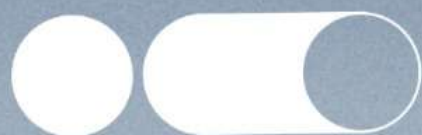


rural & digital women



RURAL AND DIGITAL WOMEN
Small-Scale Partnership in Adult Education

Report

SUMMARY

1. INTRODUCTION	2
2. DIGITAL COMPETENCES - EUROPE	3
3. DIGITAL COMPETENCES - PORTUGAL	4
4. GOOD PRACTICES - METHODOLOGY	6
5. SURVEY ANALYSIS	8
6. SWOT ANALYSIS	9
7. REFERENCES	12
8. ANNEXES	13

1. INTRODUCTION

The Rural & Digital Women project, coordinated by the Spanish organization Innsamble (Spain) and implemented by NewCo (Greece) and Contextos (Portugal), aims to bring women living in rural environments closer to basic digital skills that favor their employability, such as digital communication, web research and the use of professional online platforms. For this, the first phase of the project consists of a survey to understand what are the necessary basic digital skills that are required during a hiring process. For this, employers and professionals who have experience in this public will be consulted to take into account their point of view, due to their experience in identifying what these skills are.

Besides that, for the project in the first phase, it is also necessary to collect good methodological practices from projects that had experience with teaching digital skills and also an interview with several recruiters to understand better which digital skills are necessary for rural people.

2. DIGITAL COMPETENCES - EUROPE

At European level, in 2013, the document The Digital Competence Framework for Citizen (DigComp) was launched with the aim of promoting a common understanding of what digital competence is and listing which ones are necessary to overcome the challenges that have arisen with digital competence. Digitization in almost every aspect of modern life. Also, with the document, it is possible to create a common vocabulary that can be applied in formulating policies, setting goals, institutional monitoring and, when necessary, adapting it to the reality of the user (Vuorikari et al, 2022).

According to the document, digital skills can be divided into two types: basic or advanced skills. Basic skills are defined as the ability to perform at least one activity related to the domains: information, communication and collaboration, content creation, security and personal data and problem solving. While advanced skills are those that require the necessary knowledge and experience "to understand, design, develop, manage, test, deploy, use and maintain digital technologies, products and services"

Based on DigiComp, a competence is the combination of knowledge, skills and attitudes and they are developed throughout life. These skills are divided into 21 items and 5 areas, namely: Information and data literacy; Communication and collaboration; Creation of digital content; Security and Troubleshooting. The last two competences are transversal as they can be applied to any type of activity through digital means.

When talking about **Information and Data Literacy**, this area can be divided into three processes and several skills. The first is related to the need to articulate information to search for data and content in digital environments and, secondly, how to access and navigate between them. The last process involves the ability to analyze, compare and criticize the credibility and reliability of data sources, information and digital content.

The **Communication and Collaboration** area is divided into 6 processes and involves, at first, interacting through digital means and understanding digital communications appropriate to certain contexts. The next process is knowing how to share information through digital means, so that the individual acts as an intermediary and knows how to reference and attribute credits to the author. Then there is civic participation itself through the digital medium, as a way of seeking opportunities for self-empowerment and participatory citizenship. Other processes also involve the use of digital tools and technologies for the construction and co-creation of data, resources and knowledge, being aware of norms of behavior when using the online medium and creating and managing digital identities.

The **Digital Content Creation** area has four processes, which are: developing digital content, integrating and re-elaborating new information for these contents,

understanding how copyrights and licenses apply to digital and the development of instructions for solving tasks or digital problems .

The **Security** area involves digital identity, data and device security processes. Skills in this area are based on protecting data privacy, protecting physical and psychological health in the digital environment and having knowledge of how technologies impact the environment.

Finally, the **Problem Solving** area has 4 skills and encompasses identifying needs and problems and being able to solve them digitally, but also having the creativity to innovate processes and products and understand where it is possible to improve your own skills.

