ECOPRISE

WP2: Exploration of ecovillage design potential for a new entrepreneurial model

D2.3: Skillset for Ecoprise designer

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Skillset for Ecoprise designer

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Introduction

The green and digital transitions as accompanied by demographic trends are transforming how we live, work and interact. The EU's commitment to green and digital transitions, the move to a climate-neutral economy and the advance of artificial intelligence (AI) all call for a paradigm-shift on the skills of workers (European Skills Agenda for sustainable competitiveness, social fairness and resilience 2020). Despite the high potential of creating new job opportunities associated with the green transition, many companies across the EU still lack properly specialized professionals. Therefore, both the urban and rural dimensions call for bottom-up initiatives and stronger cooperation between local inhabitants, civil society, businesses and governments, to be able to overcome current weaknesses and move towards a resource-efficient, circular, digitized and climate neutral economy (European Skills Agenda for sustainable competitiveness, social fairness and resilience 2020; (https://agriculture.ec.europa.eu/common-agricultural-policy/rural-development_en),

(https://ec.europa.eu/regional_policy/policy/themes/urban-development_en).

In such a framework, the primary aim of the project "ECOPRISE - Future-oriented social entrepreneurship through Ecovillage Design" is to develop a new sustainable social entrepreneurial model and equip a new professional role, the **Ecoprise designer**, with the necessary skills to act as an expert who supports sustainable and regenerative local development and coexistence of nature and human life. Ecoprise is an innovative initiative that merges sustainability with entrepreneurship in the formation of a new profession. Among others, the Ecoprise designer is a professional trained in the development of sustainable business models, combining ecovillage design with permaculture and entrepreneurial skills in order to create innovative social enterprises that focus on environmental and economic resilience.

Within this project we collected and identified successful examples of social enterprises and ecovillages, as well as best practices related to activities, organizational aspects, community engagement, sustainability, and economic viability, in addition to analyzing the skill gap in these two categories. Since social enterprises are seen as the hub for social innovation and eco-villages are leaders on sustainable development and regeneration, an interdisciplinary model combining these two categories was created, integrating the knowledge and feedback received from higher education institutions and vocational education.

A key element of the Ecoprise project's approach is linked to the use of EU instruments, firstly of common competence frameworks, i.e. GreenComp, DigComp, EntreComp, LifeComp, which will be carefully revised for the identification of the most relevant skills and competences of the new job profile of **Ecoprise designer,** and of the related learning offer co-created by Ecoprise partners.

New role: Ecoprise designer

Ecoprise integrates education for its ability to foster new ways of living and working, enabling learners to become change agents in their local contexts, supporting sustainable, resilient and regenerative approaches to community building, towards healthier and more meaningful lives. The starting point for the research and development of skills was GreenComp, together with influences from EntreComp, LifeComp and DigComp frameworks (the frameworks will be presented in the later sections). The role of the skillset development process is to align key competence areas, mapped and identified within the aforementioned frameworks with research findings presented in the SWOT analysis, as will be further explained in a dedicated section of this document. The SWOT analysis aimed to identify valuable and transferable regeneration and sustainability practices, skills, knowledge and helpful circumstances that the Ecoprise designer can adopt and/or recreate, as well as highlighting potential opportunities and risks associated with them. In that way, the Ecoprise project has developed an innovative skillset for the professional figure of Ecoprise designer, to support the upskilling of established or aspirant entrepreneurs into "ecopreneurs", as specialized entrepreneurs, able to apply more sustainable approaches to their professional practice, focusing especially on regenerative acts and approaches.

The Ecoprise designer reflects a progressive and essential development in the field of design that has emerged in response to the growing importance of sustainability in the eyes of businesses and consumers. However, beyond sustainability, Ecoprise designers are intended to draw significant inspiration from ecovillages, which prioritize not only environmental sustainability but also cultural, social and economic regeneration. This professional role is a step toward addressing all four interconnected pillars of regeneration: environmental, social, cultural, and economic. By integrating these pillars, Ecoprise designers will ensure and contribute to holistic and systemic change. Their focus is not only on creating eco-friendly products, services and systems, but also on fostering cultural renewal, strengthening social bonds, and promoting economic models that are aligned with mentioned pillars of regeneration. This multi-dimensional approach is crucial for tackling global challenges such as climate change, resource depletion and environmental degradation, while simultaneously fostering resilient communities and economies.

Considering the project's core focus on green transition, special attention will be paid to tackle all GreenComp interrelated competence areas (Bianchi, Pisiotis, Cabrera Giraldez, 2022), through a wide range of learning activities based on peer learning and collaborative approaches, mixed and online learning, projects' implementation and analysis of real case studies. It is important to mention that the GreenComp framework goes beyond the strict environmental dimension and the narrow idea of green transition, including competences that are clearly related to the social pillar. Furthermore, the multidimensionality of this framework is recognized both in the project results and its partners' experience. In that way, Ecoprise will also emphasize some topics such as responsible production and consumption, as well as circular economy principles. These areas are not included in the current framework, representing a notable shortcoming.

Main aim and scope of the Skillset

One of the key objectives of the Ecoprise project is to identify successful examples of social enterprises and ecovillages, as well as to analyze the existing skill gaps in both categories. This will help us design a tailored entrepreneurial model and establish a new professional profile to support its implementation: the Ecoprise Designer.

An ecovillage is a community of people who live together and are bonded by a shared desire to regenerate their natural and social surroundings. This commitment is realized through a lifestyle that has been decided upon as a group. These ways of living emphasize action-taking in the social, economic, ecological, and cultural domains of regeneration.

Even though this definition mostly adheres to GEN Europe's definition of an ecovillage (https://gen-europe.org/discover/about-ecovillages/), a few modifications and adaptations were made. Firstly, the project's goal was for the participating collectives to be united not only by their shared goal of regeneration but also by their joint efforts to bring this goal to fruition. This element was crucial because it aimed to include ecovillages, which are groups of people united by shared identities and a common goal of regeneration. Additionally, ecovillages can exchange best practices that can be applied in the development of Ecoprise Designers, facilitating collective realization (Snow and Corrigal-Brown, 2015). However, ecovillages were described as operating in more than one of the four domains of regeneration. Although ecovillages are considered to be operating in all four by GEN Europe, the decision was made to reduce the number because the research valued the contributions from ecovillages with different evolutionary stages. The four pillars of regeneration conception are closely associated with the definition of an ecovillage. Taking a cue from GEN Europe, ecovillages are seen as embodying (or striving to embody) the four regeneration pillars: environmental, social, cultural, and economic (https://ecovillage.org/ecovillages/map-of-regeneration/) .

In the project, a social enterprise was defined as a business in the social economy whose main goal is to help people rather than make money for their owners or shareholders. It makes money by offering goods and services to the market in an innovative and entrepreneurial way, and it mostly uses its profits to help people. It is run in an honest and accountable way, and employees, customers, and other people who have a stake in its business activities are all involved (https://single-market-economy.ec.europa.eu/sectors/proximity-and-social-economy/social-economy-eu/social-enterprises_en).

As the Ecoprise designer model and skillset are formed by merging principles, practices and knowledge of ecovillages with social entrepreneurship, the four pillars of regeneration (cultural, environmental, social and economic) as practiced by ecovillages served as a cornerstone to the creation of this new professional figure. The Ecoprise SWOT Analysis "Social Enterprises Vs. Ecovillage Experiences" was designed to identify valuable and transferable sustainability practices that the Ecoprise designer can adopt, while also highlighting potential opportunities and risks associated with these practices.

The **main aim of the Ecoprise Skillset** is to give professionals the information, skills and techniques needed to make environmentally, culturally, socially and economically sustainable and regenerative

designs. Through the integration of eco-friendly practices into the design process, the promotion of a circular economy, and the influence of positive changes in consumer behavior and industrial processes, it seeks to address urgent global environmental challenges. Skillset will strive to integrate sustainability into design as a fundamental component, shifting from models that rely heavily on resources in the short term to ones that focus on long-term regeneration. The European Qualifications Framework (EQF) will be used to define the most appropriate level for the development of the Ecoprise Skillset, which will be further explained within the Methodology section.

The scope of the Ecoprise Skillset extends beyond the creation of sustainable products and services to encompass the holistic processes that lead to their development. These processes emphasize justice, inclusivity, participation, and regeneration, rather than solely focusing on minimizing environmental impact. By promoting a circular economy and eco-friendly consumer behaviors, the skillset integrates emerging green technologies and market trends to drive environmental, cultural, economic and social change. Central to this approach are interdisciplinary collaboration, system thinking, and innovation in material selection, ensuring that designs are not only durable, recyclable and aesthetically appealing, but also rooted in principles of fairness, community involvement, and long-term regeneration.

