INTELLECTUAL OUTPUT 2

TRAINING MODULE: ESCAPE ROOMS ON AGRO-ENTREPRENEURSHIP

Project Number: 2020-2-CY02-KA205-001870

AGRO

EDUGAMES

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PARTNERS

Citizens In Power (CIP) is an independent non-profit, non-governmental organization. CIP aims at the development of different ramifications of entrepreneurship, education and democratic dialogue in Cyprus and abroad. To achieve those targets CIP has established an ongoing collaboration with the majority of Cypriot leading universities, NGOs and research organizations in Cyprus and abroad, especially for the development of innovative projects and international trainings or seminars as well as for the deployment of pedagogical educational material, by primarily using web platforms and other technological innovations.

Website: https://www.citizensinpower.org/

Challedu pioneers new models of learning, inclusion and engagement. Its team consists of educators, teachers, experts, game designers and designs playful experiences and games with the aim to transform every activity into an irresistible experience. The scope is to unlock the transformative power of people as seekers and solvers of complex problems, risk-takers, inventors and visionaries. Our work also empowers creativity, fantasy, inclusion and empathy.

Website: http://challedu.com/

The Polish Farm Advisory and Training Centre not-for-profit Sp. z o.o. is a private not-for-profit company (in the process of becoming an NGO) dedicated to providing farm advisory services, enhancing the entrepreneurial spirit in rural areas and fostering rural development in general. The company's main goal is to improve the livelihoods of rural inhabitants by offering them the best and most professional and personalised advice in the field of agriculture as well as a variety of training courses and materials relevant to rural actors in the subjects of environment protection, sustainability, food safety, green growth, permaculture, social farming, etc.

Website: https://farm-advisory.eu/en/

DRAMBLYS is a non-profit organisation located in Spain that works for the promotion of social innovation. In DRAMBLYS we combine sociological imagination & inquiry with social creativity and design to approach, explore, and innovate solutions to contribute to sustainable development. Our main programmes and areas of expertise include the following: programmes design and evaluation, data visualization and social innovation design, development and management. In DRAMBLYS the aim is to facilitate creative dialogues and co-create sustainable alternatives and so, to inspire new social entrepreneurs and community leaders & promote sustainable ways of living.

Website: https://dramblys.org/

FOR MORE INFO ON OUR PROJECT PLEASE VISIT **http://agroedugames.com/**

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Contents

Introduction

This document's content is produced as part of Agro_EduGames Project's Intellectual Output 2. It consists of seven main sections. Essentially, the first section - which you are currently reading - is an introduction to Intellectual Output 2 of the project and a prologue to the Training Module that the four Agro_EduGames partners developed. Introduction is followed by research methodology that mentions the specific procedures or techniques used to identify, select, process, and analyse information about the Training Module. The Pedagogical Objectives of this work are then presented in order to prepare the reader for the 15 different Topics for Inspiration. Each partner has composed 3 different topics; CIP Citizens In Power that is the leader organisation of this Output prepared 6 topics instead. Each description was carefully selected by the four partner organisations in order to represent one of the four national contexts; Cyprus, Greece, Poland and Spain. The 15 descriptions are published in this document as a source of inspiration for other creators. Out of those 15 descriptions, five of them are chosen by the consortium for the creation of Escape Room scenarios. These five scenarios are presented thoroughly in the sixth section of "Training Module: Escape Rooms on Agro-Entrepreneurship". Finally, a conclusion summarizes the objectives Intellectual Output 2 and how these are met through its final results.

While Intellectual Output 1 "The educational bearing of Game-Based Learning in Agro-Entrepreneurship for the Youth Sector" offered a more theoretical approach and explanation to the connection between Agricultural Entrepreneurship and Game-Based Learning environment, Intellectual Output 2 aims to hands-on material for facilitating the utilization of the method, and hence its sustainability. Within Intellectual Output 2, the four partner organisations developed this Training Module focused on Agricultural Entrepreneurship which consists of five distinct Escape Room Scenarios; all five of them created by the four (4) partner organisation. Each one of the Escape Rooms consists of relevant scenarios, riddles, enigmas and other challenges, hints, printable graphic material and digital tools, such as QR code and digital documents, designed and structured in an efficient way. Each Escape Room Scenario focuses on Agricultural and Entrepreneurial challenges. The five scenarios – as well as all of the 15 descriptions – are accompanied by learning objectives which are strictly connected to the topics.

This Module's scenarios are destined to be implemented by youth organisation and youth centres that provide training to groups of people facing various types of learning disorders, or other vulnerable groups, such as long-term unemployed, NEETs or marginalized groups that have occasionally encountered situations and issues of social exclusion. Additionally, organisations that deal with the provision of formal and non-formal training on different entrepreneurial aspects appealing to young people – but more specifically on Agricultural Entrepreneurship – will be benefited by this Output.

Since this Training Module is a work that has been based on the Guidebook that has been produced during Intellectual Output 1, our scenarios and descriptions penetrate into various concepts and thematic pillars that are tightly interwoven to agriculture an which have been elaborated in the context of the Guidebook. Some of these concepts and thematic pillars are: soil, irrigation and water; ecology and biodiversity; climate crisis; energy consumption in agriculture; and organic farming and permaculture. Most of the Escape Room Scenarios focus on methods of production of different local and traditional products that come from the 4 partner countries.

The fifteen topics that have been chosen by the four partners for the composition of inspirational description are:

By CIP Citizens In Power

1. Winemaking
2. Grain harvesting
3. Forestry
4. Halloumi cheese & Dairy produce in Cyprus
5. Agrotourism
6. Rose factory

By Challedu

7. Chios Mastic
8. Kiwi production
9. Cretan barley rusk

By The Polish Farm Advisory and Training Centre

10. Apple production
11. Goat's cheese
12. Permaculture gardens

By Dramblys

13. Olive oil
14. Manchego cheese
15. Saffron

The topics that have been chosen by the partner organisations for the development of five Educational Escape Rooms are:

1. Winemaking: "The Grape Escape"
2. Grain harvesting: "The Curious Case of the Valley"
3. Chios Mastic: "Mastic Mystery"
4. Permaculture gardens: "Welcome to the Permaculture Garden"
5. Olive oil: "The Inheritance"

Underlined text works as links to each topic.

The Methodology of Agro_EduGames Project

The four partner organizations derive from four different European countries, which cover a wide range of background and experience related to the context and the aims of 'Agro_EduGames' project, as well as they have a Pan-European outreach in their activities. Cyprus, Greece, Poland and Spain are the four countries that the four partner organisations represent in this project. Partners come from different geographical regions, and they all have different social and professional backgrounds, although they are all specialised in the field of modernisation of educational methods – specifically in youth organisations – a fact which ensures the successful implementation of such an interdisciplinary project.

Furthermore, the project envisions the development of synergies between the diverse areas of work of the partners, with common parameters the promotion of youth education, lifelong skills, soft skills, game-based learning, entrepreneurship and innovation in agriculture. Critical support to the four partner organisations, in the implementation, dissemination and exploitation of the project was provided by the extended network of associated partners working with the organisations coming from a wide range of social, cultural, professional and regional backgrounds.

CIP aims at the development and promotion of different entrepreneurial mindsets, education and democratic dialogue in Cyprus and abroad. To achieve those goals, CIP has established multiple collaborations with plenty of Cypriot leading universities, NGOs and research organizations in Cyprus, especially for the development of innovative projects and international trainings or seminars as well as for the formation of pedagogical educational material, by mainly using online platforms and other technological innovations. The Polish partner, namely The Polish Farm Advisory and Training Centre not-for-profit Sp. z o.o. is a private not-for-profit company committed to providing farm advisory services, boosting the entrepreneurial spirit in rural areas and fostering the rural development in general. Meanwhile, Challedu, which is the Greek partner, is a pioneer in the development of new models of learning, inclusion and engagement based on playful experiences and games with the aim to transform every activity into an irresistible adventure. Challedu has proficiency in planning, developing and implementing game-based learning activities, educational games, and gamesome and capacity building workshops. Ultimately, Dramblys, located in Spain, is a non-profit organisation that works for the promotion of social innovation and it combines sociological imagination and social creativity. Dramblys' main areas of expertise are programmes design and evaluation, data visualization and social innovation design, development and management.

The Methodology of Output 2

The methodology for the development of the content of the second Output of Agro_EduGames project followed a specific procedure that CIP Citizens In Power – as the Output leader – had been using for the majority of the projects that leads: first and foremost, the division of the tasks; then the research phase and to structure the content correctly, before the first-internal evaluation by the partners. At a later stage of the timeline of the Output, the Module is subjected to a second evaluation, then the translation of the content to all partner languages. Lastly, the consortium comes up with a definitive version of the Module and publishes the final content.

The process for the creation and compilation of this training Module has been set as follows:

1. Research for references and resources
   Research for references for articles, websites and iconography – documentation to illustrate and complete the manual were searched by all the partners-contributors in order to create fifteen in total descriptions, based on fifteen unique topics from 4 different national contexts.

2. Design of the base of the document
   The output leader designed the structure of the Learning Module:
- General structure
- Chapters
- Subdivisions and Distribution of work to the partners
  Final structure, skeleton and content of each section of the Module was thoroughly discussed and approved by the partner organisations during the monthly online meetings which they have established since the very beginning of the project.

3. Development of the content
   This activity will be done in two steps:
   a. Creation of the Escape Rooms
   b. Creation of the resources (including tech material, printed materials and digital tools)
   Based on the previous two steps, the leader of the Output assigned chapters or sections to each one of the partners. The partners created and distributed contents of the following types:
   a) Texts
   b) Images
   c) Graphics
   d) Resources
   e) Bibliography

4. A First Review of the content (by quality peers)
   The partners will review the content created by all. Evaluation and Quality Assessment leader had assessed the content according to the criteria provided within the question ‘How will you evaluate to which extent the project reached its results and objectives?’ (i) Didactic and Pedagogical Sustainability; (ii) Quality of Content; (iii) Language; (iv) Structure, Organizing and Functionality; (v) Aesthetics); (vi) Illustrative material.

Editing of the contents produced by all the partners, gathered and assembled by the lead partner. At the end of this task, a provisional version in English will be published on the website of the project.