All areas and competences seek to compile all skills at European levels, however, it is necessary to analyze what is the specific context of Portugal and in more detail the rural context and for women.

3. DIGITAL COMPETENCES - PORTUGAL

In the rural context in Portugal, when talking about rural women's access to technical-professional education, it is seen that, with the Report on the State of Education 2018 in Portugal, access still faces challenges. Although there is an increase in the provision of professional courses in rural areas, women still face inequalities in participation compared to men.

According to the report, the percentage of women enrolled in professional courses in rural areas was 40.6%, while the percentage of men was 59.4%. In addition, women are also underrepresented in professional areas that are traditionally considered male, such as mechanics and electronics. Besides that, in rural areas, 38.8% of the female population attends education levels only up to primary or secondary, (EUROSTAT, 2021). As much as the number of women with post-secondary education is increasing in the 25-64 age group (56.9% in 2020 and 61.2% in 2021) according to Eurostat, it is seen that the investment made for women's level of education has not been translated into better working conditions since many experience scarce opportunities for professional development, access to social benefits and weak or no social protection in addition to poorly paid, more precarious and unskilled jobs (Casaca, 2013; Wall et al., 2016).

The rural context is unique. Women living in rural areas have specific needs due to the uniqueness of the environment in which they live. For them, when it comes to training, they have objectives beyond learning itself, such as looking for spaces for sociability, receiving grants and improving the possibility of responding to new job opportunities. The topics that are most requested are areas in which they can learn

practical knowledge such as agricultural and handicraft products, embroidery, lace, jams, etc. Training aimed at acquiring a new job is still a goal that is far from being achieved due to the lack of an entrepreneurial culture and an economic fabric that favors the creation of micro companies (Baptista, Cristovão, 2003).

As suggested for technical education training by Baptista and Cristovão, it is necessary to diversify activities in a way that involves the acquisition of knowledge in the rural environment, such as household management, communication with the family and the acquisition of professional skills. Therefore, the digital skills that are most in demand may be different when considering the work context or the day-to-day context of this community. According to some experts, some digital skills are needed to increase employability, as 38% of recruiters in Portugal have difficulties finding people with the right skills. The most requested digital skills are (Pimentel, 2018):

1. Search and analyze information
2. Using different platforms
3. Produce digital content
4. Digital marketing
5. Schedule
6. Solve problems
7. Understand security and privacy procedures
8. Collaborate across multiple communication channels

Finally, when looking at the younger public who have just left secondary school, it is possible to analyze the Portuguese school curriculum in relation to the acquisition of digital skills. In accordance with Article 4 of Decree-Law No. 55/2018, which defines the design, implementation and assessment of learning in the curriculum of basic and secondary education for the Portuguese school system, some guiding principles are established for all schools that involve the theme of technology.

The first is topic "O", related to "Valuing foreign languages as vehicles of global and multicultural identity and facilitating access to information and technology". The second topic, the "Q" topic, talks about using the "arts, sciences and technologies, sports and humanities as structuring components of the curriculum matrix of the various educational and training offers". Thus, it is notable that the Portuguese school system seeks to integrate technology into the daily lives of students in order to leave secondary education with some digital skills. As the profile of students leaving compulsory schooling is more developed, that is, they have already had contact with basic digital skills, it is possible that the target audience of the project has a higher level of digital literacy.

4. GOOD PRACTICES - METHODOLOGY

In order to build a solid foundation for the development of the project, it is necessary to seek methodological practices that serve as an example for the construction of the methodology for teaching digital skills. Below are listed some examples of these projects and methodologies.