The Ecoprise Skillset will be a reference point for the following phases of the project, especially for developing the Ecoprise Course and certification scheme, as the skillset identified in the model will be key to define the learning outcomes to be associated to each learning segment, and therefore to ensure the recognition and transferability of the identified competences.

Main responsibilities and task procedure

Developing the skillset for Ecoprise designer is part of the task named Ecoprise model Exploration of ecovillage design potential for the creation of a new entrepreneurial model. This work package is led by UAB Theoria (The Critical), based on its experience in research on the topics of sustainable development, together with GEN Europe, based on its profile of ecovillage network, able to act as a bridge between the world of ecovillages and the world of social enterprises, facilitating a fruitful exchange between them. Following up to the analysis carried out in each implementation country (Italy, Portugal, Serbia, Cyprus, Lithuania, Greece) and international camp for staff[1], a process of identification of core competencies and skills was established, as explained in the previous section. This camp gathered partners in a series of activities and joint reflections aimed at developing a new entrepreneurial model and at designing a new professional profile able to respond to the training needs emerged through the SWOT analysis. During the international camp for staff, one co-design session was dedicated to preliminary mapping of the knowledge, skills and competences of the Ecoprise designer.

During the development process, partners worked on the structure elaborated during the international camp, leading to the new entrepreneurial model by combining the best features of social enterprises and ecovillages. The model will include the following components:

- Ecoprise prototype: features of future-oriented sustainable and resilient enterprises with a community value, i.e. multifunctional social enterprises adopting concepts and principles derived from ecovillage design, permaculture and circular economy to

[1] Ecoprise international camp was arranged in August 2024 at the ecovillage of Ängbacka, Sweden, on the occasion of 2024's European Ecovillage Gathering.

ensure all-round sustainability in its management structure and in variegated offer of services, able to create social value and self-sufficiency.

- Skillset for Ecoprise designer - professional figure with cross-sectoral competences able to support the design of sustainable enterprises of community value.

As a starting base for establishing the research framework for developing the skillset of the new professional figure, the Ecoprise designer, with required knowledge, skills and competences; following types of skills will be integrated:

- **Green skills**: GreenComp framework;
- **Entrepreneurial skills**: EntreComp framework;
- **Digital skills**: DigiComp framework;
- **Resilience skills**: LifeComp.

Guided by EU competence frameworks skills will be divided in the following categories: Green skills, Entrepreneurial skills, Digital skills, Resilience skills, integrated and aligned with four pillars of regeneration (Fig 1):

- Cultural regeneration;
- Environmental regeneration;
- Social regeneration;
- Economic regeneration.

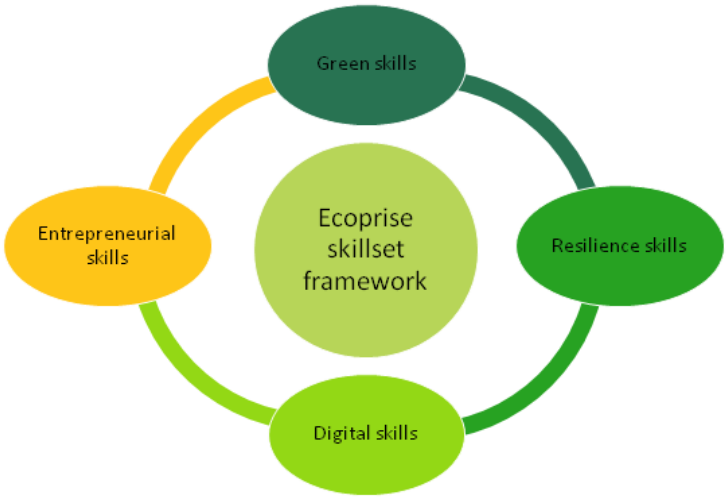

Figure 1. Ecoprise Skillset framework

Responsible partners for developing the Skillset for Ecoprise designer are the University of Novi Sad (UNS), Eurotraining and ECQA. During the preparatory meetings, a joint skillset framework was established, dividing the responsibilities as follows:

- based on its experience in the development of Competence Cards (CompCard)/ Skills Cards, **ECQA** provided a set of common skills (selection of the most relevant skills), as knowledge and identified Learning Outcomes and

corresponding EQF levels, with instructions for developing specific skills (Methodology for developing the new Skillset for Ecoprise designer);

- the main concept document was established by UNS team, based on previous inputs from Eurotraining and ECQA;
- UNS provided the Introduction section;
- Eurotraining provided inputs from the co-design session;
- UNS and Eurotraining jointly provided content for the following sections:
    - EU frameworks and standards alignment;
    - Establishing framework of new skillset for Ecoprise designer.
- the Conclusions and References section were part of the joint continuous work;
- review and feedback provided by UAB Theoria (The Critical) and GEN.

EU competence frameworks and skills matchmaking with the Ecoprise Designer

The Ecoprise designer is a new professional figure, with cross-sectoral competences able to support the design of sustainable enterprises of community value. The role of the Ecoprise Designer aligns closely with certain European competence frameworks, such as EntreComp, GreenComp, DigComp 2.2 and LifeComp. EntreComp emphasizes entrepreneurship competencies such as creativity, problem-solving, resource management, and risk-taking, which are essential for innovating and creating sustainable business practices. GreenComp focuses on competencies highlighted by the EU to support the transition to a more sustainable economy. Digital skills for work and life (included in DigComp 2.2) are at the top of the European Policy Agenda and are essential for personal, professional, and educational purposes in today's digital society. The idea of lifelong learning, encouraging individuals to continuously develop their competencies in response to personal goals, societal changes, and the evolving labor market is supported by the LifeComp framework. Therefore, to identify the relevant competencies for the Ecoprise Designer's skillset, the aforementioned EU frameworks will be analyzed in the following text.

GreenComp: The European sustainability competence framework

In recent times, sustainability has become a widely used term, though it is a broad, complex, and multidisciplinary concept. It encompasses several dimensions, notably the environmental, social, and economic aspects. While the term is frequently referenced in literature, there is often a tendency to focus primarily on the environmental dimension, due in part to media emphasis on environmental issues. This has led to the social and economic dimensions of sustainability being overlooked in many

cases. To truly promote sustainable development, it is essential for decision-makers, policymakers, and the scientific and educational communities to adopt a comprehensive approach that integrates all dimensions of sustainability. They should aim to develop creative, ethical, and skilled individuals who can improve living conditions for all citizens while addressing sustainability challenges holistically (Damico, et al., 2022).

The development of the European sustainability competence framework, GreenComp, is a key policy action outlined in the European Green Deal to promote education on environmental sustainability within the EU. It defines a set of sustainability competences intended to guide educational programs, equipping learners with the knowledge, skills, and attitudes needed to think, plan, and act with empathy, responsibility, and care for both the planet and public health. GreenComp has adopted the following statement to define the sustainability competence: A sustainability competence empowers learners to embody sustainability values, and embrace complex systems, in order to take or request action that restores and maintains ecosystem health and enhances justice, generating visions for sustainable futures (Bianchi et al., 2022, p.12).

The framework is intended for lifelong learning and applies to learners of all ages and educational levels in formal, non-formal, and informal settings. The framework helps learners develop into systemic and critical thinkers, and build a knowledge foundation to care for the planet's current and future state. Its goal is to cultivate a sustainability mindset, guiding users to think, plan, and act with empathy, responsibility, and care for the environment.

GreenComp consists of 12 interconnected competences organized into four areas. Each area is presented as equally important, but the specific role of an Ecoprise Designer might suggest that some of these competencies could take precedence depending on the specific context and goals of the business. The first area Embodying sustainability values focuses on integrating key sustainability principles into business practices. It consists of 3 competences: valuing sustainability, supporting fairness and promoting nature (Bianchi et al., 2022). This is crucial for future Ecoprise Designers, who must embed values such as fairness, nature promotion, and sustainability into the core of their businesses (Venkatraman and Nayak, 2015). Their role involves creating solutions that respect nature, whether through sustainable product design, resource management, or embracing circular economy principles to minimize environmental impact (Velenturf & Purnell, 2021).

Figure 2. GreenComp visual representation (Bianchi et al., 2022, p. 3.)

