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D2.3: Best Pedagogical Practices for Small-scale Entrepreneurship in EU Countries Report

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for Small Business Development”*



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Acronyms

EU-	European Union
EE-	Entrepreneurship Education
VET-	Vocational Education and Training
TVET-	Technical Vocational Education and Training
SME-	Small and Medium Enterprise
UNESCO-	United Nations Educational, Scientific and Cultural Organisation
SSA-	Sub- Saharan Africa





Executive summary

This report is a product of the GSMESKILL Erasmus+ project, co-funded by the European Union. The project brings together relevant organizations from the European Union (Italy, Greece, Germany, Slovenia) and Sub-Saharan African (SSA) countries (Nigeria, Kenya, and South Africa). The collaborative effort aims to tackle the challenges related to providing effective Vocational Education and Training (VET) to support sustainable entrepreneurship in SSA. Despite their modest size, many Sub-Saharan African countries grapple with issues such as the lack of practical relevance in their Technical and Vocational Education and Training (TVET) sector, limited responsiveness to labor market needs, inadequate infrastructure, and equipment, as well as low throughput.

The report delves into the landscape of small-scale entrepreneurship in EU countries, offering insights into the challenges and opportunities within SMEs, especially in the context of sustainability. It encompasses an examination of training and education initiatives aimed at supporting sustainable entrepreneurship, exploring pedagogical practices, tools, and programs that have proven effective. The report investigates the role of innovation and digitalization in vocational education and training (VET) with a focus on SMEs, providing practical examples. Additionally, it sheds light on the significance of networks and collaborations for holistic training delivery.

Drawing from the experiences of SMEs, the report aims to distil valuable lessons and best practices that contribute to the development and sustainability of small-scale entrepreneurship in the European context.





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1 Introduction

European's small and medium enterprises (SMEs) are the backbone of EU economy and essential to Europe's competitiveness and prosperity. SMEs play a key role in every industrial ecosystem, constituting a significant majority of enterprises. But moreover, they also hold environmental significance and contribute to the sustainability. Sustainable entrepreneurship empowers individuals and companies to actively contribute to sustainable development. By innovating new products, services, and production processes, they aim to minimize social and environmental impacts while simultaneously enhancing people's quality of life.

In order for SMEs to meet the challenges of green and digital transition, they need the effective support to develop adequate competencies. The role of the VET providers is therefore to teach people themes related to sustainability (how to successfully use current resources to achieve sustainability growth, while not risking future generations' ability to access resources) together with the principles of entrepreneurship. To facilitate such training and development, they have to use appropriate pedagogical approaches and create effective educational and training programmes.

In recent years, entrepreneurship education (EE) has gained prominence as a key focus of policy development across European nations. At the European level, EE is integral to the new European Skills Agenda, organized around four pillars: collective action, skills alignment with job requirements, supporting lifelong learning, and investments in skills. Within these pillars, 12 actions are structured, including initiatives aimed at fostering entrepreneurial and transversal skills, crucial for supporting the twin transition (green and digital). EE, in the context of Europe's green transition, offers a comprehensive approach aligned with the goals of the EU Green Deal. In the digital realm, EE serves as an effective avenue for the practical application of digital competences, necessitating tangible links between the European Digital Competence Framework (DigComp) and the Entrepreneurship Competence Framework (EntreComp). Moreover, EE contributes to building a more equitable and inclusive society by nurturing not only commercial entrepreneurship but also social entrepreneurship. In the realm of EE, the role of educators is paramount at both school and higher education levels. Successful implementation of EE relies on educators possessing specific competences, methods, and tools. Therefore, prioritizing teacher training in EE is essential for attaining national and





European EE objectives.¹

In countries of EU there are already existing best practice of effective pedagogical approaches and training programs for sustainable entrepreneurship and leveraging these is instrumental in the development of new solutions, that can contribute to increasing the capacity and competences for VET teachers and learners in the field of sustainable entrepreneurship in three SSA countries, Nigeria, Kenya and South Africa, that are in the focus of this initiative. By drawing insights from successful models, training initiatives can integrate proven methodologies, pedagogical approaches, and tools that have demonstrated positive outcomes. This approach ensures a solid foundation, allowing for the adaptation of strategies that resonate with the unique challenges and contexts of small-scale enterprises. Incorporating these best practices facilitates the creation of targeted, relevant, and impactful training modules, addressing the specific skills and competencies needed for sustainable entrepreneurship. This not only enhances the quality of education but also contributes to the overall success and resilience of entrepreneurs in navigating the complexities of a green and socially responsible business landscape.

1.1 Background and context of the GSMESKILL project

The European Union (EU) acknowledges the importance of entrepreneurship education for competitiveness, economic growth and job creation and recognises these deficiencies. In addition, there is a need to infuse more practical relevance in curricula and improve infrastructure and equipment. Also, research on entrepreneurship education in Africa recognizes its value but highlights several deficiencies, noting that it often lacks alignment with contextual peculiarities, and teaching and assessment often follow traditional classroom methods.

The GSMESKILL project is an initiative addressing these challenges and is specifically focusing on three countries of SSA, Nigeria, Kenya and South Africa. Despite their small size, the TVET sector in many Sub-Saharan countries faces challenges such as a notable lack of practical relevance, limited responsiveness to labor market needs, inadequate infrastructure and equipment, and markedly low throughput. Entrepreneurship education holds widespread significance due to its inherent advantages, including job creation, poverty alleviation, enhanced living standards, and the production of goods/services to meet growing population needs,

¹ Lilisch, Stefan; Tømmerbakke, Jarle; Melleri, Minna; Volkmann, Christine; Grünhagen, Marc (2021): A guide to fostering entrepreneurship education. Five key actions towards a digital, green and resilient Europe. Luxembourg: Publication Office of the European Union.





effectively bridging the gap between technology and human satisfaction. Coordinated efforts to promote entrepreneurship development through education have the potential to transform this challenging scenario.

Entrepreneurship challenges persist in Africa despite significant investments by both public and private sectors to foster grassroots entrepreneurship in emerging economies. Most efforts have focused on providing African entrepreneurs with basic tools comparable to those in developed countries. However, critical elements such as access to financial services and markets, business connections, education, training, mentorship, and support systems remain deficient, especially in rural areas. Given the prevalence of the informal economy, enhancing entrepreneurship skills can catalyse small business growth in urban and rural regions, particularly among the most disadvantaged populations. TVET is in the need of profound transformation. For this reason, the **first objective of GSMESKILL is to reinforce the links between the third countries not associated to the Programme VET system and its labor market so as to better align VET to local labor market opportunities.** Key project priorities include exchanging best pedagogical practices for small-scale entrepreneurship, promoting greener growth, developing innovative vocational teaching methodologies, and creating a toolbox for VET Entrepreneurial Mindset and skills tailored for Nigeria, Kenya, and South Africa.

Moreover, the delivery approaches adopted by formal VET providers (VET institutions, VET schools, training providers etc.) are not conducive for training for the informal economy, because the curricula generally focus on formal qualifications and are not able to adapt to specific skills needs of informal business or develop an entrepreneurial mindset. Competences of VET teachers needs to answer and adapt to the labor market. The development of a coaching Guide on Innovative and digitalized vocational methodologies for VET providers in order to support them not only in making digitalized trainings but also provide tools that will overcome the challenges of living in a COVID-era and combined with an international exchange activity for teaching staff of VET providers to foster mutual learning will contribute to the second major objective of **increasing the capacities of VET providers and teachers especially in the fields of management, governance, inclusion, quality assurance, innovation; and internationalization.**

The third objective consists in **improving the level of competences, skills and employability potential of VET learners.** Developing an innovative toolbox with tailored curricula that will enhance vocational entrepreneurship and business skills of young entrepreneurs who run informal businesses as well as the creation of GSMESKILL e-learning platform comprise the main activities.

Through the elaboration of evidence-based research and mapping of skills and





good practices, innovative vocational teaching methodologies approach, the needs of VET providers will be addressed whereas training toolbox will enhance significantly the curricula thus **improving the knowledge, technical, managerial and pedagogical skills of VET teachers and trainers**, that is the fourth objective.

Employers and entrepreneurs play a limited role in standard setting and quality assurance, serving more as sites of training delivery. As such, employers have little influence over the quality of the system itself. Another major objective is thus to **support the exposure of staff and policy makers bridging the labour market and VET closer**. The involvement of private sector partners for skills mapping, curriculum development and the creation of a multi-stakeholder and multilingual community of education professionals and entrepreneurs will enhance the relevance of the curricula including with regards to the needs and reality of the world of work as well as to rapid technological progress. These activities along with the international exchange activity for teaching staff of VET providers to foster mutual learning and participatory method of drafting national policy recommendations will contribute to the last objective of **developing networks and exchanges of good practice between VET providers in third countries and European countries**.

1.2 Objectives and scope of the report

The main objective of the report is to present good practices and pedagogical tools that can contribute to VET digital-based training programmes for small-scale sustainable entrepreneurship.

This report delves into the landscape of small-scale entrepreneurship in EU countries, offering insights into the challenges and opportunities within SMEs, especially in the context of sustainability. It encompasses a detailed examination of training and education initiatives aimed at supporting sustainable entrepreneurship, exploring pedagogical practices, tools, and programs that have proven effective. The report investigates the role of innovation and digitalization in vocational education and training (VET) with a focus on SMEs, providing practical examples. Additionally, it sheds light on the significance of networks and collaborations for holistic training delivery. Drawing from the experiences of SMEs, the report aims to distill valuable lessons and best practices that contribute to the development and sustainability of small-scale entrepreneurship in the European context.

The report contributes valuable insights for the Comparative analysis of entrepreneurship vocational education in SSA and EU countries in order to make





the framework of the skills needed, whether through up-skilling or re-skilling, and proposes strategies for their development. This involves the design of specialized modules within vocational education and training (VET) programs, customized to the unique needs and contexts of each country.

1.3 Methodology and data resource

The data and information for this report were collected with the use of primary and secondary research. Through desk research (secondary research) the already existing materials were reviewed to collect data and information on the small-scale entrepreneurship context in the EU and especially on best practices of pedagogical approaches, training programs and tools that support sustainable entrepreneurship. For this purpose various literature available such as publications, reports, academic papers, and online databases were reviewed. Various documents, reports, and publications were analysed to extract relevant data and insights. Also, online databases, repositories, and reputable websites were utilized to gather information and statistics. In this way collected data and information from different sources was combined and synthesised to generate a comprehensive overview of the topic.

To complement the desk research and best practice examples, we interviewed 16 companies across six countries, connecting theoretical insights with practical realities in small enterprises. Respondents were chosen based on professions identified in the previous SSA report on VET green entrepreneurial skills, emphasizing potential for green growth. Our carefully designed interview questions aimed to capture a comprehensive view of each entrepreneur's background, training experiences, available resources, and the broader ecosystem shaping their journey in sustainable entrepreneurship. This approach unveils both individual narratives and the contextual factors influencing their endeavours.





2 Small-Scale Entrepreneurship in EU Countries

Europe's 23 million small and medium enterprises (SMEs)² are the backbone of the EU economy. They employ around 83 million people, account for about half of Europe's GDP and play a key role in adding value in every sector of the economy (Flash Eurobarometer 498 SMEs, green markets and resource efficiency, pg. 1).

Small and medium-sized enterprises (SMEs) are deeply woven into the fabric of Europe. They are essential to Europe's competitiveness and prosperity, as well as economic and technological sovereignty. (Unleashing the full potential of European SMEs, EC, March 2020).

2.1 Small-scale entrepreneurship landscape

According to the official EC definition³, SMEs are enterprises which have fewer than 250 employees, and have either an annual turnover of less than EUR 50 million or a balance sheet total of less than EUR 43 million. The analysis in this report is based only on the employment definition of SMEs, since this is the definition used by the Structural Business Statistics (SBS) database maintained by Eurostat, the main data source for the report.

Within the SME population, micro-SMEs are enterprises which employ fewer than 10 staff, while small SMEs employ 10 to 49 staff, and medium-sized SMEs employ between 50 and 249 staff.

In 2022⁴, approximately 24.3 million Small and Medium-sized Enterprises (SMEs) were active in the EU-27, constituting a significant 99.8% of all enterprises in the non-financial business sector (NFBS). Despite their large number, SMEs accounted for just under two-thirds of employment and slightly more than half of the value added in the EU-27 NFBS. This data highlights the significant role of SMEs in terms of the number of enterprises but also indicates that larger enterprises might have a relatively more substantial impact on employment and value added within the non-financial business sector.

² EU definition for SME: micro (staff < 10 & turnover ≤ € 2 m or balance sheet total ≤ € 2 m), small (staff < 50 & turnover ≤ € 10 m or balance sheet total ≤ € 10 m), medium sized (staff < 250 & turnover ≤ € 50 m or balance sheet total ≤ € 43 m)

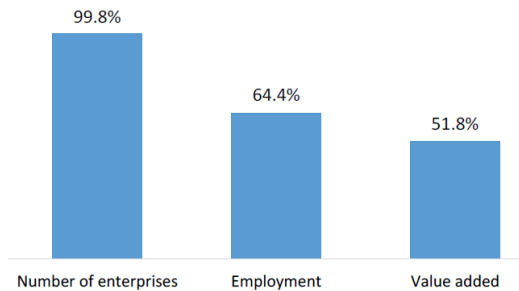
³ Commission Recommendation of 6 May 2003 concerning the definition of micro, small, and medium-sized enterprises (2003/361/EC), Official Journal of the European Union, L 124/36, 20 May 2003

⁴ The 2022 data are based on estimates derived from economic data available in December 2022.





Figure 1: Share of EU-27 SMEs in the number of enterprises in the NFBS employment and value added in 2022



Source: Calculations by the JRC based on Eurostat's Structural Business Statistics, Short-Term Business Statistics and National Accounts Database

In 2022, the majority of SMEs were categorized as micro-SMEs, forming the largest segment. Surprisingly, these very small enterprises played a significant role in terms of value added and employment in the non-financial business sector (NFBS):

- **Micro SME Dominance:** The vast majority of SMEs were micro-SMEs.
- **Contribution to Value Added:** Despite their small size, micro-SMEs accounted for a substantial 36% of SME value added in the NFBS.
- **Employment Share:** Micro SMEs also had a considerable impact on employment, contributing to 46% of SME employment in the NFBS.
- **Employment Distribution:** Micro enterprises contributed more to total SME employment (46%) than small SMEs (30%), and small SMEs contributed more than medium-sized SMEs (24%).
- **Value Added Share:** Micro, small, and medium-sized SMEs generated about the same proportion of SME value added, with micro-SMEs contributing 36%, slightly more than small and medium-sized SMEs, each at 32%.

This data underscores the economic significance of micro-SMEs, not only in terms of their sheer number but also in their substantial contribution to both employment and value added within the NFBS.

The strong prevalence of micro-SMEs can be observed in all EU-27 Member States. In the majority of EU-27 Member States, 90-95% of all SMEs were micro-SMEs in 2022. The Member States with the largest proportion of micro-SMEs were CZ (96%), NL (96%) and SK (98%). AT, DE, DK and LU were the only four Member States in which the proportion of SMEs that are micro-SMEs was less than 90%.

In 2023, a nuanced outlook is anticipated for SMEs in the EU, influenced by factors such as persistent high inflation rates. Here are the key expectations:





- Overall SME landscape: The number of firms is expected to grow despite anticipated declines in both value added and employment.
- Value added growth: All enterprise size classes are projected to experience growth in value added when expressed in current prices. However, when adjusted for inflation, the real value added is expected to decrease due to an estimated inflation rate of around 6% in the EU.
- Micro enterprises resilience: Micro enterprises are expected to fare relatively better, with a limited decline of 0.8% in adjusted-for-inflation value added. Additionally, they are expected to show positive trends in employment and the number of enterprises.
- Contractions in other size classes: Small and medium-sized SMEs are expected to face contractions in adjusted-for-inflation value added, employment, and the number of enterprises. Medium-sized SMEs are projected to experience the most significant fall in adjusted-for-inflation value added at -1.5%.
- Employment decline: The most substantial decline in SME employment is expected for medium-sized enterprises, with a projected decrease of -0.9%.

This forecast suggests a complex landscape for SMEs in 2023, with growth in some aspects, particularly in the number of enterprises, but challenges, especially in inflation-adjusted value added and employment, particularly for medium-sized enterprises.

Table 1: Projected annual growth in 2023 of value added (both nominal and real), employment and number of enterprises SMEs and large enterprises.

	Value Added (not adjusted for inflation)	Value Added (adjusted for inflation)	Employment	Number of Enterprises
Micro SMEs	5.6%	-0.8%	0.5%	0.4%
Small SMEs	5.0%	-1.3%	-0.5%	-0.8%
Medium-sized SMES	4.8%	-1.5%	-0.9%	-1.2%
Large enterprises	5.2%	-1.1%	-0.4%	-0.7%
All SMEs	5.2%	-1.2%	-0.2%	0.3%
Total	5.2%	-1.1%	-0.2%	0.3%

Source: Calculations by the JRC based on the European Commission's Autumn 2022 Economic Forecast, Eurostat's Structural Business Statistics, Short-Term Business Statistics and National Accounts Database





Small and medium-sized enterprises (SMEs) form the backbone of the economy in Europe, with almost two-thirds of employees in the EU working for a SME, producing over half of all value added in the European economy. SMEs come in three size-bands, micro-sized enterprises which employ between zero and nine people, small businesses that employ between 10 and 49 workers, and medium-sized businesses that have between 50 and 249 workers. In terms of enterprise numbers, the vast majority of SMEs belong to the smallest size category, with micro-sized enterprises accounting for 22.82 million of the 24.3 million SMEs in the European Union.

While large businesses usually dominate the media headlines, the challenges faced by small and medium sized businesses are equally important for the future of the European economy, with particularly salient issues including the transition to a green and sustainable economy, the harnessing of new digital technologies, and the need for skilled and qualified workers for SMEs, particularly in countries with ageing and declining populations.

Although Germany has the largest economy in the European Union it has only the fourth-highest number of SMEs, behind Italy, France, and Spain, and with a comparable number of SMEs to its much smaller neighbor Poland. This is due to the fact that these countries had a higher number of micro-sized businesses, at 3.56 million, 3.1 million, and 2.65 million respectively. Germany had a far higher number of small businesses, and medium-sized enterprises, however, at 320,693 and 49,237 respectively. These larger SMEs, although fewer in number than micro-sized businesses account for a relatively similar share of employment and value added. For the European Union as a whole, SMEs employed approximately 84.75 million people, and had a combined value added of 4.15 trillion Euro. Among micro-sized and small enterprises, the wholesale and retail trade sector was the most common industry sector, while manufacturing was the most common industry sector amongst medium-sized businesses.

SMEs have faced strong economic headwinds for several years now, as a series of economic crises have followed on from the outbreak of the Coronavirus pandemic in 2020. Pandemic-related restrictions on business affected many SMEs negatively, as micro and small enterprises are more likely to be in customer facing industries, such as wholesale and retail trade. The inflation and energy crises which hit Europe beginning in 2022 also affected the SME sector negatively, with the surge in the price of vital inputs into the production of their goods and services causing many SMEs financial stress, as in contrast to larger businesses, SMEs may struggle to pass increased costs on in the form of higher prices, due to their smaller market share and power.





At the same time, tight labor markets have meant that there is an increasing number of positions which companies are struggling to fill, often citing the lack of qualified candidates applying. Nevertheless, the economic outlook for SMEs is far from solely negative, as while Europe's larger businesses may be struggling with remaining internationally competitive in an increasingly fractured global economy, SMEs mainly operate within the European single market, benefitting from the barrier-free cross border trade in goods and services⁵.

2.2 SMEs and the 14 industrial ecosystems

In its March 2020 Communication, titled “A New Industrial Strategy for Europe”, the European Commission noted that “[...]Europe also needs to look closely at the opportunities and challenges facing industrial ecosystems. These ecosystems encompass all players operating in a value chain: from the smallest start-ups to the largest companies, from academia to research, service providers to suppliers”.⁶ In a more recent development, the January 2023 Single Market Report delved into the 2022 economic performance and challenges within 14 specific industrial ecosystems. These ecosystems represent diverse sectors, including Tourism, Creative and Cultural Industries, Aerospace and Defence, Textiles, Electronics, Mobility-Transport-Automotive, Energy-Intensive Industries, Renewable Energy, Agri-Food, Health, Digital, Construction, Retail, and Proximity and Social Economy. The report provides insights into the economic dynamics and challenges within each of these key industrial ecosystems.

SMEs play a key role in every industrial ecosystem, constituting a significant majority of enterprises (99 % in every ecosystem). Within the SME category, a substantial 93% are classified as micro enterprises. This indicates that the majority of SMEs are relatively small in scale. This data underscores the widespread influence and predominance of SMEs, particularly micro enterprises, across various industrial ecosystems. Their role is vital not only in terms of sheer numbers but also in their contribution to the diverse sectors that constitute these ecosystems.

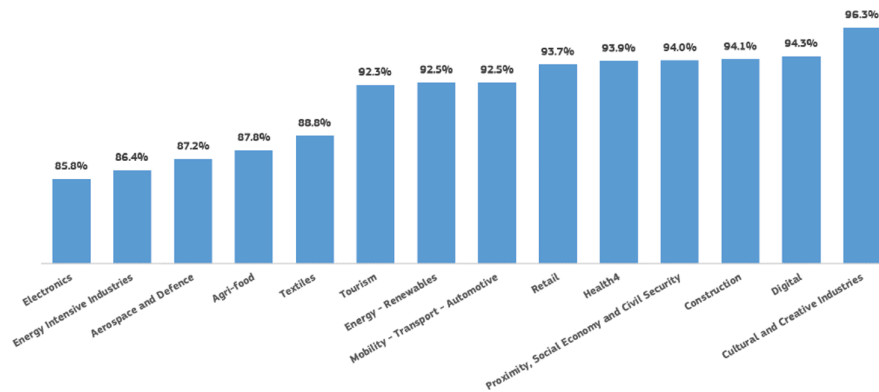
⁵ Statista, SMEs in Europe - Statistics & Facts, <https://www.statista.com/topics/8231/smes-in-europe/#topicOverview>

⁶ European Commission (2020), Communication from the Commission to the European Council, the European Economic and Social Committee and the Committee of the Regions, A New Industrial Strategy for Europe, Brussels, 10.3.2020, COM (2020) 102 final.





Figure 2: Share of micro-SMEs in the number of enterprises in each of the 14 industrial ecosystems



Source: Calculations by the JRC, which are based on Eurostat’s Structural Business Statistics, Short-Term Business Statistics and National Accounts Database

SMEs were the largest employer in 11 of 14 ecosystems, they accounted for more than 70 % of employment in “construction”, “textiles” and “tourism”. SME also accounted for more than 50 % of the added value in six out of 14 ecosystems (“cultural and creative industries”, “retail”, “proximity, social economy and civil security”, “textiles”, “tourism” and “construction”).

2.3 SMEs going green and resource efficient

The significance of SMEs extends beyond their economic importance; they also hold environmental significance. While the individual environmental impact of each SME may be modest, their cumulative effect, given their large numbers, becomes substantial. This emphasizes the importance of considering SMEs collectively when addressing environmental concerns and underscores the need for sustainable practices within this diverse sector.

"Sustainable entrepreneurship refers to the discovery, creation and exploitation of entrepreneurial opportunities that contribute to sustainability by generating social and environmental gains for others in society."⁷ It is a necessary condition to secure our planet for future generations and to reflect the balance between financial and

⁷ Greco, Angela & Jong, Gjal. (2017). Sustainable entrepreneurship: definitions, themes and research gaps. 10.13140/RG.2.2.16751.12968





economic results, social concerns, and our environments – the so-called 3 P’s: People, Planet and Profit (triple bottom line).

Sustainable entrepreneurship empowers individuals and companies to actively contribute to sustainable development. By innovating new products, services, and production processes, they aim to minimize social and environmental impacts while simultaneously enhancing people's quality of life.

The data indicates that 25% of SMEs in the European Union are engaged in the development or provision of green products or services. This suggests a notable portion of SMEs in the EU are actively involved in environmentally friendly or sustainable business activities, contributing to the broader goal of promoting green practices within the business sector.

