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CIRCular City through educational circular economy methods for social enterprises

CIRC

GUIDE

Empowerment to foster entrepreneurship and job career in the Circular Economy

Circular Economy & Social Inclusion: A Guide for Adult Educators

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Cooperation partnership in adult education
CIRC
Circular City Through Educational Circular Economy Methods for Social Enterprises

This guide is the result of the CIRC project, co-funded by the European Union, and aims to support adult educators in exploring the connection between the circular economy and social inclusion.

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PREFACE

The presented guide intends to present the penetration of circular economy, social employability based on emerged EÚ green skills agenda - specifically for the low-skilled, handicapped, and marginalized workforce. In 2021, the European Commission presented the Social Economy Action Plan as a basic vision for the creation of jobs, a fair and affordable renewal of a sustainable landscape for life and a green and digital transformation for all individuals. The social economy in Europe represents 2.8 million organizations and entities in which more than 13 million workers work and create value, which is more than 6% of the European workforce. In 2019, the World Economic Forum (WEF) changed its code of ethics after 50 years, as the constitutional setting for this global business organizations. It may seem that the change of one word “shareholder” (owner of financial assets) to “stakeholder” (co-participant in the creation of values) is not important... However, the WEF founder Klaus Schwab confessed that this fundamental change in the global businessmen mindset is coming thanks the Greta Thunberg effect.

Nine years have passed since the EU approved of the Closing the Loop Directive / COM (2015) 614, Brussels, December 2, 2015, which marks the kick-off of the policy race phase out the linear towards the circular economy as a priority for all sectoral policies. Since than the vision of the circular economy has become a global story, and no country, no continent, no producer, no consumer may stand aside... can no longer avoid the climate crisis on the one hand and the obligation to act on the other. No one can avoid the climate crisis on the one hand and the obligation to act on the other. It depends on each individual whether the only possible concept for our common survival will have a continuously growing number of practical implementers of even the smallest steps and measures for promoting the circular economy.

The implementation of both circular and social economy can lead to the preservation of a decent living space for working people. So that the marginalized, low-skilled, medically handicapped - so far invisible individuals - can participate in this change. The third pillar of a successful procedure is making available knowledge, skills, competences to the individual in accordance with the European Skills Agenda for sustainable competitiveness, social justice, and resilience.

The ecological and digital transformation is accompanied in Europe by demographic trends that change the way we live, work, and communicate. Since the strength of the social chain is determined by the weakest links, upskilling, and retraining for the "twin transition" must also seek to reach socially disadvantaged individuals.

The CIRcular City project consortium presents its contribution to this "3in1" innovation with the interest of reflecting the synergy of the crises that Europe and civilization are facing. The consortium members' programmatic attention to the topics of circular, social economy, and workplace education wants to contribute both to spread the knowledge that the waste is an obsolete concept as well as to accelerate, efficiency, and effectiveness of EU structural policies in consortium´ countries and consequently, in pan-European and global innovation flow.

The horizontal penetration of high concepts of European sectoral policies can bring a result understandable and acceptable to the individual/s at the level of EU citizens. In this way, the political concept of resilience can become a vivid community and lived practice of the cohesion and sustainability, built on an environmental-social-economic basis.

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CHAPTER

Social enterprise - a place for integration, innovation and resilience

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LEARNING OUTCOMES

The result of engaging with this chapter is a deepened and nuanced understanding of how social enterprises can serve as true spaces of transformation for individuals at risk of exclusion—not only in the social and professional sense, but also emotionally, culturally, and environmentally. The reader gains insight into how the processes of integration and reintegration should not be understood as one-off acts of reintroducing someone into the system, but rather as long-term accompaniment in which individuals gradually reclaim their sense of agency, identity, and belonging. They learn how to recognize the power of metaphors (such as the collection of coffee mugs or the kintsugi method) in shaping narratives around diversity, repair, and hope. Real-life examples of social innovation implemented by social enterprises show how such initiatives respond to the actual needs of people with lived experiences of exclusion—transforming them not only into beneficiaries, but into agents of change.

At the same time, the reader develops an awareness that performing social and professional roles is crucial in rebuilding motivation and identity. Being needed, seen, and present within a community is what often triggers the reintegration journey. They also become aware of the challenges this process entails—stigmatization, lack of trust, communication barriers, and low self-worth—but also learn how to counteract them through individualized approaches, relationship building, and the creation of environments rooted in respect, empathy, and mutual understanding.

All of this is placed within a broader context of social and environmental responsibility. The learner begins to see the social enterprise not merely as a workplace or a welfare intervention, but as a space where circular economy is not just a technical model for waste reduction, but an ethical stance—one that values people, resources, relationships, and the planet. This learning process is therefore not limited to understanding tools, models, or case studies. It is also about recognizing and presenting the target group—people at risk of exclusion—as active contributors and co-creators within the circular economy. Their lived experience, needs, and capabilities are no longer viewed as limitations, but as assets that can inform and enrich social and environmental solutions.

In this way, circular economy is redefined—not only as a goal, but also as a method. A method that leads us toward a more just, inclusive, and sustainable society.

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1.1

Trying to understand

Social inclusion, exclusion, integration and reintegration are not only technical terms used in policy papers or project applications—they have become central concepts in shaping the modern social narrative in Poland in the 21st century. Their growing visibility reflects profound transformations that our society is undergoing - first in the economic sphere, then inevitably in the social, cultural and, more recently, environmental and communicational domains. These terms are no longer reserved for experts or officials; they increasingly define how we think about community, solidarity, and responsibility in a changing world.

They primarily refer to individuals and groups who, for a variety of reasons, find themselves at the margins of society - people with disabilities, the long-term unemployed, individuals struggling with addiction, those experiencing homelessness, seniors, and the so-called working poor, whose income is insufficient to meet basic living needs despite being employed. Since the outbreak of the war in Ukraine, this group has expanded to include refugees, who face the dual challenge of displacement and rebuilding their lives in unfamiliar environments. It is precisely from among these people that many employees of social enterprises come - individuals whose life stories include interrupted paths, but also the potential for renewal and reinvention.

In its broadest sense, social exclusion can be understood as the inability - whether through lack of access, opportunity, or systemic barriers - to participate in and influence the key aspects of social, economic, political and cultural life. This exclusion manifests in tangible ways: limited access to education, precarious employment conditions, lack of adequate healthcare, cultural alienation, and absence from decision-making processes. The opposite of exclusion is not simply presence, but meaningful participation - what we define as social inclusion and integration. These are active processes aimed at creating equal opportunities for all members of society, especially those at risk of marginalization, to access resources and services on the same terms as others. Inclusion is not a favor - it is a right. And true inclusion does not erase difference but creates space for it, building bridges across diversity through dialogue, cooperation and mutual respect.

This vision of an inclusive society is not an abstract ideal. It is anchored in policy and practice, especially at the European level. The European Union places strong emphasis on the development and implementation of strategies that foster social inclusion across all member states and in all sectors of life—education, employment, health, digital access, culture, civic participation, and increasingly, environmental sustainability. This strategic focus is accompanied by significant financial support through EU funds, which enable countries like Poland to develop infrastructure, services and innovations aimed at reducing exclusion.
However, access to these resources is not automatic. It is conditioned upon the creation of adequate legal frameworks, implementation mechanisms, and institutional readiness to translate European objectives into local action. This requires not only political will, but also the capacity to recognize and respond to the needs of those who have been systematically excluded or underserved.

Importantly, the current European agenda expands the scope of inclusion to encompass emerging global challenges - particularly climate change and environmental degradation. Social inclusion is increasingly being discussed in the context of sustainability and the circular economy, where the goal is not only ecological responsibility, but also social justice. New programs and funding streams emphasize that climate action must go hand in hand with social fairness, ensuring that the green transition does not deepen existing inequalities but offers new opportunities - especially for those who have been left behind by previous waves of economic transformation.

This opens a new chapter in the way we think about inclusion: no longer only in terms of traditional welfare support, but as part of a broader vision where circular economy principles - reuse, repair, regeneration - apply not only to materials and resources, but to people, communities, and entire systems. Inclusion becomes a multidimensional process in which individuals once deemed "broken" are not discarded, but reintegrated into social and economic life - stronger, wiser, and more resilient than before.

Such an approach not only benefits the climate but also directly supports the household budgets of the most vulnerable, demonstrating that sustainability and solidarity can - and must - go hand in hand.

1.2 Social enterprise - what is it?

A social enterprise is a distinctive and increasingly important type of business that merges traditional entrepreneurial strategies with a clear and deliberate social mission. Unlike conventional businesses, which primarily focus on generating profit for owners or shareholders, a social enterprise prioritizes positive social impact as its main goal. While it does engage in economic activities and aims to achieve financial sustainability, profit is viewed not as an end in itself, but as a means to further its social objectives.

The core purpose of a social enterprise is to address pressing social challenges - such as unemployment, social exclusion, poverty, or environmental degradation - through innovative, sustainable, and inclusive approaches. One of its key roles is the professional and social integration of people who are disadvantaged in the labor market, including individuals with disabilities, long-term unemployed persons, migrants, or others facing systemic barriers to employment. In this way, social enterprises promote dignity, empowerment, and active citizenship by creating meaningful opportunities for participation in society and the economy.

In addition, social enterprises promote values such as social responsibility, democratic governance, community engagement, and solidarity. These organizations often operate with participatory decision-making processes, involve stakeholders in shaping their activities, and reinvest profits into their social mission or local community development rather than distributing them among shareholders.
Social enterprises can adopt a wide variety of legal forms, depending on the country and its regulatory framework. Common forms include limited liability companies with a social clause, associations, foundations, and social cooperatives. What unites them is not their structure, but their shared commitment to blending business methods with public interest goals.

Their fields of activity are equally diverse, ranging from education and vocational training, social and healthcare services, culture and creative industries, and environmental protection, to circular economy, food distribution, and local development initiatives. Many social enterprises are also actively engaged in providing employment and support services tailored to individuals at risk of exclusion, using their economic operations as a platform for training, empowerment, and gradual reintegration into the open labor market.
Ultimately, social enterprises demonstrate that doing business and doing good are not mutually exclusive. By pursuing both economic and social value, they contribute to building more inclusive, resilient, and sustainable communities.

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1.3 Integration, reintegration, innovation using the example of the coffee mug

Integration vs. the coffee mug

Imagine a collection of different coffee mugs, each with a unique shape, design and color, representing the diversity of people in society: their backgrounds, life stories, skills and experiences. At first, these mugs stand separately, each in its own space, not forming a cohesive whole.

The process of social and professional integration begins when we decide to combine these diverse mugs into one cohesive collection. This is not a process that happens immediately but requires understanding and appreciating the uniqueness of each mug.

The first step is to set the mugs on a common shelf. While they are still each distinct, they begin to form part of a larger whole. This symbolic action emphasizes that despite individual differences, everyone can find their place in society and contribute to the common good.

Next, we add connecting elements to the collection - perhaps shared coasters or a special place in the kitchen where each mug has its own use. In this way, each one, regardless of its uniqueness, becomes part of a daily ritual, fostering mutual relationships and integration. Saucers can symbolize shared values or goals that bring people together despite their differences.

After all, we use these mugs every day, regardless of the occasion - whether it's morning coffee, afternoon tea or an evening drink. Each of them, being used, reminds us of the power of diversity and the richness that inclusion brings. It shows that despite diversity, everyone can contribute to society and work, strengthening the community.