- **NALA**

The National Adult Literacy Agency (NALA) is a charitable organization that works to support adults with unmet literacy and numeracy needs to participate fully in society and have access to learning opportunities that meet their needs. One of NALA's projects was Digital Matters, a guide for adults who want to improve their literacy, numeracy and digital skills. This guide gathers information about digital issues such as computer and telephone use. The guide provides practical information on how to search the Internet and how to download applications (apps) to your smartphone and podcasts. To access the website: <https://www.nala.ie/publications/digital-matters/>

- **GSMA Toolkit - Sociedade Conectada**

The GSMA represents the interests of mobile operators, bringing together more than 750 operators with nearly 400 companies, including handset and device manufacturers, software, enterprises, equipment suppliers and internet companies, as well as organizations in adjacent industry sectors.

The Connected Society toolkit was made for Operators (MNOs), Non-Governmental Organizations (NGOs), Development Organizations and Governments that intend to promote training to improve people's basic knowledge and understanding of the mobile internet. The training presented in the document targets people with little or no internet skills and aims to teach those who want to learn what the internet is and how to communicate and search online.

Inside the kit, you can find topics such as "Introduction to the Internet" and how to use applications such as Whatsapp, Youtube, Google Search and others. In addition, it has the suggestion of Bitesize Trainings, in which the methodology is applied according to the students' time, which can be 2 to 3 minutes as a reminder of the topics presented or 45 to 60 minutes, as an introduction to all topics. The guide can be viewed on this website: <https://www.gsma.com/mobilefordevelopment/mistt/>

- **ITU - Habilidades Digitais**

The "Digital Skills" toolkit provides guidance on developing digital skills strategies. It is intended for policy makers, private sector partners, non-governmental organizations and academia. The toolkit provides policymakers and other stakeholders with practical information, examples and step-by-step guides to help develop a national digital skills strategy. It can also be used to develop policies and programs to address specific priorities. In chapter 7 "Creating opportunities for underrepresented populations", there are several strategies on how to identify common challenges of populations that have fewer opportunities to develop digital skills. The chapter discusses challenges common to these groups, successful approaches, and several examples of programs for different groups. In other chapters it is possible to learn about how to offer the skills according to each level of knowledge.

To access the guide, enter this site:

<https://www.itu.int/en/ITU-D/Digital-Inclusion/Youth-and-Children/Pages/Digital-Skills-Toolkit.aspx>

- **Digital Competences Development System (DCDS)**

DCDS was a project funded by the Erasmus+ Program under the KA3 Action - Support for Political Reform, Prospective Cooperation Projects. The main objective of the project was to develop an integrated modular system, the "Digital Skills Development System - DCDS" and use it to develop basic and transversal digital skills of low-skilled adults in five European countries (Greece, Latvia, Italy, Romania and Spain). The project also aimed to support providers of non-formal training in planning and providing examples of flexible training aimed at improving the basic digital skills of adults, which are mapped to the European Digital Competence Framework for All Citizens DigComp 2.1:1.

In this perspective, the DCDS training offer is inspired by the principles of adult education and, in particular, by Malcolm Knowles' "Andragogy", and can offer examples of how adult education can be worked on through the exchange of ideas and resources within the learning community developed in the classroom. The results of the project served as the basis for training around 30 low-skilled adults in basic digital skills in partnership with other entities. The link to the guide is:

<http://www.dcds-project.eu/results/>

- **CORA e COM³ - Rural Digital**

CORA and COM³ are two Interreg projects that help municipalities, citizens and companies identify common challenges and empower them to make the most of the

digital transformation. Projects do this through digital training to identify the state, needs and opportunities of the local community regarding digital skills. Learning objectives include subjects such as:

- The five core components of e-skills for citizens;
- How to identify challenges your local community faces in terms of digital skills;
- How to address these challenges with practical solution approaches.