The European Green Deal, launched to address the existential threat of climate change and environmental degradation, has set the ambitious goal of transforming the European Union into a modern, resource-efficient, and competitive economy. In alignment with this broader initiative, the European SME Strategy, announced on March 10, 2020, is designed to contribute to the objectives outlined in the European Green Deal and other EU initiatives linked to the concurrent digital and green transitions. The key aims of the European SME Strategy include climate neutrality (contributing to the goal of a climate-neutral economy), resource efficiency (promoting a resource-efficient approach across various industrial sectors), and digital economy (facilitating the transition to a digitally agile economy). By mobilizing SMEs (Small and Medium-sized Enterprises) across different industrial sectors, the strategy seeks to actively involve these enterprises in the twin objectives of the digital and green transitions, fostering a sustainable, innovative, and competitive economic landscape within the European Union.

Flash Eurobarometer survey was carried out by Ipsos European Public Affairs in 27 Member States of the European Union, Albania, North Macedonia, Montenegro, Serbia, Turkey, Iceland, Moldova, Norway and the US Between 8 November and 10 December 2021, more than 17 500 SMEs and large companies were interviewed via telephone in these countries. The findings are based on 13 343 interviews with SMEs in the 27 EU Member States.

The survey reveals a strong commitment among SMEs toward resource efficiency, with a significant majority actively implementing measures to enhance sustainability. A substantial 89% of surveyed SMEs are actively undertaking at least one of the resource efficiency actions outlined in the survey. In contrast, only a minimal 9% of SMEs reported not taking any action toward resource efficiency. Among the various resource efficiency actions, the most widely adopted by SMEs include minimizing





waste (64%), saving energy (61%), and conserving materials (57%). These findings reflect a widespread dedication among SMEs to embrace practices that promote resource efficiency, indicating a positive trend toward environmentally responsible business conduct.

The survey reveals that 83% of SMEs actively engaged in resource efficiency actions plan to implement additional measures in the next two years. Common planned actions include saving energy (58%), minimizing waste (55%), and conserving materials (53%). However, among SMEs not yet involved, 73% express no plans to undertake resource efficiency actions in the foreseeable future. These findings reflect a positive trend among proactive SMEs committed to ongoing sustainability initiatives, while a significant portion of others appears less inclined to embrace resource efficiency measures.

A significant 72% of SMEs currently lack a specific strategy to reduce their carbon footprint and achieve climate neutrality or negativity. Among these SMEs, approximately a quarter express plans to formulate such a strategy. On the other hand, one in five SMEs already possesses a concrete strategy to reduce their carbon footprint, and 4% assert that they have achieved climate neutrality. These findings illustrate a prevailing gap among SMEs in terms of having structured approaches toward carbon reduction and climate neutrality, with a notable portion in the planning phase.

The foremost challenge faced by SMEs in initiating resource efficiency actions is the complexity of administrative or legal procedures, cited by 34% of respondents. This is followed by concerns about the cost of environmental actions, reported by 24% of SMEs. Notably, in the current survey, a significant number of SMEs also express difficulties arising from a lack of the necessary materials, parts, products, or services, a factor mentioned by 24% of respondents, marking a notable increase of 9 percentage points compared to 2017. These findings underline the multifaceted challenges SMEs encounter in implementing resource efficiency measures, encompassing administrative complexities, cost considerations, and supply-related issues.⁸

⁸ Keramat Esmi, Rahmatallah Marzoughi, Jafar Torkzadeh, Teaching learning methods of an entrepreneurship curriculum, Journal of Advances in Medical Education & Professionalism ,October 2015



3 Entrepreneurship in Vocational Education and Training in EU countries

Entrepreneurship refers to an individual’s ability to turn ideas into action. It covers creativity, innovation and risk taking, and the ability to plan and manage projects in order to achieve objectives. This supports everyone in day-to-day life at home and in society, makes employees more aware of the context of their work and better able to seize opportunities, and provides a foundation for entrepreneurs setting up social or commercial activities⁹.

Entrepreneurship education distinguishes between three approaches: education about, for and through entrepreneurship:

- Education about entrepreneurship teaches entrepreneurship as a societal phenomenon. It deals with theories and empirical findings about entrepreneurship.
- Education for entrepreneurship aims at the acquisition of knowledge, skills and attitudes relevant for turning ideas into reality, especially starting a new enterprise.
- Education through entrepreneurship uses the entrepreneurial processes as a method to achieve learning objectives¹⁰.

The goal of entrepreneurship education is to promote creativity, innovation and self-employment and is not general business or economic study. Entrepreneurial programmes provide knowledge and skills for students to feel more confident about setting up their own businesses if they can test their ideas in an educational, supportive environment. But these competencies are not beneficial only to (future) entrepreneurs, but to everyone to get more creative and self-confident in whatever they undertake.

Entrepreneurship education is highly impactful during initial vocational training, where students are on the cusp of entering the workforce. However, this focus is often lacking as the primary emphasis is on producing skilled workers.

In majority of European countries, the entrepreneurship is at least to some extent included in the national curricula for vocational education, mostly being an optional subject. Even where entrepreneurship is included in national curricula, there are still

⁹ Commission Communication “Fostering entrepreneurial mindsets through education and learning”. COM (2006) 33 final

¹⁰ Lilischkis, Stefan; Tømmerbakke, Jarle; Melleri, Minna; Volkmann, Christine; Grünhagen, Marc (2021): A guide to fostering entrepreneurship education. Five key actions towards a digital, green and resilient Europe. Luxembourg: Publication Office of the European Union.





gaps, mostly related to extent of participation of schools and students, or to the effectiveness of methods applied (ineffective teaching methods, entrepreneurship not included in all parts of the VET system, limited student participation, not fully competent teachers, not involved businesspeople, missing practical element, etc.).

There is a perceived problem in the partial lack of competence among entrepreneurship teachers, particularly in practical experience. Improvement in this area is essential. While some countries offer training courses on entrepreneurship for teachers, there is a limited presence of a systematic approach.

Cooperation between schools and enterprises is generally well established, and in most cases, it is not too difficult for schools to find entrepreneurs and businesspeople who will come to the classroom. This might be a bit more difficult when trying to ensure participation of small and micro enterprises. Also, non-profit organisations play an important role in delivering entrepreneurship education in VET schools as they offer programmes based on practical experience and working on projects. Usually, they have close links with the business world and even receive support from public authorities.

3.1 Training and education aimed at supporting small-scale sustainable entrepreneurship

“High quality initial and continuous vocational education and training (VET) systems are best placed to deliver the skills for the digital and green transitions. Our SMEs and skilled craft enterprises play an important role in mastering the challenges ahead. In order to meet these challenges, they rely on the excellence of national vocational education and training systems. It is on this basis that SMEs will succeed in shaping and benefiting from the twin transition” declared President Wollseifer, Chair of SMEUnited (association of crafts and SMEs in Europe) Training Committee at their meeting on November 18, 2021¹¹.

The definition of sustainable entrepreneurship emphasizes that it goes beyond the initiation of new sustainable ventures, but also involves the transformation and adept management of existing businesses to enhance their sustainability. Sustainable entrepreneurship instructors therefore teach people how to successfully use current resources to achieve sustainability growth while not risking future generations’ ability to access resources (Hermes and Rimanoczy,

¹¹ <https://www.smeunited.eu/news/quality-vocational-education-and-training-is-high-priority-for-smes>





2018). To provide sustainable entrepreneurship education modules, educators often integrate themes related to sustainability with the principles of entrepreneurship.

3.2 Pedagogical practices to facilitate learning and development

Pedagogical practices refer to the methods, strategies, and approaches employed by educators to facilitate learning and promote the development of students. The specific pedagogical approach used can vary depending on the educational context, goals, and target audience.

Universities often use following pedagogical approaches to entrepreneurship education:

- Idea and opportunity creation pedagogy (teaching students how to develop and seek new opportunities to act new ideas).
- Venture creation pedagogy focused on the creation of a venture or new organisation (students are accompanying in the creation of a venture, through mentoring, courses, accelerations and incubation programmes).
- Value creation pedagogy (focused on the creation of value, which exceeds the scope of venture creation – physical, economic, social or ecological societal value).

Training in entrepreneurship is an activity utilized to communicate knowledge and information required for setting and running businesses. In addition, it enhances, improves, and develops non-entrepreneurs’ attitudes, skills, and abilities. Training in entrepreneurship affects the level of trends, activities, and entrepreneurial passion, as a result of which setting and developing new businesses in economy is also affected. With regard to entrepreneurship teaching methods, no certain method is offered. An overview of the literature on entrepreneurship shows the change pattern from conventional teaching of entrepreneurship to modern methods based on “action learning”. Entrepreneurship education is, simply defined, a systematic, conscious, and goal-oriented process, through which non-entrepreneur individuals who has the necessary potential are creatively trained. In fact, entrepreneurship education is an activity used to transfer knowledge and information required for entrepreneurship and leads to increase in, improvement, and development of





non-entrepreneurs' attitudes, skills, and abilities. Moreover, it forms the students' beliefs and values for creating an entrepreneurship culture¹².

We could consider three teaching-learning methods (direct, interactive, and practical-operational) as the main teaching methods, that include several elements.

Table 2: Elements of teaching-learning methods

1.	Direct teaching-learning methods:	inviting guest entrepreneurs, mentoring, official speech-seminars, video watching and recording, training in extracurricular activities, training in specialized lessons, small businesses mentoring, entrepreneurship tutoring.
2.	Interactive teaching-learning methods:	process-oriented learning, learning from mistakes, interviewing entrepreneurs, bilateral learning, group discussion, networking, discussion, problem-oriented learning, active learning.
3.	Practical-operational teaching-learning methods:	role-playing, training workshops, site visiting, class practice, research projects, internship, business planning, starting business, studying nature, investment projects, practical experience.

Source: Keramat Esmi, Rahmatallah Marzoughi, Jafar Torkzadeh, *Teaching learning methods of an entrepreneurship curriculum*, *Journal of Advances in Medical Education & Professionalism*, October 2015

Some of the most popular teaching-learning approaches aimed at sustainable entrepreneurship are collaborative learning, experiential learning and problem-based learning¹³:

Collaborative learning:

This approach emphasizes collaboration and cooperation among learners. It involves group activities, discussions, and projects where learners work together to solve problems, share ideas, and learn from one another. Collaborative learning fosters teamwork, communication skills, and the ability to work effectively in diverse groups.

¹² Khanijazni J. The Impact of entrepreneurship education on the promotion of entrepreneurial culture in universities. *Journal of New Economy and Commerce*. 2009; 3(10): 242–65.

¹³ Ida Matilde Fauske, Harrshinny Vallipuram, benedicté-Elise Foldnes, Elli Verhust, Karin Wigger and Sólvi Solvoll: *Teaching sustainable entrepreneurship: Learning approaches, pedagogical methods and teaching tools*, May 2022.





Experiential Learning:

Encourage hands-on learning experiences, such as workshops, simulations, or internships, where entrepreneurs can apply their knowledge in real-world situations. Learning by doing is often more effective for skills development.

This approach emphasizes hands-on experiences and active engagement in real-world situations. Learners are encouraged to participate in practical exercises, simulations, internships, or projects that allow them to apply their knowledge and skills in authentic contexts.

Problem-based learning:

Use real-world problems or case studies relevant to small-scale entrepreneurship as the foundation for learning. This approach fosters critical thinking and practical problem-solving skills. It centres around authentic and complex problems that learners need to solve. It involves presenting learners with real-world problems, allowing them to analyse, propose solutions, and learn new concepts and skills in the process. Problem-based learning promotes critical thinking, problem-solving, and the application of knowledge in practical situations.

Table 3: Other relevant teaching and learning approaches for sustainable entrepreneurship education

Active learning	Students are engaged through the course material so that they acquire learning actively by using methods like case studies and discussion.
Learner-centered learning	Students learn to solve problems independently.
Reflective learning	Students increase their competencies through reflection on their learning experience.
Interdisciplinary learning	Encourage entrepreneurs to explore multiple disciplines, including business management, sustainability, and digital skills, to develop a holistic understanding of their entrepreneurial endeavours.
Transformative learning	Learn new ways of thinking and creating different perspectives of the social world.
Place-based learning	Students learn about a local place, or a local heritage, and it is used in the curriculum. It connects communities with learning communities.
Problem analysis	shifting focus from problem solving to analysing problems
Service learning	Linking classroom with the outside world – students gain academic knowledge while engaging in community service.
Inquiry-based learning	Learners are encouraged to ask questions, investigate topics of interest, and seek answers through research and exploration. It promotes critical thinking, problem-solving, and independent learning by stimulating curiosity and self-directed inquiry.
Project-based learning	Learners are working on extended projects that address real-world challenges or tasks. Learners engage in hands-on activities, research, planning, and implementation of projects that culminate in a final product



	or outcome. It encourages collaboration, self-directed learning, and the development of interdisciplinary skills.
Flipped classroom	Learners engage with instructional materials, such as pre-recorded lectures or readings, outside of the classroom. Classroom time is then dedicated to discussions, activities, and application of knowledge with the guidance of the instructor. The flipped classroom approach allows for more interactive and personalized learning experiences.
Mentorship and coaching	Facilitate access to experienced mentors and coaches who can provide guidance, share insights, and offer personalized support to small-scale entrepreneurs.
Peer learning	Create opportunities for small-scale entrepreneurs to learn from and collaborate with their peers. Peer networks can provide valuable insights and support.

3.3 Examples of best practices of effective pedagogical approaches

In this section the examples of possible approaches and methods that can be used in teaching entrepreneurship within vocational education are presented, identified by FaVET project partners from European countries. The examples showcase a variety of objectives, targets, methods, and solutions, offering a meaningful selection of diverse cases.

Eleonas hotel: Agritourism and sustainability practice (Greece)

Hotel “Eleonas” is an eco-conscious agri-tourist small hotel in an ideal position on a hill in Evoia, Greece, surrounded by an olive grove. It has its own restaurant and organic farm.

The hotel is awarded with Green Key. The Green Key certificate is the leading standard for excellence in the field of environmental responsibility and sustainable operation within the tourism industry. This prestigious certificate represents a commitment by businesses that their premises adhere to the strict criteria set by the Foundation for Environmental Education. A Green Key assures guests that, by choosing to stay with a Green Key establishment, they are helping make a difference for the environment. The high environmental standards expected of these establishments are maintained through rigorous documentation and frequent audits. Green Key is eligible for hotels, hostels, small accommodations, campsites, holiday parks, conference centres, restaurants and attractions.





Eleonas (olive grove in greek) is thoroughly committed to reducing its environmental impact by actively participating in standards that are in harmony with the earth's natural resources. It welcomes customers offering them a unique experience and treating them as friends. The couple that started the business had no previous experience in entrepreneurship but each one of them had skills that helped the business grow. One of them was a farmer and one had experience in customer service in the tourism sector. The main source of funding came through subsidized programs that aim to promote and develop agritourism activities in rural areas of Greece (LEADER program).

Objective:

Farmers and other organizations have started organizing themselves in rural networks deploying alternative business models aimed to guarantee competitive advantages, to improve farm revenue streams, to resume taking an active role in the agrifood system. It aims to foster a re-connection among producers and consumers with these explicit ethical and political goals: re-vitalization of territory identity and rural community relations to local food and agriculture, linking with sustainable agriculture, economically viable, and socially responsible practices. In fact, rural tourism represents a growing market offering to rural communities' growth opportunities that arise from the emerging trends in tourism demand, which tend to pay more attention to the values of culture, food, and the countryside.

Agritourism represents an authentic form of rural tourism as it allows tourists to live a real and authentic rural experience on a working farm, participating in agrifood activities (e.g., harvesting, feeding, preserves preparation) being in contact with animals and nature and enjoying the food produced and cooked on the farm.

Target audience:

- entrepreneurs
- vocational trainers
- local community
- tourists

Overview and components:

The hotel has a range of environmentally friendly practices that promote sustainable entrepreneurship:

- furniture, mattresses provided by the Greek company Coco Mat which is well known for its ecological sensitivity and textiles made of natural materials
- economy light bulbs almost 100% and “green” appliances
- thermostats in each room and magnetic traps on the windows to stop heating or cooling when the window is open





- filter on every faucet and shower cap which mixes water with air to create a pleasant feeling while saving water
- garden planted with bushes and trees which are adjusted to the weather conditions so that they do not demand a lot of watering
- recycling of paper, glass, aluminum, batteries, light bulbs, electrical appliances and fabrics
- reusable dishware and silverware, oid using single use condiments
- meals served are made with products of the farm and the region.

The business is developed based on a green policy and a relationship that goes beyond the typical customer service relationship: “We, at Eleonas hotel, respect the environment, the local community, our guests and our co-workers. We built the hotel with local materials focusing on providing guests with an undisturbed view of nature and starry nights. We immediately transplanted the 5 olive trees that grew where the hotel now stands.”

Accommodation is combined with activities that bring customers closer to nature and create environmental awareness such as guided tours for organic farming methods, olive oil tasting, making handmade paper from recycled scraps, weaving with rags. The guests have the opportunity to learn about environmental-friendly techniques such as recycling, energy savings, environmentally friendly cleaning products. The hotel has an organic agrotourism farm where olive trees are cultivated and a vegetable garden. Guests are welcome to follow the everyday work of the olive farm, organically cultivated. The trees are nourished by a suitable soil in the Rovies, fertilized, when this is necessary, only with organic products.

The region’s microclimate, the fertile soil, the organic cultivation (certified by BIO HELLAS) and the owners’ personal care, guarantee the excellent quality of the olives. Customers can buy the bio products produced in the farm as well.

The owners have enhanced their business model through the attendance of various courses such as: digital marketing, customer service support, zero waste training, circular economy. Courses are offered by municipalities, chambers, Hoteliers Association, Institute of the Association of Greek Tourist Companies, Hellenic Recycling Organization or some other are private entities that offer seminars on how an entrepreneur can prepare for international exports and how to prepare for international exhibitions.

The main digital tools used are the hotel website page, there is social media presence and Microsoft Excel.

Professional networking plays an important for the development of the hotel. Eleonas is a member of Hellenic Agrotourism Federation, a network of small guest houses, Rovies Association that has now been dismantled. Networking,





either official or unofficial has contributed to the mutual exchange of information and knowledge with professionals on agrotourism and compensate the lack of specific training and skills.

Benefits and challenges:

Agritourism has been crucial for the long-term growth of rural areas and the economic diversification of rural areas in Greece. It is a viable option for rural socioeconomic development and revitalization of the island of Evoia. The economic, social, and cultural well-being of rural residents is intertwined with the tourism industry. New demands of tourists for a variety of tourism products and services lay the groundwork for business development. Rural entrepreneurship has the potential to increase employment opportunities and diversify local services.

Nevertheless, there have been challenges in the implementation of the project. The process of applying for the state fund came with a lot of bureaucracy and no requirement to attend training on how to build a business such as on how to develop a marketing plan for the business.

The business is small and additional staff is required mostly during high season. Usually, job candidates prefer the more touristic islands than rural areas, making it hard to find employees and train them. For instance, the Ministry of Tourism offers the opportunity to tourism enterprises to employ, during the summer months, trainees of VET studies in tourism to conduct their internship but Eleonas hotel has not been able to identify any candidates, as most of them prefer to find a job in the islands. Additionally, this makes the business development challenging, as the owners cannot dedicate a lot of time to train properly the staff. Plans for development of the business are not possible, as it is a small family-owned business.

Adaptability:

This practice can be adapted to SMEs in rural areas and help increase employment and local activities as well as attract tourism. The use of a more digitalised approach with applications to manage hotel bookings, payments and orders is important for the smooth development of the business. The creation of a network of all agritourist enterprises through a mapping of all the activities offered has been highlighted to promote operations of agritourist SMEs. State funding or other financial source to help setting up this kind of business is also important.





NISI Polychoros: Sustainable glamping and community engagement through educational opportunities (Greece)

NISI Polychoros is a venue where people from Greece and all over the world can come together and express themselves, create, play and connect with Nature.

NISI has a glamping site for accommodation, and it is also a sports, cultural and social events with a playground in a fantastic environment by the sea. The space is also appropriate to organize educational programmes and environmental events and accessible to people with disabilities. Glamping (Glamorous Camping) is a new trend in the world of camping and NISI has already managed to be one of the first places in Greece that combines nature and comfort. Elpis and his partner Dora wandered in Africa and India for 5 years and lived in unique places that were in harmony with the nature. For this reason, they created this eco-friendly space that has similarities to the places they have been, and it is also a space where they are all part of a community and have opportunities to interact through various activities that promote sustainability and intercultural exchange. Elpis and Dora, after their adventure came to an end, they came back to Greece and started their social action that ended up to the creation of this space of sustainable tourism and an open community. A community that is shaped by everyone. Their values are driven by innovation, experiences from different cultures, solidarity and team spirit.

The project was developed by a team of 5 people with their own funds in 2017. Five years later they applied and got funded by state subsidy LEADER.

Objective:

Glamping, which combines the words ‘glamour’ and ‘camping,’ is a sustainable and eco-friendly form of travel. A glamping site is primarily made of natural, sustainable materials, contributing to its eco-friendliness. A glamping trip allows visitors to gaze up at the night sky and observe the stars, even if they would not usually consider camping. There are numerous opportunities for taking pictures, learning about local animals and birds, fishing in nearby lakes and rivers, and immersing themselves in the local environment. As more people take advantage of glamping’s benefits, they become more conscious and appreciative of nature. It is fantastic for the environment because it makes people care more. To ensure a small ecological footprint, sustainable glamping encompasses the concepts of reducing, reusing, and recycling.

United Nations Environment Programme (UNEP) has acknowledged the importance of ecotourism, stating that it is a niche business within the more





significant travel industry and has the potential to contribute to sustainable development.

This type of business proposes a strategy for the long-term growth of rural areas and the economic diversification of rural areas as well as increasing employment opportunities. By integrating these sustainable practices, glamping operators can provide guests with a luxurious outdoor experience while promoting environmental conservation and responsible tourism. Sustainable glamping aligns with the broader goal of sustainable tourism, where travellers seek experiences that contribute positively to both the environment and local communities.

Target audience:

- entrepreneurs
- educators
- vocational trainers
- local community
- tourists, volunteers, students, parents

Overview and components:

NISI Sustainable glamping venue uses eco-friendly building materials and construction methods when designing their lodging alternatives.

- Tents are made out of canvas and natural materials. The cabins are eco-friendly and bungalows are entirely made of tree trunks.
- Has its own vegetable garden and the ingredients are used in the kitchen of the restaurant.
- Waste management strategies such as composting, recycling, reuse of plastic bottles in construction, reuse of paper for packaging.
- Sustainable materials: Reuse of old tires and other material for decoration and furniture outdoors.
- Local Cuisine: Restaurant uses seasonal ingredients, promotion of vegetarianism to lower environmental footprint.

NISI is really innovative as it has a Centre for Experiential Education that offers free seminars for everyone: making natural products, arts camp, how to reuse of waste material, soft skills training, natural building courses. The aim of the center is to share knowledge and skills across different people and cultures in a sustainable way.

Skills development is the first priority for the staff that comes to work in Nisi. Trainings include First Aid, getting familiar with the values of the organization, customer service support and other seminars offered by the Greek Tourism Confederation, subsidized seminars for employees offered by the state and





organized by VET institutions, trainings for applications and platforms used in NISI.

The main digital tools are internet connection, TRIAS retail app for management of orders, app for hotel bookings management, QR code for events.

The priority of professional networking is the involvement of the local community such as cooperation with local kite-surf club and winery. There is also active participation of the organisation in partnerships for ERASMUS+ Mobility to promote youth participation in the activities of NISI fostering intercultural exchange, work with schools to promote environmental and inclusive practices through crafts, sports etc. The connection of NISI with another initiative of the NISI owners, the NGO Wheeling2Help has been highlighted as an important part of this effort. Wheeling2help organizes volunteer trips to African and Asian countries with the aim to promote interaction with local communities and work together towards a better future.