The process of integration, like the creation of this collection of mugs, takes time, understanding and patience. But the ultimate result is a society that celebrates its diversity, recognizing that each of us - regardless of our "shape" and "design" - brings something of value to it.

Reintegration vs. the coffee mug

Imagine a coffee mug that one day fell and cracked. Instead of throwing the mug away, it was decided to repair it, using the traditional Japanese method of "kintsugi," which involves joining the broken parts together using gold or silver, and sometimes gemstones. In this way, instead of hiding the cracks, the method highlights each one, making the mug even more beautiful and unique than it was before.

In the context of social and labor reintegration, this repaired mug symbolizes the process by which a person who has lost his or her place in society or in the labor market due to various life challenges (such as addiction, crime, long-term unemployment or mental illness, for example) is given a chance for a fresh start. The reintegration process is not about covering up the "cracks" in a person's resume but about appreciating and using these experiences as valuable lessons that can bring unique value to his or her professional and social life.

Each golden line on the cup represents the difficulties the person has gone through, but also the help he or she has received on his or her path of recovery - from the support of family and friends to the help of professional counselors and therapists, to the reintegration programs offered by NGOs and state institutions. All of these elements work together to build a new, stronger structure in the life of the reintegrated person, who is now ready to play an important role in society again.

Like a mug that has become a unique work of art because of its gold-filled cracks, reintegrated individuals can transform their experiences into valuable resources that enrich their professional and social lives and become a source of inspiration for others.

Innovation vs. the coffee mug

Innovation vs. the coffee mug

Taking the analogy of a variety of coffee mugs, let's consider how this image can illustrate innovation processes in social enterprises.

Innovation process using a cracked mug as an example.

Recall a repaired mug using the kintsugi method, where each crack was highlighted with gold, making it unique and more valuable. In the context of social enterprises, this mug symbolizes an innovative approach to solving social problems. Instead of ignoring or hiding social "cracks" (such as homelessness, unemployment, social isolation, disability, etc.), social enterprises actively address them using innovative methods. Like gold in kintsugi, they make valuable changes that not only "fix" the problem but transform it into something that enriches the community. This approach requires creativity, openness to new solutions and a willingness to experiment.

The process of innovation using the example of assorted mugs.

In turn, the diverse mugs that have been integrated into one collection illustrate how social enterprises use diversity to innovate. In such an enterprise, diversity of thought, experience and perspective is valued and used as a source of innovation. The integration of different mugs into one collection can symbolize the formation of interdisciplinary teams in social enterprises, where each member, like each mug, makes a unique contribution.

Innovation often comes from combining different perspectives and skills that at first glance may seem incompatible. Social enterprises, by bringing together people from different backgrounds, are able to generate unique solutions to difficult social problems. Just as shared cupholders can symbolize shared values and goals, joint projects and initiatives in social enterprises integrate diverse talents and ideas for the common good.

So ...

In both cases, innovation processes in social enterprises are based on recognizing and capitalizing on unique "fractures" and diversity. As in repairing a mug using the kintsugi method or creating a collection of diverse mugs, the key to innovation is to see challenges and differences as opportunities to create new, valuable solutions that not only solve problems, but also enrich the community. Social enterprises, by virtue of their mission and values, are uniquely positioned to lead such innovative processes.

1.4
Doing the Values - Social Innovations in Social Enterprises

The analogy of the variety of coffee mugs and making the art new live among the cracked mugs - let us consider how this can illustrate the innovation processes in social enterprises. In the context of collaboration, the mix of community and work context of social enterprises, mugs may symbolize an innovative approach to solving social problems. Instead of ignoring or hiding social "cracks" (such as homelessness, unemployment, social isolation, disability, etc.), social enterprises actively address them using innovative methods. Like gold in kintsugi, they make valuable changes that not only "fix" the problem but transform it into something that enriches the community. This approach requires creativity, openness to new solutions and a willingness to experiment.

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Finally, in both, the innovation processes as well as the social enterprises generates new value via capitalization based on unique "fractures" and diversity. As in repaired a “kintsugi “mug, or creating a collection of diverse mugs, the key skills is to see challenges and differences as opportunities for generating new, valuable solutions that not only solve the problem(s), but also enriches the community. Social enterprises, by virtue of their mission and values, are uniquely positioned to lead such innovative processes.

Social innovation is an innovative activity which main and intended effect is to meet a real social need or to combat a real problem. Social innovations are micro-solutions that aims to support groups at risk of social exclusion. This is a rather broad term in which services, products, models of action that support broadly understood social inclusion and accessibility can be included.Ideas, like target groups, are plentiful. These are solutions that, while solving one of the problems of a selected target group, have an indirect impact on other aspects of life.

Social innovations respond to the real challenges of modern times. They are meant to be efficient, fast and inexpensive solutions. Social innovators draw on their own experience, observe the environment, considering how the same problem can be solved better than predecessors did, and replace existing - albeit effective - solutions with even more effective ones. They research, combine, create, use elements of an already existing system. In the whole process of creating innovations, social enterprises play an important role.Integration and reintegration activities undertaken, largely use innovative methods, tools. In the search for solutions for professional activation of people at risk of social exclusion, in cooperation with residents, in harmony with the environment, they are true Innovators of social change.

1.5 Integration and reintegration in the context of social enterprises

Social integration and reintegration in the context of social enterprises are concerned with the processes of restoring or building cohesion among individuals and society. Each of these processes has its own specific goals, methods, and dynamics. Let us take a closer look at the differences and areas of commonality.

Integration - Social integration in social enterprises refers to the process of integrating people from different social groups (e.g., ethnic minorities, people with disabilities, people in crisis of homelessness) into society so that they can participate fully in social, professional, and cultural life. The goal of integration is to create an open and diverse environment that promotes equality of opportunity, acceptance of diversity and mutual respect. Social enterprises support this process by creating jobs suited to diverse needs, organizing educational and cultural activities that promote diversity, and by working to reduce social and economic barriers.

Reintegration - Social and vocational reintegration focuses on restoring people who have been excluded or distanced from society for various reasons (e.g., former prisoners, addicts, long-term unemployed, people with disabilities) to function in society. The goal of reintegration is not only to provide work, but also to provide support in solving personal problems, help build social relationships and promote healthy lifestyles and independence. Social enterprises play a key role in the reintegration process, offering not only employment, but also training, mentoring, psychological support, and assistance with vocational reintegration. While social reintegration focuses on social, cultural, and psychological aspects, vocational reintegration focuses on job preparation and professional development.

How does social roles re-development affect one reintegration?

- **Increasing self-esteem and identity** - performing social roles can help people in the reintegration process rebuild their self-esteem and identity. Fulfilling the expectations of a role can contribute to a better sense of well-being and increased self-confidence.
- **Increased social activity** - participating in society and performing various social roles motivates people to be more active and engage in a variety of activities, which in turn can lead to easier relationships and support networks.
- **Improved integration into society** - fulfilling social roles facilitates integration into the rest of society, as the person feels like a valuable member of society. Through this process, reintegrated individuals are better able to understand and accept social norms and values.
- **Development of social competence** - while performing various social roles, individuals learn new skills, such as communication, cooperation, and conflict resolution, which is important in both daily and professional life.

1.5.1

Examples of social reintegration activities

Social reintegration

The fulfillment of social roles is a key component of the social reintegration process. In the context of this process, a social role can be defined as a set of expectations, norms and behaviors assigned to a person by society based on his or her social position or status. Thus, social reintegration is not only about helping disadvantaged people find employment or improve their living conditions, but also about restoring or building their role in society. This means that reintegration includes aspects such as the ability to establish and maintain social relationships, participation in social life and active inclusion in various spheres of social life.

- **Mentoring programs** - linking reintegrated individuals with mentors who can share life, work and social experiences. Mentoring can help develop social and professional skills and build support networks. Examples include programs for ex-prisoners that help them adapt to life outside prison by building relationships, supporting them in finding jobs and dealing with daily challenges.

- **Life skills workshops and training** - organizing workshops that teach key life skills, such as financial management, conflict resolution, communication techniques, and interpersonal relationship building. These skills are essential for successful performance of social roles and integration into society.

- **Educational programs for the public** - implementation of information and education campaigns aimed at the public to reduce stigma and build greater openness and acceptance of reintegrated people. Improving public awareness can contribute to easier acceptance and integration of these people.

- **Creating spaces for social interaction** - organizing social events, support group meetings that enable reintegrated people to build social networks and participate in social life. This could include, for example, a hobby club, support groups for people in similar life situations, or social initiatives to promote volunteerism.

- **Vocational reintegration is a complex and multidimensional process,** requiring an individual approach to each person's needs. It is important that reintegration activities are focused on the real needs of the labour market and on the individual predispositions and expectations of those targeted. Only in this way can people be effectively supported in the process of reintegration into the labour market, enabling them to rebuild or obtain and sustain the ability to provide work independently and advance in their careers.

How does fulfilling social roles affect reintegration?

Increasing self-esteem and identity. Performing social roles can help people in the reintegration process rebuild their self-esteem and identity. Fulfilling the expectations of a role can contribute to a better sense of well-being and increased self-confidence.

Increased social activity. Participating in society and performing various social roles motivates people to be more active and engage in a variety of activities, which in turn can lead to easier relationships and support networks.

Improved integration into society. Fulfilling social roles facilitates integration into the rest of society, as the person feels like a valuable member of society. Through this process, reintegrated individuals are better able to understand and accept social norms and values.

Development of social competence. In the course of performing various social roles, individuals learn new skills, such as communication, cooperation and conflict resolution, which is important in both daily and professional life.

1.5.2 Examples of vocational reintegration activities

Vocational reintegration

Vocational reintegration, focuses on aspects related to work and occupation, aiming to prepare people for active participation in the labor market and support them in their professional development. It is a process that is particularly important for people who, for various reasons (e.g., disability, long-term absence from work, change of employment sector), need support in returning to or entering the labor market. Vocational reintegration includes a range of activities aimed not only at acquiring or refreshing qualifications and skills, but also at adapting to changing conditions and occupational requirements.

- **Workshops and vocational courses** - these training courses can address specific professional skills, such as cooking courses for cooks wishing to specialize in a particular type of cuisine, programming courses for those wishing to work in IT, or customer service training for those working in retail and services.

- **Certification and licensing programs** - enable people to obtain official licenses for certain professions, which is especially important in regulated professions.

- **Internships and apprenticeships.** They allow people to gain practical experience in a real work environment, which is invaluable both for those at the beginning of their career path and for those who are changing industries or returning to the labour market after a long break.

- **Career counselling and coaching** - individual sessions with a career counsellor or coach can help you identify career goals, develop strategies for achieving them, and deal with work-related challenges.

- **Soft training and social skills development** - skills such as communication, teamwork, time management and stress management are key in many professions and can significantly affect career success.

- **Support in starting your own business** - for those who want to start their own business, vocational reintegration can also include business counselling, assistance in developing a business plan or support in obtaining financing.

How does the performance of social roles affect vocational reintegration?

The performance of social roles has a significant impact on vocational reintegration, as this process is not just about acquiring specific skills or professional qualifications. It is just as much about integration into the work environment, adaptation to its norms and culture, and building a positive professional identity.

Building a support network (networking, peer support). Active participation in the community allows you to build a network of professional contacts, which is crucial when looking for a job, especially in industries where referrals and acquaintances are important. Meanwhile, collaborating and sharing experiences with others in similar professional situations can help overcome challenges and motivate further development.