The link to the project can be accessed at this link:
<https://ruraldigital.eu/digital-skills-for-local-communities/>

5. SURVEY ANALYSIS

The survey was carried out to understand what are the necessary basic digital skills that are required during a hiring process. For this, professionals who have experience with this public were consulted to take into account their point of view, due to their experience in identifying what these skills are. The survey was conducted online, using a form with 8 open and closed questions. During the survey, recruiting technicians, job insertion technicians and social project coordinators were interviewed over a period of one month. 75% of the interviewees have experience with the rural public, mainly in the recruitment and selection of personnel to work in rural and urban areas. 100% of the interviewed people were women.

When talking about **DigiComp skills**, the skills considered essential for respondents, to the point where it becomes a decision point between hiring or not, were three: 1) Navigating, searching and filtering data, information and digital content, 2) Evaluating data, information and digital content, Interaction through digital technologies and 3) Sharing through digital technologies. The most valued skills, but which are not exclusion factors, were 3 main: 1) Identifying digital skills gaps, 2) Creatively using digital technologies and 3) Programming knowledge.

Considering the rural context, the skills classified as most necessary are based mainly on the most basic skills such as **internet access, e-mail, digital interaction, search and analysis of results**. Other skills were also considered, such as digital marketing, cybersecurity, knowing how to use a computer, tablet, smartphone, ability to apply for job offers on online platforms and remote work. Looking at rural areas, it was also considered the context of the employment in some answers, for example in the case of interviewee M:

"The answers I gave above are because it depends a lot on what I'm hiring people for... Mainly when I think about entrepreneurship in the rural area, I can value skills that are

very different from those needed in an urban context... I'm hiring them for services of construction and recovery of derelict houses? To interpret blueprints on rural footpaths? To hold a workshop on forgotten gastronomy or making bread in a wood oven?... Or am I against marketing and social media managers? Event organizers or cultural project managers?... The skills I need vary greatly depending on the service I need."

And in the case of the interviewee D:

"Currently, there are already some computer systems applied to agriculture, but for an agricultural harvester, for example, there is no need for digital knowledge, as their work is completely manual. If we are talking about agricultural operators (for example to control fruit boxes), then it is enough for the person to be able to handle a smartphone or tablet. If you are an Eng. As an agronomist, it is already necessary for the person to have more specific digital skills, with the ability to use and even develop, propose ways to improve the software used on farms."

In addition to research on digital skills, professionals were asked what would be the best way to teach these skills based on examples of methods, tools and projects. When talking about methods, many indicated training, awareness actions, workshops, employability meetings and the combination of public and private entities. Regarding tools, non-formal education was highlighted with access to equipment, adequate workspaces and effective internet services.

6. SWOT ANALYSIS

According to Philip Kotler, SWOT analysis (strengths, weaknesses, opportunities and threats) is the complete assessment of strengths, weaknesses, opportunities and threats, being a tool used to evaluate the internal and external environment of an organization, aiming to help in decision making. The SWOT Analysis of this report was made based on the research of the digital competences of Europe and Portugal and the interview with professionals linked to the rural context.

FORCES

- Providing skills training in the digital area is an asset for anyone, in any area. (Interview - ANNEX 2);
- Technology is increasingly present in people's lives, which increases the possibility of access for women, including in the school curriculum. (Article 4 of Decree-Law No. 55/2018);

- Women's economic autonomy in the digital environment can contribute to reducing gender inequality and promoting financial independence. (Baptista and Cristovão, 2003).

WEAKNESSES

- Women divide their time between paid work and unpaid domestic activities, and may not have time available for long training; (Baptista and Cristovão, 2003);
- The quality of digital literacy that rural women possess is not certain. Digital teaching is included in the curriculum of schools, however, it is described as lacking by recruiters and employers. (Interview - ANNEX 2);
- Many women still face financial barriers to accessing technology, such as the lack of resources to buy equipment or pay for courses and events; (Estado da Educação, 2018).

OPPORTUNITIES

- Women are not only looking for technical and formal education, they are looking for a space for sociability and improvement in other skills. (Baptista and Cristovão, 2003);
- The demand for technology professionals is growing, which can open up new job and career possibilities for women (EUROSTAT, 2021).