By embracing complexity in sustainability (which is the second area of the GreenComp framework), Ecoprise Designers can and should create innovative and sustainable solutions that have lasting positive impacts. Sustainability challenges are often complex and involve multiple layers, including technological, political, social, cultural and environmental dimensions (Scoones et al., 2007). To address these effectively, Ecoprise Designers need to have a high level of system thinking and critical thinking, meaning they must recognize the complex relationships between different systems from all sides, and how actions in one area can impact others (Tunguturi, 2022). Moreover, Ecoprise designers must be skilled in identifying sustainability challenges and finding creative solutions that align with sustainability values.

The third area of GreenComp framework, envisioning sustainable futures, encompasses competencies such as futures literacy, adaptability and exploratory thinking (Bianchi et al., 2022). The ability to anticipate future sustainability challenges and business trends, and to create businesses that are not only sustainable but also adaptable to future needs and market demands is of great importance for the future Ecoprise Designer (Bansal & DesJardine, 2014). Ecopreneurs who are forward-thinking will be better prepared to innovate and lead within emerging markets and sustainability challenges (Buehring & Liedtka, 2018).

Finally, the fourth area of GreenComp framework - Acting for Sustainability emphasizes collaboration and advocacy, essential for influencing policy and building partnerships that promote sustainable practices (Bianchi et al., 2022). Through this area, an Ecoprise Designer learns how to influence policymakers or participate in shaping regulations that encourage sustainable business practices, how to collaborate with suppliers, customers, and communities to create a shared commitment to sustainability, and how to initiate and implement sustainable business models in their ventures.

In conclusion, the GreenComp framework highlights the importance of sustainability competences in shaping the future of sustainable entrepreneurship. It provides a foundational skill set for Ecoprise Designers, empowering them to create innovative, sustainable businesses that align with broader environmental goals and societal needs, while fostering systemic change for a sustainable economy. While all competencies are important, the first two areas of GreenComp, Embodying sustainability

values and Embracing complexity in sustainability, might be more critical at the foundational level of designing a sustainable business. These ensure that the core principles are aligned with long-term sustainability goals and that the Ecoprise designer can navigate complex challenges. However, as the business grows and evolves, envisioning sustainable futures and acting for sustainability become increasingly vital for ensuring adaptability and exerting broader influence (Toppinen, Kozak & D'Amato, 2022).

EntreComp: The Entrepreneurship Competence Framework

Entrepreneurship is commonly understood as a transversal key competence applicable by individuals and groups, including existing organizations, across all spheres of life. It is defined as follows: Entrepreneurship is when you act upon opportunities and ideas and transform them into value for others. The value that is created can be financial, cultural, or social (FFE-YE, 2012). This definition focuses on value creation, no matter what type of value or context. Entrepreneurship as a competence applies to all spheres of life. It enables citizens to nurture their personal development, to actively contribute to social development, to enter the job market as employee or as self-employed, and to start-up or scale-up ventures which may have a cultural, social or commercial motive. Therefore, entrepreneurship as a competence is quite important in the Ecoprise Skillset (Bacigalupo et al., 2016).

Entrepreneurial competencies are considered a higher-level characteristic encompassing personality traits, skills and knowledge, and therefore can be seen as the total ability of the entrepreneur to perform a job role successfully (Man et al., 2002; Bird, 1995). Entrepreneurial competencies are defined as underlying characteristics such as generic and specific knowledge, motive, traits, self-images, social roles and skills which result in venture birth, survival and/or growth. Entrepreneurial competencies have been identified as a specific group of competencies relevant to the exercise of successful entrepreneurship (Mitchelmore and Rowley, 2010). Above mentioned entrepreneurial competences are also identified as very important for the future Ecoprise Designer according to the SWOT analysis.

The EntreComp conceptual model is made up of two main dimensions: the 3 competence areas that directly mirror the definition of entrepreneurship as the ability to turn ideas into action that generate value for someone other than oneself; and the 15 competences that, together, make up the building blocks of the entrepreneurship as a competence for all citizens. The 3 competence areas belong to: the ideas and opportunities, resources and intro action. The EntreComp conceptual model is made up of 8 proficiency levels, belonging to the Foundation, Intermediate, Advanced and Expert level. This conceptual model has 442 learning outcomes (Bacigalupo et al., 2016).

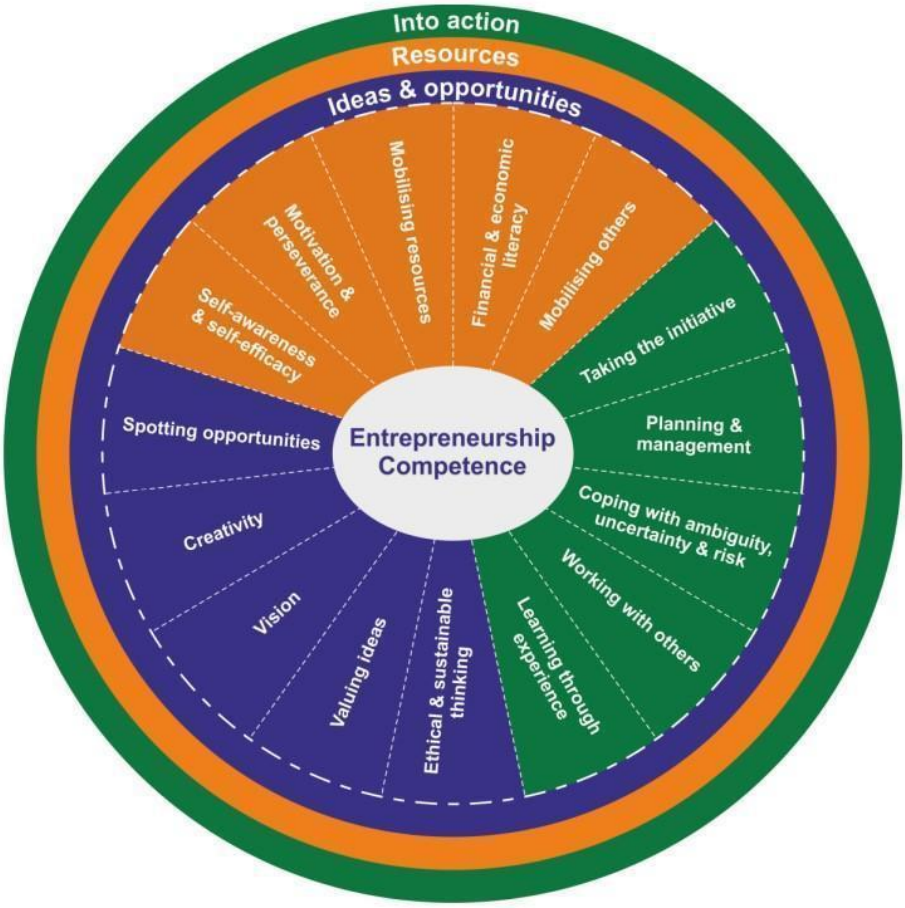

Figure 3. Areas and competences of the EntreComp conceptual model. (Bacigalupo et al., 2016, p. 11)

The first area of the EntreComp conceptual model is Ideas and opportunities and consists of 5 competences. Most of them are applicable to the Ecoprise Skillset since they treat the domain of creativity, vision and valuing ideas. Regarding the Ecoprise Skillset, competencies such as establishment of new connections and bringing together scattered elements of the landscape to create opportunities to create value are important. Competencies related to the exploration with innovative approaches, development of a vision to turn ideas into action and imagining the future are of a significant importance. Assessing the consequences of ideas that bring value and the effect of entrepreneurial action on the target community, the market, society and the environment is the competence regarded as crucial for the future Ecoprise Designer in the domain of Ideas and opportunities (Cedefop, 2009; Bacigalupo et al., 2016).

Additionally, the second area of the EntreComp conceptual model is the Resources area. This area treats competencies such as: self-awareness and self-efficacy, motivation and perseverance, financial and economic literacy. This area was highlighted during the SWOT analysis as very important for the Ecoprise Designer, as it encompasses competencies related to management, cost estimation, resource management; and identification of individual and group strengths and weaknesses. The ability to inspire and enthuse relevant stakeholders and to demonstrate effective communication, persuasion, negotiation and leadership are marked as highly regarded for the future Ecoprise Designer.