5. A Second Review of the content (based on external feedbacks):
   Based on the reviews made by the first users during the Transnational Pilot training activity, the output leader reviewed their content and modified it for improving the quality and relevance.

6. Translation
   The partners will translate the final version of the text in their native languages.

7. Creation of the final version of the Module
   CIP edited and published a final version of the content produced by all the partners:
   a) Editing
   b) Layout
   c) Export to PDF and/or eBook formats (epub, mobib, etc.)
   d) Distribution in the network of partners and outside (Blogs, Slideshare, Calameo, etc.) as an OER under CC BY-NC-SA Licence.

For the development of the five distinct Escape Room Scenarios, CIP's expertise in the creation and implementation of Escape Rooms was used as a source of inspiration. Some of the projects that have been used as inspiration on the structure of the documents of the Escape Room Scenarios are:

- STEAMER (steamerproject.eu);
- ER-SE: Escape Rooms for Social Entrepreneurship (er-se.eu); and
- ELMET (elmetproject.eu).

Pedagogical Objectives and target group

This Module aims to provide training that will enable our direct target groups – Youth Organisations, Rural Municipalities, Agricultural Associations, etc. – to develop and implement their Educational Escape Rooms. By the end of this Module, the readers must understand the power that Escape Games hold in non-formal education; and, more specifically, in Agricultural Entrepreneurship.

This document consists of fifteen descriptions focusing on Agricultural methods and techniques in four different national contexts; Cyprus, Greece, Poland and Spain. These fifteen descriptions will inspire the document's readers to develop their own Escape Room Scenarios with riddles, enigmas, puzzles and hints. Meanwhile, the document includes five different Escape Room Scenarios developed by the partner organisations, which will help them understand the structure of a Scenario and, consequently, build their own Scenarios and implement their ideas.

Intellectual Output 2 is all about providing hands-on material related to Agricultural Entrepreneurship and methods of passing this knowledge, which interrelates Agricultural Entrepreneurship and educational Escape Rooms, down to Youth Organisations, Youth Workers and Educators, etc.

Figure 1 - Photo by Markus Winkler on Unsplash

Escape Rooms as Educational Tool

Escape Rooms (ERs) are games that can train one's skills and abilities through different types of mental and physical tasks. Usually, ERs differ between them regarding presentation, back story and tasks, but the idea behind the game is universal. ERs usually go like this: a team of players, from 2 up to 12 people, is being locked in a themed room. The team is explained the backstory of the room by the Game Master. Then they have a mission to accomplish within a specific timeframe. There is also a person who supervises them who can also be the Game Master. There are many different themes and narratives to build an ER, such as horror, fantasy, futuristic, etc. The team's ultimate goal is not necessarily escaping the room, but it can also be solving a mystery, finding a cure to a virus, or even escaping from a hoard of vampires who are coming to drink their blood or werewolves who are on their way to feast on the team's flesh.

Many consider ERs to be just for entertainment. Although the scenario of an ER is untrue and fictional, the skills that the players develop in such an experience can have real and lasting effects in the workplace.

An ER is a themed challenge event where players collaborate to find clues, complete tasks and solve various puzzles. The aim is to achieve a specific, time-bound goal – usually to escape from somewhere. Nonetheless, no one is ever actually locked in, and the players' threats are always imaginary. An ER can be an engaging and exciting way for new teams to get to know each other. Established groups can grasp the opportunity to "let off steam" during an intense period of work or to celebrate achievement when a project is complete.

An ER's theme is critical. It sets the tone for the event and enables the players to target specific competencies and skills. If the priority is for people to relax and enjoy themselves, a highly imaginative theme works well. An ER set in a mythological kingdom, for example, or on an alien planet can be chosen. As well as being fun, this can also encourage creative thinking. Mystery themes (such as uncovering the murderer or foiling a jewel thief's plans) are suitable for working on problem-solving and decision-making skills. They often prioritise attention to detail, and they tend to have a more severe and focused feel.

Some ERs have a scientific or technical setting – a factory, say, or a science lab. Realistic environments like these can help teams to develop abilities such as strategic planning and delegation. Moreover, horror themes are a popular way to foster team-working skills under pressure. They are not suitable for every organisation but are used carefully; they encourage adaptability and quick thinking while also testing people's resilience as the imagined threat arises.

ERs are made up of a series of skills and knowledge needed to be solved or escaped. This is what makes ERs educational, and they can be used as a tool in education. According to Casa Todd (2019), the essential skills required are Critical Thinking, Creativity, Character, Communication, and Collaboration. These skills are also known as the 5 Cs. According to Nicholson (2015, p. 30), each puzzle and task must lead the player to a well-designed adventure that follows a narrative that amuses the players, gives an a-ha moment in the game and helps the participants develop a sense of cooperation.

The following objectives must be kept in mind:

- The development of a consistent, educational and enjoyable experience;

- The designing of ERs relevant to AE (either AE themed rooms or having related puzzles);
- The creation of something compact and portable, so that the experience can be easily transferred from place to place.

All ERs have the following six pillars:

1. Participants - the designer of an ER needs to always bear in mind the demographics of the people who will participate. Age, social background, studies and occupation are key information that need to be taken into consideration before we build an ER;
2. Objectives - clear learning objectives regarding the educational purpose of the game are essential, in order to allow the designer to draw up the learning outcomes of the game and define the knowledge and soft skills that the participants will gain after completing each task;
3. Theme and Narrative – a good theme and narrative can make the participants engage into the game and offer a nice experience by making the players lose track of time;
4. Puzzles and Tasks – this pillar is the backbone of the overall narrative. It is as crucial as narrative itself for an ER to be coherent. The Puzzles and the Tasks link the overall theme with the narrative of the room, and they also create a connection between them – the puzzles themselves – and the ultimate goal which is completing the entire mission;
5. Equipment – it is necessary in order to develop a vibrant environment which can support the overall theme and narrative, using props, costumes and supporting materials that will help the participants to engage easier in the game; and
6. Evaluation Process – it occurs in order to assess the ER's efficiency and the knowledge that the project wants to deliver to the participants. This also happens in order to trace technical and mechanical malfunctions.

These six pillars are thoroughly explained in Agro_EduGames' IO1 Guide "The educational bearing of Game-Based Learning in Agro-Entrepreneurship for the Youth Sector" Chapter 2.4, Escape Games: Understand & Design the educational purpose of an ER; Define the Learning Objectives you want to Achieve.

Fifteen Topics for Inspiration

For the composition of the Fifteen Topics for Inspiration, the following four questions were imposed to all four partner organisations during "Research for references and resources" phase:

1. Please explain, based on historical references, why is this topic important for your country?
2. Please explain, based on the situation that exists in Agricultural the most recent years in your country, why is this topic important and needs to be mentioned in this section of the Module?
3. Explain briefly the value of the topic to your country's economy.
4. Please, cite the Learning Objectives of the topic as the base of a possible Escape Room.

Cyprus

Winemaking

For centuries, Cyprus long tradition in vine-growing and wine-making. Many archaeological evidences illustrate that wine production in the island have existed 6000 years ago. Two significant archaeological findings show that during the ancient times, wine was being exported from Cyprus to other regions – such as Greece and Egypt – as early as 2.300 BC. The first finding is a shipwreck that carried 2.500 amphorae discovered in 1999. The second discovery puts the date even further back in the Bronze Age, where wine containers and grape seeds were discovered by archaeologists (in-Cyprus, 2020).

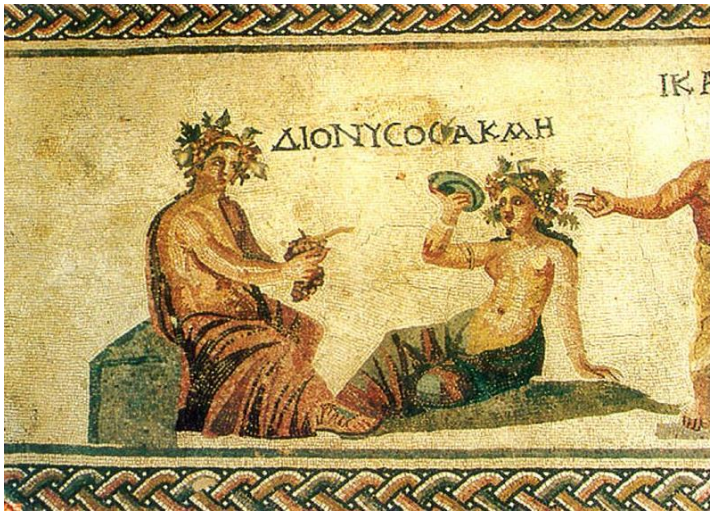

Figure 2: Dionysos, god of wine, depicted on a Hellenistic mosaic in the ancient city of Paphos, Cyprus

According to an article in Philelefθeros (2020) – one of the most well-established news agencies of Cyprus – the wine industry of the island is ranked 5th worldwide in terms of total wine production quantity, with 10.302 tonnes per year. What is distinct about Cyprus winemaking tradition is that it remains consistent since the ancient times.

Figure 3: Photo by jose alfonso sierra on Unsplash

In the later years, towards the end of the 19th century, more vineyards were planted in the island – and specifically up in the mountains of Cyprus – due to the fact that French vineyards had been destroyed by phylloxera, and Europeans were in need of importing wine from other countries (Bevan, 1919, p. 36). It was then when the wine industry became a critical contributor to the country's economy through vine cultivation, wine production, employment, export and – in the most recent years – even tourism.

In 2008, only 43 wine producers were operating in Cyprus. However, the latest numbers show that, by 2017, this number has been increased by 35%, with the total number of wine producers to be 58 (Statista, 2020). Cyprus' mountains are famous for their wine routes (Deputy Ministry of Tourism). This project that had been state funded, back in 2004-2006, includes 7 routes (Agrotourism):

i. Laona – Akamas (Paphos Region)
ii. Vouni Panayias – Ambelitis (Paphos Region)
iii. Diarizos Valley (Paphos Region)
iv. Krasochoria Lemesou (Limassol Region)
v. Koumandaria (Limassol Region)
vi. Pitsilia (Troodos Mountains)
vii. Lefkara – Nicosia (Nicosia and Larnaca Region)

Some of the most internationally recognised wines of Cyprus are Mavro, Xynisteri and, of course, Commandaria. Commandaria is a sweet wine and it is the world's oldest wine still in production (Visit Cyprus). its name derives from the crusades in the 12th century when Richard the Lionheart declared it "the wine of kings and the king of wines". He later sold the island to the Knights of St. John and the Knight Templars conquered Kolossi, back the known as "La Grande Commandarie" (Forbes).