Developing social skills. Effective communication is essential in any profession. Performing a variety of social roles allows one to practice and develop communication skills in different contexts. Many professions require teamwork skills. Social interaction teaches negotiation, empathy and building collaborative problem-solving strategies.

Strengthening self-esteem and professional identity. Being an active member of a community can increase one's sense of belonging and worth, which is key to maintaining motivation and professional engagement. Performing a variety of social roles helps shape one's professional identity, making it easier to understand one's own aptitudes and preferences in the context of a career.

Adapting to changing professional conditions. The changing labor market requires employees to adapt to new conditions. Experiences from diverse social roles teach flexibility and help develop resilience to stress. Participation in various social groups can inspire creative and innovative thinking, which is valued by employers, especially in fast-growing industries.

I***ncreasing professional activity.*** Fulfilling social roles and participating in community life can increase motivation to actively seek work and engage in further professional development. Informal learning through social activities can contribute to the development of professional competence, facilitating the acquisition of new skills and knowledge.

Common areas

Although social integration and reintegration differ in their goals and target groups, there are areas of overlap.

1. Both strategies use employment as a key element to support integration and reintegration, offering opportunities to develop skills and build a sense of worth.

2.In both integration and reintegration, social support and education are important, aiming to build social skills, the ability to live in society, and promote mutual understanding and respect.

3. Social enterprises in both processes work to create environments that are open to diversity and promote equality, fighting discrimination and stereotypes.

Social integration and reintegration in social enterprises may differ in their scope and methods, but they share a common goal: to build a society in which everyone has an equal opportunity to participate fully and actively. These enterprises play a key role in achieving this goal through their initiatives and programs, addressing both individual and social needs.

1.6

Challenges in fulfilling social roles

Challenges in fulfilling social roles in the context of vocational reintegration can be complex and depend on many factors, such as the reasons that prompted the need for reintegration and the individual's circumstances. Stigma and lack of acceptance from potential employers and colleagues can make it difficult to establish professional and social relationships, especially for those returning to work after a long break due to illness, disability or incarceration.

Technological and organizational changes in the workplace can be difficult to catch up with, requiring time and support, especially for those who have been out of the labor market for a long time. Long-term absence can also lead to lowered self-confidence and professional self-esteem, and difficulties in developing or refreshing soft skills, such as communication or cooperation, are key to functioning effectively in a team.
A change in occupation or employment sector may require a transformation of professional identity, which is related to rediscovering one's role in the work environment and professional community. In addition, reintegrated individuals may face communication barriers, especially when they have been out of the labor market or the community for an extended period of time.

Adjusting professional expectations to reality can take time and be a source of frustration. In addition, access to training, workshops or development programs may be limited due to cost, location or other barriers, making it difficult to acquire the necessary skills and qualifications.

These challenges require support from a variety of actors, including employers, public institutions and NGOs, and social support networks. Successfully overcoming these barriers can not only facilitate vocational reintegration but also contribute to the long-term vocational success and personal development of individuals in the reintegration process.

This is why it is so important that the reintegration process is supported by appropriate strategies and activities to help overcome these challenges, such as mentoring programs, psychological support, educational activities aimed at the public, and creating spaces for safe and accepting social interaction.

Social enterprises play a key role in the social reintegration process, not only by creating jobs, but also by promoting social inclusion, building positive relationships in and out of the workplace, and supporting the personal and professional development of the disadvantaged.

Individual approach

The starting point for planning reintegration activities is a thorough diagnosis of a person's situation. This includes understanding his or her needs, challenges, as well as potential. This diagnosis should be carried out holistically, taking into account various aspects of the person's life, such as physical and mental health, family situation, education, work, as well as interests and passions.

Each of these areas may require specific support and intervention, which underscores the importance of an individualized approach in the social reintegration process. Social enterprises, operating in this context, can play a key role, providing not only jobs, but also support in personal development, acquisition of new skills and adaptation to life in a new environment.

1.7 The role of social enterprises in social and vocational reintegration

Social enterprises, while operating on market principles, simultaneously pursue social goals. Their mission is not only to make a profit, but above all to contribute to solving social problems. In the case of vocational and social reintegration, these enterprises become a platform that enables disadvantaged people to start or return to the labor market. By creating jobs that are tailored to the needs and abilities of these individuals, social enterprises offer not only employment, but also a range of activities to support their personal and professional development.

Social enterprises have a unique ability to support the social and professional reintegration of people on the margins of society. By offering adapted jobs, vocational training and psychological support, these organizations open the way to employment for the unemployed, those with disabilities or migrants, addicts, people in crisis of homelessness, seniors or the working poor. These activities not only directly benefit those involved, but also have a positive impact on local economies and communities, promoting equality, integration and social cohesion.

Benefits of reintegration

Vocational and social reintegration not only benefits those directly involved, but also society as a whole. Individuals who have benefited from such support often become active, productive members of society, which contributes to reducing social exclusion, lowering welfare costs and building a more inclusive society. Social enterprises, through their reintegration activities, therefore play an important role in creating a more open, understanding and supportive community for all its members, especially those who are disadvantaged.

Social enterprises as an engine of social change

Modern societies face many challenges, such as economic inequality, social exclusion, climate change and rapid urbanization. In the face of these problems, traditional methods of intervention often prove insufficient or ineffective. Social enterprises are emerging as a response to these challenges, introducing innovative solutions that combine economic potential with social goals. Operating at the intersection of the public, private and social sectors, these organizations demonstrate how social intentions can be transformed into sustainable business actions. Social enterprises are also platforms for promoting social innovation, offering creative solutions to complex social problems. By experimenting with new business models, products or services, these organizations contribute to the development of innovative approaches that can be scaled and adapted by others, strengthening the effectiveness of social interventions on a wider scale.

The innovation of social enterprises is not limited to the introduction of new products or services. Their true innovation lies in their approach to solving social problems, which often require a comprehensive and multidimensional approach. Social enterprises are exploring new business models that are economically sustainable while maximizing social benefits. This approach creates sustainable and scalable solutions for local and global communities.

Promoting social innovation

Social enterprises are also pioneers in promoting social innovation, creating solutions that can be adapted and replicated in different contexts. Their activities often transcend the boundaries of traditional business, involving local communities, partnering with NGOs, the public sector and other businesses. This holistic approach to innovation fosters the creation of ecosystems in which collaboration and knowledge sharing lead to sustainable social and economic development.

The future and challenges

Although social enterprises demonstrate significant potential in addressing social problems, their development is not without challenges. Accessing financing, scaling operations, measuring social impact and maintaining a balance between economic and social goals are just some of the obstacles that can inhibit their potential. Addressing these challenges requires integrated strategies that include policy support, developing financial infrastructure and building public awareness of the value and opportunities that social enterprises offer. Increasing awareness and understanding of the role that social enterprises play in solving social problems can contribute to their greater integration into the traditional labor market and society.

Summary

Social enterprises bring together people with different stories, experiences, and strengths, forming a cohesive whole - like a collection of mismatched coffee mugs, each with its own place and purpose. Through repair, collaboration, and care, social innovation transforms what is broken into something valuable, making space for diversity and second chances. These innovations don't just solve problems - they empower. People at risk of exclusion are no longer seen as passive beneficiaries but as active creators of social change.

Because closing the loop isn't only about materials or resources - it starts with people.
Especially with those who were once overlooked.

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CHAPTER

Interlinking the Social and Circular Economy - Partners Countries Analysis

LEARNING OUTCOMES

The learning outcomes of the chapter highlight a deeper understanding of how the circular and social economy models can be interlinked to promote sustainable development and social inclusion across diverse European contexts. Readers gain insights into the varying stages of policy maturity and implementation among partner countries: Cyprus, Germany, Slovakia, Poland[2] [3] and the Netherlands and how national approaches reflect different institutional capacities, priorities, and socio-economic challenges. The chapter empasizes the importance of inclusive employment, particularly for vulnerable groups, and the role of local governments, education, public procurement, and interdepartmental cooperation in driving systemic change. It also emphasizes that successful integration of circular and social economy principles requires not only environmental and economic innovation but also a strong social dimension focused on equity, participation, and shared value creation.

Figure 5: Adapting Circular Economy Principles

2.1

CIRCULAR ECONOMY:
The Earth Only – and No "B" Planet

In today's rapidly changing global landscape, the concepts of social and circular economy have emerged as crucial frameworks for fostering sustainable and inclusive development. These two models intersect in meaningful ways, presenting a unique opportunity to address social and environmental challenges. This document aims to explore synergy between social and circular economy, emphasizing the significance of understanding their interconnection for promoting holistic progress.

The industrial revolution and subsequent mass manufacturing have fuelled a linear approach to resource use, leading to high resource throughput, excessive waste, and environmental degradation. This linear economy, marked by take-make-dispose cycles, is unsustainable and has contributed to societal issues, economic inequalities, and environmental pollution. The urgency to address climate change and avoid further planetary boundary overshoot has led to the establishment of Sustainable Development Goals (SDGs), particularly SDG 12 focusing on responsible production and consumption.

Amidst these challenges, the Circular Economy (CE) has emerged as an alternative. The CE aims to decouple resource use from economic growth by adopting principles such as slowing, closing, and narrowing resource loops at various levels. Despite widespread adoption by various stakeholders, including corporations and political institutions, there is growing concern among scholars about the lack of attention to social impacts in current interpretations of the CE.

But what exactly is a circular economy? The circular economy is an economic model designed to minimize waste and make the most of resources. In a circular economy, products, materials, and resources are kept in use for as long as possible, and waste and pollution are minimized. This is achieved through practices such as recycling, remanufacturing, and designing products for durability and easy repair. The circular economy aims to break away from the traditional linear "take-make-dispose" model by creating closed loops where materials are reused and regenerated. This approach contributes to environmental sustainability by reducing resource depletion and minimizing the environmental impact of production and consumption.

On the other hand, the social economy refers to a range of economic activities and organizations that prioritize social and environmental objectives over purely profit-driven motives. It encompasses cooperatives, social enterprises, non-profit organizations, and other entities that aim to address social needs, promote community development, and reduce inequalities. Social economy initiatives often prioritize values such as solidarity, social justice, and sustainability. The focus is on creating positive social impact and fostering inclusive economic development rather than solely maximizing financial returns (Stahel, 2016; Bocken et al, 2016).

Understanding the intersection between the social and circular economies is crucial for sustainable and inclusive development for several reasons (Purna et al, 2021; Xianlai et al, 2018):

- **Holistic Sustainability** - Integration of social and circular economy principles allows for a more comprehensive and holistic approach to sustainability.

- **Maximizing positive impacts** - By understanding how social and circular economy models intersect, it becomes possible to maximize positive impacts. This includes leveraging circular practices to generate social benefits such as job creation, community empowerment, and poverty reduction.

- **Reducing Inequalities** - The intersection between social and circular economies can play a role in reducing inequalities. Circular practices that prioritize inclusivity in employment and community engagement contribute to a more equitable distribution of benefits across society.

- **Community Well-being** - Social and circular economy integration promotes community well-being by involving local communities in decision-making processes, encouraging sustainable practices, and fostering a sense of ownership and pride in the circular initiatives.

- **Job Creation and Economic Growth** - Circular economy practices can create new job opportunities, particularly in areas such as recycling, remanufacturing, and repair. Understanding this intersection is vital for harnessing the economic potential of circular practices while ensuring that the benefits reach a broad segment of the population.