Finally, the third area of the EntreComp conceptual model is Intro action which involves taking initiative, planning and managing, working with others and learning through experience. All previously mentioned

are beneficial for the Ecoprise Designer's skillset. Through this area the Ecoprise designer becomes capable of taking initiative and challenges, and becomes good at setting the long-, medium-, short-term goals. This area helps the Ecoprise designer make decisions when the result of that decision is uncertain, it also helps in handling fast-moving situations promptly and flexibly. Through this area the Ecoprise designer learns how to work together and cooperate with others to develop ideas and turn them into action. The competencies gained through this area serve for solving problems and conflicts and for the establishment of professional networks. Previously mentioned competencies are of great importance for the Ecoprise designer. The competencies belonging to the third area, such as the ability to learn with others, including peers and mentors play pivotal roles in the life of the Ecoprise designer (European Commission, 2012; Komarkova et al., 2015; Bacigalupo et al., 2016). The intrapersonal domain, which involves self-management, including the ability to regulate one's behavior and emotions to reach goals are priceless. Intellectual openness; work ethic and conscientiousness; and positive core self-evaluation were identified as very important in the SWOT analysis. Some authors also highlighted the same qualities as highly regarded (Mitchelmore and Rowley, 2010; Tittel and Terzidis, 2020).

In the initial phase of developing the Ecoprise skill set for the Ecoprise designer, it is important to identify the qualities and potential of the future Ecoprise designer, as well as opportunities for entrepreneurship development. The Ecoprise designer should be aware of their own qualities and the qualities of the enterprise they are developing. During this phase, it is essential to cultivate the ability to approach problems differently and to enhance social skills. In the intermediate and advanced stages, the Ecoprise designer should focus on mastering critical thinking skills and recognizing realistic opportunities for turning ideas into actionable activities. At the expert level, Ecoprise designers are expected to develop the skills needed to face challenges through the acquisition of new knowledge, research, and innovation. When the future Ecoprise designer acquires the foundational skills, advanced and expert-level skills play a key role in their constant development. An Ecoprise designer must continuously work on enhancing skills related to adapting to different work environments, fostering technological innovation, and achieving excellence by transforming work processes.

Regarding the skillset for the future Ecoprise Designer, all levels of progression—relying on support from others, building independence, taking responsibility, and driving transformation, innovation, and growth—are quite clear. They foster personal qualities, skills, creativity, diversity of the future Ecoprise designer and moving from one to another level they make the Ecoprise designer ready for new challenges. Skills are a profound form of knowledge that can be applied in specific situations to solve problems and complete tasks. They represent the ability to apply knowledge and use expertise to address challenges. According to Tittel and Terzidis (2020), skills can be categorized as either cognitive (involving logical, intuitive, and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools, and instruments). Through the SWOT analysis, favorable skills for the Ecoprise Designer were similarly categorized.

DigComp 2.2: The Digital Competence Framework for Citizens

DigComp is an important initiative created by the European Commission aimed at satisfying such a high need in the current society for digital literacy and skills. It is through such a framework that this understanding matters, for as digital technology pervades more and more of daily life, the skills

individuals need to thrive in such an environment can be understood, evaluated and improved. DigComp takes a clear and detailed view of the basic digital competences needed for full participation as an active citizen in a digitally connected world.

DigComp covers five priority areas of competence: information and data literacy, communication and collaboration, digital content creation, safety, and problem-solving; This includes core digital skills that everyone needs to be able to live, work and learn in the modern digital world. The first competence is identified as information and data literacy which highlights how individuals are able to work with digital information: find, assess and manage it. This is important in an information overloaded world. In other words, visitors would be able to locate the information they need and thereby be better equipped to find, critically appraise its utility and quality, evaluate how serious or moderate it is as an evidence-based intervention, if it is relevant for them etc.

Afterwards, the second area (communication and collaboration) takes up the predominantly social features of digital skills. Communicating on different platforms is not entirely modern, since it has been a part of society long before the digital age. Digital communication on the other hand, calls for more than typing out message after message — it requires relationship-building skills coupled with an understanding of the unspoken rules of online interaction if you want to collaborate in both personal and professional life. This competence also includes inclusivity and respect for diversity, to the benefit of well-functioning digital environments.

Following this, the third domain, digital content creation, takes this idea a step further by focusing on the active role that citizens play in the digital world. In addition to just reading online articles, people are encouraged to author and post their work online as well. This field does in fact flourish creativity but it also focuses on the moral aspect of copyright and licensing. It also gives backing to everyone to partake in the digital world with all legal and moral respect. In this way digital content creation transitions citizens from consumers to actors in the digital realm.

Equally important is the fourth area — safety — when it comes to tech, which essentially means securing your data and learning privacy aspects as well as risks of digital actions. As threats become more advanced, it is essential that users remain vigilant and understand what needs to be done in order to safeguard one's digital identity and protect personal information. Turning now to some of the more serious aspects, this skill also includes praise for keeping safe online as well as the need for "digital balance" talking about issues like screen time and mental health.

Figure 4: The 5 areas of DigComp Framework (Council Recommendation on Key Competences for Life- long Learning, 2018).

Moreover, problem-solving, the final competence of agility that allows for dealing with unpredictable every shift in the digital landscape. It is the realm of understanding those digital dilemmas and knowing how to solve them—be it through technical troubleshooting or guiding a more conventional method to an untraditional solution. Change happens quickly in the technology space so focusing on lifelong learning and adaptability is key to staying digitally competent over time.

In addition, the DigComp framework closely matches existing EU competence frameworks such as GreenComp, EntreComp, LifeComp. Together, these frameworks represent a holistic educational approach to sustainability entrepreneurship and personal development, with a life-long learning focus.

This digital competence becomes all the more crucial when seen in its application in the Ecoprise project, a project promoting social entrepreneurship through ecovillage design. All Ecoprise designers need to be top of their game at utilizing project design, implementation and communication digital tools. Whether using digital platforms to advance collaboration or creating content that raises awareness for sustainability, the digital proficiencies cataloged under DigComp are critical. In addition to that, they leverage their technical competence to guarantee safety in communications and tackle the fixes related to technology which a contemporary social enterprise is absolutely necessary.

Through inclusion of DigComp in the Ecoprise Skillset, the project also ensures that theEcoprise designers will have the required digital competences to take on challenges of a digital age. It will empower these individuals to use technology for social good, communicate across digital platforms effectively, create compelling digital content, and navigate in complex digital spaces safely. Therefore, DigComp is important in assuring that designers in Ecoprise do not only keep with the coming market and vision but are also ahead of them.

LifeComp: The European Framework for Personal, Social and Learning to Learn Key Competence

“LifeComp” is one of the most consequential efforts to enhance people's ability to deal with personal, social, and lifelong learning environments. Created by the European Commission, this framework is particularly focused on the non-cognitive aspects of competence, such as emotional intelligence, resilience, and self-regulation, which are increasingly recognized as critical for success in both personal and professional contexts. LifeComp in the age of rapid social and technological change aims to equip individuals with the skills to successfully cope with these complexities.

Also, LifeComp is organized in three broad competence areas, namely, personal, social, and learning to learn. These areas are widely interrelated and together form a holistic approach to lifelong competence development. Initiating from the personal dimension, this area accentuates self-awareness, emotional regulation, and the development of a growth mindset. To be explicit, self-awareness entails the capacity to acknowledge one's emotions, strengths, and areas for improvement, which is the basis of personal development. On the other hand, emotional regulation is the ability to manage and express emotions in a constructive way. Apart from this, a growth mindset promotes for learners to understand that challenges are chances to grow and learn which is key for personal and professional resilience.

Correspondingly, the societal element concentrates on the soft skills required to engage with others effectively. Empathy is at the heart of this competency, the ability to comprehend and empathize with the feelings of others, which is the foundation of forging positive relationships and collaboration. Communication is the other main aspect of the competency, which encompasses both verbal and non-verbal ways of interaction and are the tools for connecting with other people meaningfully. Further, conflict resolution skills are indispensable that help individuals deal with divergences in a constructive manner. In a world that is becoming more and more diverse and interconnected, social competence is not only a means for teamwork, but also for inclusivity and social cohesion.

Learning to learn is the third domain, which is equally important as it emphasizes individuals' need to take up the responsibility for their own lifelong learning and development. This particular talent plays a larger role within the framework of lifelong learning as the latter implies that the individual has to constantly upgrade his/her skills as per the changing professional and social demands. The major aspects of learning involve setting aside a personal objective, using the time properly, and taking advantage of the feedback provided to correct a mistake. In addition, it is the construction of predispositions to learning, such as the thinking about one's learning process and adjusting it if necessary. By developing these abilities, individuals are given better preparation for handling the new demands of a world that is ever-changing and the possibility of achieving consistent personal and professional development.