Figure 4: Askas village in the region of Nicosia. From the author's records

Due to the fact that Cyprus has the longest history of wine making in Europe (Vrontis &

Paliwoda, 2008, p. 146) – as well as the fact that there are numerous efforts and attempts of Cypriot wine producers to enter the big wine marketing of Europe. it is important to be mentioned in one of the 6 topics suggested by CIP, as the leading organisation of IO2.

Learning Objectives:

The learning objectives of this topic as possible Escape Room for IO2 of Agro_EduGames project is to give the opportunity to the learners to get acquainted with Agricultural Entrepreneurship and Winemaking facilities in general. This includes:

- how wine factories may operate;
- what tools, equipment and methods may be found and/or used during the winemaking process; and
- general information related to winemaking.

Grain harvesting

Historically, wheat, barley and oats are very important cereals grown in Cyprus, and they are more or less sown throughout the entire island, even at the altitude of 4.500 ft. According to sources, at the beginning of the 20th century, corn and rye had started to be cultivated in Cyprus (Bevan, 1919, p. 28). According to Bevan, when it was the time of harvest, many labourers from other regions – Anatolia, now Turkey, and Syria – arrived at the island to find employment at the fields due to insufficient working hands.

During the ancient years, due to overpopulation of the island, Cyprus was said to be self-sufficient and self-sustainable in wheat production. It is said that the population of Cyprus exceeded 1 million, and the yield was almost twice as it used to be in the early 20th century. For centuries, wheat was used to be sown twice a year; usually, the winter crop was sown in October and harvested in January, and the winter crop was sown in February and cut in June (Bevan, 1919, p.31). Wheat and other cereals were cut using a sickle, which used to be larger than the average European one and often accompanied with bells to frighten the snakes that used to thrive on the island due to the dryness. Contrary to more shallow and rocky soils, deep soils used to be sown year after year with the same crop, with no rotation.

Nowadays, the harvest is processed with the use of technology and other modern methods. Tractors can now process wheat and other cereals more efficiently, and can separate it into two parts. The first part is the top of each plan, also known as the grain, and the second part of the plant is the rest of the plant, also known as the chaff. Wheat is essential for the production of bread, pasta and pastries. Their production is a long tradition on the island. The island's bread-making history has been well-documented through the words of Ancient Greek travellers and Roman officials, who reported sights of endless wheat fields on the island and praised the superior quality of Cyprus flour. Wheat cultivation and harvesting have been traditionally a fundamental of Cypriot agriculture and economy, and traditional bread continues to be produced in the same way. On the contrary, the chaff is left in the fields to dry and later to be used for bedding for animals in livestock, but it can also be used for animal food; even though it has low nutrient value.

Figure 5: Photo by Melissa Askew on Unsplash

Due to the low rainfall on the island of Cyprus, many crop improvement programmes are conducted only by the Agricultural Research Institute. These programmes aim to produce barley and wheat varieties suitable for dry and hot climates, such as the one of Cyprus. These programmes focus mainly on plan breeding of varieties introduced by international centres and local wild varieties. By plant breeding international and local varieties, it is aimed to increase yield stability and quality. These new breeds' characteristics must be heat tolerant, disease resistant and low rainfall resistant. These kinds of programmes run in Cyprus since the late 60s (FAO, 1996). These programmes are operated with other types of cereals, such as barley, and they have been very famous for the economic utilisation of Mediterranean lands that have been marginalised, but they also aim at the better utilisation of limited resources. However, due to the effort and resources that these programmes overtake on the island, the steps to increasing export opportunities are slowly dying.

The most recent years, Agricultural Research Institute has established numerous experimental statins in Cyprus to conduct research on how Cyprus can maintain a wider biodiversity of grains while improving yield, quality, resilience and taste. The main objective now is to increase biodiversity in ecosystems. European scientists who joined this project are experimenting new breeding technologies that aim to identify and adopt plans that are suitable to Cyprus' scorching dry heat. The production of drought-resistant varieties can help local farmers expand their resolutions to new markets. All these are expected to take place by 2023.

According to FAO's estimations in 2016, Cyprus' land area is roughly 9.240 km², from which 1.094 km² is used for agricultural purposes. Cereal harvesting is one of the most significant fields of agriculture in Cyprus, and this is the reason it is included in one of the six topics of this Module. It is estimated that the production quantity for 2019 was 29.470 tonnes, which is considered an improvement compared to 2008's production quantity of 2.472 tonnes only (Tilasto, 2021). During the very early years of the 21st century, the quantity production of wheat in Cyprus has increased drastically due to the country's integration in the EU and the ban of various types of grain. The prohibition of certain wheat breeds was adopted after many issues, such as lack of pest and disease resistance (Ministry of Agriculture, 2021).

Learning Objectives:

The main objective of this topic is:

- to show the participants the basics on Agriculture Entrepreneurship and Grain Harvesting as the process of gathering a ripe crop from the fields.
- This topic can be combined with the practices and methods that farmers follow in order to reap and gather the grains.
- It can also showcase the various pros and cons of using pesticides, fungicides and fertilisers.
- Learners will understand the concept of grain harvesting as one of the most important agricultural processes.

Forestry

In Cyprus, Forestry falls within the responsibilities of the Ministry of Agriculture, Natural resources and Environment. The forests of the island are crucial to the island's beauty that attract thousands of tourists every year, but they are also important for the island's climate cooling effects. Currently, Stavrovouni, Kormakiti, Akamas Peninsula, Pentadaktylos, Cedar Valley, Stavros tis Psokas, Troodos, Macheras, Madari and Adelfoi in Nicosia Region are also some of the most important forests of the island (Ministry of Agriculture, Natural Resources and Environment).

The Natura 2000 Network covers all state members of the European Union, and it aims to preserve biodiversity throughout its entire territory. This Network covers about 18% of EU land. In Cyprus, The Natura 2000 Network covers 62 sites and 40 of those areas have been declared "Special Areas of Conservation" and thirty of them are designated as "Special Protection Areas"; eight of these areas are also "Special Areas of Conservation" (Ministry of Agriculture, Natural Resources and Environment).

Figure 6: Troodos Mountains. From the author's records.

Forest Management in Cyprus is no longer focusing on the production of wood, and it is currently working on its priorities for forest protection, environmental education, biodiversity conservation and forest recreation. In this context, the department of forests is trying to improve the visitors' experience and the quality of the facilities provided to them in regards to education. The last years, the department has created a network of educative and informative infrastructures to benefit environmental awareness. This network of infrastructure includes 65 nature paths with a total distance of 316 km, 44 recreational spaces and 4 Botanical Gardens.

Due to the island's climate – which is characterized with long dry

summers from May to October, and unpredicted wind directions and strength (Visit Cyprus) – the forests of Cyprus had many times been exposed to wildfires and other hazards. Forest fires in Cyprus are an extremely destructive phenomenon. Yearly, and especially during the months of summer, Cyprus suffers from many accidents of forest fires due to many reasons. Some of these reasons are the dry Mediterranean climate, the prolonged summers, the strong winds, the topography and climate change. Unfortunately, because of these forest fires, every year, many of the unique species of animals found in Cyprus forests are under threat. These species include 1 species each of Mouflon, fox, hare, hedgehog, 19 species of bats, 8 species of snakes, 11 species of lizards and 52 species of butterflies. All these species are inhabiting the forests of the island and they are constantly under threat due to the fires and deforestation (Department of Forest).

Cyprus forests and their biodiversity, and the threats that both of them are under, make this topic crucial in Agriculture and Natural Resources of Cyprus. It is considered important to raise awareness and environmental education, not only in Cyprus, but also in all partner countries.

Learning Objectives:

The aim of this topic is

- to introduce the learners to forestry as a science of creating, managing, playing, using, conserving and repairing forests, woodlands, and associated resources for human and environmental benefits.
- Learners will work as teams in the possible future Escape Rooms in order to learn the importance of biodiversity in fauna and flora,
- Learners will learn how forestry can play one of the most significant roles in perpetuating and ensuring the safety of all species that can be found in wilderness.

Halloumi Cheese and Dairy Products

Historically, dairy products in Cyprus were mainly produced by sheep and goats' milk. The most popular cheese, according to Bevan (1919), was halloumi and its popularity was due to the fact that it is easy to make and it needed no special equipment. This is also the reason that it used to be made almost entirely by shepherds. Halloumi is primarily made from sheep's milk or a combination of sheep and goats' milk, or even entirely from goat's milk; the latter was most common in the mountainous regions of Cyprus where sheep were difficult to be found, so shepherds had to substitute one part of sheep's milk with goats' milk. Until today, the two types of halloumi are easy to be distinguished. Halloumi made entirely by sheep's milk is soft and crumbly, while halloumi that is made entirely by goats' milk is hard and usually flaky.

Other popular cheeses and dairy products in Cyprus are:

- Anari – famous also in Greece by the name "mizithra" – which is a soft cheese produced also by sheep and goats' milk.
- Paphos Cheese that is a cheese which is prepared in the same way as Halloumi, but it is shaped in cylindric moulds and they remain for a longer time in the whey which makes them harder. It is rich in salt.

- Kaskavalli was also made by the cheese-makers coming Greece during the cheese-making season and it is made from cow milk and sheep milk.
- Xynogala or Yaourti (Yogurt) has the form of clotted cream and it is produced by bacterial fermentation of milk.
- Trachanas is a product after the mixture of Yogurt and ground wheat almost as thick as paste, and then left under the sun to try. It is used to make soup.

