like to use digital means during medical assistance activities, 5,4% say they use but with not enough resources, and 7,2% say they use it with enough resources.

As for the organisations that refer using digital media outside the organisations, but the resources are not sufficient, the reasons given are either the lack of equipment, the lack of training of employees or the lack of Internet access in the location where they want to use.

Table 15 - Use of digital media outside the physical premises

<i>Activity</i>	<i>No, it is not necessary</i>	<i>No, but I think it would be advantageous to use</i>	<i>Yes, but resources are not sufficient</i>	<i>Yes, with the necessary resources</i>	<i>Not applicable</i> <i>No answer</i>
Fieldwork activity	25,2	14,7	13,5	14,3	32,4
Assistance or support to persons/clients	17,9	17,7	15,9	16,5	32,0
Social Assistance	19,5	15,1	11,5	12,5	41,4
Medical assistance	22,9	11,9	5,4	7,2	52,5
Meeting by videoconference	11,9	15,7	22,9	33,4	16,1
Other	19,1	2,4	2,2	1,2	75,1

#### 4.3.4 Digital Communication

Respondents were further asked about the interaction activities between the clients/associates and the organisation through the use of digital tools. Table 16 presents the results: 91,5% of the organisations allow for information requests, 68,6% for management of processes related to clients/associates such as registration or requests, 64% allow videoconference meetings with persons inside the organisation, 42,3% allow requests for advice, 37,4% allow requests for training/awareness-raising actions, and 36,8% hold general assemblies, national councils or congresses through digital means.

Table 16- Interaction activities between clients/associates and the organisation, using digital media

<i>Type of activity</i>	<i>Yes</i>		<i>No</i>	
	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>
Information requests	455	91,5	42	8,5
Management of processes related to clients/associates (registration, requests, etc)	341	68,6	156	31,4

Meeting by video conference	<b>318</b>	<b>64,0</b>	<b>179</b>	<b>36,0</b>
Requests for advice	<b>210</b>	<b>42,3</b>	<b>287</b>	<b>57,7</b>
Requests for training/awareness raising actions	<b>186</b>	<b>37,4</b>	<b>311</b>	<b>62,6</b>
Holding of a General Assembly, National Council or Congress	<b>183</b>	<b>36,8</b>	<b>314</b>	<b>63,2</b>

When evaluating the software tools used for digital communication (Table 17), the most commonly used means of communication are Facebook (88,7%), the institutional Website (85,1%) and Instagram (27,2%). Then email (14,9%), and at par the digital newsletter (10,9%) and chat (10,9%) – they referred that the most used chat platform is WhatsApp. Finally, the least used means of communication are LinkedIn (9,9%), Twitter (5%), a Blog (4,4%) and a Discussion Forum on the Web (0,8%).

Tabela 17 – Digital communication

<i>Type</i>	<i>Yes</i>		<i>No</i>	
	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>
Facebook	<b>441</b>	<b>88,7</b>	<b>56</b>	<b>11,3</b>
Institutional website	<b>423</b>	<b>85,1</b>	<b>74</b>	<b>14,9</b>
Instagram	<b>135</b>	<b>27,2</b>	<b>362</b>	<b>72,8</b>
Intranet Portal	<b>52</b>	<b>10,5</b>	<b>445</b>	<b>89,5</b>
Digital newsletter	<b>74</b>	<b>14,9</b>	<b>423</b>	<b>85,1</b>
Email	<b>74</b>	<b>14,9</b>	<b>423</b>	<b>85,1</b>
Chat	<b>54</b>	<b>10,9</b>	<b>443</b>	<b>89,1</b>
LinkedIn	<b>49</b>	<b>9,9</b>	<b>448</b>	<b>90,1</b>
Twitter	<b>25</b>	<b>5,0</b>	<b>472</b>	<b>95,0</b>
Blog in a institutional URL	<b>15</b>	<b>3,0</b>	<b>482</b>	<b>97,0</b>
Blog in the cloud	<b>7</b>	<b>1,4</b>	<b>490</b>	<b>98,6</b>
Discussion Forum in the cloud	<b>1</b>	<b>0,2</b>	<b>496</b>	<b>99,8</b>
Discussion forum in an institutional URL	<b>3</b>	<b>0,6</b>	<b>494</b>	<b>99,4</b>
Other	<b>27</b>	<b>5,4</b>	<b>470</b>	<b>94,6</b>
None of the previous	<b>1</b>	<b>0,2</b>	<b>496</b>	<b>99,8</b>