Figure 5: LifeComp European Framework for Personal, Social and Learning to Learn Competences (Sala, et al., 2020, p.8)

Besides, LifeComp is one of the products of the European competence frameworks which also includes DigComp and EntreComp, among others, which are national frameworks located respectively in digital competence and entrepreneurship. The European Commission's plan for competence development is based on the use of such frameworks that appeal to cognitive and non-cognitive skills of people. Thus, the integration of the two is essential for the upbringing of a healthier generation, a combination of both technical skills and spiritual and intrapersonal abilities that are needed in life.

When we speak about the Ecoprise project, LifeComp is mostly about young people who inherit the necessary personal and interpersonal skills for driving sustainable initiatives. In fact, the Ecoprise developers are expected to show emotional resilience and self-regulation in the face of challenges, as well as to be able to work collectively with others in the design and implementation phases of ecovillage projects.

Utilizing LifeComp along with the Ecoprise Skillset helps to ensure that the upcoming Ecoprise designers possess not only technical skills but also emotional intelligence and social competence. These qualities are essential for promoting sustainable development, fostering creativity, and building environments that provide a fertile environment for personal eudaemonia as well as collective progress. The inclusion of LifeComp in the Ecoprise designers' development, in turn, enables the generation of such individuals who will enhance sustainability and community development, hence, LifeComp becomes the cornerstone in the cultivation of well-rounded, adaptable, and resilient social entrepreneurs.

Establishing Framework of New Skillset for Ecoprise designer

The SWOT analysis was conducted in Italy, Greece, Cyprus, Portugal, Lithuania and Serbia, focusing on ecovillages, social enterprises, and educational institutions, to assess their strengths, weaknesses, opportunities, and threats. This research, along with the aforementioned EU frameworks, served as a baseline for developing the Ecoprise designer skillset. Therefore, the following text discusses the skills and knowledge that the future Ecoprise designer should possess, categorized across the four pillars of regeneration: cultural, environmental, social, and economic.

Established pillars of regeneration: main gaps aligned with skills needs

Cultural regeneration

Cultural regeneration is key to achieving sustainable development. By revitalizing local traditions, values, and knowledge, cultural regeneration creates stronger, more resilient communities that are deeply connected to their environment. Sustainable development isn't just about technology and infrastructure; it's about fostering cultural identities that promote environmental stewardship, social cohesion, and long-term well-being. Ecovillages exemplify sustainable development by integrating traditional practices into daily life, ensuring a deep connection to nature and community. By drawing on ancestral knowledge—such as organic farming, natural building techniques, and resource conservation—ecovillages enhance resilience and promote ecological harmony. A core value in these communities is the protection and restoration of material heritage sites and objects, preserving cultural identity and historic craftsmanship for future generations. These restoration efforts honor the past while supporting sustainable tourism and local economies and they present the core of cultural regeneration. Furthermore, ecovillages are leaders in the promotion of holistic wellbeing and lifestyle, encouraging balanced living that nurtures the mind, body, and spirit. These habits not only contribute to environmental conservation but also cultivate strong, connected communities that embody the principles of sustainability in every aspect of life. They present the most important strengths in cultural regeneration of ecovillages. Presented by many authors, cultural regeneration is a strategy widely adopted worldwide to activate urban renaissance and catalyze economic and social transformation (Garcia, 2005; Miles and Paddison, 2005; Pratt, 2009). Cultural regeneration not only focuses on adding more cultural facilities or spaces, but also emphasizes the transformation of the image of a place to attract people, the creative class, and investment (Connolly, 2013; Degen and Garcia, 2012; Paddison, 1993). At the local scale, cultural regeneration refers to a location's embedded meaning, ambiance, and style—particularly those elements that are increasingly seen as attractive and can further activate resurgence. Being aware of cultural regeneration and its significance is very important for the future Ecoprise Designer. This was concluded through the SWOT analysis, and many above mentioned academic articles relate to this.

On the other hand, before launching any intervention, it is essential for social enterprises to thoroughly explore the local context. Understanding the cultural, social, economic, and environmental dynamics of the community ensures that initiatives are relevant, respectful, and effective. By engaging with local stakeholders, identifying community needs, and recognizing existing resources and challenges, social enterprises can tailor their solutions to align with the specific realities of the area. This approach fosters local ownership, increases trust, and enhances the long-term sustainability of interventions. Moreover, careful exploration prevents the imposition of external solutions that might overlook or disrupt local systems. Instead, it allows social enterprises to build on local knowledge and traditions, fostering inclusive growth and empowering communities from within. In essence, prioritizing the local context before taking action strengthens the impact of social enterprises, ensuring that their interventions are culturally appropriate, resource-efficient, and truly beneficial to the communities they aim to serve.

People's perception of place images can be influenced by many observational factors, including the environment, people, events... It is necessary to further understand the relationship between these factors and specific aesthetic characteristics. In cultural regeneration, physical environmental elements include flagship regeneration projects, which typically take the form of a museum, gallery, or adaptive reuse of heritage buildings. Ecovillages are also places of cultural regeneration, and lead by good management, they can be local centers of regeneration. The ability to revitalize and integrate cultural heritage into daily practices not only strengthens community bonds but also enhances social cohesion, local identity, and environmental stewardship (Heidenreich, 2015; Psarra, 2018; Zeng et al., 2020, Jiemei et al., 2022). The following skills and knowledge areas are essential for driving cultural regeneration in these contexts:

- Social enterprises involved in cultural regeneration need skills in sustainable business models that align with the principles of cultural preservation. These enterprises require expertise in creating value through ethical tourism, craft production, and other forms of culturally-oriented social entrepreneurship, while also contributing to local economic development.

There are some shortcomings that are associated with cultural regeneration. Both ecovillages and social enterprises encounter significant challenges in preserving and transmitting their collective identities, particularly when integrating new members. The process of fostering a shared sense of identity requires substantial time, human resources, and specialized tools—resources that are often reported as insufficient. This issue is especially acute in ecovillages, where newcomers frequently arrive with idealized expectations and little experience in the realities of communal living and collaborative work. Additionally, ecovillages face the risk of diminishing or overshadowing local cultures. As these communities develop their own self-formed collective identities, there is potential for tension or conflict with the existing cultural norms of the surrounding areas. Ecovillages, in particular, may struggle to adapt their practices to local customs, which can lead to resistance or friction with local authorities and broader communities. This disconnect, if unaddressed, could undermine efforts toward cultural regeneration and community integration, weakening their overall impact.

Environmental regeneration

Environmental regeneration, social enterprises, and ecovillages are interconnected concepts that aim to create sustainable communities and practices that protect and restore the environment, thus contributing significantly to a more sustainable future. Environmental regeneration refers to the process of restoring and revitalizing ecosystems, habitats, and communities that have been degraded or harmed by human activities. This concept involves a range of practices aimed at improving biodiversity, restoring natural resources, and enhancing the overall health of the environment.

In this process, ecovillages can serve as practical models, demonstrating effective sustainability practices (such as ecological self-building, permaculture), while social enterprises can provide resources, funding, and networks that benefit ecovillages. Both entities emphasize the importance of community involvement in environmental regeneration, recognizing that local knowledge, collaboration and support from local governments and organizations are crucial for successful outcomes. Education plays a key role in their efforts to raise awareness and share knowledge about sustainability issues among various socio-demographic groups. Social enterprises, equipped with strong advocacy and lobbying skills, can drive policy changes that support ecovillages and other sustainable practices. Achieving a balance between profitability and environmental goals is a key challenge for ecovillages and social enterprises, demanding innovative business models and strong community support.

Developing the role of an Ecoprise Designer necessitates a broad understanding of the diverse skills and knowledge areas related to environmental regeneration to address the gaps identified in ecovillages and social enterprises. In this context, the European Sustainability Competence Framework (GreenComp), which includes competencies such as valuing sustainability, systems thinking, critical thinking, problem-solving, and adaptability, should serve as the foundational basis for establishing the skillset framework for the Ecoprise Designer. Educational programs related to sustainability often overlook critical skills such as individual initiative, supporting fairness, and adaptability, which are essential for effective environmental action. To effectively contribute to and innovate within the field of environmental regeneration and sustainable development, the future Ecoprise Designer should be equipped with the following skills and knowledge areas:

- Activism skills and policy engagement - Leaders in ecovillages and social enterprises possess a strong activist mentality, believing in their potential to drive positive change in society and the environment. Skills in advocacy and lobbying are crucial for influencing environmental protection policies and legislation, with social enterprises often having more advanced capabilities in this area. Additionally, networking and collaboration skills are particularly important, as both ecovillages and social enterprises report deficiencies in organizing joint actions and collaborations. Therefore, skills in organizing collective actions, campaigns, and initiatives, as well as forming partnerships with local authorities, NGOs, and community organizations, are essential for advancing environmental regeneration.