Benefits and challenges:

By abiding by these guidelines, sustainable glamping acts as a role model for ethical travel and inspires visitors to make environmentally friendly decisions while visiting. The sustainable glamping experience in NISI offers educational programs and nature-based activities to enhance guests' understanding and appreciation of the local environment. The engagement with the local community supports and re-activates the local rural area.

Adaptability:

This practice can be implemented in rural areas that provide access to nature-based activities and synergies with local organisations. For the future, the creation of a cooperative of camping sites that organize environmental-friendly activities and incorporate green practices offers the opportunity for knowledge exchange. Synergies of this type of enterprise with VET organisations can develop even further the business and link vocational training with the labor market.

PCAI: Artistic expression and environmental sustainability (Greece)

PCAI is a cultural organization focusing on increasing environmental awareness through an annual programme of commissions, contemporary art exhibitions, artist residencies, performances conferences, and workshops. PCAI was founded in 2014 by Athanasios Polychronopoulos, CEO and founder of Polygreen network of environmental companies that implement waste





management projects, as part of corporate social responsibility. Through its annual programme, aligned with the United Nations' SDGs, the organization forms a comprehensive cultural spectrum while being committed to raising environmental awareness through art. An endeavour to foster creativity, to inspire, to educate on sustainable practices and to ultimately be part of the change. Since 2021 PCAI has been an official nominator for the Earthshot Prize, the significant environmental award established by the Royal Foundation of the Prince and Princess of Wales.

The funds come mainly from the parent organization Polygreen and secondly from European funds. Additionally, productions with other entities such as the Greek Ministry of Culture are co-funded.

Objective:

The intersection of art and sustainability is a dynamic and evolving field that explores the relationship between artistic expression and environmental, social, and economic sustainability. Artists, designers, and cultural institutions are increasingly incorporating sustainability principles into their work to raise awareness, inspire action, and contribute to a more sustainable world. Environmental art, also known as eco-art or land art, involves creating works of art that engage with or respond to the natural environment. Artists use natural materials, landscapes, and ecosystems as both inspiration and medium, often highlighting environmental issues or promoting ecological awareness. Art can be a powerful tool for educating and informing the public about sustainability issues. Artists create pieces that communicate complex scientific concepts or tell stories that inspire people to take action. Art can serve as a catalyst for conversations about sustainability, prompting individuals and communities to reflect on their values, behaviors, and the impact of their choices on the environment.

Target audience:

- entrepreneurs
- educators
- vocational trainers
- general audience, artists

Overview and components:

The organisation invites artists to reflect upon the anthropocene's impact on our planet and investigate waste sources, sustainable and circular practices and new environmental itineraries while retaining their absolute freedom of expression and critical inquiry. The exhibitions are organized in known museums of modern art and in public spaces. The ultimate goal is to increase environmental awareness in Greece and abroad. For this reason, art exhibition





is accompanied by educational workshops and presentations. PCAI also hosts artists in residence programs, providing a space for creative exploration and collaboration with nature. Educational seminars are also organized in schools and foundations focusing on thematic and environmental challenges that trouble a specific local community and encourage them to find solutions. Another great innovation is the production of short animated films as part of the social action for environmental awareness.

PCAI team is small. Nevertheless, skills development is a high priority. Staff are encouraged to broaden their experiences through business trips abroad, gaining fundraising experience at work etc.

The organization prioritizes digitalised tools as it aims to connect to the younger generations. The main tools are social media presence with Instagram and LinkedIn, platforms for videos like Youtube and Vimeo and an Electronic Newsletter.

Synergies is a crucial part of the organisation's development. PCAI works closely with schools. There is also cooperation with: Stavros Niarchos Foundation Cultural Center (multifunctional, environmentally sustainable center of education, art, sports and recreation), Municipal Theater of Piraeus, British Council, Onassis Foundation, public authorities such as the Greek Ministry of Culture. The social action of Polygreen expands in more countries and areas where the parent company has business presence and collaborates with the ministries of education in Mauritius and Oman in order to offer educational seminars in schools. PCAI is also a member of the International Association of Corporate Collections of Contemporary Art. The organization participates as well in a European partnership "Southern Coalition" that includes partners from 11 different countries for a 4-year programme, in the context of Creative Europe.

PCAI highlights the importance of synergies with educational institutions and wants to expand this relation to more educational centers. It currently cooperates with INSEAD university for the delivery of a course. After the COVID outbreak, there is a stronger will to engage with educational institutions and get involved in the delivery of courses by disseminating the organisation's actions at schools through seminars and labs for environmental issues and the aim to shape a greener mindset.

Benefits and challenges:

The relationship between art and sustainability is diverse and multifaceted, reflecting the complex and interconnected nature of the challenges and opportunities in the pursuit of a more sustainable world. Artists contribute to shaping a sustainable future by inspiring new perspectives, fostering critical thinking, and encouraging collective action. Public art projects can bring





communities together to collectively address sustainability challenges. Murals, sculptures, and interactive installations in public spaces can foster a sense of community identity and promote a shared commitment to sustainability. Art can simplify complex sustainability concepts and communicate them to a broader audience.

Adaptability:

This project can be adapted in countries that faces environmental challenges and are open to involve local artists for environmental awareness. The use of social media, video art and other digital tools can attract the youth population and artists to get more engaged. Funding for this kind of initiative can come from businesses of the region that want to raise environmental awareness. Public art installations, workshops, and collaborative murals can bring communities together and foster a sense of ownership and pride in sustainability initiatives. Artistic elements can be integrated into the branding and marketing strategies of sustainability enterprises. Installations can convey environmental messages, showcase sustainable technologies, and encourage sustainable behaviors.

InnoOmnia: Living Lab (Finland)

Omnia, initially established to address the diverse VET needs across three cities in Finland, has evolved into a leading force in the development of TVET. The Ministry of Education and Culture acknowledged Omnia's commitment by awarding it the prestigious National Quality Award in 2023, with special recognition for outstanding entrepreneurial learning initiatives. Additionally, InnoOmnia, Omnia's innovative living lab established in 2011, received national acclaim for championing innovation in learning.

Unlike conventional high-tech, high-growth entrepreneurship models, InnoOmnia pioneers a more inclusive approach. It extends its support to diverse sectors, including the service industry and arts and crafts micro-companies. This unique living lab, situated on a VET campus, marks a departure from business incubator services primarily tried on university campuses. InnoOmnia not only offers crucial support to entrepreneurs but also provides valuable project opportunities and role models for VET students. Positioned as a solution to combat rising youth unemployment in the Espoo area, address the low rate of entrepreneurs with a VET background, and integrate entrepreneurship education into VET studies, InnoOmnia plays a multifaceted role.





At its core, InnoOmnia serves as a nexus for learning, where everyone, regardless of role, is both a learner and a teacher. Learning is crafted to be an enjoyable, engaging, and challenging process within innovative environments that seamlessly bring together students, staff, and entrepreneurs. Importantly, InnoOmnia acts as a focal point for developing cutting-edge eLearning and pedagogical innovations, influencing and enriching the broader educational landscape within Omnia.

Objective:

InnoOmnia aspires to cultivate a dynamic knowledge community, challenging traditional roles in education. The conventional teacher-student and expert-novice dynamics undergo a transformation. The teacher is no longer the exclusive source of knowledge; instead, information circulates bidirectionally. Teachers assume roles as tutors, guides, and coaches rather than sole experts with all the answers.

Within this experimental setting, participants encounter evolving conceptual and practical challenges, altering daily and task-to-task. This dynamic nature eliminates certainty about the specific capabilities required. Consequently, the very essence of teaching undergoes a significant shift in response to the ever-changing landscape of learning needs and challenges.

Target audience:

- entrepreneurs
- vocational trainers
- students

Overview and components:

InnoOmnia embraces a multifaceted role, functioning as an incubation unit, a teacher training and resource center, and a service hub for teaching, learning, and career guidance. By seamlessly integrating the realms of education and work, it dismantles traditional barriers. For students, it unfolds a real-world, work-oriented learning environment. Entrepreneurs benefit from leased facilities, business support, and an expansive network. Teachers, on the other hand, experience daily interaction and stay abreast of the latest insights in entrepreneurship and related trades.

In this dynamic space, everyone assumes the dual role of a teacher and a learner. Participants collaborate, engaging in novel forms of teamwork that blend work-based, ICT-based, and social learning. The sharing of best practices is pivotal, marking a departure from traditional classroom silos. Education extends beyond confined spaces, embedding students' studies in solving real-life problems for entrepreneurs and contributing to genuine innovations.





InnoOmnia's operational philosophy rejects conventional learning methods, roles, and classroom-centric thinking. The curriculum extends beyond the development of technical and vocational skills, emphasizing problem-solving, teamwork, and interpersonal communication. High-tech tools like tablets, video, and online/mobile learning applications are seamlessly integrated into daily activities.

This approach yields rich rewards for both students and entrepreneurs. Students gain authentic exposure to business involvement, while entrepreneurs benefit from fresh perspectives on their daily tasks. Additionally, students acquire valuable insights into entrepreneurship and the effective use of mobile devices in a professional context. This entrepreneurial approach to learning is particularly popular among students, providing them the opportunity to tackle real tasks and develop solutions that meet the genuine needs of enterprises.

Benefits and challenges:

Establishing the unit as an entrepreneurial living lab has yielded numerous benefits. Innovations and eLearning are now intricately aligned with the demands of local employers, often serving multiple purposes. However, this shift from traditional silos to a co-learning environment has not been without challenges. The transformation has brought to light issues related to community borders, operational culture, structures, and leadership. In moving forward, InnoOmnia will need to carefully address these challenges to ensure continued success.

Adaptability:

The practice already uses many innovative tools and approaches as well as digital tools for learning process. It would not be difficult to focus it on different areas of entrepreneurial operation (sustainable tourism, agrifood production, etc.).

From Soil to Plate: Figurativ Bistro for Innovative Slow Tourism Experiences (Croatia)

Figurativ Bistro & Shop, situated in Rovinj, Croatia, presents a distinctive local wine and food concept. Offering guided tours through the garden of the owner's family, the establishment concludes the experience with selected local wine and food prepared in-house. Figurativ embodies a multifaceted approach to gastronomy and cultural engagement. The business carries out valuable good practices, by applying pedagogical and didactic approaches to the mere supply of food, which makes it more than a simple Bistro. Products are locally produced





(KMO), coming in particular from the family garden, and are combined and presented to the final client in their traditional configurations and recipes, that are presented to the client, which is treated as a visiting tourist and is made immersed in Istrian environmental and gastronomic culture.

The concept behind the building and development of this comprehensive approach by Figurativ is the commitment to intercept the touristic trends both from a global and a local perspective. Mr. Prgomet decided to invest in the trend of slow tourism that has been emerging in Croatia for the last few years. This was not just a commercial strategic choice, but the result of the decision to embrace the commitment to build a sustainable business generating a positive impact on the environment and spreading among its clients and partners values related to sustainability, valorization of local products, propagation of local Mediterranean vegetation, biodiversity protection and healthy gastronomic practices oriented towards enhancing the flavors of the kilometre zero ingredients, reducing waste, and carrying on local culinary traditions.

Figurativ is based in Rovinj, Istria region, Croatia. This is an area that has been run over by heavy tourism pressures for decades. This is why Figurativ wants to carry out and spread as much as possible a model of business that is not only sustainable, but also generating a positive impact by educating various audiences (clients, local communities, tourists, commercial partners like other bistros and wineries) on the values related to sustainability, valorization of local products, propagation of local Mediterranean vegetation, biodiversity protection and healthy gastronomic practices oriented towards enhancing the flavors of the kilometre zero ingredients, reducing waste, and carrying on local culinary traditions.

Within the local context of Rovinj, Figurativ operates at the intersection of the gastronomy and tourism industry. The practice aligns with broader industry trends emphasizing sustainability and authentic experiences. This approach contributes to a larger narrative within the region's gastronomic scene, where businesses are increasingly adopting practices that resonate with environmentally conscious consumers. Figurativ's best practice offers an understated yet impactful contribution to the evolving gastronomic landscape, rooted in the Mediterranean heritage of the region. Figurativ's commitment to local sourcing and cultural immersion reflects a conscientious response to evolving consumer preferences, moving away from fast unsustainable tourism practices.

Objective:

Figurativ's practices are driven by the objective of creating a successful business from an economic and entrepreneurial, environmental, and cultural point of view.





- Continuous self-improvement to increase the quality of the supply and services provided by the Bistro is carried out by engaging the staff in educational experiences and trainings with the involvement of experts of wine and food;
- The menu offer of Figurativ is driven by the choice to use kilometer zero products, which allows for a significant reduction of emissions generated by transports and a reduction of waste because of the minor volume of packages; these factors contribute to a significant cost cutting, too;
- Figurativ's commitment to local sourcing and cultural immersion reflects a conscientious response to evolving consumer preferences by spreading local culture and carrying on agricultural and gastronomical traditions. Comprehensive experiences with a cultural added value like this are appreciated by a wider and wider audience of customers and tourists, which qualitatively contributes to the growth of the business.

Target audience:

- entrepreneurs
- educators
- vocational trainers

Overview and components:

Figurativ employs a comprehensive pedagogical approach to provide educational experiences related to gastronomy, local products, and sustainable practices for the protection of the environment. This includes guided tours through the family Mediterranean garden, workshops, and practical experiences in horticultural landscaping and various culinary techniques. This pedagogical approach puts together entertainment, leisure and informal education.

The learning methodology integrates experiential learning, hands-on activities, and engagement with local experts, such as sommelier, the latter regards the training of internal staff.

Figurativ's practices foster skill development by offering experiences with a focus on local products and plants, and culinary traditions. It promotes innovation by combining traditional recipes with innovative presentations and alignment with the contemporary trends of slow tourism. Sustainability is embedded in the kilometer zero sourcing, waste reduction strategies, the propagation of local Mediterranean vegetation, and the desire to resist the polluting, unsustainable touristic business model, by offering a sustainable alternative of slow tourism.

The practice is effective in promoting small-scale sustainable entrepreneurship by combining educational experiences with gastronomic offerings. The





emphasis on kilometer zero sourcing, waste reduction, and cultural immersion aligns with evolving consumer preferences, contributing to the growth of the business and the propagation of sustainable values in the local community and beyond, by ensuring at the same time economic benefits: reduction of costs due to waste and transports, customers' demand for high quality experiences to which they attribute high value, and so their disposal to spend certain amount of money.

Benefits and challenges:

Economic Viability: Figurativ's commitment to continuous self-improvement and staff education contributes to the overall economic viability of the enterprise. Continuously increasing the level of the quality of the offer is a successful entrepreneurial strategy to extend the customers' audience, also through word-of-mouth, to increase prices, allowing for making new sustainable investments and growing.

Environmental Sustainability: The practice of using kilometer zero products and reducing waste through thoughtful sourcing contributes to environmental sustainability. This aligns with the growing demand for businesses that prioritize eco-friendly practices and that positively impact the environment.

Cultural Immersion: Figurativ's approach not only provides gastronomic experiences but also immerses visitors in local environmental culture. This adds a cultural dimension to the business, attracting a wider audience interested in authentic experiences.

Client Appreciation: The commitment to local products, cultural values, and sustainability resonates with consumers. This appreciation enhances Figurativ's reputation, contributing to customer loyalty and positive word-of-mouth.

Skill Development: The emphasis on staff education and external training with experts fosters skill development among the workforce. This creates a skilled and knowledgeable team capable of steering the business toward continued growth.

Tourism Pressures: Operating in an area historically impacted by heavy tourism pressures presents a challenge. Balancing the demands of tourism while maintaining sustainable practices requires strategic planning and pushing for slow tourism models can be hard, since these forms generally require higher costs for the customers, especially for young people that may find them inaccessible.

Educational Outreach: Educating various stakeholders, including clients, local communities, and commercial partners, about sustainable values related to propagation of vegetation can be challenging. Convincing others of the benefits of these values and practices may require big efforts, since education and





change of habits are often long-term processes, which initiatives like Figurativ can prompt and inspire, especially among people that are already involved in self-reflection about these themes.

Cultural Integration: Integrating cultural immersion into a gastronomic business model may face challenges in terms of aligning with diverse preferences and expectations. Striking a balance that appeals to a broad audience while staying true to local culture can be complex, and Figurativ faces this challenge by trying to increase the quantity and quality of their products and by carrying on training activities with experts to learn new things, recipes, products, and uses of products.

Continuous Improvement: The commitment to continuous self-improvement, while beneficial, also poses a challenge. Ensuring that staff stays engaged in educational experiences and adapting business practices accordingly requires ongoing effort in terms of disposal of valuable resources such as money, time, and availability of experts.

Adaptability:

The Figurativ Bistro & Shop practices and principles, rooted in experiential learning, can be adapted to more digitalized education, innovation, and vocational teaching methodology with some considerations:

- The extremely valuable knowledge generating Figurativ’s offer (and, in general, the agricultural knowledge capitalized by some entrepreneurs who manage to initiate a related business such as Bistros, Restaurants et similia with a km0 approach), may be compatible with the creation of educational digital resources, that may be helpful from both the business’ economic profit, being marketing vehicles, and the spread of environmental and agricultural local culture. These contents take the form of online guides, video tutorials, or e-books that complement the on-site experiences. These resources can provide background information, preparation instructions, or supplementary materials for customers.
- **Virtual Tours and Workshops:** entrepreneurs may explore the possibility of conducting virtual tours or workshops. Utilize video conferencing tools to connect with participants remotely, providing them with a guided experience through the family Mediterranean garden or offering virtual culinary workshops.
- **Creation of Online Training Modules** for specific topics related to products grew, transformed, and sold by Figurativ and other km0 shops. These modules may include interactive elements, quizzes, and multimedia content to enhance engagement and learning.





- Digital Skill Development Platforms: embrace digital platforms focused on skill development, especially for the staff, which may also learn remotely, cutting some costs, and with a-synchronous modalities, so that they can manage their time to learn as they prefer. The aim would be to utilize online courses or platforms dedicated to culinary arts, horticulture, or sustainable entrepreneurship.
- Digital Marketing and Outreach: leverage digital marketing strategies to reach a wider audience. Utilize social media, a dedicated website, or online advertising to promote educational-gastronomical experiences and attract participants interested in sustainable gastronomy. Since this kind of business is tourism-oriented, it's very important to set targets abroad and be capable of reaching international potential customers: for doing this, digital marketing, through massive use of social media is quite fundamental.
- Data Analytics for Continuous Improvement: Implement digital tools for data analytics to track participant feedback, preferences, and learning outcomes. This data can inform continuous improvement efforts, ensuring that the digitalized education remains effective and aligns with participants' expectations.
- Online Community Building and Networking: foster an online community around Figurativ's values. Establish forums, social media groups, or a digital platform where participants can share their experiences, recipes, and sustainable practices, creating a virtual community around the brand and the knowledge around Istrian vegetation, environment and local products. Moreover, digital tools are key when it comes to developing networks at the local, national, and international level.

Strategic integration of digital elements with Figurativ's current educational practices and values, can lead Figurativ and businesses in the sector of food and agriculture similar to it, with the same purpose, to grow, enhancing accessibility, reaching a broader audience, growing through continuous learning, updating and training with different modalities, and staying innovative in the evolving landscape of digital education and sustainable entrepreneurship.

Sustainability, Learning and Care for Local Vegetation: Successful Practices and Growth with Skink (Croatia)

Skink is a Micro-Enterprise, that operates as a plant shop, lab, didactic farm, and plant nursery, serving as a noteworthy example of effective didactic methods integrated into the business structure, solid international networking, and staff educational development within the context of the local environment. The





company is committed to raising awareness and spreading knowledge about the surrounding vegetation of the Istrian territory in which it operates. This establishment has garnered attention for its distinctive approach in fostering not only a diverse range of flora managed with increasingly innovative techniques and technology, but also a local community and an international network dedicated to understanding and addressing environmental stewardship and protection.

The inception of Skink dates back to 1994, it was prompted by the passion of Mr. Prgomet for fruit growing, agriculture and, in particular, the protection, preservation and propagation of local plants. As the business grew, the commitment towards sustainability and protection of biodiversity also increased and is now carried on by the current owner, Mr. Prgomet's daughter. She, as entrepreneur, is shaping Skink as an entity oriented towards the combination of the educational and the environmental spheres, with a focus on the need to address local environmental challenges, while offering entertaining and didactic experiences for tourists and visitors. The integration of lecture rooms and nursery, along with the plant shop aimed to facilitate a deeper understanding of sustainable practices for propagation of cultivations among staff and visitors. So, the purpose of Skink is not solely commercial; rather, SKINK was envisioned as a space where to address ecological concerns through educational initiatives.

Situated in a region with a delicate environmental balance, which is endangered by increasing touristic pressure, Skink's practices align with the need for sustainable entrepreneurship.

The networking initiatives undertaken by Skink extend beyond local boundaries, positioning it as a platform for regional collaboration in environmental education. In an industry that often adheres to conventional norms, Skink's approach stands out for its emphasis on sustainability, serving as a noteworthy example within the broader environmental and horticultural landscape.

Objective:

Skink's approach revolves around three primary objectives. Firstly, it aims to create an immersive learning environment by seamlessly integrating didactic methods, enabling both staff and customers to deepen their understanding of plant life and sustainable environment protection and propagation practices. Secondly, Skink strives to establish a robust networking platform, fostering connections within the local and international horticultural and environmental communities of lovers and experts. Lastly, the practice is committed to the ongoing educational development of its staff, ensuring they are equipped with the necessary knowledge and skills to contribute effectively to the growth and sustainability of the business from an economical/financial point of view, and of course an environmental point of view.





In conclusion, the two-fold educational purpose and practice carried out by Skink is an engine of growth and development of adaptability and innovation capacity that should be taken as a model for the businesses of this sector.

Skink aspires to exemplify small-scale sustainable entrepreneurship by embodying principles of environmental responsibility and community engagement and transmitting it to its own staff, to its visitors and local communities, and to all the interested stakeholders who reach Skink for consultancy. Through its didactic methods, the Best Practices implemented by Skink seek to raise environmental awareness and promote sustainable living taking care of plants and environment among its clientele. The establishment's active participation in local and international networks not only enhances its visibility but also positions Skink as a hub for sustainable practices. For these reasons, Skink is a successful business, that, also from a marketing point of view, has built an image of itself that is very attractive, unique and innovative, going way beyond the traditional concept of "shop" and offering a wide range of experience opportunities for the various clientele that Skink targets (including also children!). Continuous investments are being made by Skink in order to extend its targets, and so its supply of plants, workshops and differentiated experiences. This leads to an internal need to continuously improve, search, and re-elaborate new things in a process of continuous learning and transmitting knowledge.

This need translates into the investment in the educational development of its staff: Skink fosters a skilled workforce capable of steering the business towards continued growth and innovation while remaining rooted in sustainable and environmentally conscious entrepreneurship oriented towards the preservation of the local and regional (Mediterranean) vegetation.

Target audience:

- entrepreneurs
- educators
- vocational trainers
- management levels within companies, HR managers

Overview and components:

Skink practice of carrying out two-fold didactic experiences both towards external clientele and to internal staff, added to the founder's attitude towards research and projects for technology development, and accumulation and transmission of knowledge, allows for a successful set of pedagogical premises that are necessary to build resilient businesses that are able to look for and capitalize education and training's opportunities. The specific programs, with their approaches, tools, and methodologies, are tailored on the targets that





Skink yearns for: from stakeholders and entrepreneurs in the field of food and agriculture, to tourists, to children, to plant lovers, to experts' agronomists and others. That's why the workshops, visits, and lectures that Skink organizes may be structured in very different ways, ranging from more academic and research-oriented approaches to more entertaining ones, or with an orientation towards business. One feature that is almost always common to the different approaches, though, is the attention for the individual and the close connection between the provider and the user, that is why Skink seeks for the implementation of activities that involve individuals or small groups.