(Bevan, 1919, p. 24-28)

Figure 7: Photo by eyecon on Adobe Stock

Modern production processes of Halloumi mimic the traditional methods but they also follow the new European hygienic standards in order to maintain Halloumi's high quality and flavoursome taste. During the modern process of production, fresh sheep and goats' milk exceeds 90°C which results to the pasteurisation of the product. Where wooden equipment was used during the production process, now stainless-steel vats are used. After the milk is curdled, it is removed from the stainless-steel vats and – now in the form of curd – is it drained continuously. The drained curd is pressed and then cut into cubes of 300 grams. The cubes are heated once again in the whey and then they are let to dry with salt and leaves of mint. Traditionally, each Halloumi must have a leaf of dry mint in the middle (EU Cheese Please, 2021).

Exporting Halloumi abroad is important for the producers in Cyprus, with the UK leading the import race. UK is the world's biggest Halloumi buyer spending 70.5 million of euros annually, Sweden comes second in race with 25.4 million annually, Germany following with 12 million per year and Australia slightly behind Germany spending 11.7 million of euros annually (Bloomberg, 2018). Although the high numbers in the UK, Germany and Australia can be justified due to Cypriot diaspora, it is mysterious how halloumi has such a success story in Sweden where the numbers of Cypriots are so low (Garanti, 2016, p. 139). According to Sveriges Television (SVT Nyheter, 2019), Sweden's public broadcaster, Halloumi consumption has increased in Sweden from 21 tonnes in 2010 to 4 thousand tonnes in 2018. One of the major reasons that Halloumi is so successful in Sweden I due to the fact that it is preferred as a vegetarian option for barbecue since it is not easy to melt like other cheeses.

Since Halloumi's reputation is so widespread abroad and it is related to the Cyprus food supply industry, it is important to be mentioned as one of the 6 topics that must be included in IO2 of Agro_EduGames for future Escape Rooms development. Others dairy products mentioned in this topic, such as yogurt, anari, etc. can be mentioned and studied further for the production of Educative Escape Rooms.

Learning Objectives:

The main objective is to show to the participants various methods and practices available and applied for the production of Halloumi and other dairy products made in Cyprus.

- Learners are given methods and practices on Halloumi as a Protected Designation of Origin (PDO) from the island of Cyprus.
- Learners will understand the importance of the origin this cheese and the techniques for its production that had been in use in the past, as well as the new ones.

Agrotourism

Tourism is a big chapter in Cyprus' prosperity. In 2019, Cyprus welcomed 4 million visitors proving that Cyprus is still on top of European holiday destinations (Cyprus Profile, 2020). Lately, tourism in Cyprus has been extending its focus and it diversified its beach holiday image. Due to Cyprus' mild winters, the Deputy Ministry of Tourism saw the potential into extending the holiday season and promoting another type of tourism with different potentials. Green mountains, snow-covered peaks, forests and lesser-known activities to tourists, like winemaking or historical sites had transformed the country's tourist image entirely. Now, the country's target group in tourism is expanded to agricultural tourism, health and wellness tourism, as well as sports and cultural tourism.

It is very difficult for Agrotourism to exceed the most well-established tourist face of Cyprus, due to the fact that Cyprus is given the title of having the best bathing water quality in Europe. However, Cyprus is trying to rebrand its image and attract tourist with a more diverse demographic background in order to experience the authentic Mediterranean way of life that involves the region's agricultural activities, gastronomy and history.

Figure 8: Mountains of Paphos Region. From the author's records.

Due to the increasing numbers of tourists who visit the island and the diversification of the country's holiday image, world-renowned hotel chains are now interested in establishing themselves on the island (Cyprus Profile, 2020). However, Agricultural tourism remains away from the Cypriot sandy beaches, and it gives the opportunity to small and medium enterprises that are located up on the mountains to thrive. Another reason that the Deputy Ministry focuses on the promotion of Agrotourism is to support the rural development of the island that falls within the Ministry of Agriculture's responsibilities.

Some of the most famous activities in Cyprus all year round are the wine routes due to the beautifully unspoiled green landscapes. Specifically, Diarizos Valley Wine Route is one of the most famous routes due to the fact that in a short distance, the visitors can pass through 14 hilly villages of the Paphos

Region and visit two of the most significant wineries of the area. In this route, 18 different types of vines grow with the local Mavro grape variety being the predominant. The area's flora and fauna are contributing into the enchanting scenery (Visit Cyprus, 2021).

Another activity that attracts tourists is the production of Halloumi cheese, and there are multiple Agrotourism facilities that provide this experience. One of the most famous ones, Aperanti Agrotourism in the Region of Nicosia, is run by Mrs Maroulla, Sara and Tassos who offer a wide variety of unique and educational experiences (Livin' Cyprus, 2020).

A list of the most famous destinations for visitors, but also for local people includes:

- Lefkara village in Larnaca District. Famous for the country's traditional needlecraft, the village now hosts the Ethnological Museum of the region (Pano Lefkara Village Website, 2021).
- Omodos Village in Limassol District, famous for its vines and fruit trees; apple, plum, pear, peach, apricot trees, etc. (Omodos Village Website, 2021).
- Platres Village in Limassol District, famous for its history due to the fact that it existed even during the Lusignan and Venetian Eras; 1192-1489 AD and 1489-1571 AD respectively (Platres Village Website, 2021).
- Kakopetria Village in Nicosia District, famous for its apple trees and cherry trees and the quality of their fruits (Kakopetria Village Website, 2021).
- Panagia Village in Paphos District, named after all the monasteries and byzantine churches that exist all around the village (Panagia Village Website, 2021).
- Choulou Village in Paphos District, famous for its old watermill, the lower fountain, the Ezousa River and its stone arched bridges (Chouloug Village Website, 2021).

Figure 9: Creek near Choulou Village. From the author's records.

Learning Objectives:

The participants will learn about:

- the importance of Agrotourism in Cyprus;
- the economic benefits that it can bring to the country; and
- the benefits that farmers and agro-entrepreneurs gain from this form of businesses.

The idea is to understand how tourism industry can be used to promote green development; and the benefits it has to agriculture in general.

Rose Factory

Agros is one of the most famous villages of Cyprus. It is located in the Troodos Mountain, in the area of Pitsilia of Limassol District; at the altitude of 1.100 metres. The village is particularly famous among other things for its cultivation of roses (Visit Cyprus, 2021). The last hundred years, Damask Rose plant has become synonymous with Agros village. This specific type of Rose is famous for its fragrant smell. The locals created a nursery in order to grow these roses and to enhance their knowledge on this particular type of rose. A few years afterwards, they started producing rosewater which became famous very fast and they soon started exporting it all around the world.

Nowadays, the place where the first rose bushes started growing is called the Rose Factory and the production has extended further from just rosewater. Technology has helped the locals to gain expertise and learn how to use the essential oils of the roses. The industry of rose products has grown in two directions. The first direction is the business' expansion to the cosmetic industry. The second direction is the business' expansion to organic productions.

Figure 10: Agros Village. From the author's records.

The famous organic roses of the area produce products like Liquor, Wine, Nectar, Candles, Tea, Vinegar, Jam and even Chocolates. Recently the line of products has been extended to cosmetics like Day cream, Body lotion, Cleansing lotion, Face serum, Face mask, Shower gel, Shampoo, etc. (The Rose Factory Website, 2021).

Every year, a festival devoted to roses is held in the area. The festival's mission is to exploit the traditions of the countryside and convince people to return to villages and support their local communities. In this festival, locals have mentioned that there are many people who visit Agros village just for the event and get supplies of rose products. According to the local people, each year the festival's success is increasing. When the first festival started, its duration was only two days with very low participation. However, now it has expanded and now visitors can find material related to the festival in three languages and it is advertised in all mass media and social media. Additionally, there are free tours around the Rose Factory where the visitors can observe the way that the products are produced, the way that the essential oil is extracted from the roses and learn more about the traditions of Agros village (Mission Tradition, 2019).

The importance of this topic is that the young people of the area have offered their help and devotion by contributing to the extraction of essential oils and other goods' production. It is crucial to see youth being involved with more agricultural businesses and the development of rural areas.

Learning Objectives:

- By participating in an Escape Room on this topic, players will be introduced to the concept of Rose cultivation and its importance to agricultural entrepreneurship for Agros village; located on the mountain of Troodos.
- Participants will:
    - get knowledge related to the process of cultivation and harvesting of roses,
    - how to extract the essential oil by it, the various products that it can be added to, and
    - its benefits to agriculture and local economy.

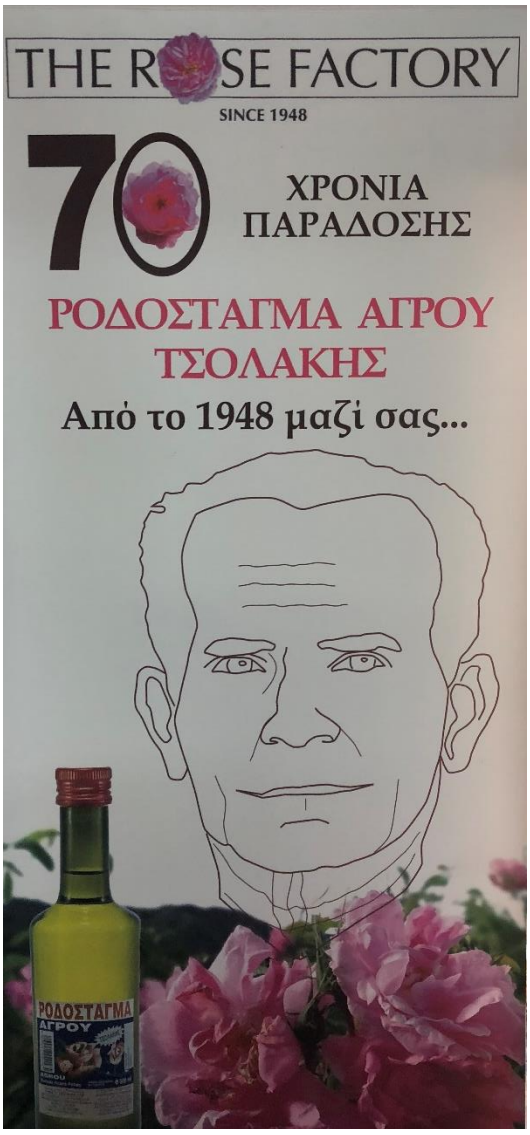

Figure 11: Poster about the 70 years of operation of the Rose Factory. From the author's records.