- **Resilience to Economic Shocks** - The combination of social and circular economy elements contributes to economic resilience. By diversifying economic activities and promoting local self-sufficiency, communities become more resilient to external economic shocks.

- **Consumer Engagement and Responsibility** - Understanding the interlink between social and circular economy models informs strategies for consumer engagement. This includes raising awareness about the social benefits of responsible consumption and encouraging consumers to actively participate in circular practices.

- **Policy Development** - Policymakers can design more effective and integrated policies by recognizing the interdependence of social and circular economy objectives. This leads to the creation of regulatory frameworks that support both environmental sustainability and social well-being

- **Long-term Environmental and Social Stewardship** - Recognizing the intersection helps foster a mindset of long-term environmental and social stewardship. It encourages practices that not only preserve resources and ecosystems but also contribute positively to social structures and communities over the long term.

Global Sustainable Development Goals (SDGs): The integration of social and circular economies aligns with 17 Sustainable Development Goals - adopted by all the United Nations´ members in 2015 within the 2030 Agenda for Sustainable Development - such as those related to decent work and economic growth, reduced inequalities, sustainable cities and communities, responsible consumption, and production.

2.2

SOCIAL ECONOMY:
A foundation for Inclusive growth

As highlighted in the literature, it is crucial to establish a solid foundation for an effective roadmap toward social economic growth. The guiding principles of social economy organizations may differ, but they typically centre around values that emphasize the well-being of both society and the environment (McKinsey Global Institute, 2016; Amin and Roberts 2008; Amin and Cameron, 2002). Frequently cited principles in the literature comprise:

- **Social Solidarity** - Social economy organizations are driven by a commitment to solidarity and the well-being of the community. They aim to address social challenges and promote cohesion within society.

- **Social Justice** - The pursuit of social justice is a fundamental principle, focusing on equitable distribution of resources, opportunities, and benefits within society. Social economy initiatives often work towards reducing inequalities.

- **Democratic Governance** - Many social economy organizations operate on democratic principles, involving their members or stakeholders in decision-making processes. This inclusivity ensures a more participatory and transparent approach.

- **Sustainability** - Environmental sustainability is often a key consideration. Social economy entities strive to minimize their ecological footprint and contribute to sustainable development by adopting environmentally responsible practices.

- **Community Development** - Social economy organizations prioritize the well-being and development of local communities. Initiatives may include creating jobs, providing essential services, and fostering community engagement.

- **Non-profit Orientation** - While social economy organizations may generate revenue, they are not driven solely by profit motives. Any surpluses generated are typically reinvested in the organization's social or environmental mission.

- **Social Innovation** - Social economy entities often embrace innovation to address emerging social challenges. This includes developing new and sustainable solutions to societal problems.

- **Ethical Business Practices** - Ethical considerations are integral to the operations of social economy organizations. They prioritize ethical business practices, fair trade, and responsible consumption.

These principles collectively distinguish social economy organizations from traditional for-profit entities, reflecting a commitment to values that prioritize people and the planet alongside economic considerations. On this note, the role of the social economy in fostering community development and addressing social inequalities is significant.

Social economy entities, including cooperatives, non-profit organizations, and social enterprises, play a crucial role in creating inclusive and sustainable communities. In this context it is important to consider the following (Ridely and Bull, 2011; Gilchrist et al 2018, Nagy and Malovics, 2018):

Community Empowerment: with local engagement of community members in decision-making processes, empowering them to actively participate in shaping their own development and Capacity Building, namely building the capacities of individuals within communities. This includes skills development, education, and training programs that enhance the ability of community members to contribute meaningfully to their own well-being.

- **Job Creation and Economic Development** - Giving local employment opportunities by creating jobs within the community there is contribution to economic development and reduction of unemployment.

- **Sustainable Business Practices** - Social economy businesses often prioritize sustainable and ethical practices, contributing to the long-term economic resilience of communities. This includes environmentally friendly production methods and fair labor practices.

- **Social Inclusion and Diversity** - **a)** Inclusive Hiring Practices by providing employment opportunities to marginalized or disadvantaged groups. This contributes to social inclusion and diversity within the workforce, **b)** Social Services: Many social economy entities focus on providing essential social services, such as healthcare, education, and housing, addressing the basic needs of community members, and promoting social equality.

- **Wealth Redistribution** - **a)** Cooperative Models: Cooperative structures within the social economy often involve profit-sharing and democratic decision-making ensuring a more equitable distribution of resources, **b)** Community Ownership: Social economy initiatives, particularly cooperatives, promote community ownership of businesses. This ownership model helps prevent wealth concentration and keeps economic benefits circulating within the community.

- **Innovative Solutions to Social Challenges** - **a)** Social Enterprises: Social enterprises within the social economy sector often focus on addressing specific social challenges such as poverty, healthcare disparities, and educational gaps, **b)** Local Problem-Solving: Social economy organizations are well-positioned to understand and address the unique challenges faced by their communities. Their local knowledge enables targeted interventions that align with the specific needs of the population.

- **Building Social Capital** - **a)** Community Networks: Social economy entities contribute to the development of social capital by fostering strong community networks. These networks enhance social cohesion, collaboration, and mutual support among community members, **b)** Collective Decision-Making: The participatory nature of social economy organizations encourages collective decision-making processes. This not only empowers individuals but also strengthens the social fabric of the community.

Overall, the role of the social economy in fostering community development and addressing social inequalities is multifaceted. By prioritizing social objectives, adopting inclusive practices, and actively engaging with local communities, social economy entities contribute to building resilient, empowered, and equitable communities.

2.2.1 Examples of successful social economy initiatives

In the realm of social economy, numerous initiatives have emerged globally, blending business acumen with a commitment to social impact. The following examples highlight the success stories of various social economy initiatives, showcasing a diverse range of approaches that have positively impacted both business and society:

- **Grameen Bank (Bangladesh)** - Founded by Muhammad Yunus, the Grameen Bank pioneered microfinance by providing small loans to impoverished individuals, particularly women, to start their own businesses. This social enterprise has empowered millions and significantly contributed to poverty alleviation (Yunus, 1998).

- **Mondragon Corporation (Spain)** - Mondragon is a federation of worker cooperatives based in the Basque region of Spain. It encompasses various industries, including manufacturing, finance, and education. Mondragon follows cooperative principles, emphasizing democratic governance and profit-sharing among its worker-owners (Whyte & Whyte, 1991).

- **Fair Trade International (Global/Germany)** - Fair Trade initiatives, such as Fair-Trade certification for agricultural products, aim to ensure fair prices and better working conditions for farmers in developing countries. Organizations like Fair Trade USA and Fairtrade International have successfully created a market for ethically produced goods (Moore, G. et al 2006).

- **The Big Issue (United Kingdom)** - The Big Issue is a street newspaper sold by homeless and vulnerably housed individuals. Vendors purchase the magazine at a lower price and sell it at a profit, providing them with a source of income. This social enterprise model operates in several countries, supporting individuals facing homelessness (Young, 2015).

- **Aravind Eye Care System (India)** - Aravind, based in India, is a network of eye hospitals that operates on a social business model. It provides high-quality eye care services, including cataract surgeries, to all patients, regardless of their ability to pay. Revenue generated from paying patients subsidizes services for those who cannot afford them (Mehta, 2011).

- **The Body Shop (Global)** - The Body Shop, founded by Anita Roddick, is a cosmetics and skincare company known for its commitment to ethical and sustainable practices. The company emphasizes fair trade sourcing, cruelty-free products, and environmental sustainability, showcasing a successful combination of business and social responsibility (Roddick, 1991)

- **BRAC (Bangladesh)** - Originally known as the Bangladesh Rural Advancement Committee, BRAC is one of the world's largest non-governmental development organizations. It operates diverse programs, including education, healthcare, and microfinance, with a focus on empowering marginalized communities (Abed, 2004).

- **Danone Communities (Global)** - Danone Communities is an investment fund associated with the multinational food-products corporation Danone. It supports social businesses addressing social and environmental challenges related to food and water. The fund invests in initiatives like Grameen Danone, which produces affordable and nutritious yogurt for low-income populations (Tréguer, & Peillon, 2010).

- **Community-Supported Agriculture (CSA)** - CSA programs involve a direct partnership between consumers and local farmers. Members pay in advance for a share of the farm's produce and, in return, receive fresh, seasonal goods regularly. CSA initiatives foster a sense of community and support sustainable agriculture Hinrichs et al 2007).

- **The Cooperative Group (United Kingdom)** - The Cooperative Group is a consumer cooperative in the UK with businesses in retail, funeral care, and insurance. It operates based on cooperative principles, with members having a say in the governance and sharing in the profits (Davies, 2008).

These examples showcase the diversity of successful social economy initiatives, ranging from microfinance and cooperatives to fair trade practices and social businesses. They demonstrate how social and economic objectives can be intertwined for the benefit of both businesses and communities.

2.3

CIRCULAR ECONOMY: Principles and practices

Circular economy is a strategic economic model aimed at optimizing the usefulness and value of products, materials, and resources while minimizing both waste generation and environmental impact. Unlike the conventional linear economy, which follows a "make, use, and discard" approach, the circular economy advocates for a closed-loop system where resources are actively maintained in circulation for as extended a duration as feasible, incorporating practices like recycling, remanufacturing, and reuse.

2.3.1

Core Principles of Circular Economy

In the pursuit of sustainable and environmentally conscious practices, a comprehensive approach to product life cycles has emerged, encompassing various principles and strategies. This framework, known as Circular Design, focuses on redefining traditional manufacturing and consumption models. Here, we delve into a set of principles that guide Circular Design, fostering a shift towards longevity, resource efficiency, and collaborative engagement. From prioritizing durability and designing for circularity to embracing innovative business models and digital technologies, these principles aim to reshape our approach to production and consumption, paving the way for a more sustainable and circular economy (Walter, 2016; Webster & Hanni 2014; Harald et al 2016; Alwood & Cullen 2014).

- **Design for Longevity and Durability** - Products are designed to be durable and have a longer lifespan, reducing the need for frequent replacements.
- **Circular Design and Innovation** - Emphasis on designing products with the end in mind, considering ease of disassembly, recyclability, and the use of sustainable materials.
- **Reuse and Repair** - Encouraging the reuse of products or components and supporting repair services to extend the life of goods.
- **Remanufacturing** - The process of refurbishing and restoring used products to like-new condition, reducing the demand for new raw materials.
- **Recycling and Material Recovery** - Efficient recycling processes to recover materials from products at the end of their life cycle, diverting waste from landfills and reducing the need for virgin resources.
- **Resource Efficiency** - Optimizing the use of resources throughout the entire product life cycle to minimize waste generation and environmental impact.
- **Closed-Loop Systems** - Creating systems where materials are continuously recycled and reintegrated into new products, eliminating the concept of "end-of-life" disposal.

- **Collaboration and Stakeholder Engagement** - Encouraging collaboration among stakeholders, including businesses, governments, and consumers, to create a holistic and integrated circular economy.

- **Product as a Service (PaaS) Models** - Shifting from ownership to service-based models where consumers lease or subscribe to products, incentivizing manufacturers to create durable and easily recyclable items.

- **Education and Consumer Awareness** - Increasing awareness among consumers about the environmental impact of their choices and promoting responsible consumption and disposal habits.

- **Waste Reduction and Lean Practices** - Implementing lean manufacturing and business practices to minimize waste generation throughout the production and supply chain.

- **Digitalization and Technology Adoption** - Utilizing digital technologies, such as the Internet of Things (IoT), to track and optimize resource use, product life cycles, and waste management.