THREATS

- The skills that are needed vary according to the service that is needed in rural areas. (Interview - ANNEX 2);
- The lack of public policies and incentives for women to access technology can limit development possibilities in this area; (Estado da Educação, 2018);
- The interests of rural companies may be contrary to the interest of employees to acquire digital skills (Interview - ANNEX 2).

CONCLUSION

After analyzing the interviews and research, it was observed that there is a gap in the teaching of digital skills, especially for women living in rural areas. Furthermore, there is a lack of research related to these specific audiences in Portugal. Rural women are often juggling household chores, family responsibilities, and working predominantly on farms and in greenhouses, which leaves them with limited opportunities and time to pursue formal education and ICT skills. This absence of basic digital skills was repeatedly

highlighted during the interviews to the extent that even for the recruitment process, which is conducted through digital forms, there are issues related to access and comprehension of the subject matter. Consequently, rural women are more vulnerable to unemployment and a lack of technological education.

According to the Gender Snapshot of 2022, women are underrepresented in technology, with only 2 out of 10 women working in science, engineering, and information and communication technologies. The gender gap in technology has significant implications for the industry's innovation potential and perpetuates inequality in other sectors of society.

In conclusion, the shortage of research and female professionals in technology is an enduring and alarming issue that requires attention. Addressing this problem is the responsibility of society as a whole. It involves promoting support for women in STEM, providing access to technology information and training, and designing technologies that cater to women's needs. By adopting a comprehensive approach that encompasses education, policy development, mentorship, and inclusivity, we can work towards creating a more equitable and diverse technology industry that benefits everyone. To initiate this process, it is crucial to begin with teaching the digital skills outlined as essential in this report, including internet access, digital interaction, and communication, as well as promoting information about educational opportunities for women. All the skills outlined in this report will be taken into consideration in the next phase for constructing the boot camp and final project report.

7. REFERENCES

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8. ANNEX 1 - SURVEY

QUESTIONNAIRE FOR RECRUITERS/PROFESSIONALS WORKING WITH RURAL COMMUNITIES

1. Name?
2. Entity?
3. Role?

4. Tell us a little about your experience with the rural community and your job.
5. We have a compilation of skills gathered by Digicomp. These are digital skills defined as essential by the European Union in order of basic, intermediate and advanced levels. Please number from 1 to 5, with 5 being the most necessary, which digital skills are most necessary for entering the labor market in rural areas.

a. Digital Literacy

Browse, search and filter data, information and digital content

Evaluation of data, information and digital content

Data, information and digital content management

b. Communication and collaboration

Interaction through digital technologies

Sharing through digital technologies

Engagement in citizenship through digital technologies

Collaborating through digital technologies

c. Digital Label

Digital identity management

Digital content creation

Digital content development

Integrate and rework digital content

Copyright and licenses

Schedule

d. Security

Protection devices

Protect personal data and privacy

Protect health and well-being

protect the environment

e. Problems solution

Solve technical problems

Identify technological needs and responses

Creatively use digital technologies

Identify digital competence gaps

6. In your opinion, which are the digital skills that most contribute to the labor insertion of the rural community?

7. Taking into account your experience, can you recommend methods, tools and/or projects which you consider good practices for the labor insertion of the rural community?