Greece

Chios Mastic:

Chios Mastic (resin) is one of the famous Greek protected designation of origin (PDO) product growing mainly in the island of Chios and having form culinary product as well as for pharmaceutical ones ("Μαστίχα η Π.Ο.Π.", n.d.).

Figure 12: Mastic tears (From Wikimedia Commons, the free media repository, source Wikimedia Commons, 2011)

Mastic is a product with a long history, cultivated for at least 2500 years in Chios Island. The oldest references to mastic have been attributed to Herodotes in the 5th Century B.C ("The Mastic, Chios", n.d.). Since antiquity it was used for the preparation of alcoholic beverages as it is a resin soluble to alcohol. For instance, It is reported that mastic oil was used by the Roman emperor Heliogavalos (3rd century AD) for the preparation of wine called mastic, a beverage resembling even now produced Mastic liqueur. Ippocratis is claimed to use it as an elixir for digestion problems as well ("The Mastic, Chios", n.d.).

Figure 13: Map of Greece showing Chios Island (From Wikimedia Commons, the free media repository, source Wikimedia Commons, 2006)

The ancient Egyptians used mastic resin for embalming the dead. The Romans used mastic sprigs as toothpicks, to clean and whiten their teeth but also to use them as breath fresheners. Also, foreign travellers in the mid-19th century recorded the production in Chios of a liqueur flavoured with Chios mastic.

This evergreen endemic shrub producing Mastic is called Schinos and belongs to the botanical family of Pistachia lentiscus. It usually is 2-3 meters high and starts to produce mastic resin tears after 5-6 years of life (Kyriakou, 2019). New plantations originate from branches of older trees and the old ones are renewed with branches ("ΤΟ ΚΕΝΤΗΜΑ ΤΟΥ ΣΧΙΝΟΥ | mastihashop", n.d.).

Although Pistacia lentiscus is cultivated throughout the Mediterranean region spanning from the Iberian Peninsula to Turkey and Israel, a special variety of schinos (Pistacia lentiscus var. Chia), from which the natural resin or mastic is extracted, is cultivated in

the island of Chios, though, and more specifically in its southern part. This specific cultivation trademarks Chios islands. Since 1997 Chios mastic has been a PDO product.

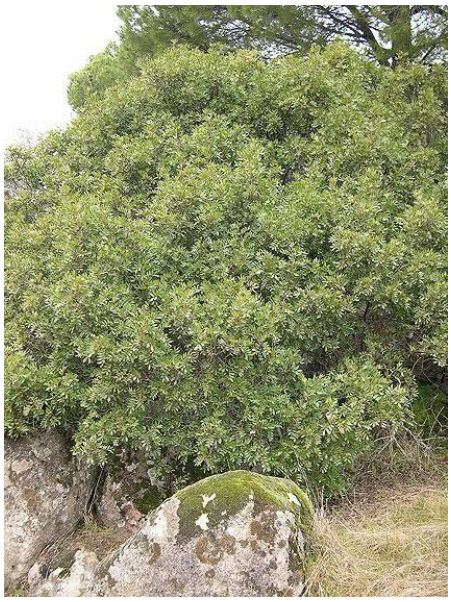

Figure 14: Pistacia lentiscus sp Source (Rafaelji, 2005) GNU Free Documentation License, Version 1.2

According to scientists, the fact that this species can be cultivated only in this certain region is mainly probably due to three factors ("Μαστίχα - Βικιπαίδεια", n.d.): the special microclimate of this area (minimal rainfall, great sunshine, limestone composition of the soil), the use of eugenism in cultivation, and its existence and persistent promotion and standardization of the product even from ancient times (Kyriakou, 2019).

Its cultivation has many stages at a yearly basis ("Μαστίχα Χίου Γνωρίστε Τον Τρόπο Παραγωγής Της – ΜΥΡΟΒΟΛΟΣ ΧΙΟΣ", n.d.). The process starts in January with the pruning of bushes and care and lasts until June. Afterwards, the soil near the trunk is cleaned and farmers lay white soil which will hold the resin tears when dripping from the bushes. During July, mastic growers perform the "embroidery" of the tree, a technique performed twice a week for five to six weeks in a row. It is a traditional technic during which farmer carve the trunk and branches of the bush using a sharp tool named "kentos" to release resin tears. The carvings are about 1.5 cm long and 0.5 cm deep. The embroidering procedure starts from the base of the trunk up to each branch ("Μαστίχα Χίου Γνωρίστε Τον Τρόπο Παραγωγής Της – ΜΥΡΟΒΟΛΟΣ ΧΙΟΣ", n.d.). (User, n.d.). The tears drip down the trunk, solidify and are collected after 15-20 days by using a specific tool used "timitiri". Then, are stored in dry places firstly at the farms of the producers and the cleaning of solidified resins begin. After sieving, farmers clean mastic granules with water and soap. Then farmers clean each granule with a technic named "tsimpima" removing any remaining objects. The cleaning process is completed in premises of The Association of Mastic Producers, with the support of mechanical means. Finally, mastic is classified into different qualities by using colour sorters.

The Association of Mastic Producers of Chios (EMX) is a secondary agricultural cooperative and was founded in 1938 ("Ένωση Μαστιχοπαραγωγών Χίου", n.d.). It Includes twenty primary cooperatives of Mastic Producers, having 5000 members approximately. The Association deals with the production, packaging and marketing of natural Chios Mastic products (eg mastic oil, mastic water, mastic powder and chewing gum) exclusively in Greece and abroad ("Ένωση Μαστιχοπαραγωγών Χίου", n.d.). Its vision is to inform possible consumers about the unique applications of mastic products in the several sections (eg pharmaceutical treatments, uses in food and beverage industry, use in cosmetics etc.)

Since 2014 UNESCO has placed this traditional harvesting and production procedure of mastic on its Lists of Intangible Cultural Heritage ("UNESCO - Know-how of cultivating mastic on the island of Chios", n.d.). Also, on 2015 Chios mastic products were voted unanimously from Committee for Herbal Medicinal Products (HPMC) of the European Medicines Agency (EMA) as a traditional herbal medicine for coping gastric problems (gastrointestinal disorders eg Crohn's disease, gastritis, ulcers, indigestion eliminating Helicobacter pylori) and for inflammations and treatment of skin wounds ("Mastic Museum", n.d.) ("Mastic Museum", n.d.) (European Union herbal monograph on Pistacia lentiscus L., resin (mastix), 2015)

(Zavos, 2020). Diachronically it has been used also to improve high blood pressure, to regulate blood glucose and have a positive impact in HDL cholesterol and total LDL cholesterol and triglycerides levels. Also, mastic oil can also be used as an ingredient in nutrition supplements ("Η Μαστίχα Χίου - Chios Travel Guide", n.d.).

Mastic has also a variety of uses in the food and beverage industry. It is used in alcoholic beverages (mastic liqueur and mastic-flavored ouzo called mastichato) and in non-alcoholic beverages too. Mastic powder is an ingredient in several confectionery and cooking products eg Turkish delights, chewing gums, candies, ice cream sweets, pastries, buns, cookies, ice cream, bread etc ("Η Μαστίχα Χίου - Chios Travel Guide", n.d.).

Mastic is also used in the perfume and cosmetics industry (shampoos, soaps, creams shower gels etc). Finally, mastic oil can be used as a paint disperser or coating for varnishes.

Apart from the needs of Greek market, a significant part accounting for 72% of the total production (Chios mastic and mastic oil and EMX products) is exported worldwide (Events.naftemporiki.gr. n.d.). The main markets abroad are:

- Saudi Arabia, United Arab Emirates, Lebanon, Egypt, Syria, etc.
- European countries: Cyprus France, England, Germany, Italy, Bulgaria etc
- USA, Japan, Korea, Australia, China, and Turkey

Although in 2012 and 2016 Chios faced huge fires and, consequently, many Mastic bushes were destroyed ("Επιμένει η Μαστίχα Χίου", 2017). After 4 years and during the CODVID 19 pandemic and the resulting unstable economic environment, in 2020 EMX has managed to break a 30-year-old record production of Mastic accounting for 180 tons. In the next decade, EMX invests on plant capital (13000 more trees) and will increase its yearly production by 50-60 tons of mastic, satisfying increasing market demands mainly for pharmaceutical use ("Ρεκόρ παραγωγής για την Ένωση Μαστιχοπαραγωγών Χίου, νέες επενδύσεις 3,5 εκατ.", 2020). Last but not least, and towards this direction EMX has programmed. The creation of a new production line by 3.523, amounting to 3.5 million euros, has participated in research programs for use in the pharmaceutical industry, as well as to the improvement of primary production ("Ρεκόρ παραγωγής για την Ένωση Μαστιχοπαραγωγών Χίου, νέες επενδύσεις 3,5 εκατ.", 2020).

Learning objectives

The Escape Room created will introduce to learners the term of Agricultural Entrepreneurship, learn how to farm chios mastic shrubs and exploit different uses of a certain agricultural product. More specifically, indicative learning objectives might be:

- how chios mastic plantations may operate;
- what tools, equipment and methods may be used during the farming process;
- How to exploit further uses of main product deriving from cultivation (agrotourism, medicine, culinary etc)
- How to run a coop based on different team roles

Kiwi production

Even though it seems to be an exotic fruit, Greece is among the top producers of kiwi, ranking worldwide in third place ("Greece 3rd largest kiwi producer in the world now exports to Thailand - Greek City Times", 2019).

Figure 15: Sliced kiwi on white surface (Vyas, 2019) free to use under unsplash licence

China has been attributed to be the homeland of kiwi, being cultivated there since antiquity. Kiwi farms can be found in Siberia, Japan, Korea and Malaysia. Being indigenous to China, kiwi plants travelled during the 19th century to Britain and in the beginning of 20th century in New Zealand. In fact, its English – international name originates from national symbol of New Zealand, an indigenous bird named also kiwi ("Ακτινίδιο - Βικιπαίδεια", n.d.).

The best-known species cultivated in Greece is called Hayward. The Mediterranean climate offers perfect the cultivation of kiwis having hot summers and cool winters, helps produce fruit of excellent quality and flavor (Antonopoulou, n.d.). The plant thrives in fertile and moist soils. The plant is sown in spring and harvested in mid-October ("Ακτινίδιο - Βικιπαίδεια", n.d.).