Skink's commitment to employee growth is deeply embedded in its culture, promoting skill development, innovation, and sustainability. The didactic approach makes Skink cultivate a continuous learning culture and enhances the skills of the workforce. Skink's diverse workshops encourage an innovative mindset, contributing to creative problem-solving. Additionally, the company's dedication to sustainability is evident in didactic experiences that instill environmental responsibility, aligning with the preservation and propagation of local vegetation. This comprehensive approach positions Skink as a sustainable entrepreneurship model in the horticultural and environmental sector.

Beside being a plant nursery and shop, Skink is also an educational center, which implements structured workshops that combine theoretical introductory initial segments to subsequent practical activities. Methodologies and other specific aspects depend on the topic and on the target of the activity. Skink provides the necessary tools and materials for its training programs, including theoretical materials and gardening tools. Points of reference for the training include the scientific publications produced by Skink, particularly focusing on figs and chestnuts, two of the products in which Skink has specialized extensively.

Main areas of focus are: trimming, grafting, figs, chestnuts, strawberries, olive trees, ornamental plants, aromatic plants, and permanent crops. Skink provides consultancy and programs in these fields, based on the needs of the clientele, consultancy is evidence-based, resulting from paths of research, practices and gathering of data and successful techniques.

Skink's practices serve as a dynamic platform fostering multifaceted skill development, innovation, and sustainability. The two-fold didactic experiences, directed towards both external clientele and internal staff, play a pivotal role. These experiences, coupled with the founder's proactive stance on research and technology projects, form a robust foundation for skill enhancement. The accumulation and transmission of knowledge, a core aspect of Skink's ethos, contribute not only to individual skill development but also to fostering an environment of continuous learning.





Skink's tailored programs, catering to diverse targets such as stakeholders, entrepreneurs, tourists, children, plant enthusiasts, and agronomists, underscore its commitment to inclusivity. Workshops, visits, and lectures, structured in varied approaches from academic to entertaining, create a unique space for skill development. The emphasis on the individual and close provider-user connections further enhances the efficacy of skill-building initiatives.

In terms of innovation, Skink's orientation towards research-oriented, entertaining, and business-focused approaches ensures a versatile learning environment. This adaptability encourages innovative thinking and problem-solving, essential skills in today's business landscape. Moreover, the incorporation of technology development projects demonstrates a commitment to staying at the forefront of innovation within the horticultural and environmental sector.

Sustainability, a cornerstone of Skink's philosophy, is ingrained in its practices. By promoting awareness and responsible practices among stakeholders, entrepreneurs, and the community at large, Skink actively contributes to sustainable entrepreneurship. This commitment extends to the preservation of local and regional vegetation, aligning with broader environmental sustainability goals.

Benefits and challenges:

- **Comprehensive Skill Development:** Skink's model offers a holistic approach, fostering diverse skills crucial for sustainable entrepreneurship in agriculture and horticulture.
- **Innovation and Technology Integration:** The emphasis on research and technology projects positions entrepreneurs to stay innovative and integrate modern agricultural technologies into their practices.
- **Enriching Networking Opportunities:** Skink's networking initiatives create valuable connections for experts, researchers, and entrepreneurs, opening doors to collaborations, knowledge exchange, and potential partnerships.
- **Environmental Sustainability:** The model instills a strong sense of environmental responsibility, aligning with the growing consumer demand for sustainable and eco-friendly products.
- **Market Differentiation:** Entrepreneurs benefit from the specialized knowledge imparted by Skink. Being a continuously improving and learning oriented business, Skink is capable of adapting and innovating, while maintaining its traditions, standing out with respect to similar businesses.

Identified challenges or obstacles that might be encountered during implementation:





- **Resource Intensity:** Skink's comprehensive approach may require substantial resources, posing a challenge for small-scale entrepreneurs with limited budgets. From this point of view, though, Skink's capacity to seek for and attract EU funds may also represent a model for other micro enterprises.
- **Technological Barriers and Inexperience:** Entrepreneurs may face challenges in adopting advanced technologies for developing educational or training programs within their own business, especially if they lack prior experience or access to necessary resources. Inexperience may deter entrepreneurs from implementing skills development programs because of the apparent difficulties at the beginning of the path. That is why looking at models such as Skink, and doing efforts to be part of a network are key factors to start.
- **Adapting to Varied Audiences:** Tailoring training programs to diverse audiences, like the different members of the staff may be, poses challenges in addressing the unique learning needs of each individual effectively.

Adaptability:

Skink's practice shows promising adaptability to digitalized education, innovation, and vocational teaching methodologies. The integration of technology development projects and the emphasis on research-oriented approaches provide a foundation for a seamless transition to digital platforms by developing a supply of workshops, trainings, consultancies and programs in hybrid modalities. Online workshops, virtual field visits, and interactive digital resources could enhance accessibility and cater to a broader audience. However, the majority of the activities traditionally, and inevitably, involve physical experiences, which is something extremely valuable and unmissable for Skink, which takes care of transmitting fundamental dexterity skills. Overall, with strategic planning and the incorporation of digital tools, Skink's practice can be adapted successfully to the evolving landscape of digitalized education and vocational training by the development of hybrid education systems.

Greenovet: Skills for a Green Europe (Austria, Finland, North Macedonia, Portugal)

The aim of the Greenovet Project was to identify technical and generic skills considered necessary to boost green economy, and to collect inputs on how to fill this skill gap within 4 regions in 4 European countries: Styria (Austria), Vaasa (Finland), Skopje (North Macedonia), Leiria (Portugal). The data has been collected through questionnaires.

After identifying a set of relevant skills and essential qualifications such as for example: Backend and frontend developer for smart / digital solutions; Technology engineer for food recycling; or Sustainability expert, the participants





were asked how the Center of Vocational Excellence could help fill those skills gaps and provide qualified trainees for the industry's needs.

Among the services that a Center of Vocational Excellence could provide, building stronger connections between the business sector and the VET providers has been indicated as the most relevant and effective by the participants, an heterogeneous group of stakeholders composed by VET providers, industries, NGOs and consulting agencies and Universities.

The purpose of bringing the professionals closer to the VET programmes is to fill the mismatch between the theoretical knowledge and the hands-on competence required for the demanded positions, as well as to improve the reactive and pragmatic thinking needed in the working environments.

The study and the selected practice was created in the perspective of opening 4 Centres of Vocational Excellence in each of the involved Regions, considering the peculiarities and needs of each region. The starting point is a skill gap analysis and then through questionnaires the possible solutions to fill the skill-gap were ranked. The industry sectors are peculiar to each European region, and all of them have a focus on green innovation and technology. Here are some examples of the industries that the participants to the questionnaires belong to:

- advanced manufacturing and automation technology
- digital solutions
- energy technology and renewable energy systems solutions
- circular economy and carbon neutrality
- agriculture, forestry and fishing
- manufacturing and industry

Objective:

The objectives of this pedagogical approach are to fill the skill gaps and elevate the knowledge and competence of the trainees thanks to a more comprehensive understanding of the daily business of the involved industries, as well as offering a good connection between the employers of the sector and young people. Despite the first ranked solution to improve the quality of the programmes is to expand existing curricula, another crucial solution that the Centre of Vocational Excellence can provide is working as an active connector between the industry sector and the education programmes. This seems to be helpful not only to create chances for internships with the businesses, but also to involve the trainees into industry projects; as well as sharing business cases to study on, thus elevating the quality of the learnings.

The aim of this pedagogical approach is to facilitate the transition to green industrial models by helping individuals to find a job thanks to the key knowledge





and competence that are demanded by the fast-changing industries, and for employers to find appropriately trained workers thus fostering the development of these sectors.

Target audience:

- VET providers
- businesses
- professionals
- trainees

Overview and components:

Not only providing a platform for connecting trainees and business partners, but also inviting professionals to participate in the training programmes to bring their expertise and the real work challenges as projects or business cases would be an effective way to bring closer the preparation of the trainees and the expectation and needs of the businesses.

In the questionnaires it has been pointed out among the issues of the currently offered training programmes, that they lack practical knowledge and are sometimes too theoretical and detached from the working environment. This preliminary connection and exchange would help shape the skillset of the trainees to make it more suitable for the actual professional challenges.

Considering these Centre of Vocational Excellence as models, the VET providers and the involved stakeholders could provide first of all a platform to connect trainees and businesses operating in the relevant industry sectors for each region / each training programme. A second support can be the distribution of case studies and industry projects that allow trainees to have a closer look at the businesses' goals, resources and methodologies.

The practice of connecting businesses and the trainees has multiple benefits, not only providing good quality and relevant insights for the trainees, but also enabling them to get in touch with personalities from the industry sector, offering networking chances and making it easier for employers and trained people to meet. Moreover, for the industries, to be involved in the learning process of the trainees could as well result in obtaining fresh perspectives, questions, new ideas that encourage exchange, as well as research and development.

Benefits and challenges:

The main challenge for this practice is to find available professionals that are willing to contribute to their training programmes and share their experiences and daily challenges.





Adaptability:

The practice is easily adaptable to a digitalized learning environment, compatibly with the specific requirements of each industry sector (it could be necessary from time to time to use special tools, or to physically visit the location where the enterprise is operating), but hosting the professionals to share their experiences, the contribution with business cases and work projects shared within the training program could be easily implemented via e-learning platforms that are already commonly available.

3.4 Training programs for sustainable entrepreneurship

Effective training programs for sustainable entrepreneurship adopt a comprehensive and multifaceted approach, strategically blending various educational elements to provide aspiring entrepreneurs with a holistic skill set. These programs recognize that successful entrepreneurship is not solely about theoretical knowledge but requires a diverse range of competencies. To achieve this, the training typically incorporates theoretical learning, practical application, and experiential components.

The theoretical aspect delves into foundational concepts, business principles, and industry-specific knowledge. This equips participants with a solid understanding of the theoretical underpinnings of entrepreneurship. However, recognizing that entrepreneurship is inherently practical, these programs go beyond theoretical frameworks.

Practical application is a key component, enabling participants to apply their knowledge in real-world scenarios. This could involve business simulations, case studies, or even actual projects where participants get hands-on experience in running a business or executing entrepreneurial initiatives. This practical exposure is crucial for participants to bridge the gap between theory and real-world implementation.

Moreover, effective entrepreneurship training often incorporates experiential learning. This might involve exposure to successful entrepreneurs, site visits to established businesses, or internships with startup ventures. Learning from real-world examples and engaging with experienced entrepreneurs enriches the educational experience, providing insights that go beyond what can be learned from textbooks.

Effective training programs for sustainable entrepreneurship should include following:





- Customized curriculum:
Training programme tailored to the specific needs and challenges faced by small-scale entrepreneurs in different sectors, such as handicrafts, agriculture, or tourism, ensuring that the training is relevant and practical.
- Practical application:
Training involves practical exercises, case studies, and real-world simulations to apply theoretical knowledge (hands-on exercises).
- Modular training:
Training programme broken down into smaller (bite-sized), modular components so that entrepreneurs can choose the topics most relevant to their businesses.
- Blended learning:
Combination of in-person workshops or classes with online learning components to provide flexibility while maintaining engagement.
- Comprehensive content:
Programs cover a wide range of topics, including business planning, marketing, financial management, and legal considerations.
- Focus on soft skills:
Developing communication, leadership, and interpersonal skills critical for entrepreneurial success. Emphasizing problem-solving skills and the ability to adapt to changing business environments.
- Adaptability and innovation:
Providing insights into innovative business models, technologies, and practices. Teaching entrepreneurs to navigate and adapt to market changes and disruptions.
- Global perspective:
Offering insights into global markets, trends, and opportunities (international exposure). Developing cultural awareness and competence for entrepreneurs operating in diverse markets (cultural competence).
- Technology integration:
Including training on digital marketing, e-commerce, and other relevant technologies. Utilizing online platforms for accessible and flexible learning experiences.
- Sustainability focus:
Ensuring that training programme place a strong emphasis on sustainable business practices, including environmental responsibility, social impact, and ethical considerations.
- Mentorship and coaching:



Access to experienced entrepreneurs or industry professionals who provide guidance and support. Tailoring support to individual needs, addressing specific challenges faced by participants.

- Networking and community building:
Creating opportunities for entrepreneurs to connect with one another, industry experts, and potential partners. Networking events and community-building activities can foster collaboration.
- Evaluation and feedback:
Incorporation of assessments and feedback mechanisms to track the progress of entrepreneurs and provide constructive feedback to help participants improve and grow.
- Post-training support:
Offering ongoing support and resources for entrepreneurs after they complete the training programme. This can include opportunities for incubation or acceleration post-training as well as access to a community forum, continued mentorship, or follow-up workshops.
- Continuous improvement:
Incorporating participant feedback to continuously improve program effectiveness (feedback loops). Adjusting content to reflect evolving industry trends and best practices.

In essence, the multifaceted approach of effective training programs seeks to create a dynamic learning environment where aspiring entrepreneurs not only grasp theoretical concepts but also learn how to apply them in practical situations, all while gaining valuable insights from real-world experiences.

3.5 Examples of best practices of training programmes and tools

In this section the examples of possible training programmes and tools that can be used in teaching entrepreneurship within vocational education are presented, identified by FaVET project partners from European countries. The examples are offering a meaningful selection of diverse cases.





Educational package AgriSkills (Germany, Spain, Bulgaria)

The Agriskills educational package aims to provide vocational education in sustainable development in the agricultural sector.

The agricultural sector in Europe needs a more entrepreneurial mindset, and a stronger orientation to sustainability. Agricultural production must adjust to the new requirements of being environmentally, economically, socially sustainable: pushing towards sustainable agriculture, especially through vocational training, is the way forward.

The educational package was designed so that it can be used in countries with different educational systems. It has been successfully implemented in practical tests in all three partner countries: Germany, Spain and Bulgaria, and it has been used and disseminated more even after the project conclusion.

Objective:

The educational package AgriSkills aims at providing, testing and spreading a European educational package that promotes sustainable thinking in agricultural education and training. Sustainability is integrated in the professional context and tackled as a transversal topic, instead of being offered as supplementary, extra content.

This educational package consists of compact modules that provide a clear understanding of the principles of sustainability and practical examples on how to integrate those principles into a business.

Target audience:

- entrepreneurs,
- vocational trainers and
- trainees who are willing to operate in the agricultural sector and want to integrate sustainable farming practices into their business

Overview and components:

Using the example of cattle and pig production, AgriSkills points out opportunities of sustainable training concepts including economic, environmental and social dimensions. In addition to technical skills, personal skills (such as social skills, networked thinking, responsibility and teamwork) required particularly for sustainable education are developed. The complete educational package consists of five parts: Instructor Guide; Education program (teaching materials); Learning Software; Practice Test Analysis; Supporting Arguments (Vocational training and education for sustainable development in agriculture for social partners).





For structuring the educational package, methods of Vocational Education for Sustainable Development have been applied:

- Identification of a subject
- Development of problem-oriented questions
- Development of methods to study the issue
- Research and investigative activities in small groups
- Communication Platforms
- Backup of research intentions
- Media-based and participant-oriented presentations
- Backup through learning diaries
- Planning, carrying out and evaluating a panel discussion
- Evaluation of the teaching project

These methods have been used as the basis for AgriSkills. They have been adapted and integrated into the educational package as far as possible.

The contents of the five training modules or teaching days are structured as follows: 1. Introduction to Sustainability and Animal Production 2. Sustainability in livestock farming 3. Sustainability in livestock feeding 4. Marketing and added value 5. Sustainable farming

The structure of this educational package is compact, agile and flexible so as to be able to adapt to different educational systems and different industries within the agricultural sector.

Inagros: Agritech/Sustainable Agriculture (Greece)

This initiative was launched in 2017 by 2 students in electrical engineering school. One of the students, Antreas, while doing his internship in Livadia, a town in Central Greece, in a company with irrigation systems and automation, he saw first-hand how the agri-food industry works. He understood better the problems faced by farmers, especially in the automation of various processes and decided he wanted to make farmers' life easier. Together with a classmate they decided it was imperative to create a tool that would simplify the farmer's life. At first, they started developing the tool from zero, while having a full-time job and with no funding for the new business.

At first, it started as a tool that would offer automatic watering while also having sensors that would alert the farmer about field conditions. But along the way this was improved and became an integrated crop management platform. By studying each crop, the platform connects farmers and agronomists. The producer's plot of land is registered on the digital platform and then the agronomist, either a partner chosen by the producer or a partner of the





company, controls the crop either through satellite data provided by the platform or through sensors that the team can install accordingly with the case. Both farmers and agronomists are informed via notifications, either on their mobile phone or via email, such as whether conditions are favorable for the development of a disease or what actions need to be taken based on the crop calendar. This leads to more efficient decision-making (regarding sprinkling, watering, fertilizing, etc), increasing sustainability.

Objective:

AgriTech refers to the use of technology in agriculture to enhance efficiency, productivity, and sustainability. The application of agriTech encompasses a wide range of technologies, from precision farming and data analytics to automation and biotechnology. AgriTech aims to address the challenges faced by the agriculture industry, including the need to produce more food to feed a growing global population, optimize resource use, and mitigate environmental impacts.

Inagros offers high quality services and tools to agronomists, farmers, companies and municipalities. There is a complete management of crops and green spaces, integration of geoinformatics systems (GIS) and data from drones, remote monitoring, observation and action logging tools, calendars and smart notifications. It aims to optimize crop productivity as well as reduce water, fertilizers and energy consumption due to soil moisture sensors and more accurate weather forecasting. It also improves the efficiency of resources through automated crop and livestock management processes, resulting in lower production costs. Historical data help planning and forecasting future crop yields and land value. Additionally, it optimizes planting, processing and harvesting and improves crop yields.

Target audience:

- entrepreneurs
- vocational trainers
- farmers, agronomists

Overview and components:

Inagros is a platform that wants to serve producers and agronomists in every possible way, offering flexibility and automation where needed. High priority of the enterprise is to train their staff to build a holistic understanding of the sector. Staff is encouraged to attend trainings on marketing, skills building, sales, market research. Additionally, Inagros offers tailored trainings to agronomists explaining the use of platform and the benefits of agriTech, The training is updated according to a post-assessment that evaluates the training in the end.





A variety of digital tools are used in Inagros: Slack for internal communication, Notion for CRM, Trello for project management, Google Drive.

Networking is an important part of business development. Incubators have played a crucial role in nurturing and accelerating the growth of the business by offering a supportive environment and a range of services: ACEin (incubator of Athens University of Economics and Business), Athens Chamber of Commerce & Industry, Hellenic Federation of Enterprises, start-up ecosystem, New Agriculture New Generation.

Inagros has benefited from training and seminars through various organisations: SMEs scale-up by SEV, Start-up pathways, PRAKSIS Business Coaching Center, Agricultural development – Farmers of the Future (Agri-Food Business Acceleration Program).

The organization has fulfilled the criteria to become a member of Elevate Greece, a platform that maps start-ups and supports their development, with the ultimate aim of promoting a strong innovation ecosystem.

Benefits and challenges:

The integration of technology into agriculture can enhance efficiency, productivity, and sustainability, providing opportunities for entrepreneurs to innovate and address challenges in the industry: increased Efficiency, data-driven decision making, cost reduction, improved crop yield and quality, climate resilience, enhanced livestock management and job creation. Entrepreneurs in this space have the potential to make a significant impact on agriculture and rural economies.

The adoption of agritech among farmers can face reluctance due to various factors. While agritech has the potential to bring significant benefits to agriculture, farmers may be hesitant to adopt these technologies for several reasons. Farmers were not aware of the available agritech solutions, their benefits, or how to effectively integrate them into their farming practices and were hesitant to adopt agritech due to concerns about the complexity of the technology. Inagros has tried to overcome this challenge with collaborative effort from the agronomists. Farmers tend to trust the agronomists more and they were more open to get informed about the practical benefits by them. The company recruits and trains agronomists, who then promote the Inagros system to farmers. Inagros gives a commission to the agronomists when they convince farmers to adopt this new technology.

Adaptability:

Agritech, or agricultural technology, encompasses a wide range of technologies designed to enhance efficiency, productivity, and sustainability in the agriculture sector. It is really important to be part of incubators that will provide mentoring





and support when starting up a business. Short-term workshops and seminars provide participants with an overview of agritech trends, emerging technologies, and practical applications. Agricultural institutes and research centres often offer hands-on training programs that allow participants to work with cutting-edge agritech equipment and technologies. Governments may sponsor agritech training initiatives to support the adoption of technology in agriculture. These programs often target farmers and agricultural professionals, offering subsidies or incentives for participation. Agritech training programs may include modules on entrepreneurship and business development, providing participants with the skills needed to start and manage agritech businesses.

TDM2000: Training as a Means of Social and Economic Empowerment (Italy)

TDM2000 is a SME established in 2000 that plays a pivotal role in fostering collaboration among young people from various parts of Europe, emphasising the common ground of intercultural dialogue and active citizenship. Through prominent international mobility and education programs, the association has successfully facilitated youth exchanges, training courses, seminars and volunteer programs, engaging thousands of individuals in significant journeys of personal growth. Simultaneously, it has initiated local projects aimed at enhancing the value of the territory.

The practice initiated by TDM2000, focusing on sustainable tourism, social economy and skill promotion, is intricately connected to the organisation's broader mission of providing young people with upskilling and reskilling opportunities. Recognising a general lack of both hard and soft skills, including language proficiency, managerial expertise and interpersonal skills among the youth, TDM2000 embarked on a journey to address these gaps. The needs analysis revealed a crucial link between skill deficiencies and the inability of young people to establish businesses that are not only profitable but also capable of providing added value to the local community.

In response to a global crisis disproportionately affecting the younger generation, the company has expanded its activities to collaborate with institutions, educational entities and social actors, in the Sardinian Region territory as well as in the European territory. This evolution led to large-scale projects in the realm of non-formal education and the transmission of cross-cutting skills for workforce entry. Collaborative efforts with entities such as the Autonomous Region of Sardinia, the Regional Employment Agency, the Regional Agency for the Right to Education, the Province of Cagliari, the





Municipality of Cagliari and the University itself have been instrumental in these endeavours.

Objective:

The multifaceted approach taken by TDM2000 extends beyond traditional skill development to include the cultivation of competencies in the structuring of European proposals and the introduction of alternative research methodologies. Recognising the evolving landscape of skills required for success in a globalised world, the business endeavours to equip young people with a diverse skill set that goes beyond the conventional.

One of the innovative methods introduced by TDM2000 is participatory video for social engagement. By incorporating this approach, the organisation not only imparts technical skills but also fosters a sense of active participation and community involvement among the youth. This methodology drives the purpose of skill development as well as a powerful tool for social advocacy and storytelling.

In the context of the Summer-Week and other initiatives, participants not only experience the tangible aspects of Sardinian culture but are also encouraged to document and share their experiences through participatory videos.

TDM2000 places a strong emphasis on small-scale sustainable entrepreneurship, recognising the pivotal role of adaptability and innovation in navigating the dynamic market landscape, as underscored by the lessons learned during the Covid-19 pandemic. The organisation believes in providing equal opportunities for all to contribute, encouraging the questioning of conventional practices and empowering human resources for collaborative effort. Personal growth is regarded as essential, with a focus on internal training and a commitment to maintaining a healthy work-life balance.

On the other side, human capital is deemed crucial and the organisation invests significantly in training courses aligned with industry innovations. The approach involves prioritising employee training, allowing new skills to permeate management levels subsequently. It also supports employee’s personal aspirations, fostering a workplace culture where individuals can pursue and implement personal projects for mutual benefit. Training is seen not only as content-driven but also methodological, emphasising a combination of skills and approaches. The organisation values participation in international training contexts with foreign trainers, acknowledging the limitations of traditional training institutions. In particular the BI-TRI-MULTI course has been instrumental in enhancing entrepreneurial skills, providing tools for qualitative leaps in expertise.





In a nut-shell, TDM 2000's approach to small-scale sustainable entrepreneurship revolves around adaptability, innovation, human capital investment, and a commitment to continuous learning and growth, positioning the organisation as a dynamic and forward-thinking entity in its field.