ANNEX 2 - SURVEY ANSWERS

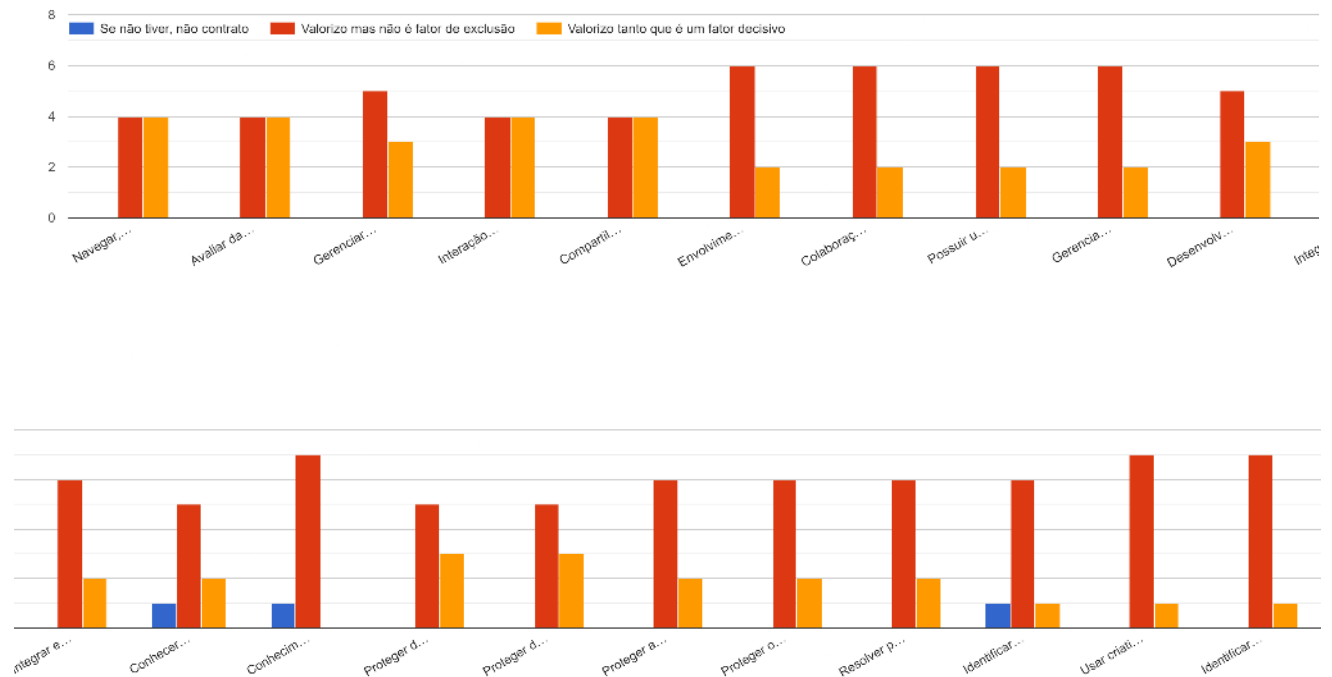
6. Tell us a little about your recruitment experience. Do you have any experience with the rural community?

- I have over 20 years of experience in recruiting. With the rural community I have experience as some clients are at the level of the whole Algarve and Alentejo, mainly in rural areas.
- Due to the few human resources, it becomes more difficult because they often do not have the requested profile, nor the experience
- In terms of recruitment, I have experience in terms of designing calls, publicizing and selecting personnel to manage projects in the social area, as well as internships and international volunteers. About the rural community I have a strong relationship with the Cachopo area and some villages in Odemira and a strong motivation for social entrepreneurship and rural development.
- Yes. Madre Fruta is an organization of producers, currently with 49 members, which are the farms where the fruits sold by Madre Fruta are produced. Our human resources department provides services to all partner-producers, namely the national and international recruitment of agricultural workers. We have a database of workers and candidates, which can be forwarded to all partners, namely, when they finish their service with one partner, they can be forwarded to another partner, in order to keep workers within the universe of Madre Fruta producers, the maximum possible time.
- In terms of recruitment... not only have I streamlined recruitment processes both for the Association where I am and for other entities, as well as, through the project I am coordinating (#StandOut) we work on employability and one of the key points addressed it's really entering the job market, the importance of the CV, preparing for the job interview, job search skills, among other points.
- As for the rural community, I have already promoted awareness-raising actions for young people from these areas.
- My work is aimed mainly at people coming from other countries, helping them to integrate into the job market and into society. For this reason, I end up working with people of different nationalities, who in their country did not have access to ICT, as they lived in rural and extremely isolated areas.