Kiwi is a deciduous climbing shrub that reaches a length of 4-5 meters and is somewhat reminiscent of a vine. It forms vines that grow very quickly and are bed shaped ("10 μυστικά για την καλλιέργεια του ακτινίδιου | Τα Μυστικά του Κήπου", 2020). Kiwi is sensitive to strong winds, especially when the vines grow, as fractures may be created. For this reason, it is advised not to grow kiwis in coastal or windy areas ("10 μυστικά για την καλλιέργεια του ακτινίδιου | Τα Μυστικά του Κήπου", 2020).

Kiwifruit has been cultivated in Greece for at least thirty years. In the last few years, Greek cultivation have expanded experienced in many areas of central and eastern Macedonia (northern Greece), the prefecture of Larissa, Fthiotida, Etoloakarnania, (CENTRAL Greece) the prefecture of Chania (Crete Island) ("Αγροδυναμική επε Επισκοπής και Βιοσπόρος Ελλάς", n.d.).

According to data from the Hellenic Statistical Authority during the period 2017 – 2018, Greece exported 154,843 tonnes, produced 274,619 tonnes with 9,218 hectares of kiwi plants ("ΔΕΛΤΙΟ ΤΥΠΟΥ ΕΤΗΣΙΑ ΓΕΩΡΓΙΚΗ ΣΤΑΤΙΣΤΙΚΗ ΕΡΕΥΝΑ: Έτος 2018", 2020). In the last 5 years, its production is constantly growing and if the growth rates remain unchanged and since the production is estimated to increase, Greece will become the second in rank kiwi producers worldwide (Antonopoulou, n.d.). Adding to this, some Greek cultivations of kiwis (Aktinidia Pierias and Aktinidia Sperchiou) being registered as Protected Geographical Indication (PGI), are markers of the fruit's quality (Antonopoulou, n.d.).

Figure 16: Kiwis served ((Melnychuk, 2021) free to use under unsplash licence

Greek kiwi is considered to be a fruit of excellent quality due to the strict adherence to European standards combined with the traditional agricultural approaches ("Kiwi variety Hayward from Greece | Export of greek fresh fruits", n.d.). Thus, its dominant position worldwide is sustained. With the European market reaching saturation point, international markets seem a promising solution (Antonopoulou, n.d.).. Greece exports to Chios, South Africa and the US (Koukoutsos, 2019). Emerging markets are India, Vietnam, South Korea, Taiwan, and Brazil and only recently Argentina (Koukoutsos, 2019).

This market is promising also for farmers willing to apply organic cultivation of kiwis since it is a worthy investment to make (KENTIA, n.d.).

It has high nutritional value and is an important source of vitamin C and is also reach in vitamin K and E ("10 μυστικά για την καλλιέργεια του ακτινίδιου | Τα Μυστικά του Κήπου", 2020). It contains also rich potassium, magnesium, phosphorus, fiber in high levels. It also removes the risk of thrombosis in the circulatory system and ensures proper digestion and proper bowel function. Finally, it helps improve vision due to the presence of antioxidant lutein ("Ακτινίδιο - Βικιπαίδεια", n.d.).

Learning objectives

The Escape Room created will introduce to learners on how to exploit cultivations of fruits, kiwi in our case. More specifically, indicative learning objectives can be:

- how kiwi plantations operate;
- what tools, equipment and methods may be used during the farming process;
- how to understand domestic and international market (context, needs, exports etc).

Cretan (barley) rusks

Cretan (barley) rusks are a well-known delicacy of Greek origin (KRITIS, n.d.). They are produced in the island of Crete and have a lengthy presence in national culinary history for many centuries. Their presence is documented in writings of ancient Greece and Roman travellers (KRITIS, n.d.). They are a trademark product for the island being also protected geographical indication (PGI),

Figure 17: Cretan rusks with tomato, feta cheese and olives, an original cretan recipe ((Greek Food called Koukouvagia, 2006) GNU Free Documentation License.

Rusks connected tightly to the unique character and morphology of the island. More specifically, Crete is mainly mountainous, with 41% of its total area to be mountainous or 26% semi mountainous, with only 33% of its surface to be covered by valleys and/or fertile plateaus ("Γεωγραφια Κρητης", n.d.).

Given the morphology of the island, it is easy to understand why rusk are such an important part of the Cretan diet (Sideratos, n.d.). In such areas, barley is a promising crop to cultivate ("Barley Rusks (Dakos)", n.d.). The Cretans traditionally were either farmers or shepherds or fishermen staying away from home for many days ("Κρητικό παξιμάδι (ντάκος και κουλούρα): Βγαλμένο απ' την παράδοση | SYN.KA Super markets", n.d.). They needed to store bread in a more sustainable way, so rusks were a promising solution to do so. Traditionally, rusks were baked once a year after the harvest and milling and then stored in dry and shadowy places. Therefore, cretan rusks can be considered as one of the first standardized food products.

The traditional Cretan nut uses not only whole grain barley flour, but also wheat flour, metanadi flour (a mixture of barley and wheat) and heptazymo (a mixture of white flour, wholemeal flour, barley, flour and a variety of herbs) (Mati, n.d.) ("Τα κρητικά παξιμάδια - η ιστορία και οι τύποι τους", n.d.).

There are many types of rusks, with most popular the following ("Κρητικό παξιμάδι (ντάκος και κουλούρα): Βγαλμένο απ' την παράδοση | SYN.KA Super markets", n.d.).

- Dakos, the most popular kind of cretan rusks, are α thick elongated rusks looking like a double-baked thick slice of bread. It is the main ingredient of the popular dakos dish.
- Kouloura - bun is a round shaped rusk having a hole in the middle. It consists of two parts, the upper one which is traditionally called panokafkalo and the lower one which is called katokafkalo.
- Tampakiera – a round shaped rusk as well without a hole in the middle.

Rusks are recognized for their high nutritional value, important elements of the renowned Mediterranean diet ("Το κρητικό παξιμάδι", n.d.). More specifically, the use of barley, (and sometimes also whole meal flour), results to a healthier type of bread. Also, it contains B complex vitamins (mainly vitamin B1, folic acid and vitamin B6), fibers, antioxidants, magnesium, iron and phosphorus. Due to these nutrients, Cretan rusks may help to regulate appetite (vitamin B1), to keep skin and nervous system healthy (folic acid), and to the production of healthy red blood cells ("Κρητικό παξιμάδι", n.d.).

Learning objectives

The Escape Room created will introduce to learners the term of Agricultural Entrepreneurship, learn how Cretan rusks are produced More specifically, indicative learning objectives might be:

- what tools, equipment and methods may be used during the farming process (flour from wheat or other plants;
- How to manage product exports
- How to exploit further uses of main product deriving from cultivation (culinary further product development etc).

Poland

Apple Production

Apples are considered to be the most popular Polish fruit, and Poland is one of the world leaders in their production and export. The country's climatic and soil conditions are favourable for the production of this fruit, as evidenced by its history in Poland, which stretches back over 900 years. According to a Polish chronicler, apple tree cultivation in Poland begun in the 12th century by the Cistercians. It was they who, by grafting wild apple trees in their orchards, produced ever larger garden apples. They are therefore credited with spreading apple growing and making it famous throughout the country.

Figure 18: source: pixabay.com

Polish fruit-growing offers a very rich and varied range of apple varieties. Currently, 4 varieties are the most popular: "Idared", "Szampion", "Jonagold", "Ligol". They account for approximately 50% of the domestic harvest. Other popular varieties among fruit growers are 'Gloster', 'Gala' and 'Golden Delicious'. Varieties grown in Poland are characterised by high resistance to diseases, are easy to transport and can be stored for a long time without fear of losing nutrients and taste qualities. Most apple orchards are located in central Poland in the so-called fruit-growing basin of the Mazowieckie voivodeship, i.e. near Grójec, Warka and Tarczyn. This region is considered to have the most optimal conditions for growing apple trees. Concentrated growing regions are also found in the Świętokrzyskie, Łódzkie, Lubelskie and Małopolskie Provinces. However, apple tree orchards are found all over the country and the quality of the fruit that ripens there is always excellent.

The matter concerning the cultivation of apple trees seems fairly obvious, namely growing a plant from seed and producing fruit once it has ripened. However, the reality is much more complex. In practice, when propagating specific varieties of apple tree, fruit tree nurseries do not use seeds but mutilate them. This involves placing the bud of the variety being propagated on a so-called rootstock, which is supposed to provide the future plant with a root system and influence the tree's growth strength.

A new plant grows from the bud. In this way, nursery stock of the variety is obtained, which fruit growers usually buy as two-year-old trees and plant in their orchards. This is how, perhaps surprisingly for some, the complex process of producing ripe fruit begins.

In successive stages, the apple tree produces hermaphrodite flowers containing nectar and pollen. For the flowers to develop into fruit, pollen from another tree (usually a different variety) of the same species must enter. In the pollination process, insects play an invaluable role, mainly the honeybee, but also many species of wild bees and bumblebees, which carry the pollen, pollinate the flowers and enable the fruit to form, which then grows, colours and is ready to be harvested in the autumn. It would seem that the process is simple, that everything happens by itself and that fruit growers just wait for the harvest. Nothing could be further from the truth!

Learning objectives:

Using the Polish apple processing theme in Escape Room will in effect introduce the players to the history of apple growing, the necessary steps to maximize the harvest, the harvesting process itself as well as the possibilities to use and process the apples. This will help to bring the issue of apple growing and production, especially that Poland leads the way.

During this activity the participants will get acquainted with:

- the history of apple growing in Poland;
- the methods of apple harvesting;
- types of apples processed products;
- the apple processing and techniques.

Goat's Cheese

In Poland, goats, like sheep, are a pleasing sight in the open countryside. Their friendly attitude, curiosity and irrepressible appetite make them popular among children and adults. Currently, the most numerous breeds are the Polish Improved breed and the Polish White Improved breed. Unfortunately, for a long time their milk was considered as poor people's food. In traditional Polish cuisine, it did not have much culinary significance. It was consumed mainly for its nutritious properties.