#### 4.3.5 Institutional Website

Most organisations say having a website (N=423; 85,1%). Of the 74 (14,9%) organisations that did not have a website, 61 (82,4%) stated that they would like to have one. The reasons for not having a website are due to budget limitations (N=41; 67,2%), lack of skills in the organisations to develop one (N=18, 29,5%), lack of supporting technology (N=13; 21,3%), or lack of time (N=13; 21,3%). Only a tiny fraction of the organisations say not want a website

(N=13; 2,6%). The majority of the organisations (N=263; 62,8%) also refer that they do not use external companies to manage the Website.

Organisations were asked about the Website's purpose (see Table 18). The most important use of the Website is the publication of official documents (69,4%), then comes the goal to have a corporate image (64,2%), then communication with the beneficiaries (such as the publishing of news or events, among other) (60,0%), then to show contacts (53,5%). Then there are several less frequently used purposes: to show a catalogue of products or services (27,6%), to use as an e-shop (18,1%), and to disseminate training actions (15,7%). A tiny percentage of respondents use the Website to provide online training (2,4%). Among these, training is mainly internal (N=10; 83,3%). However, there is also training for clients (N=5; 41,7%) or beneficiaries (N=4; 33,3%).

Table 18 – Purpose of the Institutional Website

	<i>N</i>	<i>%</i>
Publish official documents (e.g. annual accounts)	<b>345</b>	<b>69,4</b>
To have a corporate image	<b>319</b>	<b>64,2</b>
Communicate with beneficiaries (news, events)	<b>298</b>	<b>60,0</b>
Show contacts	<b>266</b>	<b>53,5</b>
Show a catalogue with products and/or services	<b>137</b>	<b>27,6</b>
Sell products/services	<b>90</b>	<b>18,1</b>
Disseminate training actions	<b>78</b>	<b>15,7</b>
Provide online training	<b>12</b>	<b>2,4</b>
Other	<b>74</b>	<b>14,9</b>

#### 4.3.6 Online selling

Concerning selling processes (see Table 19), 40% of the organisations refer to making sales/subscription of products or services; in these cases, sales occur mainly from the head office/delegations (87,6%), and only 15,4% of these organisations sell online. About a quarter (25,4%) of the organisations that admit making sales/subscription of products or services allow this to be done by contact from the customer (25,4%). In these cases, most carry out a manual process (52,9%), and 43,1% use a management system.

Only 18,1% of the organisations sell online; the most common payment method is the ATM (84,4%) and payment on delivery (54,4%). Postal orders are still used (12,2%).

Table 19 - Sales/subscription of products or services

<i>The organisation sells/subscribes products/services to members/clients in a physical space</i>		<i>N</i>	<i>%</i>
	Yes	<b>201</b>	<b>40,4</b>
	No	<b>293</b>	<b>59,0</b>
<i>Physical place where the entity carries out sales</i>		<i>N</i>	<i>%</i>
	Headquarters/Delegations	<b>176</b>	<b>87,6</b>

	Contact from the client (telephone, email, other)	<b>51</b>	<b>25,4</b>
	Physical shops	<b>31</b>	<b>15,4</b>
<i>Sales processing</i>		<i>N</i>	<i>%</i>
	Manually (order registration, phoning the warehouse, etc.)	<b>27</b>	<b>52,9</b>
	Computerised process in a management system	<b>22</b>	<b>43,1</b>
	Other	<b>2</b>	<b>3,9</b>
<i>The organisation sells products/services online on the Website</i>		<i>N</i>	<i>%</i>
	Yes	<b>90</b>	<b>18,1</b>
	No	<b>333</b>	<b>67,0</b>
	No answer	<b>74</b>	<b>14,9</b>
<i>Payment processing for orders placed in the online shop</i>		<i>N</i>	<i>%</i>
	ATM	<b>76</b>	<b>84,4</b>
	Payment on delivery	<b>49</b>	<b>54,4</b>
	Postal order	<b>11</b>	<b>12,2</b>
	Online payment (virtual cards, PayPal, Credit Card, among others)	<b>2</b>	<b>2,2</b>

#### 4.3.7 Big Data

Table 20 presents the results concerning the use of data for decision making.