7. Currently, we have a compiled of competences gathered by the European Commission called DIGCOMP. These digital competencies are listed to structure the digital skills policy, develop and measure digital competence. DigComp is used for a variety of purposes, such as designing skills assessment tools, creating courses and training materials, and identifying professional digital profiles, in the contexts of employment, education and training, and social inclusion.

Based on DigComp, how do you evaluate, in terms of valuation, the following criteria for recruiting workers?

Baseado no DigComp, como avalia, em termos de valorização, os seguintes critérios para o recrutamento de trabalhadores?



8. In your opinion, which are the digital skills that most contribute to the labor insertion of the rural community?

- All the basics, because from the moment of registration, employment contract and work itself, it is necessary to access the internet, e-mail, queries Google. Some jobs in rural areas, as is the case with one of our clients who is a large fruit packaging producer, require workers to have basic digital skills because the whole system is computerized. Some people have an email but they don't know how to access it and they have a lot of difficulty when we try to explain about digital contracts.
- Interaction through digital technologies
- Information literacy, communication and citizenship and content creation
- The answers I gave above are because it depends a lot on what I'm hiring people for... Mainly when I think about entrepreneurship in the rural area, I can value skills that are very different from those needed in an urban context... I'm hiring them for services of construction and recovery of derelict houses? To interpret blueprints on rural footpaths? To hold a workshop on forgotten gastronomy or making bread in a wood oven?... Or am I against marketing and social media managers? Event organizers or cultural project managers?... The skills I need vary greatly depending on the service I need.
- Currently, there are already some computer systems applied to agriculture, but for an agricultural harvester, for example, there is no need for digital knowledge, as their work is completely manual. If we are talking about agricultural operators (for example to control

fruit boxes), then it is enough for the person to be able to handle a smartphone or tablet. If you are an Eng. As an agronomist, it is already necessary for the person to have more specific digital skills, with the ability to use and even develop, propose ways to improve the software used on farms.

- Cybersecurity, marketing and digital communication and knowledge of software/technology
- Browse, search and filter data, information and digital content
- Know how to use an email; knowing how to use a computer, tablet, smartphone; have the ability to apply for job offers on online platforms; be able to work remotely.

9.. Taking into account your experience, can you recommend methods, tools and/or projects which you consider good practices for the labor insertion of the rural community?

- Provide access to equipment, adequate workspaces and effective internet services
- Training, awareness actions, workshops, employability meetings
- Creatour - cultural and creative tourism in rural areas (international project - Ualg in PT), QRIAR AND QREER, Querença project and its derivatives. Loulé Criativo has also worked a lot with rural artisans and João Ministro of course as TASA and beyond. Tavira's municipal museum also does some cool stuff. Taipa in Odemira is worth visiting. Geopark algarvenesis I don't know if it can have something in this area.
- Providing skills training in the digital area is an asset for anyone, in any area. But, effectively, for undifferentiated jobs such as harvesting, pruning, etc., which are manual jobs, this training does not add value. For technicians, I consider it a good practice to provide professional training in the digital area, namely in the specific software that is used on the Farms.
- I consider the Non-Formal Education methodology to be a tool that allows approaching the target audience and helps in acquiring skills in the area of employability, with a view to the future professional insertion of these people. Equally, education in digital skills or digital literacy is undoubtedly a tool to empower and help overcome adversity and discover new opportunities.
- In my opinion it is important to create methods that can take ICT to the rural world, it is important to train people, prepare them for the new reality of the increasingly digital job market; it is necessary to carry out an exact survey of how many are in a situation of labor exclusion in each municipality. It is important to unite public and private entities in order to create solid and effective methods and techniques for reintegrating the rural community into the digital world, the job market and this new society.