The custom of cheese-making came to Poland from beyond the Carpathian Mountains, in Wallachia. Our modern cheese products were influenced most by the Germans, Dutch and Swiss who settled in Poland in the 19th century. The first shepherds in the Carpathian Mountains were already engaged in cheese-making. The natural conditions there were favourable for sheep and goat rearing, but not so favourable for farming. That is why people thought about stockpiling for the long winter already in the summer. Cheese began to be made from milk.

Figure 19: unsplash.com

In other parts of Poland, especially in the lowlands, cheese-making was not introduced until the 19th century. This delay was mainly due to unfavourable climatic conditions: long, harsh winters, hot summers, and insufficient rainfall, which were not very conducive to cattle farming. Although the abundant meadows and pastures could provide ample fodder, the constant wars, invasions and pillaging still created many obstacles to the development of livestock farming and hence cheese-making. When cheese-making eventually established itself in other Polish lands as well, other influences began to interfere in the production of dairy products. In the Pomeranian Żuławy region, cheese-making was influenced by the Dutch Mennonites.

In the Lesser Poland region, the first industrial cheese factory was established in 1854 in Wieprz near Żywiec, and others followed over the years. However, the First World War destroyed almost all of them and only a small number survived. Małopolska, especially the Podkarpacie region, was a rather favourable area for cheese-making in terms of climate and soil conditions. However, cheese-making did not really flourish there. One of the reasons for this was that not enough cattle were kept on farms and, in addition, they were not fed well enough. In other parts of Poland, cheese-making also played little part in the life of the local population. However, the situation was different in Ducal Prussia, which after Algau was Germany's biggest centre for the cheese industry and the home of Tilsit cheese. The production of these cheese products was also greatly influenced by the Swiss and the Dutch.

Figure 20: unsplash.com

In the course of time, a valuable cheese-making centre emerged in Śląsk Cieszyński, whose development was favoured not only by the natural conditions but also by the economic structure.

It is now estimated that there are some 4 000 different types of cheese in the world, of which about 90 are of Polish origin. Polish tables are also full of cottage cheeses and those associated with a specific region, the recipe for which has been passed down from generation to generation. Such cheeses can be found, among others, on the List of Traditional Products in Poland.

It is also worth noting that there is no shortage of large cheese factories in Poland, although it is becoming increasingly common to see farmstead cheeses produced in small local cheese dairies.

Thanks to their original flavours, goat's milk cheeses are perfect both as stand-alone snacks and as side dishes. They can become the crowning glory of a breakfast, a promise of a sophisticated culinary adventure during lunch, or an exciting element of a romantic dinner. They will add variety to main courses, desserts and salads. And there's nothing stopping you from serving them as starters - to awaken your senses and whet your appetite. It is worth reaching for goat's cheese as often as possible - because it is healthy and exceptionally tasty. They enhance the taste of many dishes and add variety to the menu.

Learning objectives:

Despite the growing interest in goat's cheese, even Poles themselves often do not identify our country with this excellent product, which has a long history of production in our lands. It is very important for information on this subject to be disseminated as widely as possible in view of the high quality of the product on offer. Moreover, the interesting history of the production and the origin of the goat cheese in Poland would be a topic to create an Escape Room, because it could make the players curious, maybe even to such an extent that they would decide to explore the topic themselves.

During this activity the participants will get acquainted with:

- history and general information about goat cheeses;
- goat cheeses production process;
- goat cheese production techniques;
- types of goat cheeses.

Permaculture Garden

Poland is a country with strong agricultural traditions in which this sector plays an important role in the country's economy. Products produced in the country have a very good reputation and are valued not only in the country's own "backyard" but also internationally. The share of those employed in agriculture in the total number of those employed in Poland is currently around 12%. In the EU countries it is higher only in Romania, Bulgaria or Croatia. Compared to its European neighbours, Poland is still lagging behind in terms of intensive farming, but in terms of organic farming and permaculture it is performing very well.

Permaculture is becoming more widely known and available in Poland. Society begins to notice and understand the need for a change in attitude. The deteriorating state of the natural environment from year-to-year forces people to seek alternative lifestyles. Gradually, more and more permaculture-related initiatives appear, articles and books on the subject are published, permaculture farms are promoted.

Permaculture is a holistic design approach that selects and combines various techniques and strategies from a wide range of disciplines, applying them according to its own set of principles and ethical rules. These principles are used not only in regenerative agriculture, but also "to design buildings, energy and wastewater systems, villages, and even less tangible structures such as school programs, businesses, community groups, and decision-making processes." Permaculture is considered an applied science that draws inspiration and knowledge from nature, simulating or adapting natural patterns to develop designs

that are resilient, self-regulating and sustainable. "By taking a systems approach to design, permaculture looks at the source of the world's problems and seeks answers that are thoughtful, inclusive, and long-term, aimed at building a regenerative, healthy, and thriving natural and social ecology." Permaculture promotes a global mindset while applying local solutions in configuring landscapes that are modelled after nature, emphasizing human roles and responsibilities in those landscapes. Because its principles are rooted in the wisdom of nature, permaculture practice focuses on optimizing and enhancing relationships between elements or parts of a system, more than on the elements or parts themselves. As such, the design process promotes interconnectedness that builds a whole that is stronger than its parts. It is this focus on relationships that creates a functioning system, making permaculture a simple design process that can address challenges from simple to complex, whether it is the design of a small garden or the design of a farm, city, or society. Its holistic approach to thinking offers solutions to universal problems in a variety of areas such as food security, climate change, renewable energy, community regeneration, education and other social issues that plague our global society.

Figure 21: pixabay.com

Organic gardening, recycling, natural building, renewable energy, and even shared decision-making and realizing justice in a sustainable society can be considered the definition of permaculture - in any practice, permaculture is a set of tools to help organize and decide when and how to use them. Permaculture seeks to return to working with Nature to create healthy, thriving ecosystems and preserve biodiversity.

The essence of permaculture is to create energy self-sufficient ecosystems. This means that the system should fertilize, water, and reproduce itself. We achieve this functionality by:

- observing the dependencies that exist in the designed area;
- harnessing the energies present there - the sun, wind, water and earth;
- designing beneficial relations between system elements.

In a well-designed permaculture system, we achieve self-sufficiency in food and energy (i.e. we import nothing from the outside (e.g. fertilizers or feed), we do not use water taken from the ground, and we obtain electricity either from wind energy or photovoltaic cells).

Food self-sufficiency is the culmination of getting all these aspects that make up permaculture right, which is made possible by watching what Nature does. About 70% of our soils are no longer usable without the use of artificial fertilizers. Deforestation, which completely destroys the natural water cycle in the atmosphere, is probably an even more important factor that kills soil life. Therefore, soil reclamation done by natural methods is one of the most important processes in permaculture. A special map of gardens and permaculture farms in Poland has been created, thanks to which it is easy to locate and

determine the frequency and number of their occurrence. In comparison with other European countries, Poland ranks definitely high in the creation of permaculture locations.

Figure 22: PermaKultura.eu.pl,acces https://permakultura.edu.pl/en

Learning objectives:

Although permaculture gardens are considered to be the basis of agriculture, they are currently treated as an unusual practice. There is a growing interest in permaculture gardens as they are becoming an object of visits and a stimulus for inspiration. The term permaculture often raises some doubts as it is not widely available, so when using it in case of creating an Escape Room on its theme, it is necessary to make sure that the puzzles are closely related to the explanation and approximation of the term. Creative possibilities given by the garden seem to be unlimited, which also gives a field to transfer knowledge and skills in the most liked and effective way, that is enjoyment.

During this activity the participants will get acquainted with:

- permaculture term and ethics;
- permaculture map searching (especially in Poland);
- the design, methods of permaculture garden cultivation;
- possible tools that can be used in permaculture, i.e. harvesting.

Spain

Olive Oil

Olive tradition in Spain existed even before the Roman expansion. In fact, there have been archaeological remains found from the Neolithic and Bronze Ages, which proves the early introduction of this crop. But it was with the Romans when the cultivation and oil production were more extended. Not only the south of Spain was producing this oil for national consumption, but it was also being exported to the main city of the Empire: Roma.

Figure 23: bottles of olive oil. Source: ecoticias.com

This oil became so successful during this period that it was thought as a luxury product and consumed mainly by the Roman aristocracy. However, with the decline of the Roman imperium and the barbarian invasions (mainly in the north) its uses decreased. This happened because the barbarians were not used to include this oil into their diets, but animal fats.

Between the years 711 and 1492, with the Arab presence in Spain (called Al-Andalus), the customs of the olive tree and olive oil were recovered. It became, once again, an essential crop. It was during this period that the machine that is still used nowadays to grind olives was created -the almazara- through a modernisation of the one used by Romans. Not only the machine is still used, but also the word ‘’aceite’’ (oil in spanish), which comes from Arabic -al-zayt- and means ‘’juice of olives’’.

As happened during the Roman Imperium, the oil was not only produced for national consumption. It is estimated that the whole country had, by 1240, approximately 2.500.000 olive trees, that produced 5.000.000 kilos of olives each year (Román, 2011). And those olives, together with its juice, were exported to the Maghreb and to the port of Alexandria.

Finally, with the period following the Arab presence, when the Catholic kings reconquered Spain (1469), the country was very divided. The south still maintained its traditions of using olive oil, but the north preferred animal fats. This lasted until the XX century, when the use of oil became again a nationally shared tradition. So, although its presence in Spain has varied depending on political, religious, and economic situations; olive-growing has always been a very important activity.

Nowadays, Mediterranean habits and culture cannot be understood without this oil, which takes part in almost each of Spanish cooking recipes (and not only for that, as it is used also for other things, as for example, medical purposes). And this is because the climate and geography of Spain are perfect for cultivating olives, especially in the south. This climate has a lot of hours of sun, soft temperatures and long, intense summers.

Figure 24: olive grove plantation in Jaén, Spain. Source: www.diariojaen.es

Spain produces, in an average year, around 1.75 million tons of olive oil. About half of the world's total olive oil is produced in Spain, of which about 46% is exported, making Spain the world's leading olive oil producer and exporter (ICEX, 2021). In terms of the European Union, Spain accounts for more than half of the total EU area under olive groves. From 2015/16 to 2017/18, on average, it accounted for 63% of the whole EU production (European Commission, 2020). Besides, it was recently recognized as a 'Protected Denominations of Origin (PDO) ' by the EU.