Target audience:

- entrepreneurs
- educators
- vocational trainers

Overview and components:

The company employs a multifaceted pedagogical approach in its training programs, centred on fostering skills crucial for small-scale sustainable entrepreneurship. Emphasising adaptability and innovation, the company provides equal opportunities and empowers human resources, encouraging creativity and questioning of established norms. The pedagogical strategy aligns with a horizontal internal organisation, promoting collaboration while acknowledging individual responsibilities. The human capital investment is prioritised through training courses, ensuring employees and management alike are equipped with industry-relevant skills. The approach extends beyond content-driven learning, by incorporating methodological training and emphasising financial literacy for entrepreneurial success. Overall, TDM2000's pedagogical model aims to cultivate a dynamic and forward-thinking mindset among participants, preparing them for success in a rapidly changing business environment.

TDM2000 employs a teaching and learning methodology rooted in non-formal education. The company utilises engaging techniques such as escape rooms, role-playing games, simulations and debates to create immersive learning experiences. The focus on non-formal education allows for practical, hands-on learning beyond traditional classroom settings. Escape rooms challenge participants to collaborate and think critically, while role-playing games provide insights to entrepreneurship and decision-making. Simulations recreate real-world scenarios for risk while free skill application and debates stimulate critical thinking and dialogue. This diverse approach fosters adaptability, innovation and effective collaboration, aligning with TDM2000's commitment to impactful and unconventional training methods.

TDM 2000 fosters skill development, innovation, and sustainability through a multifaceted approach deeply ingrained in its teaching methodology. The organisation's commitment to non-formal education, complemented by activities such as escape rooms, role-playing games, and debates, provides a dynamic platform for skill development.





- **Skill Development:** the company priorities skill development by offering engaging experiences that go beyond traditional classroom settings. These immersive activities enhance participants' adaptability, managerial skills, interpersonal abilities and language proficiency, addressing both hard and soft skills essential for personal and professional growth.
- **Innovation:** the organisation's integration of digital tools reflects a commitment to innovation. The emphasis on gamification elements within the methodology further encourages creative thinking and problem solving, fostering an innovative mindset among participants.
- **Sustainability:** TDM2000's focus on sustainability is evident in its approach to experiential tourism, particularly the Summer-Week project. This initiative rejects "hit and run" tourism in favour of a slower, sustainable model that immerses participants in the local culture. Moreover, it promotes a holistic and sustainable approach to travel, contributing to the preservation of cultural heritage and environmental conservation.

TDM 2000 employs a range of specific tools, materials, and resources in its training programs, creating a dynamic and immersive learning environment, such as:

- **Manuals (e.g., COMPASS/COMPASITE):** Composed of publications by trainers, providing innovative methodologies for training and structuring courses.
- **Multilingual Educational Content:** Ensures inclusivity and a global perspective, enhancing cross-cultural communication skills.
- **BI-TRI-MULTI Courses:** Offered by SALTO, the main entity for non-formal education, providing tools for qualitative leaps in skills related to entrepreneurship, economic-financial literacy, and more.
- Digital Tools
- Experiential Activities

TDM 2000 distinguishes itself through immersive experiential learning, a tech-friendly approach with digital tools, and a commitment to sustainable tourism. The organisation emphasises inclusivity through multilingual content and fosters networking opportunities. Incorporation of interactive elements enhances engagement, turning learning into an enjoyable experience. Participation in international training programs showcases a dedication to diverse educational methodologies. Overall, TDM 2000 offers a distinctive, holistic educational experience with an interactive and engaging learning approach.





Benefits and challenges:

Among the major benefits related to innovation, sustainability and digitalisation as well as diversification of the skill set, applying TDM2000's practice to small-scale sustainable entrepreneurship offers:

1. Networking: TDM2000's networking initiatives facilitate connections for partnerships and business growth.
2. Engagement: by a motivating learning experience.
3. Global Perspective / International Training: giving access to diverse business strategies and cultural insights as well as providing a global outlook for navigating international markets.
4. Holistic Education: this practice for small-scale sustainable entrepreneurship encompasses a comprehensive coverage of essential business elements. It goes beyond traditional education by providing entrepreneurs with a well-rounded skill set and knowledge base.

Implementing TDM 2000's teaching and learning methodology brings forth complex challenges. The organisation must navigate ethical considerations in dynamic activities, find a delicate balance between sharing ideas and providing guidance, and adapt the educational message to diverse cultural contexts. Overcoming resistance to non-traditional methods, addressing logistical complexities in international settings, and being sensitive to cultural nuances further contribute to the implementation complexity. TDM2000 emphasises a thoughtful, adaptable, and ethical approach to ensure a rich and inclusive learning experience for participants from various backgrounds.

Adaptability:

TDM2000's teaching approach seamlessly aligns with digitised education, innovation, and vocational teaching. Its adept use of digital tools, including accounting software and project management platforms, establishes a tech-friendly foundation. The organisation recognizes the potential of e-learning platforms for structured content delivery, providing flexibility for participants. TDM 2000's adaptability to online networking events and commitment to multilingual, culturally inclusive content reflect its responsiveness to the digitised landscape. This element seamlessly aligns with the principles of digitised education, providing interactive and motivating experiences within online training modules. Finally, TDM2000's existing practices and adaptability underscore its readiness to embrace the evolving landscape of digitised education. The organisation's tech-friendly foundation, combined with its strategic use of e-learning platforms, online networking events, multilingual





content, and gamification elements, positions it at the forefront of innovative and digitally-driven teaching methodologies.

Green Skills for Small Business (*Great Britain*)

“Green Skills for Small Business” training programme was developed by Oxford Brookes Business School in partnership with Small Business Britain after finding out, that 71% of entrepreneurs want to make changes to reduce their carbon emissions over the next two years.¹⁴ It offers entrepreneurs across the UK support, insight and encouragement to become more sustainable.

Objective:

The programme equips entrepreneurs with the skills they need to make a positive impact on the planet and their business.

Taught fully online, the Green Skills programme helps small firms that are interested in becoming more sustainable, make positive environmental changes and is taught by leading industry experts and academics from Oxford Brookes Business School. It covers vital topics such as Financing Sustainability, Measuring Progress, Sustainable Marketing and Accreditations.

Target audience:

- entrepreneurs

Overview and components:

The programme is delivered over six weeks, entirely via digital channels. Training sessions are delivered as webinars, recorded and available for catch up on a dedicated page on the Small Business Britain website. It includes weekly challenges to help participants to put their knowledge into practice. They also have the opportunity to join the Facebook community for all participants for networking, support and on-going raising of questions and challenges. At the end of the course, all participants receive a digital “badge” to say they have completed the programme.

The training course is built by six modules:

1. Sustainability basics:

Modul covers the basics of sustainability in business and explores ways SMEs can align with the UN’s Sustainable Development Goals. Participants get an overview of sustainability for small business and learn about the latest developments in energy alternatives; the latest opportunities in transport alternatives; recent innovations helping small

¹⁴ February 2022 research carried out by Oxford Brookes Business School and Small Business Britain which surveyed 1000 small business owners in the UK





business; and case studies of small businesses that have made progress in the last year.

2. Sustainable Marketing:

In this module participants learn how to market their business sustainability including examples of best practices; how to market their sustainability credentials; how to use their focus on sustainability to drive customer engagement, maximise business opportunities and avoid green washing. They are also presented case studies of small businesses bringing their own experience of what works and why customers engage.

3. Measurement:

In this module participants learn how to measure their carbon emissions, and when to be flexible if measurement is not possible; how to measure the impact of their sustainability changes, where possible, and examples of businesses that have done this, and the benefits they have realised; why it is important to measure progress as much as absolute emissions; and how to create an accessible measurement infrastructure for their small business and those in their supply chain. They are also presented examples of low-cost ways of getting a good idea of their impact on the planet.

4. Building a green community:

In this module participants learn how building a strong peer group around sustainability can help them and accelerate their sustainability journey; what local support is available for them with sustainability and how to create something if there is nothing around; building local eco-systems for better supply chains with less emissions and lower costs including real world examples of businesses that have done this. They are also presented examples of initiatives, where sector businesses club together to deliver more collectively for communities.

5. Financing sustainability:

In this module participants learn about opportunities for grants for sustainability initiatives, and where to go to keep an eye out for new opportunities; other resources of finance for their sustainability journey, such as loans, working capital and even collaboration; and how can they realise sustainable opportunities without any finance (ideas for bootstrapping their sustainability by saving costs in the business).

6. Accreditations:

In this module participants learn how to apply for popular sustainability accreditations and the benefits of the process as well as the final accreditation; what activities they can do to help to put them in a good position to get accredited for sustainability; and what accreditations resonate best with customers and how they can communicate those.



They are also presented with examples of popular and worthwhile accreditations for their business.

Benefits and challenges:

The training program provides great practical frameworks for seamlessly integrating sustainable practices into SMEs' operations, ensuring their steadfast commitment to a greener, more responsible future. As sustainability becomes increasingly crucial for small businesses, it's imperative that they receive customized support to realize their green ambitions. Through tailored training, small businesses can make a tangible impact by proactively addressing the climate crisis while concurrently advancing their business growth.

Adaptability:

This exemplary approach to education is already in the realm of digitalization, with potential for further enhancement through innovative elements such as gamification, augmented reality, virtual reality, and more.

The program content is tailored to the context and circumstances in Great Britain, with the flexibility for adaptation to other environments. This adaptability considers the unique situations and conditions specific to each context, ensuring relevance and effectiveness in diverse settings.

ECO-TANDEM Academy (*Italy, Germany, Slovakia, Austria, Greece*)

The ECO-TANDEM Academy consists of capacity building activities addressed to both SMEs, startups and professionals in the tourism value chain focused on sustainability in the tourism industry. It is built by the transnational education programme on sustainable tourism management and circular economy, and the transnational training focused on industry-specific skills improvement around standards for sustainability in travel and tourism.

The tourism industry confronts pressing challenges such as sustainability issues, the impact of overtourism, and the repercussions of the COVID-19 pandemic. Addressing these challenges effectively requires establishing synergies not only within the tourism sector but also across related industries throughout the entire value chain.

In this era of crises, eco-sustainability is no longer confined to a niche; it has become a tangible reality in the form of eco-tourism. This shift represents the current and future trajectory, presenting numerous challenges to the tourism sector on how to innovate and emerge as a genuine leader in the post-pandemic





society. Traditional tourism SMEs, in particular, are confronted with the imperative to adhere to eco-sustainability standards and adopt a more sustainable approach.

For tourism SMEs, the imperative is to view the challenge of sustainability as an opportunity—an impetus for innovation and growth. Recognizing the pivotal role of skills and competences in the industry, the ECO-TANDEM PROGRAMME project is designed around collaboration and knowledge/technology transfer. It aims to address challenges collectively through a tandem approach and methodology, fostering a sustainable and innovative future for tourism SMEs.

The ECO-TANDEM ACADEMY provided tailored programs for entrepreneurs, SME managers, and professionals in both public and private sectors within the tourism industry. These include the theory-based ECO-TANDEM Educational Programme and the hands-on ECO-TANDEM Training Programme, offering comprehensive learning experiences for sustainable practices in the sector.

Objective:

The goal is to enhance sustainable tourism development by fostering the adoption of eco-friendly and responsible practices among tourism SMEs. This is achieved through transnational cooperation and the transfer of knowledge, empowering businesses to embrace more environmentally conscious approaches in the tourism sector.

Target audience:

- entrepreneurs

Overview and components:

The ECO-TANDEM ACADEMY consists of the educational and training programme.

ECO-TANDEM Educational Programme

The ECO-TANDEM Education Programme offers a flexible, self-paced e-learning course comprising ten modules that delve into the tourism industry and its sustainable future. Following the Graz Model for Integrative Development, the initial five modules focus on the scientific design and assessment of sustainability processes, aligning with the UN Sustainable Development Goals. The subsequent modules blend theory with practical insights, synchronizing with the parallel ECO-TANDEM Training Programme. The course concludes with dedicated modules on circular economy principles and the evaluation of sustainable practices. Participants gain a comprehensive understanding of recent developments and practical knowledge applicable to their daily work.





The modules:

1. Leadership & Vision
2. Social Network
3. Participation
4. Education & Learning
5. Research Integration
6. Standardization (combined with ECO-TANDEM Training Programme)
7. Sustainable Tourism Skills & Development (combined with ECO-TANDEM Training Programme)
8. Resilience in Tourism (combined with ECO-TANDEM Training Programme)
9. Circular Economy
10. Assessment

The course takes place online via the platform Moodle over a period of ten weeks.

Engage in real-time online meetings facilitated through a free video-conferencing tool, each lasting approximately one hour. Optional quizzes are interspersed to assess your learning progress. Successful completion of all quizzes qualifies you for a certificate, acknowledging your participation and understanding of the course material.

ECO-TANDEM Training Programme

The ECO-TANDEM Training Programme is a real-time, online training course that is targeted towards SMEs related to the tourism supply and value chain, with emphasis in accommodation facilities, tour operators, travel agents and technology-oriented start-ups. The industry-specific modules on offer aim to improve skills and build capacity around the standards for sustainability in the tourism industry. Three of these modules overlap with the parallel running ECO-TANDEM Education Programme.

The training modules include presentations with participation of experts, videos and reference material.

Each module involves a brief assignment for each trainee. Depending on Covid-19 restrictions, the final group assignment module may also involve an on-site visit from trainee group representatives, with the rest of the groups participating online.

The modules:

1. Introduction to Climate Change & Tourism
2. New EU Tourism Strategy & Sustainability Challenges
3. Evaluate your Sustainability Footprint
4. Management & Transformation to a Green Economy



5. Green Operations in SMEs
6. Standardization (combined with ECO-TANDEM Education Programme)
7. Sustainable Tourism Skills & Development (combined with ECO-TANDEM Education Programme)
8. Resilience in Tourism (combined with ECO-TANDEM Education Programme)
9. Tourism and COVID-19 / The next day
10. Group Assignment on Sustainable Tourism

The modules are delivered using a free video-conferencing tool over a period of ten weeks, supported by the Moodle platform for completing assignments.

Along the way, there are optional quizzes to check your learning progress. If you successfully complete all quizzes and the final assignment, you can receive a certificate.

Benefits and challenges:

The results of a qualitative survey conducted with the participants of the educational programme showed that a very large majority of the participants appreciated the format of the self-study e-learning course. A large majority of participants estimated that they increased “very much” their knowledge about sustainable tourism through their participation in the programme.

For 34% of participants of the training programme, sustainable tourism was a way to support the local economy. For 30%, this was the only way against climate change.

Adaptability:

This exemplary approach to education is already in the realm of digitalization, with potential for further enhancement through innovative elements such as gamification, augmented reality, virtual reality, and more.

Selfie WBL (EU)

SELFIE for work-based learning (WBL) is a free online tool that supports VET schools and companies in making the most of digital technologies for teaching, learning and training. It has been developed by the European Commission together with many key stakeholders.

SELFIE WBL is an extension of the existing SELFIE tool, which was launched in October 2018 and has had more than 1.7 million users. In particular, the development has involved a feasibility study, an international expert workshop and a pilot phase conducted in nine European countries, alongside a range of





communication and stakeholder engagement activities and the adaptation of the IT environment to the specific requirements of WBL.

SELFIE WBL supports schools and companies to become fit for the digital age. In this way, it supports achieving the twin digital and green transition, one of the key policy priorities of the European Commission.

Objective:

SELFIE WBL covers work-based learning and supports VET providers and companies in making the most of digital technologies for teaching, learning and training. SELFIE WBL helps schools and companies become fit for the digital age. It is a specific part of the SELFIE tool, adapted to match the requirements of work-based learning.

Target audience:

- Entrepreneurs (in-company trainers)
- Educators
- Vocational trainers

Overview and components:

SELFIE WBL is a module in the SELFIE tool, which is a free online self-reflection tool, developed by the European Commission together with many key stakeholders. It involves school leaders, teachers and students, while SELFIE WBL also involves in-company trainers.

The COVID-19 crisis has marked a gear change in the digitalisation of training in schools and companies, which were often not prepared to jump in this way into the digital age. SELFIE WBL may support them to make the most of digital technologies in an exceptional time when the whole school community is required to use them. While the pandemic kicked-off digitalisation of training in many areas, these changes can be expected to remain also in the future. SELFIE WBL can be the starting point in this adventure, which ultimately aims to raise students' competences to new levels in the long term, while ensuring equal opportunities for all.

SELFIE (WBL) offers the functionality to mobilise entire learning communities, towards a common objective, fostering a school-tailored digitally innovative process, which together could inform top-down, system-wide education reforms, including perceptions and needs of schools.

The tool provides valuable information to VET schools and employers on where they stand in the use of digital technologies for teaching and learning and how they can improve cooperation between them. Digital technologies offer the sector many opportunities beyond the emergency responses that were





conducted during the COVID-19 pandemic: for example, to improve learning in both the school and work environment, to allow effective remote learning and working, to lower training costs, to improve mentoring and guidance and to facilitate coordination among the VET school, the employer and the student. SELFIE WBL may be the entry point to this new world of possibilities.

The process of setting up SELFIE and SELFIE WBL includes following steps:

- A school coordinator needs to set up the SELFIE tool for the school.
- The school coordinator sets up the school questionnaire and decides the timing and who will participate from the school and the training company.
- An automatic link is generated.
- The school coordinator needs to send the link to the school leaders, teachers, students and in-company trainers.

SELFIE (WBL) observes DSC-DOL (Digital skills and competencies – digital and online learning) as two faces of the same coin, connecting the use of digital technology to the development of digital competence of learners, as one of the mandatory areas of the SELFIE questionnaires.

SELFIE's underlying conceptual framework DigCompOrg covers all aspects of the process of systematically integrating digital learning in educational organisations. In this way, it aims to relate to all education levels, from primary education to higher education. SELFIE very closely follows the areas provided in DigCompOrg, but there are also some differences: while DigCompOrg includes seven areas, SELFIE includes eight, with the areas Teaching and learning practices and Content and Curricula being split into the areas Pedagogy: supports and resources, Pedagogy: implementation in the classroom and Student digital competence.

Eight areas covered by questions in the questionnaire are:

- a. Leadership
- b. Collaboration and networking
- c. Infrastructure
- d. Continuing professional development
- e. Pedagogy: support and resources
- f. Pedagogy: implementation in the classroom
- g. Assessment practices
- h. Student digital competence

Key messages about SELFIE WBL:

- Knowing where you stand: Using SELFIE WBL is the starting point of a process. Whether actual change follows and identified weaknesses are tackled depends on VET providers, training companies and context factors.



- Stimulating dialogue: SELFIE WBL as an opportunity to stimulate a discussion between VET providers and training companies about how to best work together to equip learners with digital skills.
- Long-term benefit vs. short-term extra workload: important to make clear to both VET providers and training companies why it matters to invest a few hours in participating in SELFIE WBL. This includes announcing a concrete follow-up.
- Promotion is key: ensure that not only the digital champions participate but also VET providers and training companies that do not attach as much attention to digitalization yet use the tool.

Benefits and challenges:

Benefits of the tool for VET providers and companies:

- Comprehensive: it involves the school community and companies – school leaders, teachers, students and in-company trainers– in a 360-degree process.
- Customisable: Because schools and companies are unique, the tool can be customised (questions and statements can be selected and added to suit the needs).
- Matching experience: It allows all participants to answer questions that match their experience, as students, teachers, school leaders or in-company trainers.
- Free and anonymous: It is free of charge. Answers are anonymised and data is secure.
- Tailor-made: On completion, each school and company receives a tailor-made, interactive report which provides both in-depth data and quick insights into strengths and weaknesses in their use of technology for learning.

SELFIE WBL supports companies (also small-scale enterprises) to use the many opportunities that digital technologies offer to improve learning, mentoring and guidance as well as cooperation with VET schools to implement WBL.

Adaptability:

The tool is already fully digitalised but could be used also for other kind of collaboration than WBL.





GET-UP Project: Recommended platforms and media formats for e-learning (Romania, Cyprus, Germany, Ireland, Spain, UK, Finland)

This practice combines the findings from research conducted within the project Get-Up, financed by Erasmus+ Programme, performed in 2016 in seven European countries: Romania, Cyprus, Germany, Spain, Ireland, UK, Finland. Through literature review, questionnaire and specific research performed by Future In Perspective Ltd. (FIPL), they investigated the optimal features of the platforms, the format of the learning materials, and the key learning points with the aim of training and empowering green entrepreneurs in Europe.

The practice stems from combined research with the objective of defining the ideal format and tools to use as support for a green entrepreneurship curriculum.

It's essential to compare and identify the most functional channels, materials and formats of the training programmes to meet the target group needs and possibilities.

Objective:

The aim of this practice is to make sure that resources and tools needed for the training are easily accessible, that the platform allows easy distribution of material and interaction of the participant, despite different contexts and challenges (ex: slow internet connection, basic digital competences).

Target audience:

- entrepreneurs
- educators
- vocational trainers

Overview and components:

Beside suggesting a combination of face-to-face and online learning environments, a focus on the latter is recommended and thus a deeper analysis of the optimal features of the online learning environment is conducted. The tools and platforms to convey the training contents are considered through technical parameters and content parameters.

As far as technical parameters are considered, the ideal e-learning environment is described as follows. The interface should be designed keeping in mind the needs of the users to anticipate them. Key features should be: simplicity and consistency, reached thanks to clear layout and typography that creates hierarchy and guides easily through the contents and showing the possible





actions.

Users' interactions are recommended, such as information on changes and suggested possible actions. The learning resources should be ready to use: accessible on common hardware platforms that are readily available to end users, and should be scalable for use on different devices such as PC, laptop, tablet and smartphone. Resources should be developed using the most common software programmes; presented in formats and file sizes that permit access even in places where internet access is slow; designed to comply with WCAG 2.0.

As far as the media formats of the learning resources are concerned, the preferred formats are audio-video files and video clips, online platforms, slide-shows (PPTs, Prezzi files), shared on different levels as through social media (WhatsApp, Facebook), blogs, mobiles apps, webinars, MOOCs.

Specific platforms already available and spread are recommended such as: 1) Moodle; (2) ILIAS; (3) OLAT, ATutor, Dokeos; (4) Sakai, Fedena

Sapori Antichi: Nurturing Tradition through Circular Sustainability and Local Excellence in Frozen Food Production (*Italy*)

Sapori Antichi, led by Mauro Cortellazzo, is recognized in the frozen food production sector for its adherence to various certifications, reflecting a commitment to quality and sustainability. These are the certifications the company managed to obtain throughout these thirty years of life:

- IFS FOOD: Compliance with rigorous food safety and quality standards.
- ISO 9001: Adherence to a robust quality management system.
- BIO AGRI CERT: Certification for organic farming practices.
- KOSHER: Compliance with Jewish dietary laws.
- DEPARTMENT OF DEFENSE, UNITED STATES OF AMERICA: Accreditation meeting specific U.S. standards.
- HALAL QUALITY CERT: Adherence to Islamic dietary laws.

These certifications are a strong indicator for detecting the capacity of the business to provide high quality products, to innovate and improve itself, to comply with the market needs and the increasingly relevant demand for sustainable production which the consumers are looking for, and to comply with the safety standards of the foreign systems in order to increase export opportunities. Successful businesses like Sapori Antichi should commit to improve themselves and capitalize these efforts by obtaining certifications that explicitly demonstrate to the customers the products' added value.





Certifications represent not only a way to verify that existing products and production processes are sustainable, bio, high quality or ethic, they may also represent a target, objective, or standard for the businesses that want to improve and do not know where to start. Looking at the standards requested by EU certifications, for example, may be an excellent starting point, also because certifications come with guidelines, information, and indication: businesses should search for training programmes starting from these, that have the goal to lead the company to the point of being able to get the certification. That is what Saponi Antichi did and still does, providing a replicable model for the food industry.

In summary, the practices employed by the company are significant as they offer insights into the challenges and processes associated with achieving and maintaining industry-recognized certifications.

Saponi Antichi's pursuit of certifications was born out of the strategic recognition that they serve as essential benchmarks in a rapidly evolving industry. The company's proactive approach in obtaining certifications was driven by a multifaceted motivation. Beyond responding to specific challenges like anthrax monitoring during exports and ensuring product integrity - the main focal points of the training that Saponi Antichi undertook to obtain the Accreditation from the U.S. Department of Defense -, the certifications became integral in showcasing Saponi Antichi's commitment to environmental sustainability, product quality, and meeting the demands of a discerning food market. Notably, the Department of Defense certification from the United States played a crucial role, not only ensuring compliance with U.S. standards but also guiding the company through specialized training to enhance its export capabilities.