- Skills in organizing and leading workshops, training sessions, and similar educational activities focused on environmental regeneration and sustainability are essential for raising awareness and promoting action.

- Practical implementation of sustainability practices—such as knowledge of energy-efficient systems, skills in effective waste management and recycling practices, in-depth knowledge of permaculture principles and practices, skills in restoring and rehabilitating natural ecosystems, and the ability to learn through experience and observation—is fundamental, especially when adopting off-grid lifestyles and

applying theoretical knowledge in practical contexts. In this regard, manual labor skills are also essential for activities like regenerative agriculture, self-building, and the installation of renewable energy systems.

- Technological skills, including training in sustainable and efficient agricultural techniques, soil management techniques, the knowledge of using advanced technical tools and technologies (e.g. drones, IoT sensors, data analytics in farming) are of great importance, as both ecovillages and social enterprises face challenges particularly in using advanced technological tools necessary for efficient agricultural practices.

- Knowledge of legislation (understanding local, national, and international environmental laws and regulations affecting ecovillages) and skills to effectively deal with bureaucratic processes (e.g. permits, zoning laws, and infrastructure development regulations), as both ecovillages and social enterprises struggle with a lack of knowledge in this field.

- Risk and crisis management - Understanding the potential negative impacts of business activities, minimizing greenwashing, and implementing strategies to mitigate these risks, along with adapting to changes in legislation and economic conditions (e.g., inflation and tax changes), are essential for achieving sustainability.

Social regeneration

The core of social regeneration is part of the wider urban development framework, hence SWOT analysis brings out various key points of strength and opportunities for improvement. A prime strength in terms of social regeneration that both ecovillages and social enterprises share is ethics of care. This is the principle that emphasizes the welfare of members, applied variably across organizations. While social enterprises in general focus on short-term event-based activities, such as team-building exercises that raise morale and create temporary cohesion, ecovillages practice an integrated long-term approach with a focus on inner development, relational work, and mutual psychological and emotional support. These diverse approaches evidence each organization's culture and values and represent the many ways in which social regeneration might be variously practiced given the context and goals of an entity.

Another strong facet of governance of both types is participatory governance. The leadership and problem-solving quite commonly assume horizontal or hybrid decision-making models, at least among ecovillages and social enterprises. Fully horizontal organizations, such as consensus-based groups, give members direct self-governance and encourage personal responsibility and ownership in operation. Hybrid models blend a hierarchical structure with flexible processes, offering clear direction while still giving autonomy to the team. While different organizations are dependent upon various factors in order to take a strategic lead, the secret to resiliency and adaptability is inclusive governance, a very strong, essential foundation in the successful regeneration of social environments.

In terms of competencies, ecovillages and social enterprises have facilitation and leadership skills and emotional intelligence in common. The latter has helped them to create productive discussions, unite members behind common goals, and implement effective decision-making systems. While it's the visionary leadership in setting high ambitions for the organization that reinforces emotional intelligence, interpersonal relationships are important in ensuring members feel valued and supported. These competencies are requisite for furthering the success of social regeneration initiatives and also

ensure that the internal dynamics flow well along with external engagement in a deeply caring yet effective way.

Social regeneration does not come without its own set of challenges. Horizontal decision-making processes are among the major inefficiencies affecting social regeneration projects in ecovillages. This strength sometimes acts as a weakness because decision-making becomes laborious and very slow. Too much time and resources are wasted in this process. The other big challenge is the retention ratio of staff, especially agriculture, with a high turnover rate, and financial constraints inhibit it from sustaining in the long term. Both ecovillages and social enterprises face this obstacle to maintaining staff, which appears to be a challenge toward their social regeneration programs' effectiveness.

There is also a great deal of practices lacking in social regeneration educationally. Many courses in regeneration do not prepare the participants for emotional setbacks that may cause them, which in return limits the overall effectiveness of such a course or program. This is a call for better training for educators on how to handle the emotional dynamics without compromising standards of the curriculum.

In a nutshell, the themes of ethics of care, participatory governance, and leadership are still the strong points of social regeneration initiatives, while the decision-making inefficiencies, employee retention, and lacunas in educational practices are considered crucial for the challenges to be overcome. Overcoming such barriers will be a prime factor in reaching better long-term impact and sustainability for such programs. Moreover, the acquisition of selected skills in areas such as financial management, communication, and conflict resolution might prepare these organizations to overcome the current barriers and further reinforce their work of social regeneration.

Economic regeneration

A critical sustainable development component is economic regeneration, the goal of which is to revitalize the economy of the region through the use of different methods. Social enterprises and ecovillages are both equally beneficial when it comes to the economic revitalization of a region. Both also harness different ways of raising funds, which include grants, sale, and government support. But the social ventures have often gone as far as covering not just their local but also national and even international economies. In this regard, their expertise in raising and mobilizing capital becomes more sophisticated than their ecovillage counterparts. Ecovillages, in particular, are guided by permacultural principles, which emphasize not prioritizing income above other values, ensuring that economic activities are aligned with their broader community goals.

In addition to this, they share a close connection to the local economy, which is another of their strong suits. By working closely with regional companies, artisans, and associations, social enterprises, and ecovillages are both directly involved in the development of regional markets. Such a relationship not only deepens the community's resilience but also tightens the local economy. Besides, both organizations employ several methods of raising funds, such as grants, sales, and government assistance. However, as they usually operate beyond local economies and into national and international markets, social companies tend to have more sophisticated skills in attracting and managing capital, which allows them to expand their operations more effectively.

To put it more specifically, ecovillages share their identity, and thus, it affects their monetary decisions. The principle of doing no harm still applies to the organizations even if they are making a profit. This

congruence of beliefs and business practices is the guarantee of the meaningfulness of ecovillages' economic endeavors for their communities. Nevertheless, social companies are thought to have a considerable ability to earn funds, very often they are proponents of programs that educate and develop resources.

Nevertheless, there is still a long way to go in the revival of the economy. Overlap of financial management that is diverse is the main problem for both organizations, and there are also complaints about the non-clarity and unfair payment methods. Pay inequalities may be more than usual for social enterprises because they can cause the company's disunity. In addition, the ecovillages have problems in the areas of communication, branding, and marketing. These issues make it hard for them to make contact with other networks and markets. Although it is a strong point in the organization, the group's strong group identification can often create barriers to outward collaboration and communication.

Flaws are also pointed out in practices in education. The ecovillages' sustainable entrepreneurship education is deficient because environmental objectives often clash with the real-world applications of the economy, which can lead to "greenwashing." Besides, educators noticed that ecovillage programs often fail to teach the necessary skills such as risk, uncertainty, and ambiguity management, which are essential for the successful navigation of complicated economic situations.

In a nutshell, ecovillages and social enterprises definitely succeed in those economic practices that are directed towards the well-being of the local economies and sustainable entrepreneurship, but they encounter lots of difficulties in the financial management, external communication, and educational gaps. Dealing with these weaknesses is of utmost importance in order to enhance their positive contribution to the regeneration of the economy.

Integration of the Co-design session: Identifying knowledge, skills and competences of the Ecoprise designer

Aim and scope of the Co-design session

The session of co-design that was organized dealt with great relevance to defining the framework for sustainable and regenerative design in the context of the Ecoprise project. It focused on identifying crucial knowledge, skills, and competencies an Ecoprise designer should have. The event was meant to consolidate the positions among a diverse set of stakeholders through performing SWOT analysis and aligning with the EU Competence Frameworks. Its purpose was not only to address existing gaps in training currently but also to co-create, with the participants, the skill sets needed by future Ecoprise designers by integrating green, digital, and entrepreneurial innovation.

Using the World Café method, the participants were divided into four groups: Digital skills, Green skills, Resilience skills, and Entrepreneurial skills. These headings reflect some European frameworks such as DigComp, GreenComp, LifeComp, and EntreComp. Each group successively went into successive rounds of deliberation for fine-tuning and prioritizing competencies based on an identified skills gap. The moderators moderated these discussions, thus guiding the participants to critically evaluate the skills in light of the EU frameworks and specific needs for the Ecoprise designers. This iterative process allowed refinement of the framework to meet the future demands.