By adhering the circular economy ´principles, humankind seeks to create a regenerative system minimizing environmental impact which fosters sustainability and inclusive growth to the Earth limits. Circular economy practices contribute significantly to resource efficiency and environmental sustainability by fundamentally rethinking how resources are used, managed, and recovered within the economy. Here is an exploration of how these practices achieve these goals:

- **Minimization of Resource Consumption** - Extended Product Lifespan: Circular economy practices emphasize designing products with durability in mind, enabling them to have longer lifespans. This reduces the need for frequent replacements, ultimately lowering resource consumption.

- **Product Modularity and Upgradeability** - Products designed for circularity are often modular, allowing easy upgrades or repairs. This extends the useful life of components, reducing the demand for new materials and products.

- **Waste Reduction and Recycling** - Closed-Loop Recycling: Circular economy models prioritize closed-loop recycling systems, where materials are continuously recycled back into the production process. This minimizes the need for extracting new raw materials.

- **Material Recovery from End-of-Life Products** - Instead of being discarded, products are treated as valuable resources at the end of their life. Recycling processes recover materials from products, diverting them from landfills and reducing the demand for virgin resources.

- **Promotion of Sustainable Materials, Use of Renewable Resources** - Circular economy principles encourage the use of renewable and sustainable materials in product design. This helps reduce the environmental impact associated with the extraction and processing of non-renewable resources.

- **Biodegradable Materials** - Where applicable, the use of biodegradable materials is promoted, ensuring that products break down naturally at the end of their life without causing environmental harm.

- **Efficient Supply Chain Management: Localized Production** - Circular economy practices often advocate for localized production, reducing transportation-related emissions and the overall environmental footprint associated with the supply chain.

- **Reverse Logistics** - Circular economy models incorporate efficient reverse logistics, enabling the collection, refurbishment, and recycling of products at the end of their life. This reduces the environmental impact of waste disposal and promotes the reuse of materials.

- **Energy Efficiency** - Reduced Energy Input: Circular economy practices aim to minimize energy consumption throughout the product lifecycle. This includes using energy-efficient manufacturing processes and designing products that require less energy to produce and operate.

- **Energy Recovery from Waste** - When recycling is not possible, circular economy practices often prioritize energy recovery from waste materials, turning them into a valuable energy source rather than allowing them to contribute to environmental pollution.

- **Innovation in Sustainable Technologies:** Technological Solutions - Circular economy practices encourage the development and adoption of innovative technologies that facilitate resource recovery, waste reduction, and sustainable manufacturing.

- **Digital Technologies** - Integration of digital technologies, such as the Internet of Things (IoT) and data analytics, helps optimize resource use, monitor product lifecycles, and improve the efficiency of circular processes.

- **Encouraging Sustainable Consumer Behavior: Product as a Service (PaaS) Models** - Circular economy practices promote PaaS models, where consumers lease or subscribe to products instead of owning them outright. This shifts the responsibility for product lifecycle management to producers, encouraging more sustainable consumption patterns.

- **Consumer Awareness** - Circular economy initiatives often include educational efforts to raise consumer awareness about the environmental impact of their choices, encouraging responsible consumption and disposal practices.

2.4

Circular/Social Economy in CYPRUS

In 2021, Cyprus took a significant step towards advancing the circular economy by adopting its National Action Plan for the Circular Economy 2021–2027. The comprehensive roadmap is targeting key materials and sectors such as the primary, industrial, and service sectors, with a special emphasis on horizontal waste policy priority as a fundamental and cross-cutting component. The Action Plan outlines policy measures and actions designed to facilitate the transition to a circular economy.

Key features of the plan include efforts to cultivate a circular culture among industry, businesses, and consumers. It introduces incentives for businesses to invest in the circular economy, promoting increased circularity, resource use efficiency, and the establishment of favourable market conditions for circular products and services. The goal is to ensure sustainable production and consumption patterns.

Several programs were announced (see below) to showcase the opportunities and business potential within a circular economy. These programs aim to finance the development of new circular products and services, encourage investment in the circular economy across various sectors, facilitate the creation of online material sharing platforms, and support the development of standards and certifications for management systems, products, and services that contribute to a circular economy.

Additionally, a focus on waste management as a resource is evident in the plan, with measures aimed at increasing the separate collection of municipal waste. This emphasis on waste management aims to improve the quality of recycling processes, contributing to overall sustainability goals outlined in the National Action Plan for the Circular Economy.

Measures of the action plan

The measures of the Action Plan are outlined in the table below.

Table 1

CYPRUS NATIONAL ACTION PLAN FOR THE CIRCULAR ECONOMY

Action	Description	Timeline	Budget
Communication Plan	Inform the business community and consumers about the prospects and business opportunities offered by the circular economy. Information on implemented action.	2022	EUR 500 000
Business coaching	Provision of business coaching and skills From development services. The business guidance January will also include a Diagnostic Report for ,open companies outlining steps to be followed for ended the transition to a circular operating model.	From January 2022, open ended	EUR 1 000 000
Go Circular Plan to boost investment in a circular ecnomy by business	Financing research and development (R&D) projects aiming at the development of new circular products and services.	From 2022, open ended	EUR 1 000 000
Plan to boost investment in a circular economy by business	Submission of a comprehensive proposal for the implementation of investment proposals including certification as well as promotion of proposals concerning best practice for the support of clusters.	From June 2022, open ended	EUR 13 300 000
Application of the circular economy in the hotel sector	Provide training and guidance to facilitate the transition to a circular operating model in the hotel sector.	From January 2022, open ended	EUR 1 400 000
Creation of an online platform for the exchange of resources (a sharing	Creation of an online platform that will enable business, industry and public organisations to	2022	EUR 20 000 plus maintenance cost

CYPRUS NATIONAL ACTION PLAN FOR THE CIRCULAR ECONOMY Action	Description	Timeline	Budget
marketplace for the circular economy	share equipment, services, facilities, waste, materials and personnel.		
Municipal waste management	Programme for the techno-economic support of local authorities for the establishment of a separate collection system for municipal solid waste and the implementation of a pay-as-you-throw scheme.	2022-2027	EUR 25 000 000
	The Municipal Solid Waste Reduction Programme for the Coastal Hotel and Related Tourism Infrastructure in Limassol and Paphos.	2022-2023	EUR 6 400 000
	Programme for the prevention, separate collection and recovery of municipal waste for the mountainous areas of Cyprus.	2021-2026	EUR 1 500 000
	Creation of a coordinating body between central government and local government for waste management.	2023-2025	EUR 900 000
	nstallation of 50 autonomous mechanical composters in remote and semi-remote areas.	2022-2025	EUR 7 000 000
	Creation of two reuse and repair centres and a network of stores.	2022-2025	EUR 4 000 000
	Installation of 50 green kiosks in remote and semi-remote areas.	2022-2025	EUR 3 300 000

Table 2: Cyprus national action plan for the circular economy

Cyprus has incorporated circular economy principles into its waste management strategies through the National Municipal Waste Management Plan 2022–2028 (MWMP) and the National Waste Prevention Plan 2022–2028 (NWPP). These plans under the government's control, aligned with the EU´ Waste Management Framework Directive (WFD), aim to fulfill Cyprus' obligations, and transition the country toward a sustainable, zero-waste economy via the promotion of reuse and recycling, reflecting the circular economy principles.

These waste management plans are complemented by broader policies such as the New Industrial Policy of Cyprus 2019–2030 and the National Circular Economy Plan 2021–2027. Both policies align with the ambition of transitioning from a linear to a circular economy, with the goal of increasing competitiveness, fostering economic growth through innovation by both existing and new businesses, and creating new jobs across various sectors.

2.4.1 Circular Economy and Social Inclusion in Cyprus

Cyprus addresses social inclusion through various initiatives. The Cyprus government, through its social welfare policies, aims to ensure that all residents have access to education, healthcare, and social services, promoting inclusivity. The Cyprus Red Cross Society is actively involved in promoting social inclusion via crisis interventions offering aid to vulnerable populations, including refugees and migrants.
Cyprus has seen the emergence of social enterprises contributing to - continual, not only the crisis intervention – socio-environmental sustainability. One example is "Green Dot Cyprus," a non-profit organization dedicated to promoting recycling and environmental awareness. Another notable initiative is "Caritas Cyprus," a social enterprise working on various social inclusion projects, including support for migrants and refugees, job training, and community development.

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2.5 Circular/Social Economy in GERMANY

Germany is actively advancing its Circular Economy agenda, aligning with EU directives and international trends. The circular transition is seen as essential for addressing climate, resource, biodiversity, and health crises while enhancing competitiveness, job creation, and sustainable living conditions. Although public funding and initiatives are in place, a cohesive societal vision is lacking - including decoupling resource consumption from economic growth, developing a comprehensive regulatory framework.

The national Circular Economy strategy - the Circular Economy Initiative Deutschland (CEID), has made significant strides in transitioning from a linear, resource-intensive model to a circular, resource-efficient economy. Established in 2019, CEID engages three ministries, 24 businesses, 22 research institutions, and civil society to foster systemic transformation. The Circular Economy Roadmap outlines a vision for Germany, offering policy recommendations for a progressive transition by 2030. The roadmap envisions Germany as a hub for circular products, emphasizing "Made with Germany," promoting international repositioning, and aligning with the European Green Deal. The roadmap focuses on circular business models, packaging, and traction batteries. It proposes new business models emphasizing "Circular Services," circular plastics economies, and circular battery management.

2.5.1 CE in Berlin - social businesses vs social enterprises

The situation of CE in Berlin is special, as the German capital is the leader in the number of CE initiatives, public projects, and population awareness. In the capital of Germany there are more than 200 different initiatives dealing with CE. It is a vibrant network of NGOs, start-ups, artists, businesses, scientific institutions, universities, and consulting companies trying to make a change. The most known institutions here are Circular Berlin, Impact Hub, Re-Use etc. The city of Berlin has a conscious policy of sustainable development, of which CE is an important part. It also supports unique initiatives, such as the Nochmal (a second-hand shopping centre) to change consumption habits and bring "discarded" items back into circulation. n 2020, there were at least 400 companies counting more than 8,500 employees working on CE topics in Berlin.

2.5.2

Social inclusion in Germany

Some groups worldwide face barriers to full participation in political, economic, and social life, stemming from legal, economic, and societal factors. Factors such as gender, age, education, location, occupation, race, ethnicity, religion, citizenship status, disability, and sexual orientation contribute to social exclusion, depriving individuals of dignity and opportunities for a better life. Addressing the root causes of structural exclusion and discrimination is crucial for fostering sustainable inclusive growth and reducing poverty effectively. Through social inclusion individuals and groups takes part in society - improving the ability, opportunity, and dignity of those disadvantaged based on their identity.

German society, due to its experience of German Nazism and democratic traditions after the Second World War, places emphasis on equal opportunities, tolerance, the “willkommen” policy and social inclusion. Nevertheless, social inclusion is understood in Germany mostly as an inclusion of elderly people or people with disabilities. When we talk about the inclusion of migrants, we use the expression "social integration" to encourage their participation into society.