Within the frozen food production industry, Saponi Antichi's certification practices are profoundly relevant and indicative of broader industry dynamics. In a global context where exports constitute a significant portion of the business (80%), these certifications become crucial. The certifications not only validate the company's dedication to producing high-quality, sustainable, and culturally compliant products but also position Saponi Antichi as a leader in the industry. The relevance extends beyond national borders, addressing the growing consumer demand for ethically sourced, sustainable products. This practice is particularly pertinent for businesses aiming to navigate the complexities of international trade, comply with diverse standards, and elevate their standing in a competitive market. Saponi Antichi's journey provides a replicable model for companies within the food industry seeking to align with global standards and consumer expectations.





Objective:

Sapori Antichi's certification practices hold profound relevance within the frozen food production industry. The certifications acquired, such as IFS Food, ISO 9001, and others, serve as tangible evidence of the company's commitment to quality, sustainability, and meeting diverse market standards. In a sector where ensuring food safety, adherence to cultural dietary laws, and environmental responsibility are paramount, these certifications become crucial markers of credibility. Sapori Antichi's proactive approach in obtaining certifications not only reflects its dedication to excellence but also sets a precedent for the broader industry, signaling the importance of aligning with global standards to meet consumer expectations.

To make a “to-do list” out of this approach, it must be said that a company should establish and pursue these objectives:

- **Quality Assurance:** Attaining certifications means committing to maintaining high standards of food safety and quality management. The practice aims to instill confidence in consumers and stakeholders regarding the quality and safety of Sapori Antichi's products and to raise the bar of the overall food supply, contributing to generate pressure in adopting high standards in terms of sustainability and quality on all the actors in the food supply sector.
- **Sustainability Integration:** Certifications underline the company's dedication to sustainable and ethical practices. By obtaining these certifications, a company seeks to align its operations with environmentally friendly and culturally compliant standards.
- **Global Market Positioning:** In a global market where exports may constitute a significant portion of the business, especially in contexts of excellent local products that are already worldwide famous (such as pasta, with respect to Sapori Antichi), training practices to meet certifications' standards aim to position a company as a reputable and reliable supplier. Certifications may also demonstrate the company's commitment to meeting diverse international standards, fostering trust, and expanding export opportunities.
- **Industry Leadership:** Certification practices may go beyond mere compliance; they help the companies to adopt the approach of continuous learning and self-improvement that may lead them to position themselves as leaders. By setting a precedent for aligning with global standards, this approach aims to influence industry dynamics and encourage other businesses to adopt similar measures for excellence and sustainability.

Sapori Antichi's certification practices offer valuable insights and a replicable model for small-scale sustainable entrepreneurship within the food industry. The objectives for small-scale entrepreneurs include:





- **Quality Benchmark:** Certifications provide small-scale entrepreneurs with a benchmark for maintaining quality and safety standards in their operations. This, in turn, enhances the credibility of their products in the market.
- **Environmental Responsibility:** By obtaining certifications related to sustainability, entrepreneurs can integrate environmentally responsible practices into their business models, meeting the growing demand for eco-friendly products.
- **Market Access:** Certifications open doors to international markets by signaling adherence to global standards. For small-scale entrepreneurs, this expands market access, fostering growth and competitiveness.
- **Consumer Trust:** The practice aims to build trust among consumers who increasingly seek products from businesses committed to ethical, sustainable, and high-quality practices. Certifications serve as tangible evidence of such commitments, attracting conscientious consumers.

Target audience:

- entrepreneurs
- educators
- vocational trainers

Overview and components:

Mauro Cortellazzo's approach to addressing specific challenges, such as anthrax monitoring during exports, involves a practical and hands-on training program. In this case, training with the FBI was conducted to implement surveillance through cameras during the shipment of products. This exemplifies a real-world, experiential learning component within the pedagogical approach.

The teaching and learning methodology in this practice is rooted in practical experience and collaboration. Training with external entities like the FBI demonstrates a hands-on approach, where employees engage directly with experts to implement surveillance measures. The methodology involves a combination of theoretical knowledge transfer and practical application, ensuring that participants not only understand the concepts but can also implement them.

With respect to the training undertaken with the FBI, this practice fosters skill development by providing employees with the specific knowledge and expertise needed to address challenges related to anthrax monitoring in the export process. The hands-on training methodology enhances practical skills, ensuring that participants are proficient in implementing surveillance measures.

In terms of innovation, the collaboration with external agencies like the FBI showcases a forward-thinking approach.





Regarding sustainability, the emphasis on compliance with high standards and the incorporation of sustainability training also inspired by taking part in networks such as Delice network further allows the company to develop in terms of being environmentally responsible and ethically conscious. By integrating sustainability components, the training programs enable the employees to be well-versed in practices that contribute to the company's overall sustainability objectives and that generates a positive impact.

Within Saponi Antichi's training programs and practices aimed at achieving and maintaining various certifications, several specializations or areas of focus emerge:

- Food Safety and Quality Management (IFS Food, ISO 9001): The certifications IFS Food and ISO 9001 indicate a clear specialization in food safety and quality management. Training programs likely emphasize adherence to rigorous standards in these critical areas.
- Organic Farming Practices (BIO AGRI CERT): The certification for organic farming practices (BIO AGRI CERT) suggests a specific focus on sustainability and environmentally friendly agricultural methods. Training programs may address the unique requirements and practices associated with organic farming.
- Cultural Dietary Laws (Kosher, Halal Quality Cert): Certifications like Kosher and Halal Quality Cert demonstrate a specialization in producing products that comply with specific cultural dietary laws. Training likely covers the intricacies of these norms and standards and how to ensure compliance in production processes.
- Department of Defense Standards (Department of Defense, USA): The certification from the Department of Defense, USA, indicates a focus on meeting specific safety standards. Training programs may encompass security measures, logistics, and other aspects relevant to defense-related certifications. Training likely covers measures to ensure the safety and security of products during international shipments.
- Ethical and Sustainable Practices: The emphasis on sustainability, mentioned in the context of informal training from sources like the Delice network, suggests a specialization in ethical and sustainable practices. This could include training on reducing environmental impact, ethical sourcing, and other sustainable initiatives.

By considering these certifications collectively, Saponi Antichi's training programs demonstrate a broad range of specializations, covering food safety, quality management, organic farming, cultural dietary laws, defense standards, and ethical/sustainable practices. These areas of focus collectively contribute to





the company's commitment to excellence and compliance in various aspects of the frozen food production industry.

The effectiveness of Sapori Antichi's certification practices in promoting small-scale sustainable entrepreneurship can be attributed to several key factors. In general, the push towards encountering requirements for the certifications lead to the company's growth, an objective and path that is fundamental in small-scale entrepreneurship. Effectiveness with respect to these goals lies on these factors:

- **Benchmark for Quality and Safety:** Attained certifications serve as a benchmark for maintaining high standards of food safety, quality, and sustainability. For small-scale entrepreneurs, achieving similar certifications becomes a roadmap to ensuring the quality and safety of their products, instilling confidence among consumers and stakeholders.
- **Access to Global Markets:** By obtaining certifications that align with international standards, a company better access to global markets. This is particularly relevant for small-scale entrepreneurs aiming to expand their reach and compete on a larger scale. Certifications act as a passport, opening doors to diverse markets and increasing export opportunities.
- **Compliance with Ethical and Cultural Standards:** Certifications such as Kosher and Halal Quality Certification demonstrate a commitment to ethical and cultural considerations. For small-scale entrepreneurs, aligning with such standards not only expands market access but also appeals to consumers with specific cultural or religious dietary preferences.
- **Innovation and Adaptability:** This type of approach reflects the disposition of a company to innovate and adapt, in a process of self-improvement that translates into growth, that is why it is fundamental to small-scale companies. This approach should involve collaboration with external entities, training providers such as VETs, institutions and other businesses in the sector; in summary, outsourcing and networking oriented towards learning, innovating and self-improving are fundamental elements for the business growth. Small-scale entrepreneurs can emulate this approach by seeking innovative solutions to industry challenges, fostering a mindset of continuous improvement.
- **Sustainability Integration:** The emphasis on sustainability, including certifications like BIO AGRI CERT, encourages small-scale entrepreneurs to integrate environmentally responsible practices into their operations. This not only meets the growing demand for sustainable products but also positions businesses as responsible stewards in their communities.
- **Holistic Approach to Training:** Companies should rely on a various set of knowledge, competences, and information providers, by combining institutional, formal, scientific and informal training from various sources. A





holistic approach to skill development is fundamental for small-scale entrepreneurs because it allows them to maximise the benefits from diverse learning opportunities.

- Differentiation and Leadership: Commitment to innovation sets an example for small-scale entrepreneurs. By following this example, entrepreneurs can navigate industry challenges, differentiate themselves, and contribute to the overall advancement of sustainable entrepreneurship.

In summary, Saponi Antichi's certification practices are effective in promoting small-scale sustainable entrepreneurship by providing a roadmap for quality and safety, facilitating market access, addressing ethical and cultural considerations, fostering innovation, integrating sustainability, offering holistic training, and setting a leadership example for others in the industry.

Benefits and challenges:

1. Enhanced Credibility: Small-scale entrepreneurs gain enhanced credibility through certifications, signaling their commitment to high standards, sustainability, and quality, which instills trust among consumers and stakeholders.
2. Market Access and Expansion: Certifications, and the processes of training, adaptation and self-improvement preceding those, provide a pathway for small-scale entrepreneurs to access new markets and expand their business reach, both locally and internationally, contributing to business growth.
3. Competitive Edge: Certified sustainable practices give small-scale entrepreneurs a competitive edge in the market, attracting environmentally conscious consumers and setting their businesses apart from competitors.
4. Adaptation to Industry Standards: Certifications guide small-scale entrepreneurs in aligning with industry standards, ensuring compliance with regulations, and meeting the evolving expectations of consumers.
5. Operational Efficiency: Pursuing certifications often involves adopting robust quality management systems, promoting operational efficiency and streamlining processes for small-scale enterprises.
6. Innovation and Continuous Improvement: The certification practice encourages small-scale entrepreneurs to embrace innovation and a mindset of continuous improvement, essential for long-term success and adaptability.

Saponi Antichi's engagement with external entities like the FBI and informal networks like the Delice network, fostering skill development. As said before, businesses - especially small-scale ones - should draw upon a diverse array of knowledge, competencies, and information sources, combining institutional, formal, scientific, and informal training from various outlets. Embracing a





comprehensive approach to skill development is crucial because it enables to optimize the advantages derived from a wide range of learning opportunities.

By applying these practices, small-scale sustainable entrepreneurship stands to gain numerous benefits, creating a foundation for success, growth, and resilience through learning, innovating, and improving within the industry.

Identified challenges or obstacles that might be encountered during implementation:

- Financial Investment and Resource Constraints: Small-scale enterprises may lack the resources, both human and technological, required to meet the stringent criteria of certain certifications. Pursuing certifications may require a financial investment, which could pose challenges for small-scale entrepreneurs with limited resources. Public funding from the national and european level or venture capital opportunities may help, that is why it is very important for small-scale entrepreneurs to monitor them.
 - o In general, integrating sustainable practices while managing costs can be a delicate balance for small-scale entrepreneurs, requiring strategic planning and resource allocation.
- Complexity of Certification Processes: Navigating the complexity of certification processes, especially for international standards, may be challenging and time-consuming for small-scale businesses. But this is the type of investment that rewards in the medium-long term, also in financial terms.
- Resistance to Change: Implementing new practices and undergoing training may face resistance from existing staff or management accustomed to established routines. Cohesion and innovation-oriented culture within the organization must be enhanced for that.
- Lack of Awareness: Small-scale entrepreneurs might face challenges related to a lack of awareness regarding the benefits of certifications, hindering their willingness to invest in such practices.
- Limited Training Opportunities: Access to specialized training programs, especially those conducted in collaboration with external entities, might be limited for small-scale entrepreneurs in certain regions.

Despite these challenges, the potential benefits and long-term advantages for small-scale sustainable entrepreneurship make the implementation of certification practices a valuable and strategic investment.

Adaptability:

When talking about diverse learning practices and opportunities, digitalization plays a key role in providing disruptive, innovative tools that unlocks the accessibility and the possibility of updating of countless new flexible learning





methodologies while remarkably cutting costs and various type of constraints, such as the geographical one.

The needed approach involves a strategic integration of technology and modern educational tools. Here are key considerations:

- Digital Training Platforms: Implementing digital training platforms or Learning Management Systems (LMS) can facilitate remote access to certification courses and educational materials. This enables employees, including small-scale entrepreneurs, to engage in training sessions at their convenience.
- Virtual Collaboration: Utilizing virtual collaboration tools fosters interaction among participants, allowing them to engage in discussions, share insights, and collaborate on projects.
- Online Certification Programs: Offering online certification programs ensures accessibility for small-scale entrepreneurs, allowing them to pursue certifications without geographical constraints.
- Gamified Learning: Incorporating gamified elements into training can enhance engagement and make the learning experience more interactive. This approach can be particularly effective in conveying complex concepts and fostering innovation.
- Digital Resources for Sustainability: Leveraging digital resources for sustainability training allows participants to stay updated on the latest eco-friendly practices, industry trends, and global sustainability standards.
- Mobile Learning Applications: Developing mobile applications for training purposes ensures flexibility and accessibility, enabling participants to engage in learning activities from their smartphones or tablets, which is especially beneficial for entrepreneurs with busy schedules.
- Data Analytics for Progress Tracking: Implementing data analytics tools can help track participants' progress, identify areas of improvement, and tailor the training content based on individual needs. This data-driven approach enhances the effectiveness of the educational experience.
- Webinars and Virtual Workshops: Conducting webinars and virtual workshops facilitates real-time interaction, allowing participants to engage with industry experts, share experiences, and stay updated on the latest developments in the frozen food production sector.

Adapting the practice to digitalized education and vocational teaching methodologies oriented towards certifications' acquisition aligns with the evolving landscape of remote learning and technology integration. It enhances accessibility, engagement, and the overall effectiveness of the training process for small-scale entrepreneurs.





Global Pathway: Training modul on sustainable entrepreneurship for young people

Within the project Global Pathways (Erasmus+) the training module for young people was developed as a 5-day training event. The program covered 5 main topics and associated learning objectives.

Table 4: Topics and learning goals of Global Pathway training module

Day	Topic	Learning objectives
1.	Introduction	<ul style="list-style-type: none"> - To allow participants to get to know each other and create a group cohesion. - To stimulate creative thinking. - To stimulate an entrepreneurial mindset.
2.	Creativity and entrepreneurial mindset	<ul style="list-style-type: none"> - To stimulate creative thinking. - To recognise barriers to creativity in entrepreneurship. - To stimulate creative thinking in entrepreneurship.
3.	Circular economy	<ul style="list-style-type: none"> - To give participants understanding of circular economy as opposed to linear economy. - To give participants understanding of Cradle2Cradle as a model of circular economy. - To give participants understanding of Industrial Symbiosis as a model of circular economy.
4.	Business ideation	<ul style="list-style-type: none"> - To stimulate participants to generate ideas for sustainable businesses. - To introduce the Business Model Canvas for the sustainable businesses. - To develop a Business Model Canvas for a sustainable business idea.
5.	Further on sustainability and evaluation	<ul style="list-style-type: none"> - To give participants reflections about the ethical and sustainability policies of their own businesses. - To understand values of the Economy for the Common Good. - To inspire participants to apply values of Economy of the Common Good in their business. - To evaluate the participants' learning outcomes.

Growing Green Toolkit

An example of the Toolkit – a collection of non-formal educational methods for Sustainable entrepreneurship, was developed by the partners in the project “Growing Green”, reshaped and further developed during the project “Global





pathways”.¹⁵ The toolkit defined and describes 19 different methods, classified into three groups.

Table 5: Growing Green Toolkit methods

1.	Creative thinking:	Invent the solution, Change the image of a familiar situation, My frustrations! Creative pitch speech
2.	Entrepreneurial thinking:	Win as much as you can, Trading cards, Problem tree analysis, World cafe, Pitching your business
3.	Sustainable businesses:	Waste gold, Time for action, C2C redesign, Symbiose-it, Sustainable business models-leasing, Ethical businesses, Common good and human values, Business model canvas for sustainable businesses, SWOT analysis, Risk assessment

¹⁵ Project co-founded by the Erasmus+ Programme of the European Union, KA2 – Capacity building in the field of youth.





4 Innovation and digitalisation in VET

The education sector, including VET, has traditionally been viewed as relatively static and not innovative.¹⁶ But it is for European training and education to become innovative. Innovating would increase productivity, which has been slower to progress in education than in other sectors despite an increase in investment in education¹⁷.

Moreover, education and training institutions need to innovate to stay relevant in the face of technological changes, which make learning outside formal education easier and increasingly common¹⁸. Current innovations in education and training involving new teaching and learning pedagogies are so fundamental that they correspond to the early stages of a learning revolution: pedagogical examples include problem-based learning and students as co-creators, and the use of technology in classrooms (e.g. virtual learning environments, adaptive learning, immersive environments, mobile learning and flipped classrooms)¹⁹.

At the same time, technology plays a pivotal role in enhancing the accessibility of Vocational Education and Training (VET) programs. Online and virtual learning, contingent on robust internet connectivity, significantly improves access for learners in remote areas. It establishes remote connections to VET institutions and employers, bridging geographical gaps. Moreover, technology facilitates greater inclusivity by making VET more accessible to students with special needs, eliminating barriers that might have restricted their educational pathways in the past.

The flexibility of provision is another area where technology shines. This flexibility is particularly crucial for adults juggling work and learning commitments. Advanced technology further diversifies training options, overcoming material shortages that may have traditionally limited the offerings from governments and learning providers. This technological advancement not only expands the choices available to students but also enhances the progression pathways for their learning journeys.

¹⁶ World Economic Forum (2014). Delivering Digital Infrastructure Advancing the Internet Economy. 7. http://www3.weforum.org/docs/WEF_TC_DeliveringDigitalInfrastructure_InternetEconomy_Report_2014.pdf.

¹⁷ The phenomenon according to which the productivity of education does not increase in line with investment is known as the Bauriol disease.

¹⁸ Bleed, R. (2007). A Disruptive Innovation Arrives. *Educause Review* 42(1): 72. Barber, M., K. Donnelly, S. Rizvi & L. Summers. 2013. *An Avalanche is Coming: Higher Education and the Revolution Ahead*. London: Institute for Public Policy Research.

¹⁹ Hazelkom, E. and Edwards, J (2019) *Skills and Smart Specialisation: The role of Vocational Education and Training in Smart Specialisation Strategies*, Luxembourg Publications Office of the European Union





Another potential benefit of technology is that it can be used to provide personalised support to learners and teachers. Personalisation of learning did not start with computerised technology – in a sense, it has been available since the first use of one-on-one tutoring, thousands of years ago (if not earlier). However, with the increase in systematised, standardised schooling and teaching over a hundred years ago, awareness increased that many students’ learning needs were being poorly met by one-size-fits-all curriculum. Classroom approaches such as mastery learning (each student works on material until mastery and only then moves on to the next topic) were developed but proved difficult to scale due to the demands on the teacher. Educational technologies provided a ready solution to this problem – the computer could manage some of the demands of personalising learning, identifying each individual student’s degree of mastery and providing them with learning activities relevant to their current position within the curriculum (OECD, 2021²⁰).

The effective integration of digital technologies in VET teaching is contingent not only on the digital skills of VET teachers but also on their adeptness in employing suitable pedagogical approaches to maximize the benefits of technology in their teaching activities. Furthermore, as soft skills like complex problem-solving, creative thinking, and collaboration gain prominence in the labor market, teachers must possess the ability to cultivate these skills among their students. This necessitates the use of innovative pedagogical approaches that go beyond traditional methods to foster the development of crucial soft skills in the evolving landscape of education and work.

It is necessary to point out that innovation and digitalisation are closely related, as the OECD as put it: “it is difficult to imagine innovation strategies in education without a strong focus on developing digital skills among students and learners”²¹. As defined in the report of the ET 2020 Working group on VET (2020), the *innovation is the use of new or significantly redesigned teaching and learning tools, methods or environments (such as digital learning tools, MOOCs or virtual reality) or new organisational methods (for example using a new app or software to interact with employers) aimed at improving the quality of VET in response to environmental sustainability and social and economic needs*. But not all innovation relies on digitalisation and not all digitalisation leads to innovation.

²⁰ OECD (2021), OECD Digital Education Outlook 2021: Pushing the Frontiers with Artificial Intelligence, Blockchain and Robots, OECD Publishing, Paris, <https://doi.org/10.1787/589b283f-en>.

²¹ OECD (2016). Innovating education and educating for innovation, OECD: Paris, p.65





4.1 Innovation in vocational teaching methodology

Pedagogical approaches like inquiry-based, project-based, and collaborative learning are instrumental in cultivating essential soft skills, including critical thinking, creativity, teamwork, and communication. These approaches can be enriched with innovative elements such as gamification, blended learning, and experiential learning. Incorporating cutting-edge technology like robots, virtual reality (VR), augmented reality (AR), and simulators enables teachers to not only develop students' vocational skills but also nurture their digital and soft skills.

Despite the evident benefits, TALIS²² data indicate that only a subset of VET teachers currently embraces these innovative pedagogical approaches. This underscores the need for further support and professional development initiatives to empower more educators to integrate these effective methods into their teaching practices, ensuring that students are equipped with the diverse skills demanded by the modern workforce.

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According to Paniagua and Instance (2018²³) there are six clusters of innovative pedagogies that can complement – or be integrated into – traditional approaches:

- Embodied learning
refers to pedagogical approaches that focus on the non-mental factors involved in learning, and that signal the importance of the body and feelings, such as the physical, emotional, and social aspect. It is at the core of vocational training because the applications of the psychomotor and physical aspects of activity and performance are central. A student cannot learn to be a good cook without the embodied learning of how an ingredient would affect the flavour of the food or become a hairdresser without the embodied knowledge of how different kinds of hair (curly, coarse...) will turn out when cutting/curling/colouring it. Regarding digital learning, this raises important questions for the place of simulations such as augmented and virtual reality in supporting VET.
- Computational thinking intersects with mathematics, sciences, and digital literacy to offer a unified framework to develop a wide range of transversal skills through ICT. It is about using problem-solving skills and computer-based techniques to tackle problems.
- Experiential learning

²² TALIS: OECDs first international survey of teachers, teaching and learning

²³ Paniagua, A. and D. Instance (2018), *Teachers as Designers of Learning Environments: The Importance of Innovative Pedagogies*, Educational Research and Innovation, OECD Publishing, Paris, <https://doi.org/10.1787/9789264085374-en>.





is defined as approaches where learners are brought directly in contact with the realities being studied. It is based on the idea that human experience is a central source of learning, and therefore the design of learning environments should make use of human experience as part of the learning process (Celio, Durlak and Dymnicki, 2011²⁴). It is learning through reflection on doing²⁵. It has a clear and obvious fit with VET that includes learning in workplaces or simulated environments. Various digital technologies can support experiential learning, and some have been in use for some time and are well established and flight simulation, which enables highly realistic experiential learning at lower cost and risk than the real thing. Hardware and software are highly sophisticated but, for this reason, also expensive. Such technology has wide application, such as in the health sector in simulating health care, and in the timber industry in sawmill operation. Most recently, virtual reality has emerged to enable more immersive simulation, as in the case of motor vehicle or industrial spray painting²⁶. An increasingly popular form of experiential learning in VET is project-based learning. This is a learner-centred approach involving active exploration of real-world challenges through projects organised around a key question or challenge. Project-based learning is valuable in teaching not only technical but also key competences which have become increasingly important in the labour market, a role emphasised by European institutions. Competence-based approaches such as project-based learning are well understood in vocational education, and fit adult and part-time learners particularly well²⁷.