When asked about the use of data obtained from the interaction of members/clients with digital platforms to support decision making, about a third of the entities (32,8%) responded to carry out this practice, and 27,2% said although they do not, they would like to.

The organisations that perform data analysis say they mainly use it to learn about the target groups' demographic and/or socio-economic aspects (54,6%). However, some use this information to learn about the habits and consumption of the target group (38,0%) and develop new products/services (37,4%). The most used tool to do the analysis is a spreadsheet (79,1%), with few entities using business intelligence techniques (6,7%).

Table 20 - Use of data to support decision-making

<i>Does the organisation analyse the data obtained from members/clients interaction with digital platforms to support decision making?</i>		<i>N</i>	<i>%</i>
	Yes	<b>163</b>	<b>32,8</b>
	No	<b>94</b>	<b>18,9</b>
	No, but would like to	<b>135</b>	<b>27,2</b>
	Does not know / No answer	<b>105</b>	<b>21,1</b>
<i>Objectives of the data analysis</i>		<i>N</i>	<i>%</i>
	To know demographic and/or socio-economic aspects (age, sex, residence...)	<b>89</b>	<b>54,6</b>
	To find out the habits and consumption	<b>62</b>	<b>38,0</b>
	To develop new products/services	<b>61</b>	<b>37,4</b>

	To support the design of communication and marketing campaigns	<b>48</b>	<b>29,4</b>
	Does not know / No answer	<b>28</b>	<b>17,2</b>
<i>Data analysis techniques used</i>		<i>N</i>	<i>%</i>
	Simple data analysis with spreadsheet	<b>129</b>	<b>79,1</b>
	Business intelligence	<b>11</b>	<b>6,7</b>
	Does not know / No answer	<b>24</b>	<b>14,7</b>

## 5. Discussion

We note that social economy organisations have already started a digital transformation process. Indeed, they are equipped with technological equipment that enables them to perform tasks using computer equipment. However, it is clear from the results obtained that there is still a long way to go. Compared to many companies in the capitalist sector, these social economy organisations are far behind. In the following paragraphs, we identify the weak points and point out some path for these social economy organisations to achieve some leverage to position themselves as organisations ready to face the challenges posed to them in terms of digital transformation.

We clearly verify that the human resources of these organisations have low qualifications and that this is an obstacle to their capacity for digital innovation. We will have to further analyse the data in order to understand what the qualifications of the human resources that are placed in decision-making positions really are, and these are the ones that will be able to imprint innovation in the sense of changing processes towards digital innovation. Moreover, the leaders of the institutions may impose changes, but the human resources must be up to these changes, especially those that involve the use of digital tools. We found that more than half (55,1%) of the organisations say that their human resources are not comfortable handling digital tools (see Table 11). Some organisations (21,3% - see Table 12) already provide global training plans; this concern shows that there is a strategy and a vision. However, many organisations (42,1%) still provide tailor-made training, that is, navigation at the sight of the needs, and others do not provide any training (35,0%). Therefore, this shows that there is no strategy to invest in the qualification of human resources. We conclude that 77,1% of the organisations have no training strategy in an era in which digital has become an essential media for the development of organisations. In our view, this way of acting certainly undermines these institutions' future because unless human resources are up-to-date, there is no digital innovation.

In terms of technological support, we can see that most organisations outsource technological support; however, some organisations still use internal human resources without specific technological training to provide technological support. We also see that many organisations (62.2% - see table 12) have no plan to tackle system failures, which is, as we know, a severe problem. In the event that organisations become even more dependent on digital, this situation has to be looked at with concern. Linked to this comes security; we see that (still Table 12) there is still a large slice of organisations that do not have data backup plans, or if they do, they back them up less frequently than monthly. We are talking about 32% of organisations,

still a large slice. It is not conceivable to neglect this type of situations if organisations begin to depend more on digital, as expected.