Germany is actively promoting social inclusion for people with disabilities and the elderly. The government, through the National Action Plan (NAP 2.0), has implemented 175 measures across 13 action areas, emphasizing preparation for the workforce for disabled youths. Progress is evident, as reported in 2018, with increased awareness of disabled individuals' needs. The elderly, comprising over one-fifth of the population, are recognized for their potential and experience, facilitated by 540 multigenerational houses fostering intergenerational dialogue. Legal frameworks, including the Basic Law and international conventions, ensure equality and prohibit discrimination. The Ministry of Labour and Social Affairs focuses on training, employment, rehabilitation, and accessibility. Germany faces a severe labour shortage, and the inclusion of people with disabilities is seen as a solution. Leveraging their qualifications with inclusive measures, such as technical aids and flexible work models, can effectively integrate this population into the workforce, contributing to alleviating the labour shortage.

2.5.3

Social enterprises in Germany

A social enterprise is a specific type of business entity whose activities are not focused on profits´ maximization, but on social objectives. Social enterprises operate in various legal forms: social cooperatives, associations, foundations, non-profit companies and mutuals. They all have one thing in common - any surpluses generated by their activities are re-invested in such organizations to achieve their goals, members/clients social and professional integration or the local community´ benefit activities.

The social entrepreneurship sector in Germany, within the welfare and market spheres, presents a challenging-to-quantify market, potentially comprising a high five-figure number of organizations. Based on statistics, so called “third sector” counts to 105,000 organizations contributing up to €90 billion to societal GDP (4.1% to the national GDP in 2007). However, the exact count of social enterprises with a strong focus on innovation for societal issues is harder to estimate due to limited data on innovation behavior in the social sector, suggesting a low four-figure number.

In Germany, social enterprises are gaining traction, merging sustainability with societal impact. The sector, diverse in structure, faces challenges in definition and data transparency. The government actively supports these initiatives. The study calls for improved funding structures and greater alignment between political, economic, and civil society spheres. It emphasizes broadening the understanding of innovation beyond technology and highlights the potential of social enterprises in public procurement. Overall, the report offers insights to enhance the supportive framework for the continued growth of social enterprises in Germany.

In Germany, the data on Social Entrepreneurship is limited, primarily due to the unclear definition of the phenomenon and the lack of robust data for the Third Sector, where Social Entrepreneurship originates. Despite this, various studies provide insights into the scope, size, development stage, governance structures, and funding situations of organizations involved in Social Entrepreneurship. The number of Social Enterprises is challenging to determine precisely, but estimates suggest a lower four-digit figure. The studies focus on sectors such as social services, education, employment integration, inclusion, and housing.

2.6 Circular/Social Economy in ITALY

The issue of using circular economy practices is increasingly urgent in the Italian context - the effort, has been driven above all by European institutions - so much so that in the last years it has attracted the attention of public and private actors. The economic system is rapidly evolving by rethinking and organizing its processes according to new goals, such as reducing energy consumption, decarbonization, using environmentally friendly energy sources and promoting environmentally and human sustainable businesses.

In Italy, thanks to the boost of European funding and thanks to PNRR funds, it has been possible in recent years to set up several circular economy or **social enterprise initiatives.** According to the annual edition of the report edited by the Circular Economy Network, in collaboration with Enea, the rate of circularity in the world economy is declining at the **global level.** Still, Italy is confirmed as the leading country among the largest European economies. However, there is no shortage of alarm bells, for we worsen on key indicators such as the rate of circular material use and resource productivity.

The private sector, more than the public sector, seems to be the driving force behind the choice of circularity, partly because of the great savings inherent in the concept of circularity itself: With a circular approach, **there is no waste,** and indeed, waste is converted into resources, making the choice surprisingly economic and ecological. Italian industries have witnessed a paradigm shift towards circularity, driven by economic incentives and consumer demand for sustainable products. In collaboration with traditional industries, social enterprises have introduced innovation into production, creating sustainable value chains. Some **examples** (scroll down to see other meaningful initiatives), on a national level, are Edilatte, or Gioosto (which also incorporates the social level into its business, handling products processed by people in prison or in territories freed from caporalato), or, in Sardinia, Edilana.

2.6.1 Circular economy and social inclusion in business

This process, however, cannot consider the impact that businesses have only from a strictly economic point of view, but also from a social and environmental point of view. In this regard, several **measurement and valuation tools** (go here if you want to have an EU overview of what has been done) have been introduced in Italy for all those companies that facilitate and accommodate these processes.

The Legislative Decree No. 254 of 30/12/2016, provides the obligation for large companies (e.g., listed companies, banks, large insurance companies) and/or large groups, to declare certain non-financial information to be joined to the annual financial statements and consolidated financial statements, contained in an "individual non-financial statement". This document is publicly consultable, and the information contained relates to goals and achievements in the areas of environmental, social, personnel activities, respect for human rights, and the fight against both active and passive corruption, which, soon.

Also, smaller companies can draw up a Report (Bilancio di Sostenibilità) on a voluntary basis. By producing this effort, they can request the publication of their activities in the Register of Companies to promote themselves to their stakeholders and achieve benefits for their business, in addition to completing their assessment also for the purpose of creditworthiness evaluation.

According to ISTAT, in 2022, 59.5% of manufacturing enterprises have taken sustainability actions: 50.3% take environmental protection actions; 44.6% take social sustainability actions; and 36.8% take economic sustainability actions. Large enterprises, on average, are the most active in all sustainability practices: more than 4/5 of large enterprises (81.5%) and only 36.1% of small enterprises take sustainability actions. More and more companies are also aiming for BCorp recognition an international based license that measures social and environmental impact.

As for service enterprises: 50.4% have taken sustainability actions during 2022. Among them: 42.1% in environmental protection initiatives, 40.3% in practices of social sustainability, and 35.2% in economic sustainability actions. Regarding government incentives aimed at companies that promote businesses based on circular economy and social inclusion, funding has been promoted such as the case of Italia Economia Sociale in which 223 million euros have been allocated to support initiatives in these fields.

2.6.2 Circular economy and social inclusion behind entrepreneurship

Regarding, on the other hand, the relationship between circular economy and social inclusion from a project promotion point of view, there are **different types of initiatives** (scroll down the page to discover the most important ones) in Italy, but they seem to move from sector organizations and associations and work for social inclusion to promote circular economy practices and environmental sustainability.
More specifically, the link between circular economy and social inclusion is implemented at the level of “third sector” entities that re-employ marginalized people - migrants, asylum seekers and prison and post-prison support.

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2.7

Circular/Social Economy in POLAND

Poland is 10.2% circular leaving the circularity gap on level of 89.8%. The 'gap' refers to current stage of Poland track towards the reach of ideal full national circularity. Compare to the global economy, which is now only 7.2% circular; Poland is better about 3% of circularity, but there is still much to do as all other national economies.

According to Poland' Circular Economy Roadmap, the CE is rational, low-emission, innovative and competitive and should be pursued. The circular economy model in Poland mainly focuses on minimizing raw material consumption and waste generation, reducing greenhouse gas emissions and lowering energy consumption. Circular Economy Gap in Poland indicated set of strategies which reinforce circularity:

Build a circular built environment
Nurture a circular food system
Rethink mobility
Champion circular manufacturing
Keep goods like new for as long as possible
Power Poland with clean energy

Business model and economic impact - Adopting a circular economy model not only benefits the environment, but also differentiates companies in the Polish market, reduces operating costs and improves service quality. Consumers play a role in supporting these changes by choosing products and services from companies that support the Sustainable Development Goals (SDGs). It should be added that customers are increasingly paying attention to environmental aspects when choosing the products or services they buy.

Figure 6: Sustainability and corporate actions - Sustainability concepts are increasingly being transformed from corporate investment brochures into actual actions for environmental protection and prudent use of natural resources. Corporations, both large and small, are taking steps to reduce their environmental impact.

2.7.1

Social Inclusion

Social inclusion, exclusion, inclusion, integration are just some of the concepts that have become widely used in Poland in the 21st century. They are related to the changes taking place in our country in the economic, consequently also social, and recently also communication or climate areas. They mainly refer to people with disabilities, the long-term unemployed, addicts, people in crisis of homelessness, seniors, or the working poor, and, since the outbreak of the conflict in Ukraine, also to refugees. It is from these groups that, among others, employees of social enterprises or participants of Social Integration Clubs and Centres come. The activities of the latter and the concept of social exclusion were included in the 2003 Social Employment Act.

The opposite of exclusion is social inclusion, integration, i.e. taking action to integrate, increase access of groups at risk of marginalisation to education, employment, health, cultural and other services on the same basis as other social groups. This participation represents the essence of an inclusive society, promoting better understanding, tolerance, and mutual respect between different groups. The European Union places a very strong emphasis on measures aimed at the social inclusion of different social groups and in different areas of life. Significant resources from the EU budget are also allocated to these activities. However, the use of these funds is conditional on the adoption of appropriate legislation and the introduction of specific solutions in the country concerned.

In Poland, as examples of the above-mentioned documents and activities - apart from the above-mentioned Act on Social Employment - we can mention, among others:

- The Strategy for Inclusion and Diversity of the Polish National Agency of the Erasmus+ Programme and the European Solidarity Corps for 2022-2027
- The National Programme for Combating Poverty and Social Exclusion. Update 2021-2027 with an Outlook to 2030
- The National Programme for the Development of the Social Economy until 2030. Economy of Social Solidarity
- The Law on Social Cooperatives
- The Law on Social Economy

Programs and guidelines for the implementation of ESF+ or FST (Guidelines for the Implementation of Projects with the European Social Fund Plus in Regional Programs 2021- 2027; regional programs e.g. European Funds for Wielkopolska 2021-2027 with numerous measures on social economy, social inclusion, or active integration), Implementation of the Common Agricultural Policy Program 2021-2027.
The establishment in the Chancellery of the Prime Minister of a Minister for Social Inclusion (A. Ścigaj 2022-2023); a Minister for Equality (K. Kotula from 2023).
Existing documents, programs, guidelines and, above all, access to EU funds will also allow for the implementation in the coming years of actions concerning social inclusion in the field of climate change, including the principles of the closed loop economy, i.e. actions that concern each of us and that do not necessarily involve the commitment of additional funds. On the contrary, they will make it possible not only to support the climate, but also the household budget.

2.7.2

Social enterprises in Poland

As of December 2023, there are 830 social enterprises in Poland **(update: June 2025 – 1500 social enterprises)**, with the highest concentration in the Podkarpackie (119), Śląskie (112) and Lubelskie (83) voivodeships. Entities in Poland that can obtain Social Enterprise status include social cooperatives, foundations, associations, unions of associations, non-profit companies, rural housewives' circles, voluntary fire brigades, church corporate bodies. In addition to social economy entities, a a legal body creating a social economy unit may also apply for the social enterprise status. In line with the definition in Article 2(3) of the Social Economy Act, it is an entity which has set up and manages a reintegration entity: an occupational therapy workshop (WTZ), a vocational activity unit (ZAZ), a social integration centre (CIS) or a social integration club (KIS). A reintegration entity cannot obtain the status of a Social Enterprise on its own, the application must be submitted by the entity running the WTZ, ZAZ, CIS or KIS.

Focus on social impact. Although economic viability is important in these enterprises, the social aspect, especially the integration of people who have difficulty finding employment, has a higher priority. The Polish government, through the Ministry of Family and Social Policy, has launched programs such as 'Resilience and Development of Social Economy and Social Entrepreneurship' for 2023-2025, providing significant support for social enterprises. The Resilience and Development of Social Economy and Social Entrepreneurship' program covers three areas:to reintegrate individuals at risk of social exclusion in social enterprises and social employment entities to build the potential of social enterprises and social economy entities to provide de-institutionalised social services to strengthens the resilience and development of social enterprises and social economy entities.

