







4.1.1 - Focus Group Discussion Report Italy - ARCES Association CLUSTER (C_A.3.1_0014)

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1. Summary

In recent decades, the primary sector has shrunk as young people's interest has moved to professions related to technology, the internet, and services. The agricultural sector has decreased more in the number of people engaged in it and less in the number of cultivated areas. The majority of those who are professionally engaged in land cultivation and food production in most countries around the world and especially in the Mediterranean, are elderly people, over 55 years old, with a poor theoretical education. In the last decades, thanks to EU funds (i.e., FEASR, ESF, etc.) and policies in many southern-Mediterranean EU countries, there has been a tendency to create incentives for young people to set up new businesses, combining technology and innovation in the agricultural sector. Many reasons are behind this policy. Firstly, the climate crisis and global warming particularly affecting Mediterranean countries, then the reduced rainfall, high temperatures, damage to crops, and lastly the competition from third countries with cheaper products. In northern countries, climate change results in floods and prolonged winters. Finally, the COVID-19 pandemic is another factor that has caused collateral effects. All these elements combined brought income and job losses, but at the same it increased popular awareness about the need to switch to more sustainable economic models.

The CLUSTER Focus Group meeting was organised on Tuesday 27th September 2022, in ARCES, through an online meeting. This meeting was held with the aim of evaluating a program of technical and vocational education and training of NEETs people who want to engage in agricultural professions. It aims to help young people both men and women to acquire knowledge and skills that will enable them to properly meet the requirements of their agricultural activity. The team consisted of people experienced in adult education in aquaponics and aquaculture. Finally, it became clear that all participants believed that education in the field of aquaculture and aquaponics is necessary and important for everyone regardless of the stage of the production process they are engaged with. The training will help participants to acquire knowledge faster, avoid significant mistakes and apply innovative and green practices in their units.

2. Methodology

The approach used during the Focus Groups, had a relaxed format that enabled fruitful and open discussions. The goal of this session was to received suggestions and feedback thanks to the brainstorming process. All participants and experts talked about the four



























project sectors, including the four topics targeted by the course curricula, focusing mostly on Aquaponics and Hydroponics. After presenting the project and the main WP4 outcomes, a discussion was held where feedback was provided and suggestions were made regarding the methodology used the labour market potential, the skills to be acquired by the participants, the target groups and the potential modules to be included.

3. Participant Demographics

The Focus Group was attended by 9 people, 3 of them represented collaborating organisations and the others were part of the ARCES team, including volunteers from the National Civic Service programme.

| 1 | Marco Giordano | ARCES Association | Circular Economy / Soilless Hydroponic Module closed systems Blue Economy / Soilless Aquaponic Module |
|---|--------------------|-------------------|---|
| | | | Circular Economy / Food Processing Module |
| 2 | Simone Marsala | ARCES Association | Circular Economy / Soilless Hydroponic Module closed systems Blue Economy / Soilless Aquaponic Module Circular Economy / Food Processing Module |
| 3 | Alessandro Pernice | ARCES Association | Circular Economy / Soilless Hydroponic Module closed systems Blue Economy / Soilless Aquaponic Module Circular Economy / Food Processing Module |
| 4 | Paolo Veneziani | ARCES Association | Circular Economy / Soilless Hydroponic Module closed systems Blue Economy / Soilless Aquaponic Module Circular Economy / Food Processing Module |



























| 5 | Arturo Mannino | Agroittica Siciliana S.r.l. | Circular Economy / Soilless Hydroponic Module closed systems Blue Economy / Soilless Aquaponic Module Circular Economy / Food |
|---|--------------------|---|---|
| 6 | Giuseppe Accardi | ARCES Association | Processing Module Circular Economy / Soilless Hydroponic Module closed systems Blue Economy / Soilless Aquaponic Module Circular Economy / Food Processing Module |
| 7 | Chiara Iraci | Fondazione ITS Emporium del Golfo | Circular Economy / Soilless Hydroponic Module closed systems Blue Economy / Soilless Aquaponic Module Circular Economy / Food Processing Module |
| 8 | Francesco Caminita | Fondazione ITS InfoMobPMO | Circular Economy / Soilless Hydroponic Module closed systems Blue Economy / Soilless Aquaponic Module Circular Economy / Food Processing Module |
| 9 | Yulia Vaccaro | ARCES Association | Circular Economy / Soilless Hydroponic Module closed systems Blue Economy / Soilless Aquaponic Module Circular Economy / Food Processing Module |

4. Key Findings

After presenting the project and the WP4 main outputs and activities, participants started the discussion about what kind of skills and competencies (soft and technical) are needed for the 4 training curricula, i.e. aquaponics, hydroponics, food processing and sustainable agriculture.



























This first part of the discussion was focused on the typology of the training courses. ARCES proposed to implement two type of training courses: one targeting participants with a low-skilled background (e.g. people with a high school diploma) the so-called 'Entry level', and another one targeting people with an university background, referred to as 'Advanced'.

Entry level courses should not only include people coming from technical high schools but also interested people with different kind of studies.

Participants agreed that the approach to the modules should be less technical and theoretical, with a more practical and a direct approach, may not be familiar with the topics covered. Mentoring and informal methodologies can be used both for Aquaponics and Hydroponics training courses.

It was agreed that online and onsite courses should include tools and means to start a personal business by providing them with self-employment skills. As a technician, Arturo Mannino argued that a set of specific technical skills and competencies are needed to work in the two mentioned sectors, like chemistry and biology of the plants, production cycles, knowledge about plant species, as well as knowledge about the supply chain and the market itself.

A wide range of soft skills must be provided to trainees, especially those regarding the management, problem solving, communication skills, leadership, time management, etc. These skills should be approached through the use of non-formal techniques such gamification, group work, simulations and insightful problem-solving aimed at stimulating self-criticism and teamwork.

We talked about future traineeships and collaborations with the participants. All of them should committed themselves to help to increase the visibility of the project by disseminating the activities through social media and other formal and informal channels.

5. Conclusion or recommendations

- 1. Confirmation about how we should approach the technical and soft skills by using formal, non-formal and informal approaches.
- 2. Feedback was received about what are our specific targets and how we should approach them.
- 3. It was discussed how to divide the training courses in order to engage as many young people as possible, including 'Entry level and 'Advanced'.
- 4. The team got an insight on what are the technical and specific skills needed for the labour market.



























5. We got feedback about the length of the training courses planned; 20-25 hours for a course is not enough to provide all the necessary knowledge. Thus, we propose to overcome this limitation by using non-formal education and first-hand experiences.