At the end of the session, all four groups reunited to present their findings. The last presentations included proposed abilities for the Ecoprise designer, which were the creation of digital content and data protection in the digital area, to the cultivation of a growth mindset and self-management at the individual level for a wellness attitude or resilience. Green skills were considered as the major skills for future designers while the development of entrepreneurial competencies, such as critical thinking, problem-solving, and innovation, was identified as the main drivers of the sustainable design solutions. These findings were recorded and collectively considered, thereby forming the first version of the Ecoprise skills framework.

In the era of digital proficiency, students indicated the significance of constant learning, imaginative use of digital tools, and a fit knowledge of safety and data protection regulations. A prime concern was the promotion from a marketing point of view of new ideas and the security of Ecoprise designers so that they can manage their personal welfare in a world of a much connected digital media world that is apart from others.

As for green skills, the participants pointed out the need for creativity and ethical thinking with a clear focus on sustainable innovation and posing difficult questions on environmentally friendly practice. Besides this, entrepreneurial skills were part of this which included such as thinking creatively, the interest in the different schools of thought, and the ability to come up with ways to enforce ethics in economic and environmental decision-making processes.

Main insights and conclusions

From the co-design session, several key insights and important conclusions for developing the Ecoprise designer framework were obtained. The collaboration brought into view large gaps in some of the key competencies, especially with regard to issues identified in the initial SWOT analysis on sustainability, regeneration, and innovation, and set the basis for focused discussions on how to fill those gaps.

One key insight was the urgent need to address skills gaps in digital literacy, particularly in lifelong learning, creating digital content, and data protection. Further, the session emphasized that green skills, such as ethics in thinking and sustainability, are crucial for solving ecological problems. Entrepreneurial competencies, including creativity, problem-solving, and critical thinking, were underlined as guiding principles driving innovation and the ability to adapt to future claims.

Out of this session came consensus on the competencies and key skills required for an Ecoprise designer. It further gave birth to a preliminary framework encompassing competence descriptions that complement the European competence frameworks such as DigComp, GreenComp, LifeComp, and EntreComp. Therefore, the outcome identified the future directions in training and development.

Methodology for developing the new Ecoprise designer

ESCO skill database mapping with skills identified in the SWOT analysis

First, ESCO Skill database mapping with Skills "found" in the SWOT analysis. Non-existing skills need to be formulated and can be reported to ESCO, to get included on the ESCO database: https://esco.ec.europa.eu/en/classification/skill_main. As there is no explicit occupation of Ecoprise designer in ESCO, the most matching seems to be the environmental expert (environmental sustainability expert).

The environmental expert is described in the ESCO database as follows: "Environmental experts search for technological solutions to tackle environmental problems. They detect and analyse environmental issues and develop new technological production processes to counter these problematic issues. They research the effect of their technological innovations and present their findings in scientific reports."

A lot of the listed skills have connections to the Ecoprise designer framework: advise on carbon emissions reduction; advise on chemical use reduction; advise on environmental remediation; advise on pollution prevention; analyse environmental data; assess environmental impact; carry out environmental audits; collect samples for analysis; conduct environmental surveys; create solutions to problems; develop environmental policy; develop environmental remediation strategies; investigate pollution; measure pollution; perform environmental investigations; provide training in sustainable tourism; development and management report on environmental issues; report pollution incidents. Plus many more optional skills.

Another occupation that could be seen as having a lot of similar skills is the social entrepreneur. "Social entrepreneurs create innovative products or service models to tackle social and environmental challenges, pursuing through their profits a social mission that benefits a wider community or the environment. They often use a more democratic decision-making system by closely involving their stakeholders, and strive to achieve change at a systems level, by influencing policies, market evolutions and even mentalities."

The listed skills here also provide a lot of overlappings: advocate for others; apply business acumen; assess environmental impact; assume responsibility for the management of a business; conduct public presentations; control financial resources; create social alliances; deliver a sales pitch; develop professional network; manage budgets; manage financial risk; manage fundraising activities; monitor social impact; perform business analysis; perform project management; prepare visual data; promote organisational communication. Plus many more optional skills.

The design of a new occupation of an Ecoprise designer can be suggested to the ESCO database to be added using matching skills.

Proposed skillset for Ecoprise designer

Out of the theoretical research (SWOT analysis) and the ESCO database ,workshops were conducted during the International camp for staff in August 2024, where experts gave feedback on a first draft of skills. These skills were clustered together matching the found four pillars Digital Skills, Green Skills, Resilience Skills and Entrepreneurial skills. Although there could be different approaches to match skills (different levels also possible) the chosen approach seemed to be a compromise between a good clustering and a good setup to be trained and assessed.

Digital Skills

- Digital content Creation;
- Safety & Data Protection;
- Digital tools;
- Technological skills.

Green Skills

- Renewable energy;
- Recycling and upcycling;
- Sustainability education;
- Sustainable Management;
- Green Skills;
- Holistic approach to nature and natural systems;
- Skills in restoring and rehabilitating natural ecosystems.

Resilience Skills

- Systems thinking;
- Critical thinking;
- Problem solving & creative thinking;
- Communication Skills;
- Conflict resolution;
- Group dynamics;
- Self management;
- Social inclusion;
- Empowerment of marginalized groups;
- Work ethics and social structures;
- Well-being (personal development);
- Adaptability/forward thinking;
- Community engagement.

Entrepreneurial Skills

- Enterprise and innovation;
- Business development;
- Financial knowledge;
- Marketing;
- Growth mindset;

- Innovation and social impact measurement tools;
- Creativity;
- Openness to the environment;
- Ethical and sustainable thinking;
- Skills to effectively deal with bureaucratic processes;
- Networking Skills;
- Activism skills and policy engagement;
- Risk and crisis management.

Specific Skills

- Application of gained skills;
- Permaculture skills;
- Sustainable agricultural skills.

Developing the skills learning outcomes and establishing EQF levels

Out of the given skills are found within the SWOT analysis and the workshops conducted during the International camp for staff in August 2024. The experts involved defined a set of learning outcomes that match not only the description of the skill but also the chosen European Qualification Framework (EQF) level. The EQF level is a European defined well known practice, enabling everybody to understand the depth of a skill, by using the EQF level and helps formulate the learning outcome. The EQF Levels of most (almost all) of the learning objectives are set to EQF level 5. This means that the participants need to show professional knowledge and skills in the given learning objective. It is typically associated with higher education levels. EQF Level 6 would lead to getting into the range of university (Bachelor) degree level of understanding and application. Typically VET training aims at EQF Level 5 maximum.

The skills and their learning outcomes are grouped together in Units as this makes it easier to train and examine later. This focuses also on the needs by the European Commission to make training and exams modular, so people that miss one part can use a part of the training and take only a part of the exam again, rather than taking the complete training and the complete exam again.

Practical skills integration

Practical integration is an important but tricky part in most of these courses. The practical part should show that participants not only theoretically know all the topics, but really can apply them to essential problems in their environment. This means they need to decide for a certain problem, how and with whom to solve it according to their learnings. The check if they succeeded is often the problem as there are multiple ways of doing so.

The first, but most complicated part would be the assessment while practical working. An expert supervises the participant while he/she is working on the problem and designing solutions for that. The expert needs to judge (based on provided guidelines) if the participant shows sufficient knowledge in the proper topic/topics.The guidelines are essential and need to be produced within the project to

guarantee that all potential experts over Europe will assess the participants with the same set of guidelines and not by intention.

The second option would be to ask participants to hand in a project report, stating what they have done (explaining the problem, the solution path and the final outcome). Experts then are needed to assess these reports. Guidelines are needed for the assessment of the reports to guarantee again that all experts all over Europe use the same guidelines to assess the given work.

One of the problems in an exploitation phase of projects is that these experts will not work for free and as such, somehow a funding idea has to be generated by the project partners to ensure the pool of experts being available within and after the project ends.

Assessment and certification

Theoretical parts

Hosting the theoretical exam will be facilitated on the exam platform Bizexaminer. The platform can facilitate multiple choice/response, single choice, drag & drop, hotspot and many other question types. Most of these options can be validated manually by the system and do not need human interaction. Questions for the exam will be formulated based on the EQF level of the matching Learning Objective.

Practical parts

For practical examinations, firstly it will be necessary to decide if it is better to host an oral exam, an assessment or a written exam. For the oral exam an exam committee (expert pool) needs to be appointed, who tests the participants following pre-established guidelines developed by the project consortium. The assessment is done by experts evaluating the practical work, while the participant is actively working on a solution for an issue. Examples could be a case study or “on the work” testing. Finally, the written exam would be the most convenient option with the participant handing in a report, which would be checked by the committee following the pre-established guidelines again.