Click here to see the register of social enterprises in Poland.

Poland pays special attention to shift social inclusion to maximum compliance to GREEN DEAL EU strategic goals via scoring project applications submitted for financial support under this programs, i.e. green transformation, digital transformation, accessibility for persons with special needs and the principle of equal opportunities and non-discrimination. As a result of the introduction of the strategic criteria for green transformation, out of a total of 1,090 applications co-financed, 324 applications for investment co-financing are closely related to the circular economy and sustainable development activities.
These developments reflect Poland's strong commitment to sustainable economic practices and social inclusion through support and development of social enterprises. However, it is worth noting that the country is actively working to support social enterprises through various government programs and regulations that shape the social economy and provide institutional support.

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2.8

Circular/Social Economy in SLOVAKIA

NARA-SK being involved in the Hands On Plastic Environment (35) project introducing the concept of the circular economy ideas in the Slovak Republic from the very beginning of the approval of the EU Directive Action plan for the Circular Economy. As a member of the project consortium, NARA-SK led the negotiations on the creation of a circular economy platform in the Slovak Republic - on November 30th 20182 and the director of HOLLAND CIRCULAR HOTSPOT, Freek van Eijk (37).

The CIRCULAR SLOVAKIA platform4 was founded in Slovakia on 2nd December 2019. In 2024, the most important event of the national circular economy platform is the Circular Summit 2024. The Kingdom of the Netherlands is also a member of the Slovak platform, as there can be no doubt that the leader and key player in the introduction of the circular economy in the EU has been and still is the Netherlands from the very beginning (40).

The guarantor of the circular economy policy´s implementation in Slovakia is the Ministry of the Environment, which has created several key tools to accelerate the implementation of these policies. ISBN 970-80-8213-001-3 publishes an exclusive, 100-page, dynamic information compendium - The Circular Economy - the Future of the Development of Slovakia (2019), which forms a basic orientation manual for the first readers and those interested in the issue of transition from a "linear" economic model to circular economy models, within the following 1+4 above-sectoral sections:

- **Introduction:** clarifying what the transition from a linear to a circular economy means, in each section it defines the situation in the Slovak Republic within the larger picture through trends in decadal time frames and accompanying words from analysts and prognostics.

- **Section PRODUCTION AND CONSUMPTION**: since the circular economy is first and foremost the economic creation of goods and services/national economic product, in the publication of the Ministry of the Environment the Slovak Ministry of Economy and the Ministry of Agriculture receives relevant space.

- **Section WASTE MANAGEMENT:** since the production of waste is a societal problem of all sectors of society, the best solution seems to be the presentation of the best waste elimination practices in the municipality industrial enterprises, changing consumer stereotypes and a successful example of the application of extended producer responsibility or waste upcycling (44).

- **Section SECONDARY RAW MATERIAL:** again, in the best way - through examples of good practice - the publication defines the endless possibilities of trading with secondary raw materials, as an input raw material for new production, solving the climate crisis through green roofs (46), elimination of excessive and rapid consumption by eco-design and eco modulation, or the solution of micro consumption and its upcycling (35).

- **Section COMPETITIVENESS AND INNOVATION**: following the need to find immediate solutions for petroleum plastics, there is a key interview with Prof. Alexy, a world-renowned scientist who put Slovakia on the map of global scientific discoveries by authoring bioplastics from renewable sources, or the example of green polypropylene, but also the existence of the Slovakian competition for innovations for a green future - Zelený Merkúr (51).

The Green Economy web-platform was created: which continuously maps the legislative framework for the implementation of this new economic paradigm, while the most essential part of this web popularization and education portal consists of examples of good practices implemented by all sectors of Slovak society (business entities, state administration and self-government, science-research) in the following sectors: adaptation to climate change, circular economy and sustainable use of resources, sustainable transport, energy efficiency, green buildings and housing, sustainable management in the country, sustainable bioeconomy (53).

However, the circular economy is not only a change in economic policy, but a paradigmatic change that affects all parts of society. It is therefore understandable that in every national state the solution cannot be only a change of policies and behaviour at the highest level of the state, but the circular economy spills over all QUADRUPLE HELIX collateral stakeholder's society structure.

2.8.1 Circular Economy in Business Sector

The circular economy is first a change in the way of production of an economic product - so the carrier of the transition to the circular economy is the management of production-economic units in the state.
Practically all business-supporting organizations - regardless of ownership, legal form, and ownership of the founder - have included in their portfolio the widest spectrum of informational, promotional, especially informal educational events. It is practically impossible to summarize, structure, sort all offers for increasing skills and knowledge in the field of circularity. On the contrary - any attempts at their hierarchical classification and "certification", "centralisation in one place ("circular one-stop-shop") go in principle against the sense of paradigmatic change. The trainee himself must try and in web-space of an open information environment must make own steps to receive information from multiple sources and prove the ability to classify the information offered.

The representatives of companies, industrial associations, and sector associations themselves have already created mechanisms and institutions that can prepare - starting with an educational event ending with the particular investment project. The companies themselves, which implement their investment projects, even in areas problematic from the point of view of the circular economy´ theory (e.g. Waste2Energy), pay attention to the issue of circularity promotion, in addition to their proposed solution, increasing social sensitivity to this concept (53).

On the Slovak level, one of the most important changes is the end of lignite mining within the European initiative "EU coal regions in transition" (54), which touches the upper Nitra region. The de jure process began in January 2021, and the multi-layered management of solving 100 years of employer experience for over 2,600 miners and their families is also a pan-European solution22. There are more than 150 projects in the regional list of (greener and more resilient) projects with a total value of 1.5 billion euros.

The industrial complex in the Slovak Republic is extremely energy-intensive (the production of metals and metal products has a share of 13.01%) in the sector, an intensive transition to green energy is underway by increasing the share of renewable sources, as well as the development of hydrogen energy (58). In the entire industry sector at the level of micro to macro-enterprises, the catch-up in renewable energy can be seen (59).

The industrial production of Slovakia is supported by the automobile industry (60). The share of the automotive industry in the formation of Slovak GDP is at the level of 12% and industrial production (including the entire production chain) is 43%. In Slovakia, 5 global car producers are finalizing their production (VW, Kia, PSA Peugeot, Jaguar Land Rover, Volvo). Green mobility, as a global priority, is a direct application practice for every car manufacturer (electric and hydrogen mobility).

In all sectors of industrial production, it is possible to observe the preparation of company managements for the eco-design criterion - that is, the development of such products that already at the stage of their development meet the maximum requirements for their circulation during their entire life cycle. In accordance with the updated Directive of the new EU action plan for the circular economy (61).

Circular Economy in Municipal and Local Governments

Public policies in the lower administrative units of the Slovak Republic are in 100% compliance with EU policies through European funds, program priorities and demand-oriented projects.
This means that in accordance with the updated Directive of the new EU action plan for the circular economy28 there are also partnership agreements between the EU and national states for the ongoing 7-year EU budget period (2020-2027). This is also the case in the Slovak Republic.
Agreed investments within the five goals of cohesion policy: (1, more competitive and smarter Europe, greener and low-carbon Europe, 2, more connected Europe, 3, more social and inclusive Europe, 4, the Europe closer to citizens, 5, The Just Transition Fund). The entire process of designing, as well as distribution and monitoring of the Partnership Agreement of the Slovak Republic for the years 2021-2027 meets the criteria of QUADRUPLE HELIX - participation of socio-economic partners, in accordance with Commission Regulation (EU) no. 240/2014 of 7 January 2014 on the European Code of Conduct for Partnership within the European Structural and Investment Funds.

2.8.2 Circular Economy in the Knowledge Institutions

The More competitive and smarter Europe - this is a challenge primarily for knowledge institutions – the "owners" of formal educational programs (universities, schools), but as well as also all informal, non-formal forms of education (governmental, self-governing, non-governmental organizations).

The circular economy, as a paradigmatic innovation, is contained in many particular priorities of the National Strategy for Research, Development and Innovation 2030 in the following 3 (out of 5) operational fields: 3.1 Management of missions: (intelligent specialization via uniting actors in ecosystem through common vision and collateral action), 3.3 Value chains: (reorient the economy to activities with higher added value), 3.5 Social innovations: create conditions and initiate innovations towards solving problems in its whole complexity.

The 3.1. subchapter intends to leads towards the formation of smart regions RIS332 – it creates a prerequisite for the creation of short economic production cycles and thus also the reduction of the carbon intensity of production, without reduction of the well-being standard of the population in European regions.

Circular Economy in Non-governmental Sector - “third sector” organizations in Slovakia forms a living-lab “liquid” landscape of various institutional forms, which, based on - first and foremost - the motivation of the actors themselves, based on project-acquired financing, implement the topic of the circular economy in educational as well as micro-implementation projects.

SAŽP, as a project-program agency of the Ministry of the Environment of the Slovak Republic, has been working for a long time on the systematization of informal, non-formal, but also formal educational options aimed at improving the environment resilience and in course of this the popularizing concept of the circular economics - EWOBOX - environmental education portal (67).

2.8.3

Social enterprises in Slovakia

The most relevant study regarding the big picture of the development and current state of the social economy is provided by SOCIAL ENTERPRISES AND THEIR ECOSYSTEMS IN EUROPE (68), as part of pan-European research on the state of this form of economic practice in all EU member states – Slovensko (69).
In Slovak history, the social economy has a long-term and essentially communal self-help in the territory of the headquarters, where the community of the population lives and lived a continuous presence. However, historically, these were cooperation models built based on customary practice, without a form defined in any legal form. Professional literature cites the year 1845 as the first historically documented legal form, when the cooperative - Gazdovský spolokv Sobotišti - was founded by local teacher Samuel Jurkovič. The continuous bottom-up development of flourishing self-help associations was interrupted by the Second World War and the subsequent rise of communism in 1948 in the post-war Czechoslovak Republic 1945-1989. The association of citizens for self-help, especially in economic cooperation, was abolished, and in some forms that remained even through the communist period of Slovakia, it was absolutely subordinated to the control of the Communist Party of Czechoslovakia. Rural - agricultural - cooperatives were subordinated to ideology absolutely, and due to the theft of private property from members of self-help associations and cooperatives, there is still a high distrust of the bearers of economic and social changes from below towards new initiatives to build a social economy.

Social enterprise as a phenomenon and form of economic entrepreneurship after the economic transformation in 1989 appeared in 2008 (Act No. 5/2004 Coll.) It was a reaction to the extremely bad development of unemployment in the Slovak Republic - as a reaction of local labor markets to the breakdown communist production environment, large and small privatization, disintegration of socialist market material-production chains. In some regions, the level of unemployment attacked up to 40% unemployment level. This legal regulation broadened the view of social and labor intervention also to workers who do not fall into the category of disabled employees, for whom there was an employment support tool - a protected workshop and a protected workplace - as a continuation of the so-called “Výrobného družstva invalidov = Production cooperatives of the disabled” - a communist, centrally managed specialized organization for the employment of state-recognized recipients of compensation for disabled people.
It is obvious that the initiating force in the Slovak environment also came from the EU in the form of the EQUAL Community Initiative - as one of the four Community initiatives that took place in the EU between 2000 and 2006. The goal of this "living ESF lab" was to start the development and application of social innovations in the environment of the European economy focused strictly on the production of social goods on a monetary basis = gross domestic product.