- Gamification

refers to the introduction of game design elements and game-like experiences in the design of learning processes. It has been adopted to support learning in a variety of subject areas integrating exploratory approaches to learning and strengthening student creativity and retention. This is supported by the belief that incorporating game mechanics into the design of a learning process means learners will engage in a productive learning experience (Dichev and Dicheva, 2017²⁸).

²⁴ Celio, C., J. Durlak and A. Dymnicki (2011), "A meta-analysis of the impact of service-learning on students", *Journal of Experiential Education*, Vol. 34/2, pp. 164-181, <https://doi.org/10.1177/105382591103400205>.

²⁵ Felicia, P. (2011) *Handbook of Research on Improving Learning and Motivation*. Hershey: Information Science Reference; Kolb, D. (1984) *Experiential Learning: experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice Hall.

²⁶ <https://mimbus.com/en/produit/simspray-eng/>

²⁷ Weise, R. (2014) Got skills? Why online competence-based education is the disruptive innovation for higher education, in *Educase*, 27-35, URL: <https://er.educause.edu/~media/files/article-downloads/erm1462.pdf>

²⁸ Dichev, C. and D. Dicheva (2017), "Gamifying education: What is known, what is believed and what remains uncertain: A critical review", *International Journal of Educational Technology in Higher Education*, Vol. 14/1, <https://doi.org/10.1186/s41239-017-00>.





- Blended learning
seeks to use the potential of new technology to offer more individualised teaching and direct instruction. The main goal of blended learning is to maximise the benefits of technology and digital resources, to improve the differentiation of instruction according to students’ needs, as well as fostering classroom interaction. This approach assumes that the active involvement of students can best be achieved through group dynamics and intense face-to-face interactions. Computer technology then can offer direct instruction through individual, highly planned and structured sequences of skills. When computers provide the relevant information, teachers can then be free to spend more time on concept application, using more interactive and complex classroom activities or providing one-to-one instruction.
- Multi-literacies and discussion-based teaching
focus on students’ active engagement and the availability of a multiplicity of texts, narratives, and sources of information. Discussion-based teaching allows students to share, discuss and give sense to the implicit power relations and become aware of and value multiple modes of literacy. This is particularly relevant given how the Internet shapes the way people become informed and make sense of the world. Discussion-based teaching works as a pedagogical lever to teach rational thinking, affective judgements, and higher-order thinking skills.

Some of these approaches are becoming increasingly important, as they use digital technology and allow students to develop soft skills, digital skills, and other skills in high demand in the workplace.

4.2 Digital based training programs in VET for SMEs

The 21st century is characterized by a technology- and media-driven environment, with constant technological evolution and an abundance of information. In this interconnected society, digital competence is vital for participation, particularly in a COVID-19-affected world. Job-specific digital skills and digital learning are increasingly crucial for companies seeking modern forms of education, such as e-learning and virtual reality, to train and upskill their employees. This shift is driven by the growing digitization of work, with companies expecting VET schools to produce graduates capable of thriving in the digital age. The significance of digital competence is underscored by EU-level initiatives like the Digital Education Action Plans and the Recommendation on Key Competences for Lifelong Learning (European Commission, 2021b).





Digital-based training programs in Vocational Education and Training (VET) for small-scale entrepreneurship in EU countries leverage technology to enhance learning experiences. These programs often incorporate online platforms, interactive modules, and virtual tools tailored to address the specific needs of small-scale entrepreneurs in various sectors. The aim is to provide flexible and accessible training opportunities that align with the digital transformation of education.

Adapting training programs to digitalized education involves a thoughtful and strategic approach to leverage technology effectively. Some of the important steps that should be considered include:

- Assessing the needs and preferences of the target audience, considering their digital literacy levels.
- Clearly articulating the learning objectives of the program and aligning them with the necessary digital skills.
- Identifying digital tools and platforms that align with the program's goals, prioritizing those that facilitate engagement and collaboration.
- Developing interactive and multimedia-rich content to keep learners engaged, incorporating videos, simulations, quizzes, and other interactive elements.
- Designing content and platforms with accessibility in mind to accommodate diverse learners, ensuring inclusivity for different learning styles.
- Implementing blended learning models that combine traditional and digital methods for a balanced approach.
- Using online collaboration tools to foster interaction and peer learning. Incorporate group projects, discussion forums, and collaborative activities to facilitate engagement.
- Designing programs that offer flexibility, allowing learners to access content at their own pace, and integrate adaptive learning features for personalization.
- Developing digital assessment methods that evaluate both knowledge and practical skills.
- Providing timely and constructive feedback to enhance the learning process.
- Establishing mechanisms for ongoing support, including forums, help desks, and mentoring.
- Incorporating gamification elements such as rewards, badges, and levels to make the learning experience more engaging.
- Keeping content up-to-date with the latest industry trends and technologies.



- Regularly evaluating the effectiveness of the training using assessment and feedback mechanisms and use data analytics to gather insights for continuous improvement.

By carefully considering these steps, training programs can be effectively adapted to the digitalized education landscape, providing learners with a dynamic and relevant learning experience.

Tools and resources for online learning

When creating online training for small-scale entrepreneurs, the VET providers are advised to use the following forms and methods:

- Online learning platforms (utilizing e-learning platforms to provide flexible, accessible, and self-paced training modules. These platforms can cover a wide range of topics relevant to entrepreneurship.)
- Mobile applications (developing mobile apps that offer on-the-go access to resources, tutorials, and tools for small-scale entrepreneurs. These apps can help with tasks like financial management, marketing, and business planning.)
- Webinars and virtual workshops (hosting webinars and virtual workshops to facilitate knowledge sharing, expert insights, and interactive learning experiences. These can also enable networking opportunities.)
- Sustainable business simulations (using business simulation games and software that allow entrepreneurs to test different scenarios and strategies for sustainable business growth in a risk-free environment.)
- Open education resources (curating and sharing open education resources materials, including guides, videos, and templates, that entrepreneurs can access freely for self-study and reference).

4.3 Examples from practice

Case for gamification and blended learning approach: Omnia, Finland²⁹

Omnia is a Finnish training provider, established to serve the VET needs of people of all ages in three neighbouring cities. It has become a pioneer in and a catalyst for bringing in online VET teaching, learning and digital and other technological

²⁹ Latchem, C. (2017), "Using ICTs and Blended Learning in Transforming TVET", Published by UNESCO and COL.





solutions to changing classrooms. The Finnish National Board of Education has made Omnia one of the national professional development providers for VET.

Omnia actively encourages its staff, students, and educators from other institutions to break free from traditional comfort zones and embrace 21st-century learning solutions. The institution challenges the adequacy of conventional educational models in addressing future challenges. Omnia envisions a digitized future demanding continuous adaptation to new knowledge, skills, and innovative teaching methods across formal and informal settings. To bring this vision to life, Omnia commits to creating test-beds and living labs for dynamic development projects, involving students, teachers, and in-house entrepreneurs. The institution also focuses on evolving both physical and virtual learning environments and delivery models for Vocational Education and Training (VET).

In 2011, Omnia embarked on a groundbreaking initiative—InnoOmnia, a unique development, learning, eLearning, and entrepreneurship unit designed as a living lab. Diverging from the exclusive emphasis on high-tech, high-growth entrepreneurship, InnoOmnia's founders sought to champion diversity in entrepreneurship. This inclusivity extended to encompassing the service sector, as well as micro-companies in arts and crafts.

Omnia embraces gamification in education, exemplified by LOL (Lievästi Outoa Liiketoimintaa), a business development game. LOL merges real-life interaction between students and entrepreneurs with online board game activities. In this innovative approach, entrepreneurs present business challenges, and students propose creative solutions within an online community. Integrated into Omnia's training programs, LOL enhances learning by fostering teamwork, resourcefulness, self-direction, and collaborative skills.

Omnia's Edutech Bootcamp is a blended learning experience designed to equip VET teachers and those in training with the essential knowledge, skills, and attitudes required for mastering new technologies and innovative knowledge acquisition methods. This intensive program immerses students in the role of novices, encouraging them to ask questions, experiment, and learn collaboratively through a mix of hands-on and online activities. The goal is to engage students in authentic experiential learning, fostering initiative, challenging assumptions, and promoting reflection. The Edutech Bootcamp focuses on enhancing students' familiarity with technology in traditional and online/mobile learning, understanding the pedagogical applications of ICTs, and developing the ability to create and share mobile and online educational content.





5 Networks of Professional Collaboration

Collaboration among stakeholders is essential for the successful implementation of entrepreneurship education, and this imperative is underpinned by various pivotal reasons. As entrepreneurship education is centered on imparting problem-solving skills, its effectiveness and educational value are optimized when intricately linked to real-world challenges. Nevertheless, a strong collaborative framework among stakeholders is not consistently established across all countries.

However, a multitude of initiatives, networks, and partnerships have arisen between Small and Medium-sized Enterprises (SMEs) and Vocational Education and Training (VET) providers. The central aim of these collaborations is to cultivate a mutually beneficial relationship between education and industry, addressing the distinct needs of both sectors and promoting workforce development. These initiatives play a crucial role in ensuring that the skills conveyed through vocational education closely align with the demands of SMEs, thereby facilitating a smoother integration of individuals into the workforce.

5.1 Identification of networks and collaborations necessary for holistic training delivery

Entrepreneurship education demonstrates its effectiveness by delivering advantages to stakeholders across diverse sectors with distinct objectives. The business sector gains skilled workers, local communities witness job creation and engaged citizens, financial institutions benefit from financially literate youth, and rural regions retain their young population rather than losing them to urban job markets.

At the local level, educational institutions serve as vital channels for informing, engaging, and involving the surrounding community. Parents, politicians, civil society actors, and businesses all contribute to and shape entrepreneurship education initiatives.

On a national scale, countries successful in implementing entrepreneurship education often have a comprehensive policy framework that encourages cross-ministerial collaboration. These endeavors involve engagement with actors from various policy domains, emphasizing the importance of holistic and collaborative efforts. Additionally, these countries establish strong partnerships with





the business sector and foster active involvement from civil society actors, highlighting the inclusive nature of entrepreneurship education initiatives.

Some forms and examples of networks and collaborations that support holistic training delivery are given below:

- European Alliance for Apprenticeships (EAfA)
The EAfA is a European-level initiative that brings together key stakeholders, including SMEs, VET providers, and governments, to promote apprenticeships and work-based learning. It encourages SMEs to offer apprenticeship opportunities and collaborates with VET providers to align training programs with industry needs.
- The European Network of Mentors for Women Entrepreneurs
This network focuses on supporting women entrepreneurs by providing mentorship, training, and networking opportunities. It aims to enhance the skills and knowledge of women entrepreneurs and foster collaboration among them.
- European Network of Innovation for Inclusion (ENI2)
ENI2 aims to promote social innovation and inclusive entrepreneurship across Europe. It brings together professionals and organizations working in the field of social entrepreneurship to exchange knowledge, share best practices, and collaborate on innovative solutions for inclusive and sustainable economic development.
- Chambers of Commerce and Industry
Many national and regional Chambers of Commerce collaborate with local VET institutions to facilitate internships, apprenticeships, and training programs for SMEs. They often serve as intermediaries, connecting businesses with educational institutions.
- Sectoral Skills Alliances
These alliances are funded through the Erasmus+ program and aim to address skills gaps and mismatches in specific industries. They often involve SMEs, large enterprises, and VET providers working together to develop and deliver industry-relevant training programs.
- Local and Regional Partnerships
At the local and regional levels, partnerships between SMEs and VET providers are common. These collaborations can take the form of advisory boards, joint curriculum development, or shared facilities to ensure that training aligns with the needs of the local job market.



- Employer-led Training Initiatives
In some regions, employer associations and industry-specific groups take the lead in developing training programs. They work closely with VET providers to create customized training curricula and provide SMEs with skilled workers.
- Cluster Organizations
Cluster organizations often facilitate collaboration between SMEs and educational institutions. These clusters bring together businesses from a particular industry or region, making it easier for VET providers to tailor training to the specific needs of SMEs within that cluster.
- National and Regional Government Programs
Government agencies at various levels often fund initiatives that encourage collaboration between SMEs and VET providers. These programs may offer financial incentives, subsidies, or grants to support training and skills development.
- Online Platforms and Networks
Some online platforms and networks connect SMEs seeking skilled workers with VET providers offering relevant courses. These platforms serve as marketplaces for training and education services.
- EU-Funded Projects
The European Union has funded numerous projects aimed at strengthening the collaboration between SMEs and VET providers. These projects often result in the development of innovative training approaches and tools.

5.2 Effective collaborations in practice

The case of East Flanders, Belgium

In Flanders, skills development and training are facilitated through two primary channels. The first channel involves private companies that offer a blend of coaching, consulting, and teaching. However, these services are often non-subsidized, rendering private training corporations somewhat financially inaccessible for SMEs, despite available funding opportunities. The second channel entails public training provided by large accredited educational institutions. Government support is extended to this type of training, making it widely accessible. However, the challenge lies in the generalized nature of these public programs, which may not always align with the specific needs of individual





companies. Additionally, industry-specific funds tailored to each sector play a crucial role. These funds provide expertise, offer advice, and organize specialized training sessions such as safety courses. This collaborative approach brings together managers from companies within a sector, fostering an environment where they can share experiences and learn from one another. Notably, this system proves particularly effective in reaching smaller companies within the sector.

Financial assistance for training and skills development is facilitated through various government avenues. Initially, companies were provided with educational cheques, with the number allocated annually based on the previous year's usage. Larger companies received a higher allotment compared to smaller ones. However, this system is undergoing a phased transition to the "SME Portefeuille," a fund that covers 50% of the expenses for training or advisory services upon request.

Another tool available is a grant for educational leave designed for employees seeking long-term external education. While often inspired by personal ambitions, such initiatives can also significantly benefit companies through enhanced employee skills. Industry funds represent another avenue. These semi-governmental organizations are established with the aim of bringing training closer to companies. They not only organize training sessions but also raise awareness about relevant topics and strive to provide a comprehensive overview of available training options. Financially, these funds offer full reimbursement of employees' wage costs during training. Additionally, small and medium-sized enterprises (SMEs) have the opportunity to participate in ESF projects facilitated by the European Commission. A notable number of SMEs in East Flanders, as per the sample, actively engaged in these projects.

While there is a widespread understanding of the importance of networking and communication with other companies, institutions, and organizations, it cannot be emphasized enough. Collaborative efforts and the exchange of knowledge create a mutually beneficial scenario for all involved parties, resulting in a win-win situation.

In East Flanders, a myriad of networking opportunities exists. For instance, the PLATO project, spearheaded by VOKA and often referred to as the godfather project, offers a chance for emerging companies to glean insights from more established enterprises. Certain companies in specific sectors engage in the practice of exchanging newsletters, fostering an awareness of industry developments. "The Belgian Positive Entrepreneurs," although in its early stages, is an illustrative example where entrepreneurs committed to corporate social responsibility convene to share experiences. Moreover, platforms like Gent BC





serve as a unifying space for all technology industry companies, facilitating mutual learning and collaborative problem-solving among participants.

The case of Skillnets, Ireland

Skillnets, established in 1999, is a private, nonprofit organization with a distinct mission. Originating as a response to the inadequate investment in training by Irish companies, particularly smaller ones, its dual purpose is clear: to enhance the quality and effectiveness of training among firms already committed to it, and to extend training opportunities to those companies that have historically engaged in minimal training activities.

Functioning primarily as a facilitator and funding agency, Skillnets operates on a cost-sharing basis, collaborating with industry federations, business associations, and similar entities. These partnerships give rise to "enterprise-led training networks," which unite companies in the same sector or region with shared training needs. Skillnets provides funding to these contracted organizations, which, in turn, assess training needs, devise and execute training plans, and manage associated administrative tasks. This inclusive approach welcomes companies of all sizes, including sole traders. Notably, training networks are designed to cover at least 50% of their operational costs through service fees.

Skillnets draws its financial support primarily from annual allocations from the National Training Fund via the Department of Education and Skills (DES).³⁰ Governance-wise, a 13-person board, as outlined in the Memorandum of Association, comprises business/employer representatives, employee representatives, and government appointees. Each organization tasked with running a training network establishes a steering group, featuring "member company representatives" responsible for overseeing the network's operations, including the procurement of training providers.

The contracted organizations collaboratively craft annual network training plans in consultation with companies in the sector/region. With adherence to Skillnets' overarching mission, these organizations possess flexibility in determining the specific courses offered throughout the year. Courses provided under network auspices span various competencies, catering to diverse roles from line workers to programmers, sales personnel, supervisors, and general managers. This comprehensive offering covers a spectrum of subjects at different skill qualification

³⁰ The National Training Fund (NTF) is resourced by a levy on employers of 0.7% of reckonable earnings in respect of employees in classes A and H employments, which represents approximately 75% of all insured employees.





levels, ranging from succinct one-hour seminars to extended two-year, part-time degree programs.

Skillnets extends its impact through ManagementWorks, a series of management development courses delivered via its wholly owned subsidiary. Notably, all training courses, whether part of networks or ManagementWorks, are delivered by external training providers secured through a competitive tendering process.

6 Training and networking for sustainability: SMEs experiences

To enhance the comprehensive understanding derived from the desk research and examples of effective practices, we conducted interviews with 16 companies spanning six different countries. This step was instrumental in bridging theoretical knowledge with practical insights, providing a nuanced perspective grounded in the day-to-day operations of small enterprises. The respondents were selected from the professions identified by SSA countries in the previous report on VET green entrepreneurial skills for SME development, that also have potential for green growth.

The interview questions were meticulously crafted to gather a holistic understanding of each entrepreneur's background, their experiences in training, the resources at their disposal, and the broader ecosystem that has played a pivotal role in shaping their trajectory as a small or medium-scale sustainable entrepreneur. This approach aimed to unveil not only the individual narratives but also the contextual factors influencing their entrepreneurial endeavours.

Table 6: List of SMEs involved in interviews

No.	SMEs name	Country
1	CAJ	Italy
2	Sapori Antichi	Italy
3	TDM2000	Italy
4	Maremonti	Italy
5	SKINK	Croatia
6	Figurativ	Croatia
7	Rebeam GmbH	Germany





8	Chai Berteaud – Manceau	France
9	Eleonas hotel	Greece
10	NISI Polychoros	Greece
11	PCAI	Greece
12	Inagros	Greece
13	Pupillam	Slovenia
14	Paradajz	Slovenia
15	Pomelaj	Slovenia
16	Segrap, Bioterme Mala Nedelja	Slovenia

6.1 Short presentation of interviewed SMEs

CAJ, Italy

This farm was started in 2021. While studying Economics and Marketing in the Agro-industrial System at Alma Mater University of Bologna, Mattia, its founder was already wondering about the possibility of farming snails for culinary purposes and also for cosmetics production. He saw the potential of this business also thanks to the good storytelling that can be tailored around it, the familiarity of his own culinary culture with this product (for local restaurants for example) and deepened his knowledge of this matter during his studies for 2 years. He is a sole entrepreneur, and he strongly believes in the ethics of this activity: he is convinced that snails will be one of the foods of the future because they are a protein source with a low environmental impact. Moreover, he adopts a circular approach with his business, as he is using byproducts of other industries: local vegetable farms give him their waste, which is good quality food for the snails. Snails are a natural element of his territory and in the last decades they have been disappearing because of pesticides and non-organic agriculture systems. They have a much better environmental impact compared to other meat production, with smaller water footprint and CO2 emissions. In this farm, they grow in a natural and healthy habitat.

Interview conducted with Mattia Marinello: <https://takecareslowly.com/>

Rebeam GmbH, Germany

This tech start-up was founded in 2009 in Berlin, by two engineers. The basic business idea was to repair and refurbish old projectors, beamers, in order to sell them in the second hand market. It started with 2-3 technicians and a





workshop where they could do their refurbishment activity and now it employs 12 technicians. At the beginning they were selling ordinary machines to the consumers, for their personal use, but then they found a more profitable target group that was the professionals, like cinemas, theatres, event venues, so they focused on larger projectors for these clients. This activity has a great environmental impact not only because it fixes technological products with their numerous components which are extremely hard to recycle, but also because it reduces the demand of new production of such products, which is also environmentally expensive and complex (think of the batteries, the plastic and particular metal components of this technology). For this reason the company has won the German sustainability prize in 2018. It is also a convenient choice for the clients that can save a lot of money buying second hand tools instead of new ones.

Interview conducted with Jan Schulte. <https://www.rebeam-shop.com/>

TDM2000, Italy

TDM2000 is about sustainable tourism, social economy and skills promotion with the goal of providing young people with upskilling and reskilling opportunities. The needs analysis they carried out identified a general lack of hard and soft skills in the area of service management, for example: knowledge of languages, managerial skills, interpersonal and relational skills, including those with clients. Without these skills, young people cannot create a business that is both profitable and at the same time able to provide added value to the local area.

From this consciousness TDM2000 decided to develop the first mobility projects, also through funds provided by the European Union, the Region of Sardinia and Italian ministers. For example, the Summer-Week, where more than 46 countries participate, and it is reconfirmed every year with a great turnout. The business model underlying this event ditches the idea of "hit and run" tourism, but rather falls within a model of tourism that is slower, sustainable and, in a nutshell: experience based. In fact, participants not only experience the classic Sardinian territory linked to the sea and the sun, but also learn about culture, customs and traditional tools. In this way when they actually leave, they do become ambassadors of the territory in its complex. This kind of experiential tourism model has had a very good redemption therefore it was proposed also in areas such as sports, mental health, well-being and also by participating in international conferences.

Interview conducted with Gianluca Frongia. <https://www.tdm2000.org/>





SKINK, Croatia

Skink is an enterprise with both a local and international focus, that commits to valorize the local plant and floral heritage trying to reach the global level, by networking with international entities for cooperation and sharing of knowledge. Their goal is to combine scientific research and expertise. They are trying to transfer years of training, learning and cooperation with colleagues and experts from all over the world into production and consulting to producers and all plant lovers.

Skink started as a plant nursery specializing in plants, fruit trees, and ornamental plants, initially focusing on strawberry production. Today they manage about 4 hectares of land, that includes nursery, greenhouses and glasshouses. The structures include a plant shop, and spaces for organizing workshops and educational moments.

Over the years, the company transitioned beyond the traditional plant nursery, specializing in "underestimated" plants. Their approach includes providing non-formal training and a wide variety of educational supply oriented towards internal staff and the public: customers, families and children, and learners. Biodiversity is the key theme for them. In fact, what sets Skink apart is their commitment to education and outreach, offering educational and recreational activities and workshops that go beyond the conventional plant shop experience.

Interview conducted with Iva Prgomet. <https://skink.hr/en/>

Figurativ, Croatia

Figurativ is a Bistro that specializes in Kilometer Zero products. In addition to the focus on food, Figurativ also operates as a winery. (lper-)Local and healthy products form the core of their business, attributing to these products not only a nutritional value but also a cultural dimension, by placing great emphasis on valuing the traditions behind each ingredient and recipe.

Figurativ's objective is to serve as an added value to the main tourist experience of the visitors in Istrian territory, by paving the way for slow tourism experiences. In fact, they recognize the challenges associated with tourism pressure and, in response, position themselves as a unique offering catering to the growing interest in witnessing the processes *behind* food and wine production. Their focus extends beyond serving meals; they aim to provide an immersive experience, allowing visitors to connect with the local culture. The overarching goal is to spread the passion for their offerings, and to provide stimulating and didactic experiences, such as horticultural landscaping activities, aligning seamlessly with the evolving trends in Istria tourism.





The main drivers are the attention to environment and sustainability, the interception of touristic trends and the enthusiasm for education, which is considered the main channel for marketing and promotion of the business activities. Currently, it employs a team of 13 individuals who share the dedication to providing exceptional service and fostering an enriching experience for the guests.