The pre-established passing guidelines are a MUST for all the evaluation methods of the practical part, as this guarantees equal testing all over Europe (worldwide). It also limits the influence of personal bias when grading participants.

Certificate

The consortium will determine whether to issue micro-certificates on a unit or topic basis, or to award a final certification upon successful completion of the entire course. Key considerations for finalization include:

- Selection of appropriate logos (partners, stakeholders, etc.);
- Certificate validity period;
- Degree of granularity for assessments across specific parts or topics.

These elements will ensure that certification is meaningful and aligned with the project’s goals.

Conclusions

Ultimately, the skillset for Ecoprise designer focuses on a strong, innovative framework that integrates sustainability, entrepreneurship, and community-focused design by drawing upon key European frameworks including GreenComp, EntreComp, DigComp, and LifeComp. Perhaps one of the most salient strengths of this skill set is in the interdisciplinary way in which the ecological, social, cultural, and economic dimensions of addressing complex challenges are matched with appropriate competencies for an Ecoprise designer. The competence is all the more applicable and relevant to supporting the transition toward a greener, more sustainable future, since the skillset is aligned with the EU standards.

However, there are also a few limitations. While the skillset forms a very strong foundation, the practical implementation of competencies may be difficult due to the diverse levels of digital and enterprise competencies of potential Ecoprise designers. Besides, green and digital skills integrated into community-based entrepreneurial models may require significant adaptation to local contexts, particularly in those areas where access to digital tools is at a low level or the context of sustainability is not that developed yet.

The Skillset developed in this initiative must be dynamic and adaptable, designed to evolve in response to shifts in environmental conditions or legislative changes within Europe. The adaptability of this skillset is integral to its effectiveness, as it ensures relevance and responsiveness to current demands. The initial training phase will serve as a crucial testing ground, likely revealing areas that require both minor and significant adjustments. This inherent flexibility should be seen as a fundamental strength of the project, enabling continuous improvement and alignment with evolving professional and regulatory standards.

Annex "Ecoprise Designer Skillset - full table"

Topic	Skill	Knowledge/Skill	EQF	Statement/LO
Digital Skills	Common Digital Content Creation	Proficiency in content creation (e.g., videos, marketing)common	5	Learners can produce and manage high-quality digital content.
	Safety & Data Protection	Understanding of data protection regulations	5	Learners can implement safety measures and comply with data protection laws.
	Digital Tools	Utilize digital tools to enhance business efficiency	5	Learners can apply digital tools to optimize business operations.
	Technological skills	Knowledge of using advanced tools and technologies	5	Learners can apply advanced technical tools and technologies to improve efficiency in agricultural practices
Green Skills	Renewable energy	Understanding the pro and cons of renewable energy	5	Leanrners can identify implications and chances for th euse of renewable energy
	Recycling and upcycling	Understanding of waste reduction practices	5	Learners can apply recycling and upcycling methods to reduce waste in business practices.
	Sustainability education	Awareness of sustainability solutions and practices, as well as sustainable behaviors	5	Learners can educate others on climate change and propose business solutions.(e.g. organise educational activities)
	Sustainable Management	Drive business growth through entrepreneurial ventures	5	Learners can start and manage ecoprises with a focus on sustainability.
	Green Skills	Apply environmentally sustainable practices	5	Learners can implement green solutions across business operations.
	Holistic appraoch to nature and natural systems	Understanding of interconnected natural systems	5	Learners can apply knowledge of ecological systems in business contexts.
	Skills in restoring and rehabilitating natural ecosystem	The learner demonstrates advanced technical knowledge and skills in restoring and rehabilitating natural ecosystems, with a clear understanding of ecological principles, biodiversity, and sustainable land-use practices. The individual is capable of evaluating degraded ecosystems, identifying key issues, and implementing restoration strategies that promote ecological balance, resilience, and sustainability	5	Learners can apply advanced ecological and technical skills to plan, implement, and manage restoration and rehabilitation projects in degraded natural ecosystems.
Resilience Skills	Systems thinking	Ability to observe patterns of natural and human action	5	Learners can identify complex systems in natural and human environments.
	Critical thinking	Evaluate information critically and make reasoned decisions	5	Learners can analyze, question, and reflect on sustainability issues.
	Problem Solving & Creative Thinking	Develop creative solutions to complex challenges	5	Learners can identify problems and solve them creatively.
	Communciation Skills	Facilitate effective, resolution-oriented discussions	5	Learners can lead productive communication sessions and resolve conflicts in groups.

	Conflict resolution	Ability to mediate and facilitate conflict resolution	5	Learners can mediate disputes, fostering positive collaboration.
	Group dynamics	Understanding of group behavior and interaction	5	Learners can manage and guide group interactions effectively.
	Self management	Time management and self-discipline	4	Learners can manage time and resources effectively to achieve goals.
	Social inclusion	Empathy, advocacy and empowerment	5	Learners are able to demonstrate enhanced empathy and understanding towards diverse populations
	Empowerment of marginalized groups	Capacity to engage and support	5	Learners are able to advocate marginalized groups and empower individuals to participate in decision-making processes
	Work ethics and social structures	Understanding how various social factors influence workplace behavior and ethics, supporting fairness	5	Learners can identify and manage social influences that impact their workplace while maintaining high ethical standards
	Well-being (Personal Development)	Practices for personal well-being and stress management	4	Learners can incorporate well-being strategies into personal and professional growth.
	Adaptability/forward thinking	Ability to adapt business model/strategy to sustainability challenges and market trends	5	Learners can identify and anticipate sustainability challenges and business trends and adapt their business models to changing environments
	Community engagement	Is the process of building relationships and fostering active participation with individuals or groups to collaboratively address issues, share knowledge, and drive positive change within a community	5	Learners are able to effectively engage with diverse communities, utilizing communication strategies and collaborative approaches to identify community needs, foster participation, and implement initiatives that drive positive social impact

Entrepreneurial Skills	Enterprise and innovation	Ability to understand the processes of an enterprise	5	Learners can apply innovative changes and adpatations to business processes
	Business development	Understanding of entrepreneurial growth strategies	5	Learners can develop business plans incorporating sustainability principles.
	Financial knowledge	Ability to manage business finances efficiently	5	Learners can apply financial management strategies for business sustainability.
	Marketing	Knowledge of digital marketing tools and strategies	5	Learners can create marketing strategies using digital tools.
	Growth Mindset	Embrace continuous learning and adaptability	5	Learners can adopt a growth mindset, open to learning and evolving.
	Innovation and social impact measurement tools	Utilize metrics to evaluate social and environmental impacts	5	Learners can measure and report the social/environmental impacts of their business.
	Creativity	Apply creative thinking to develop innovative solutions	5	Learners can generate innovative, eco-friendly business ideas.
	Openness to the Environment	Understand ecological and economic implications of business	5	Learners can integrate environmental consciousness into decision-making.
	Ethical and Sustainable Thinking	Consider ethical and environmental implications	5	Learners can implement ethical practices for social and environmental responsibility.
	Skill to effectively deal with bureaucratic processes	Practical understanding of how to navigate legal requirements in project/initiative planning	5	Learners can develop projects/business ideas/green solutions that incorporate compliance with legislation
	Networking Skills	Ability to network with stakeholders	4	Learners do understand how to network with stakeholders

	Activism skills and policy engagement	Ability to drive positive changes in society, influence public policies, and collaborate with stakeholders	5	Learners are able to engage with stakeholders and organize collective actions aimed at influencing public policy
	Risk and crisis management	Ability to identify, assess, and prioritize risks associated with business activities and sustainability challenges	5	Learners can develop strategies to mitigate crises, respond effectively to unexpected events, and ensure business continuity.

Practical Unit	Application of gained skills	Ability to apply theoretical skills to a practical problem	5	Learners show that they can apply different skills learned within a project that at least touches all Topics.
	Permaculture Skills	sustainable design approach that integrates agriculture, ecosystems, and human living environments to create self-sufficient and regenerative systems that work in harmony with nature	5	Learners are able to apply permaculture principles to design and implement practical, sustainable systems, including food production, water management, and energy use, that regenerate ecosystems and support self-sufficienc and show their application at practical use cases
	Sustainable agricultural skills	Practical knowledge of organic farming, renewable energy, etc.	5	Learners can implement sustainable agricultural techniques and renewable energy solutions.

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