We see that most organisations already use computers for office work (office tools), and videoconferencing software, as would be expected. However, for collaborative work and integrated management, they still do not use more specific information systems as one would expect. In fact, the vast majority of organisations do not use browser-based support information systems hosted in the cloud or on their own servers, such as ERP systems (only 21.7% of them), document management systems (only 18.7% of them), stock management systems (only 21.7% of them), customer management systems (CRM - only 12.7% of them), among others. Systems that help in the collective organisation or that allow greater interoperability of information flows, make organisations more efficient so these type of tools should be brought into organisations.

We verified that some organisations refer that digital tools are used in executing tasks outside the organisations' premises, but the results actually reveal very low values. Adding up the columns that report performing the activities (with resources or with scarce resources), we see that the numbers are never higher than 31% (except for videoconferencing, which presents a very high value, as expected - 56.3%). There is also a percentage (less than 18% at its highest value) that say they are not doing it but think it would be advantageous to do it. However, many organisations say it is not applicable (or do not answer the question). As future work we need to understand if the proposed questions may actually not make sense regarding the mission of the organisation in question or if human resources do not have the vision to understand how they can make their work more efficient through the use of the proposed digital tools.

Regarding digital communication, we found that organisations generally make a lot of use of digital to communicate with the community. However, they do it in a very traditional way (Facebook, Website). In fact, we know the importance of using digital newsletters and new means of communication such as Instagram.

It turns out that most organisations have a Website, which would be expected in the present times. Organisations mostly use the Website to share official documents with the community, have a web presence, communicate with news and dissemination of events, and provide contacts. This shows that social economy organisations are present on the Web in an already well-sustained way. However, when we analyse possibilities that require more effort and more knowledge, we find that few sell online or use the Web for training (e-learning). Of the organisations that participated in the survey (see Table 19), 40% sell products or services. Moreover, of these, only 18.1% sell online. We also found that a large majority sell in physical spaces (either in the head office or in physical shops, or even through orders by telephone and pick-up in some physical place), the processing of sales is mainly done manually, without using integrated management systems. Furthermore, the payment systems used are still of the physical and not the digital generation. Very few organisations (2.2% - see table 19) provide online payment systems. This leads us to conclude that organisations will have to carry out some organisational transformation (of processes, of technological tools) to place themselves at a higher level of dematerialisation to face the future. Another important fact is shown in Table

6, which states that not all zones of the organisations have internet access (28,8%); this might be a problem depending on the organisation's activities. Also, very few organisations have equipment of digital signature (21,7%), a piece of essential equipment when interacting with the state in a dematerialised manner.

Finally, we found that organisations are interested in using data for decision support (see Table 20); however, they still do not use sophisticated tools. 79,1% of the respondents use a spreadsheet with advanced tools for data analysis, and only 6,7% use business intelligence tools. We can see that organisations have already understood that they can improve their performance using this type of tools; however, they are still far below the possibilities they present to us.

## **6. Conclusions**

In an era in which digital has become a very important means for leveraging innovation in organisations, the Portuguese confederation of the social economy in Portugal (CPES) understood that the social economy could not ignore this fact and decided to create a task force to study how to approach the issue of digital transformation of these organisations among its associates.

The task force decided to conduct a study based on a survey of the organisations represented by CPES's associates. The study aimed to understand the situation of social economy organisations concerning installed capacity in terms of technology, information systems, and technological skills of their human resources. It also aimed to understand the practices of organisations in the use of technology and information systems.

This paper presents the preliminary results of this study.

We conclude that the training of human resources is still relatively low. Their installed capacity in terms of technological skills is weak, which undermines the possibility of introducing more technology in organisations and the capacity to think digital innovation in these organisations. We verify that, in technological terms, organisations are relatively well equipped at the most basic level, but even so, they need to be strengthened. We understand that organisations are still lagging behind in the use of information system tools for intra-departmental work and with stakeholders, where interoperability is an asset. Moreover, organisations are still far from reaching the minimum levels concerning technologies that leverage digital transformation, such as big data, or a greater dematerialisation of activities.

These results show that a significant investment in the training of human resources and installed technology will be necessary for social economy organisations in Portugal to face the future of the digital era with optimism.



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