Nationally, each person consumes approximately 7 litres of olive oil a year. Even doctors recommend its use, between 20 to 40 mg on a daily basis. This is because extra virgin olive oil contains oleic acid, vitamin E and polyphenols, among other components. These components are beneficial to health, as for instance, they help to reduce cardiovascular diseases.

There are mainly 4 types of this product. They are :

- Extra virgin olive oil: This is one of the healthiest fats for consumption, recommended by different researchers. It is obtained directly from olives, using only mechanical means, like an olive juice, positive organoleptic attributes and it has a maximum acidity of 0.8 grams per 100 (0,8%), among other physico-chemical properties that this quality of olive oil must fulfil.
- Virgin olive oil: As the previous one, it is obtained directly from olives, using only mechanical means like an olive juice, but it may have small organoleptic defects and a maximum acidity of 2 grams per 100 (2%) among other physico-chemical properties that this quality of olive oil must fulfil.
- Olive oil: It contains a blend of virgin olive oils with refined olive oils obtained from defective oils, so its quality and healthy properties are lower. Its maximum acidity is 1,5%. And its uses are normally for cooking and frying, not for raw dishes (as salads).
- Pomace olive oil: It's a blend of virgin olive oil and other oils obtained by chemical processes from solid olive residues, with a maximum acidity of 1,5%. Although it's suitable for consumption, it's normally used for frying and in cosmetics.

In addition, there are differences between olive oils depending on the olive subtypes used for its production, which gives them different taste, textures and colours. For all its history and the importance

given to the olive oil in the Mediterranean diet, Spanish landscapes in Andalusia are full of olive trees, 'alongside holm and cork oaks on broad plains or alongside green pine forests on mountain slopes, creating a landscape of outstanding beauty and personality' (ICEX, 2021). It is not strange, then, that this delicious oil is considered, for many, as the Spanish gold liquid.

Learning objectives

With the creation of the Escape Room for IO2 of Agro_EduGames based on this topic, players would mainly learn about agricultural entrepreneurship in one of the most important products for Spanish economy. Including:

- Olive oil's process of elaboration
- Material and equipment used to elaborate this oil
- How to differentiate between the types of olive oil available

Manchego Cheese

The 'manchego' cheese is a type of cheese with a protected designation of origin (PDO). It is produced in four provinces of the region of Castilla-La Mancha, in Spain (Albacete, Toledo, Cuenca and Ciudad Real). It's made (and can only be made) with 'manchega' sheep's milk, a type of sheep that can be found in 'La Mancha'. Besides, these sheep can't be given any medicine, and chemical additives are forbidden in the production of their cheese. Depending on the days of maturation, the cheese can be classified as 'semicurados, curados, viejos or añejos' (semi-cured, cured, old or aged), from a minimum of 30 days and a maximum of 2 years, being the older the more mature. Inside, it has a firm and compact paste, and a buttery texture. Its colour goes from white to more yellow. Its smell is lactic, and its taste is strong and a little bit acidic. In some cases, even spicy.

Figure 25: Don Quijote and Sancho Panza image on the cheese label (which can only be used on this type of cheese). Source: eldiariorural.es

Its beginnings are thought to date back to the Bronze Ages, as there have been findings of archaeological remains. In fact, remains of bowls, perforated vessels and other cheese-making utensils have been found in the four provinces of La Mancha (Pakus, 2019).

There is also evidence of production of this type of cheese during the Iberian settlements. Even the sheep from this period are thought to be the predecessor of the one existing now, whose purity has remained almost unchanged over the centuries (Hernández, 2019).

In addition, in the very famous book of the writer Miguel de Cervantes, 'Don Quijote de la Mancha', from the XVII century (1605) there are plenty of references to this delicious cheese, that both Don Quijote and his faithful squire Sancho Panza loved eating.

Nowadays, this cheese is known all around the world. It is even more sold in the international markets that inside Spain. Its main market is the United States. This market represents more than 50% of the export -almost 5 million kilograms annually - followed by Germany and the United Kingdom. In Spain, consumption is about 40% of the total production (6 million kilograms).

Manchego cheese represents a 62% of total production of P.D.O. Spanish cheeses, and generates approximately 175 million of euros in sales annually. Production that, besides, is increasing over the years.

Figure 26: Manchego cheese. Source: cadenaser.com

Learning objectives

The Manchego Cheese's Escape Room for IO2 of Agro_EduGames would provide information and knowledge to the participants about this type of cheese and its relation to agricultural entrepreneurship. Including:

- How to make this cheese so the protected designation of origin (PDO) is obtained, i.e. basic elements, legislation, location...
- Process of elaboration of the cheese and equipment used
- Process of selling, as it's a very international demanded cheese

Saffron

Saffron is a spice made by the red stigmas of a flower called scientifically ''crocus sativus'', also known as ''saffron crocus''. Its process of harvesting is very difficult. The red stigma has to be carefully taken by hand from the flower without breaking. That is why it is known as the ''red gold'' and is the most expensive spice in the world. In fact, Spanish saffron price is around 3.000 euros per kilogram (which requires 85.000 flowers).

Figure 27: Manual recollection of the flower of the saffron. Source: ABC

Spain is one of the biggest producers of saffron globally, only behind Iran. Most of its production (97%) is made in the region of Castilla-La Mancha, mainly in the province of Albacete, that produces 82% of the total. Its production in this region is so important that it has a Protected Designation of Origin (DOP Azafrán de La Mancha). It is used for both sweet and savoury recipes, as well as for beverages. It has multiple benefits for health. For instance, it has anti-inflammatory properties, acting as a protector for different diseases (its use is even being studied to fight cancer); digestive properties, which act reducing gases and general digestive discomfort; anti-stress properties; or properties that help the nervous system.

This spice was already very popular in the Ancient Age. Cleopatra used to take saffron baths to take care of her skin, the Egyptian pharaohs were embalmed with this spice, Greeks used it to perfume their houses, and Romans used it as an aphrodisiac. The beginning of the production of this spice in Spain is thought to date back to the colonisation by the Phoenicians, during the IX century B.C. But the use of this spice acquired more importance during Al-Andalus, with the Arabs.

Figure 28: Removal of the stigmas of the saffron flower by hand for its roasting. Source: vidayestilo

Its production is a custom of Castilla-La Mancha and has been part of its culture for centuries. The process of harvesting the Saffron flowers is still the same nowadays. There are plenty of traditional recipes that include this delicious spice, mainly in rice and in fish recipes (as the Spanish paella). It is used not only as a natural colorant but also for its characteristic aroma and flavour. It is, then, an element

fully integrated into the local traditions.

During the last decades (from 1930), its production has decreased slightly, due to the huge competition of Iran. However, as the quality of Spanish saffron is considered to be better it is becoming more appreciated by many countries (Salas, 2019), so last years have seen an increase in production, as those countries prefer to buy this product instead of the one coming from Iran.

Figure 29: Saffron flower. Source: bodegasmezquita

Nowadays, Spain produces approximately 650 kilograms per year (although some years it has reached 1.500 kilograms). Of that production, 50% of production is exported abroad, the other half stays within the country and Europe (Barba, 2020). Although in terms of production Iran's saffron is the world's leading, in terms of exports Spain holds the first place. Principal destinations inside the European Union are Switzerland, Finland, Germany and France. Outside the EU, the export mainly goes to the United States, Canada, United Kingdom and United Arab Emirates.

Learning objectives

By participating in the possible Escape Room for IO2 for the project Agro_EduGames based on this topic, players would get introduced to the concept of saffron (very important for maintaining cultural heritage in Castilla-La Mancha) and agricultural entrepreneurship. Including:

- The very specific process of cultivation and harvesting of this spice;
- How to get distinguished in international markets and to obtain the PDO;
- General information related to saffron.

5 ready-to-use Escape Room Scenarios

Each thumbnail is a link that re-directs you to the online folder with the relevant ER Scenario and the relevant material:

Alternatively, visit https://agroedugames.com/io2-module-escape-rooms-break-out-boxes-on-agro-entrepreneurship/

Conclusion

This module aims to provide youth organisations and youth workers with a framework on how to create Educational Escape Rooms with relevant topics on agriculture and sustainable methods of farming, so as to foster activities interwoven with the sector of permaculture and organic farming. This module focuses on fifteen topics – coming from 4 different national contexts – that the project's consortium believe that represent their countries' agricultural traditions.

Within this module, the readers can learn about the project's methodology in general, as well as about the methodology that the output's leading organisation has followed during the development of the current document and the development of the five ready-to-use Escape Room scenarios; four offline and one online. Each of the fifteen topics is accompanied with minimum of three learning objectives which will operate as guidelines for the youth workers or anyone else who wants to use the topics as inspirations and create new Escape Room scenarios. Each one of the Escape Room Scenarios consists of relevant scenarios, riddles, enigmas and other challenges, hints, printable graphic material and digital tools, such as QR code and digital documents, designed and structured in an efficient way.

Through the use of Escape Rooms, the consortium tries to address many problems that young people face, such as youth unemployment. Youth Organisations must have access to relevant training related to the needs of the labour market, and furthermore, to establish links with businesses, so as to be able to find effective routes into employment. Agricultural enterprises are increasing at a fast pace and its growth is one of the ways to achieve the objectives of this Output. In this way, young people will gain direct access to the labour market and, at the same time, their development is set forward. Additionally, the problem of the increasing unemployment among young Europeans can be solved through the promotion of farming to young people, and it can also contribute to sustainable development goals. This is why, the consortium tries to promote Agricultural Entrepreneurship in a fun way towards youth.

As mentioned in the introduction, this Module aims to penetrate the educational material used by youth organisations and youth centres that provide training to groups facing various types of learning disorders or other vulnerable groups. Such groups are long-term unemployed, NEETs or marginalised groups that have occasionally encountered situations and issues of social exclusion. Additionally, organisations that deal with the provision of formal and non-formal training on different entrepreneurial aspects appealing to young people – but more specifically on Agricultural Entrepreneurship – will benefit from the results of this Output.

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