Interview conducted with Andrija Prgomet. <https://www.figurativ.hr/>

Sapori Antichi, Italy

Since 1991, Sapori Antichi have been engaged in the production of frozen foods, a choice made ahead of the circular economy to give greater value to the products of the farm established in 1942. Initially, breaded and frozen vegetables were produced. After a change in direction, they started with frozen pasta and ready-made dishes. Company exports 80% of the production. Standard recipes did not work everywhere, for example, carbonara and sauces, therefore a line with pre-cooked pasta and separate sauces was introduced. Part of the production is transformed, for example, making flour out of wheat, etc., adding value and consequently promoting circularity. The EU encourages the planting of hedges and trees. Therefore, they obtain carbon credits with spits and medicinal herbs used for livestock hay. This project was outlined from the beginning.

All packaging is sustainable. Over the years, certifications have been achieved, such as the certification of circularity. They commit to avoid produced material becoming waste... and they want to promote this approach as much as possible, starting from the awareness that this applies not only to the agro-industrial sector.

Additionally, they have opened restaurants with zero-kilometer products, achieving added value for each product from the land. Through retail channels and own establishments, maximum added value is achieved. They carry on an ethical choice in the selection of the distribution chain.

Interview conducted with Mauro Cortellazzo. <https://saporiantichisrl.com/>

Maremonti, Italy

The company Maremonti and its brand of regional food products, Collevento, was founded in 2022 in Sicily by 2 entrepreneurs. It includes a farm where local species of trees and vegetables are grown in respect of the rich biodiversity of the region, having a smaller water footprint and renowned quality and taste. One of the 2 associate entrepreneurs was already managing a business, the other associate was an experienced chef who travelled the world during his work. After opening a restaurant in a touristic city (Cefalù) they decided to sell it





and use the resources from the sale to go back to the countryside with a new mission: to valorise the local products and produce their own branded preserves, pesto, sauces, oil and more, using traditional processes as well as innovative techniques and methods. In the future they would like to expand the touristic potential of their farm as well, having already accommodations available.

Interview conducted with Carlo Poretta: <https://www.collevento.it/>

Chai Berteaud Manceau, France

This company has been very freshly founded by 2 friends (end of 2023). It is a wine production company based in Roche-sur-Yon (FR), a very innovative business concept that brings the winery in an urban environment, which is quite unusual. The wine production is in fact separated by cultivation of vineyards. One of the founders has studied agricultural engineering and later specialised in viticulture and wine making. Working then abroad in wine production companies in different countries, he got to learn how winemakers are doing in different climates and cultures.

Then together with his partner they decided to produce their own wine, but without having to plant a vineyard and being so dependent on agriculture: they prefer to buy the grapes from vineyards owners who are growing it organically, ethically, in the way they would do them themselves. They also do not negotiate prices with the farmers - they are happy to pay a higher, fairer price as they have worked on the fields as well. Then they move the production phase in their winery in the city, sell their own brand, and invite visitors and tourists for tours, tastings, educating them about the wine production, stressing on the climate related issues and adopting good practices to lower their impact. For example: taking back the empty glass bottles to reuse, allows them to cut almost half of the carbon dioxide footprint of each wine bottle produced.

Interview conducted with Pierre Manceau. <https://chai-berteaud-manceau.com/>

Eleonas hotel, Greece

Hotel “Eleonas” is an eco-conscious agri-tourist small hotel in an ideal position on a hill in Evoia, Greece, surrounded by an olive grove. It has its own restaurant and organic farm. The hotel is awarded with Green Key. The Green Key certificate is the leading standard for excellence in the field of environmental responsibility and sustainable operation within the tourism industry. This prestigious certificate represents a commitment by businesses that their premises adhere to the strict criteria set by the Foundation for Environmental Education. A Green Key assures guests that, by choosing to





stay with a Green Key establishment, they are helping make a difference for the environment. The high environmental standards expected of these establishments are maintained through rigorous documentation and frequent audits. Green Key is eligible for hotels, hostels, small accommodations, campsites, holiday parks, conference centres, restaurants and attractions.

Eleonas (olive grove in Greek) is thoroughly committed to reducing its environmental impact by actively participating in standards that are in harmony with the earth's natural resources. It welcomes customers offering them a unique experience and treating them as friends. The couple that started the business had no previous experience in entrepreneurship but each one of them had skills that helped the business grow. One of them was a farmer and one had experience in customer service in the tourism sector. The main source of funding came through subsidized programs that aim to promote and develop agritourism activities in rural areas of Greece (LEADER program).

Interview conducted with Marina Vallis. <https://www.eleonashotel.com/en/>

NISI Polychoros, Greece

NISI Polychoros is a venue where people from Greece and all over the world can come together and express themselves, create, play and connect with Nature.

NISI has a glamping site for accommodation, and it is also a sports, cultural and social events with a playground in a fantastic environment by the sea. The space is also appropriate to organize educational programmes and environmental events and accessible to people with disabilities. Glamping (Glamorous Camping) is a new trend in the world of camping and NISI has already managed to be one of the first places in Greece that combines nature and comfort. Two of the founders wandered in Africa and India for 5 years and lived in unique places that were in harmony with nature. For this reason, they created this eco-friendly space that has similarities to the places they have been, and it is also a space where they are all part of a community and have opportunities to interact through various activities that promote sustainability and intercultural exchange. After their adventure came to an end, they came back to Greece and started their social action that ended up to the creation of this space of sustainable tourism and an open community. A community that is shaped by everyone. Their values are driven by innovation, experiences from different cultures, solidarity and team spirit.

The project was developed by a team of 5 people with their own funds in 2017. Five years later they applied and got funded by state subsidy LEADER.

Interview conducted with Elpis Chrysovergis. <https://nisi.com.gr/en/home-en/>





PCAI, Greece

PCAI is a cultural organization focusing on increasing environmental awareness through an annual programme of commissions, contemporary art exhibitions, artist residencies, performances conferences, and workshops. PCAI was founded in 2014 by Athanasios Polychronopoulos, CEO and founder of Polygreen network of environmental companies that implement waste management projects, as part of corporate social responsibility. Through its annual programme, aligned with the United Nations' SDGs, the organization forms a comprehensive cultural spectrum while being committed to raising environmental awareness through art. An endeavour to foster creativity, to inspire, to educate on sustainable practices and to ultimately be part of the change. Since 2021 PCAI has been an official nominator for the Earthshot Prize, the significant environmental award established by the Royal Foundation of the Prince and Princess of Wales.

The funds come mainly from the parent organization Polygreen and secondly from European funds. Additionally, productions with other entities such as the Greek Ministry of Culture are co-funded.

Interview conducted with Kika Kyriakakou. <https://www.pcai.gr/>

Inagros, Greece

This initiative was launched in 2017 by 2 students in electrical engineering school. One of the students, while doing his internship in Livadia, a town in Central Greece, in a company with irrigation systems and automation, saw first-hand how the agri-food industry works. He understood better the problems faced by farmers, especially in the automation of various processes and decided he wanted to make farmers' life easier. Together with a classmate they decided it was imperative to create a tool that would simplify the farmer's life. At first, they started developing the tool from zero, while having a full-time job and with no funding for the new business.

At first, it started as a tool that would offer automatic watering while also having sensors that would alert the farmer about field conditions. But along the way this was improved and became an integrated crop management platform. By studying each crop, the platform connects farmers and agronomists. The producer's plot of land is registered on the digital platform and then the agronomist, either a partner chosen by the producer or a partner of the company, controls the crop either through satellite data provided by the platform or through sensors that the team can install accordingly with the case. Both farmers and agronomists are informed via notifications, either on their mobile phone or via email, such as whether conditions are favourable for the development of a disease or what actions need to be taken based on the crop





calendar. This leads to more efficient decision-making (regarding sprinkling, watering, fertilizing, etc), increasing sustainability.

Interview conducted with Antreas Zerkoulis. <https://inagros.com/>

Pupillam, Slovenia

The main mission of Pupillam, social enterprise, is to stimulate the potential in individuals and society to conceive and realise ideas for a better and healthier life for all living beings and for the preservation of nature. Through their work they create the conditions for a greener living on Earth.

Pupillam provides training on healthy and green living. To this end, they organised and run workshops on waste reduction, reuse, recycling, healthy communication, ecological cleaning, making natural products for the home, cooking workshops, lectures, educational festivals, fairs and other educational events.

They also run a store Zelena japka (Green apple), that is the first zero waste store in the region to sell food and household products without plastic packaging. This way they reduce the environmental burden by 24,000 plastic cleaning bottles, 30,000 litres of harmful chemical cleaners, 16,000 pieces of various pvc food packaging annually. They have a bigger impact than they realise, because by their persistence they are setting an example and giving hope for a better world and future to others.

In the shop they offer organic food, mostly locally produced and some imported. At the same time, they work in community purchasing with organic farmers in the Green Circle. They complement the food offer of local farmers with their own range of products, making it easier for customers to buy from one place. The shop has been in operation for four and a half years..

Interview conducted with Iris Magajna. <https://pupillam.org/>

Paradajz, Slovenia

Paradajz is growing tomatoes in an environmentally and human health friendly, integrated way. Their commitment to quality products for their customers is combined with a sustainable approach. Greenhouse production allows for higher yields per hectare while reducing the impact on the environment.

A key contribution to sustainability is saving underground drinking water and reducing the use of irrigation water. The plants are watered with rainwater collected in lagoons next to both greenhouses. The tomato seedlings are grown from non-GMO seeds and planted in an organic substrate that is a mixture of peat and coconut fibre. The tomatoes that ripen on the plant are hand-picked just a day or so before they reach the shelves. The flowers of the plants are





pollinated by bumblebees, and pest control is provided by their natural enemies, or predators, which are introduced into the greenhouse. They are also "living" proof that the company is not using harmful products to protect plants from disease in cultivation.

Another aspect of sustainability is heating the greenhouses with renewable energy. They also ensure additional light in winter days in one of the greenhouses, which is equipped with a state-of-the-art blackout curtain system to prevent light leaking out of the greenhouse during the darker part of the day. This measure prevents light pollution in the surrounding area. All these systems are precisely controlled. They plan the use of water, electricity, natural gas and geothermal heat according to the needs at a given time of the year. This helps them control costs and keep them at a sustainable level, despite constant changes in the market. At the same time, they operate on a minimum of natural resources consumed. The key is to build models based on historical data, which partly do the optimisation and partly help to make decisions.

They are also proud of their circular economy practices. In the 2020 season, they worked with the Pulp and Paper Institute in Ljubljana to produce bags for the first time from the waste stems of their tomato plants. These bags are used in the retail network. This innovation responds to the needs of the circular economy and contributes to the sustainable use of materials.

Interview conducted with Izidora Dešnik. <https://www.lust.si/>

Pomelaj, Slovenia

The mission of Pomelaj is to discover and develop people's potential and to co-create space and opportunities for the development of entrepreneurship, tourism and the preservation of natural and cultural heritage.

Pomelaj is a cooperative that offers employment to disabled and other vulnerable groups from the Prekmurje region. By respecting local traditions and skills, they create new opportunities for employment and the development of rural areas. They also arrange many courses and workshops. The cooperative was created to encourage the development of rural areas and the economic benefits of its members on the basis of their equal participation as well as mutual help and self-help.

Pomelaj wants to contribute to the development of the local environment and local partnerships and to influence the quality of life of the people living in the region. They are preserving cultural heritage and promoting it throughout Slovenia through the development and production of local crafts and culinary products.



In the future, their main tasks will be to develop the countryside, increase the tourist attractiveness of the environment and the location in which they operate, entrepreneurship, raise the quality of life in rural areas, bringing together small providers of agricultural, culinary and other artisanal products, preserving the cultural and natural landscape and promoting the re-use of already abandoned farmland.

Interview conducted with Niko Jandl. <https://www.pomelaj.si/en/>

Segrap, Bioterme Mala Nedelja, Slovenia

Hotel Bioterme is the only environmentally friendly hotel in the northeastern part of Slovenia. It was built according to the EU Ecolabel standards (the European label for environmentally friendly accommodation), and with its offer and direction it follows the trends of sustainable tourism development. They also hold certificate Slovenia Green Accommodation, guaranteeing an offer based on sustainable principles, and are labelled Green & Safe, as their activities based on safety, responsibility and sustainability increase the trust of guests and ensure that the Bioterme Tourist Complex is a green and safe provider.

The hotel is built with natural materials and has its own waste compactor, which means that waste is strictly separated. It also has its own wastewater treatment plant, which is then used to flush toilets. Hot water from its own boreholes is used for heating in winter. Less than 30 % of energy consumption is covered by its own solar system. Many areas are technically designed so that power cuts are automatic, making it easy to save resources and preserve nature. Indeed, the sustainable concept is continued in the details, with even the walls being painted with bio paints and the building itself built in such a way that as much daylight as possible can be harvested.

By building a glamping site, they want to make the story of sustainability even more familiar to people, i.e. by building mobile facilities and not interfering with the environment by building up. They want to enable people to connect even more with nature through tents. Through the whole development of a green destination, they show respect for the environment.

Interview conducted with Jožica Polajnk. <https://bioterme.si/en/>

6.2 SME background and training context

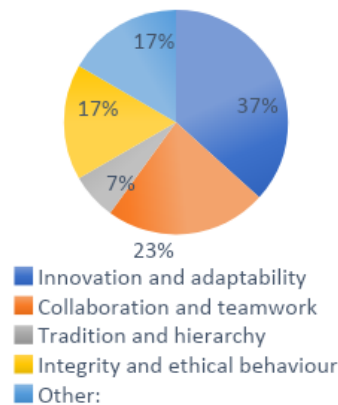
To gain a deeper understanding of the companies' backgrounds and the context of their training, SMEs were posed relevant questions at the start of the interviews. When talking about the **primary values and beliefs guiding their company's culture**, they identified innovation and adaptability as their foremost values and





beliefs, with 11 respondents highlighting their significance. This was closely followed by collaboration and teamwork, emphasized by 7 respondents, and integrity and ethical behavior, which received mention from 5 participants. In contrast, tradition and hierarchy were less frequently cited, with only 2 responses. Additionally, other values and beliefs linked to sustainability, the circular economy, and environmental respect were frequently brought up.

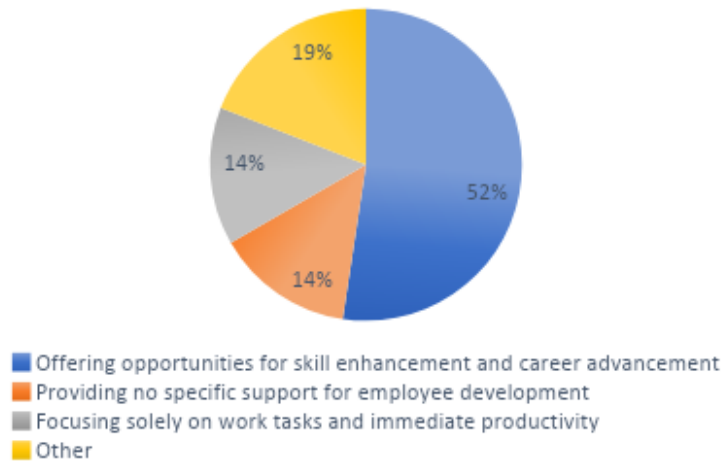
Figure 3: Primary values and beliefs guiding company's culture



To **foster the growth and development of their employees in line with their culture**, the majority of the interviewed SMEs provide opportunities for skill enhancement and career advancement, as highlighted by 11 respondents. These businesses prioritize keeping their workforce updated on technological and professional innovations. However, a few SMEs mentioned that they either don't offer specific support for employee development or focus solely on work-related tasks, with 3 respondents each expressing these viewpoints.



Figure 4: Supporting employee growth and development in line with company's culture



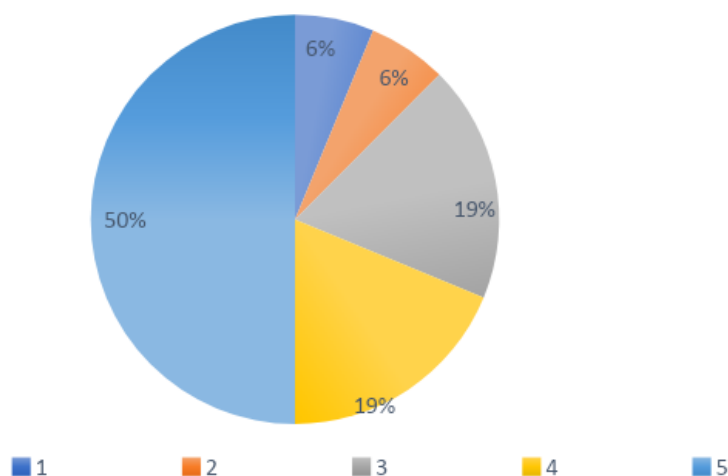
The **primary sources of funding** for their businesses, as reported by the respondents, are government grants and subsidies (11 answers), personal savings and family contributions (8 answers), and bank loans and lines of credit (6 answers). Notably, only one SME reported utilizing venture capital and angel investment. Additionally, respondents mentioned other sources, including European funds and associated partners' investments.

The survey results indicate a substantial **impact of pedagogical approaches and training programs on the success of sustainable entrepreneurship**, with an average rating of 4 on a scale from 1 to 5. SMEs emphasized the significance of both formal and non-formal programs, along with informal learning, in developing skills and competencies related to sustainable entrepreneurship. International experiences, especially within the framework of EU projects employing non-formal learning methods, were underscored as crucial. Respondents also highlighted the effectiveness of learning by doing and mentoring in building knowledge.





Figure 5: Level of contribution of pedagogical approaches or training programs to company's success in sustainable entrepreneurship (1 = lowest level and 5 = highest level)



A significant majority of the interviewed SMEs (88 %) actively **utilized specific tools and resources in their business development**. They particularly valued networking opportunities across different levels, providing platforms to share valuable knowledge, experiences, and establish vital business partnerships. From a financial perspective, government subsidies and access to diverse funds, especially European ones through EU projects, were highly appreciated. Beyond funds, these projects were seen as facilitating mutual learning, cross-fertilization of ideas, exploring innovative solutions, and expanding networks. Various existing training programs offering entrepreneurial skills and knowledge related to business activity and sustainability were considered essential. Additionally, a few companies highlighted the use of digital tools for internal training, business process support, marketing, among other functions.

Regarding the **impact of digitalization to the training and education in their profession** respondents widely agree that the future trajectory involves digitization, encompassing specific business and work processes alongside training programs. The impetus for digitization was notably accelerated by the COVID-19 pandemic, acting as a catalyst for transformative changes. While digitization has increased program accessibility, there remains a perceived scarcity of fully digitized training options in the market. Some respondents emphasized that online training programs are more appropriate for developing theoretical knowledge rather than fortifying entrepreneurial skills and practical experiences in specific business domains.

On the other hand, digitalized tools for communication, dissemination of information, connection and exchange of ideas, and marketing activities are used more widely.





In addition to communication and marketing, respondents leverage digitization tools for the implementation of various activities and work processes within their business operations.

6.3 Collaboration with VET providers/networks

The responses indicate that **networks and collaborations with Vocational Education and Training (VET) providers play a crucial role in the training and professional growth** of the respondents. This is affirmed by 15 out of 16 respondents, highlighting the role of educational and training programs for sector-specific skill development, business connections, and expanding social networks.

Connections with other businesses, established during events like fairs and networking events, along with interactions with experts at various levels, contribute significantly to non-formal and informal learning, enriching experiences. These connections offer numerous opportunities for growth and inspiration, particularly in developing the sustainability efforts of the business and sharing specific knowledge.

When it comes to **establishing and maintaining collaborations with VET providers and networks**, most SMEs did not encounter significant problems, with 10 out of 16 responses indicating a smooth process. When issues did arise, they were typically related to constraints such as limited human resources, challenges in understanding the business model, and concerns about the quality of the service.

6.4 Future perspectives

At the end respondents offered their **insights to fellow small-scale entrepreneurs on collaborating with VET providers/networks for training**, and how they foresee the future of such collaborations in workforce development and training, including the potential extension to work-based learning programs like apprenticeships and internships.

They strongly emphasize the significance of collaborating with VET providers/networks for training, highlighting the importance of selecting relevant training and choosing the right provider aligned with industry needs. SMEs are encouraged to engage with the VET sector in developing training materials, leveraging digital tools, and fostering reciprocal relationships with educational experts.





While acknowledging the benefits, respondents stress the need for greater efforts in identifying gaps between training needs and supply, tailoring programs to enhance employee skills, and aligning enterprises with industry trends. They suggest seeking feedback from students and alumni to understand the educational-work environment gap.

Respondents express a positive outlook on the potential extension to work-based learning programs like apprenticeships and internships. These initiatives are seen as vital for bridging the education-practical skills gap and providing small-scale enterprises with opportunities to nurture talent and shape the future workforce. The recommendation is for entrepreneurs to also consider having a business coach or mentor from the industry for additional guidance.

In conclusion, the insights provided by respondents stress the pivotal role of collaboration with VET providers in addressing the evolving needs of small-scale enterprises. These collaborations, coupled with a focus on work-based learning and a commitment to fostering a learning culture, can contribute significantly to the resilience, adaptability, and long-term success of these enterprises in an ever-changing business landscape.





7 Conclusion

Considering the important role in the economy played by small and medium-sized enterprises in both European and African context, and their important contribution to a sustainable future, it is necessary to ensure the best possible VET support for sustainable entrepreneurship. The definition of sustainable entrepreneurship emphasizes that it goes beyond the initiation of new sustainable ventures, but also involves the transformation and adept management of existing businesses to enhance their sustainability. Sustainable entrepreneurship instructors therefore teach people how to successfully use current resources to achieve sustainability growth while not risking future generations' ability to access resources (Hermes and Rimanoczy, 2018).

In the present report, we tried to make the good overview of pedagogical practices that will contribute to the preparation of appropriate programs for teachers and students in Africa. Pedagogical practices refer to the methods, strategies, and approaches employed by educators to facilitate learning and promote the development of students. The specific pedagogical approach used can vary depending on the educational context, goals, and target audience, while the effective training programmes should use the multifaceted approach to create a dynamic learning environment where aspiring entrepreneurs not only grasp theoretical concepts but also learn how to apply them in practical situations, all while gaining valuable insights from real-world experiences.

In connection with digitization and innovations, it was established that also learning methods should follow the demand for new skills driven by technological change and the growing use of digital technologies in VET. For this purpose, some of the innovative practices are reviewed in the report. at this point it is necessary to point out that impact of innovations in training, teaching and learning technology rely largely on teachers and trainers. This also brings challenges and opportunities in relation to their traditional roles. VET needs to ensure that teachers and trainers are properly supported and encouraged to engage with new pedagogies and digital learning tools.

We have further expanded on these concepts by providing practical examples that demonstrate the application of these approaches, programs, and tools in real-world settings. These examples illustrate how these strategies have been implemented, highlighting their benefits and challenges. The showcased examples encompass a range of objectives, targets, methods, and solutions, presenting a comprehensive selection of diverse cases for a richer understanding.





To enhance the comprehensive understanding derived from the desk research and exemplars of effective practices, the interviews with 16 companies spanning six different countries were conducted. This step was instrumental in bridging theoretical knowledge with practical insights, providing a nuanced perspective grounded in the day-to-day operations of small enterprises. The respondents were selected from the professions identified by SSA countries in the previous report on VET green entrepreneurial skills for SME development, that also have potential for green growth.

The insights provided by respondents emphasized the significance of both formal and non-formal training programmes, along with informal learning, in developing skills and competencies related to sustainable entrepreneurship. International experiences, especially within the framework of EU projects employing non-formal learning methods, were underscored as crucial. Respondents also highlighted the effectiveness of learning by doing and mentoring in building knowledge. They also stressed the pivotal role of collaboration with VET providers in addressing the evolving needs of small-scale enterprises. These collaborations, coupled with a focus on work-based learning and a commitment to fostering a learning culture, can contribute significantly to the resilience, adaptability, and long-term success of these enterprises in an ever-changing business landscape. They particularly valued networking opportunities across different levels, providing platforms to share valuable knowledge, experiences, and establish vital business partnerships.

The present findings will contribute valuable insights for the Comparative analysis of entrepreneurship vocational education in SSA and EU countries in order to make the framework of the skills needed, whether through up-skilling or re-skilling, and proposes strategies for their development. This involves the design of specialized modules within vocational education and training (VET) programs, customized to the unique needs and contexts of each country.





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