The aim was to develop, verify and introduce new solutions to the persistent problems of the most disadvantaged groups on the labour market and in society (long-term unemployed, people with low qualifications, graduates, senior citizens, people with disabilities, ethnic minorities, women, asylum seekers and foreigners, etc.), who often suffer from multiple disadvantages (70). The long-term goal was the greatest possible spread of the best innovations into policy and practice, or the introduction of innovation as a systemic change.
The results of this initiative in the Slovak environment, which was undergoing a predatory, uncompromising economic transformation, were weak to below average and administratively and politically misunderstood as a potential for building social cohesion and civic resilience.

Only in 2015 was the explicit term "subject of social economy" introduced into Slovak legislation. This wording in the Slovak legislation indicated that the social economy is a much broader concept than just solving the problem of the currently or long-term unemployed individual. As an ex-ante condition for drawing EU resources in the years 2014-2020, the "subject of the social economy" was legislatively defined (2015). However, this fact was insufficiently reflected in other laws that regulate the direct application of socio-economic organizations and performances. Only after further months of social, governmental and parliamentary political work, the 1st separate Act on the Social Economy was prepared and subsequently approved (March 13, 2018): act. 112/2018 Coll. **(https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2018/112/).**

In §3, the social economy is defined as: "The social economy is a set of productive, distribution or consumer activities carried out through economic activity or non-economic activity independently of state authorities, the main goal of which is to achieve a positive social impact." The definition of social enterprise in this law is compatible with the European standard established by Regulation (EU) No. 1296/2013 of the European Union in the field of employment and social innovation (EaSI). It is possible to say that only with the adoption of this separate legislative norm did the standard, Western European understanding of the term social economy arise in the Slovak Republic, regardless of all previous narrowly profiled norms of work integration only for state-confirmed groups of disabled residents. Only with the adoption of this law can we talk about the emergence of a whole sector of economic activities in which workers involved in social economy entities - regardless of their legal form - do not recognize the generation of economic profit as the only criterion of business activity.

2.8.4
Organizational landscapes of the social economy in Slovakia

It is not possible to determine the exact number of existing and functional social enterprises in the Slovak Republic **(https://www.prog.sav.sk/portfolio/kontext-a-vyzvy-socialneho-podnikania-na-slovensku/)**, as an enterprise with economic activity as the tool (not the goal) of achieving the well-being of members and employees can currently only be estimated based on two criteria: • Legal form of the subject of the social economy (civic association, non-profit organization, foundation, non-investment fund, special-purpose church facility, business company, cooperative, natural person-entrepreneur) estimated number of social enterprises approx. 1318 • Certification of the entity as a social economy enterprise: registered social enterprise Act. 112/2018 Coll., protected workshop (Act. 5/2004 Coll.), social service provider (Act. 448/2008 Coll.) estimated number of social enterprises approx. 1151

At the same time as the Act. 112/2018 Coll., came to the validity the National EU funded project - The Institute of Social Economy (38) was launched (the National Project is a systemically supported project at the whole Slovak level by a guarantor in a certain sectoral state policy for the solution of a certain precisely defined national problem). Within it the specialized agency was created including highly motivated staff in all the Slovak 8 regions (NUTS3) for giving mentorship for social enterprises´ business plans creation and after its registration possible financial support for kick-off the activity. The result of the implementation of this national project during the 2014-2020 programming period was an impressive increase in the number of social enterprises founded based on the last legislative amendment, which reached 583 legal entities at the end of 2023 (72).

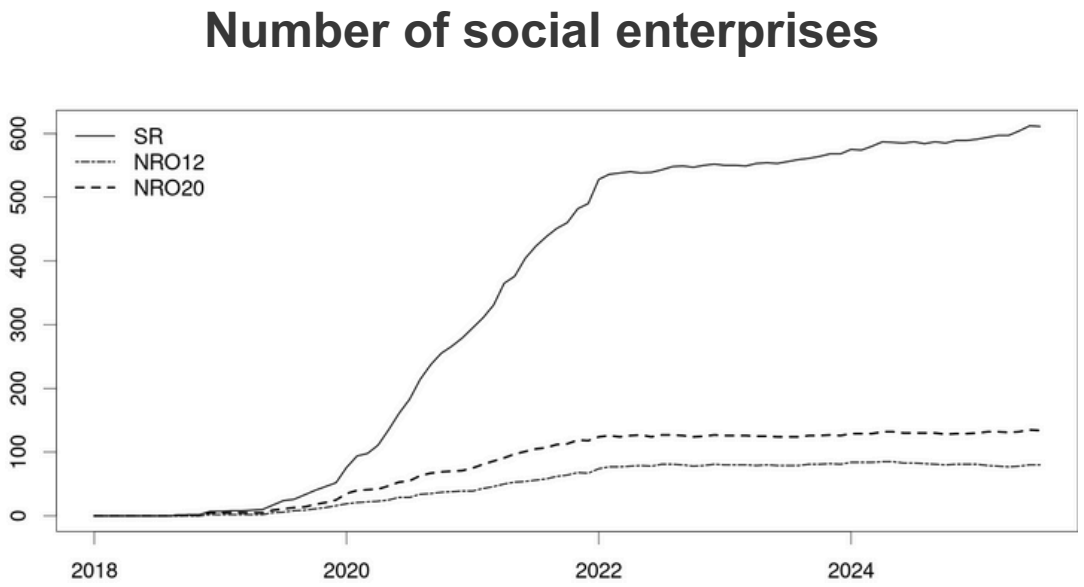

Figure 8: Growth of Social Enterprises in Slovakia (2018–2024)

In response to the huge interest on the part of Slovak local governments to create social enterprises (in Slovakia are currently 2,890 separate municipalities, whose elected representatives are obliged to follow the interests of individual territorial settlements and the concept of united municipalities does not exist) The Supreme Audit Office of Slovakia published the report on the implementation of the social economy in the Slovak Republic. (40) The main recommendations are:

- for the development of the social economy, it is crucial that this topic becomes interdepartmental,
- to focus on the control activity of social enterprises, to expand the possibilities of education in the field of social economy, to keep records of all forms of support and to reevaluate the conditions for providing those that were not functional during the controlled period,
- to carry out an analysis of the needs of social enterprises, especially in relation to the employment of persons other than those with disabilities and, accordingly,
- to strengthen direct support with the aim of also supporting the employment of this group of persons more significant support of social entrepreneurship in the form of promotion and cooperation at the interdepartmental level,
- to join the expert group of the European Commission for the social economy and social enterprises in order to apply innovative and functioning elements from abroad.

2.8.5

Inclusion of the Roma population

A long-term problem for social policy in Slovakia is overcoming the socio-societal problems faced by the Roma population in Slovakia. It is necessary to say that solving the problem of marginalized groups of the population is a historical problem and is not caused only by low-quality national policies in the field of employment, social affairs and education. The starting line from which the Roma entered the post-communist transformation of Slovakia after 1989 was the same as that of the majority population. However, the original housing structure, language and educational unpreparedness, traditional employment of the Roma population in industry, which disappeared as part of the economic transformation, caused the cultural and social decline of the majority of Roma in Slovakia to be many times worse than in the case of the majority, non-Roma population.

In the Atlas of Roma Communities 2013 approximately 402,840 Roma were identified, i.e. persons who are considered by the surrounding area to be Roma (which represents 7.45% of the total population in Slovakia). Even when accepting this most representative figure of the Slovak demographic crisis intervention, it is necessary to take into account that many Roma declare their affiliation to the majority ethnic group.

Because of this, the legislation for the social economy devotes the creation of the so-called category “Integrative social enterprise”, special attention to the inclusion of the disadvantaged population. “An integration enterprise is a registered social enterprise whose main goal is to support the increase of employment and which employs at least 30% of disadvantaged persons, significantly disadvantaged or vulnerable persons from the total number of its employees”. Pursuant to the Social Economy Act, the integration company can apply for placement and equalization allowances, which are intended to support the work integration of disadvantaged and vulnerable persons. (§19a and §19b) In addition, in the case of a separate approval process, compensation aid (§19), investment aid (§17) and an indirect form of tax support can be obtained as direct support for a social enterprise (relief on income tax, reduced VAT rate), acquisition of real estate by the state, municipalities and VÚC), the possibility of applying social public procurement in the form of reserved orders and support of demand (service vouchers).

The potential of the green economy, biomass, and rural economy for low-threshold employment of marginalized population groups was highlighted by several innovative projects. It was a reaction to the unfavourable situation of entire Roma communities, especially in geographically isolated rural locations, outside the main development zones of Slovakia after 1989. The project BFB-PA21-009 (43) (Norwegian Financial Mechanism) has served as the lighthouse for near future in circular and social economy challenge for Roma in Slovakia:

- The local dimension have the advantage of allowing them to focus at the same time on all five key areas that need to be addressed simultaneously when focusing on the social inclusion of residents of excluded settlements: (i) housing, (ii) health, (iii) financial stability, (iv) education and (v) acquisition of work habits, skills and stable employment.
- The key role of local governments in the inclusion of Roma within the green economy, as this group of residents is characterized by low knowledge and therefore also physical mobility and the ability to change their place of residence and traditional social ties.
- Development of a comprehensive concept and action plan for the development of low-skilled jobs in the green economy under Slovak conditions.
- Active application of the social and green aspect of the public procurement.

2.9

Circular/Social Economy in Netherlands

Circular economy in Netherlands

EU directive Closing the loop - An EU action plan for the Circular Economy (COM/2015/0614) final approved and published on December 2, 2015 **(https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52015DC0614&from=ES)** represents the starting shot in the institutional realization of circularity in EU. It was the Kingdom of the Netherlands that took over the rotating presidency of the EU from 1 January 2016 and already defined the circular economy as its highest political priority during this period. Since that time, the Netherlands, along with Sweden and Finland, has been the absolute leader in promoting circularity in its national economy.

National central government is working with all public authorities, knowledge institutions, environmental organizations, industry, trade unions, financial institutions, and civil society organizations to find smarter and more efficient ways of using products and raw materials. Speaking in the national context, the ultimate goal is for the Dutch economy to be completely circular by 2050. In the newest National Programme on circular Economy 2023-2030, the government sees 4 ways operational fields:

- Reducing raw material usage: the Dutch economy will need less raw materials if we buy fewer products, share items we already own and produce items more efficiently.
- Substituting raw materials: when new raw materials are needed, we should use sustainably produced, renewable and widely available raw materials whenever possible. For example, biomass, which is raw material made of plants, trees, and food waste. This will make the Netherlands less dependent on fossil resources, and it is better for the environment.
- Extending product life: We can use products and parts for longer and more intensively if we reuse and repair them. This slows demand for new products and new raw materials.
- High-grade processing: We can recycle materials and raw materials so that new products can be made from them. This means less waste goes to landfill or is incinerated. And it increases the supply of sustainable raw materials.

According to the National Programme on circular Economy 2023-2030 contains measures for each of these 4 approaches. It also contains measures for specific product groups, like furniture or homes, and supporting measures for specific focus areas such as education, circular procurement, and circular business models.

The Netherlands has become a key player in the world of imports and exports. Getting the big picture about the macro-material-flow-mapping third of imports, totalling 145 million tonnes, is directly re-exported from the Netherlands (the total material footprint of re-exports, increases to a staggering 412 million tonnes). Out of the total material footprint of 735 million tonnes (excluding re-exports), most materials are used to satisfy societal needs and wants outside of the Netherlands. The Netherlands' efficient trade practices have positioned the country as a global supplier of food and fossil fuels, far surpassing its apparent means. About the third of processed materials used for final products, totalling 221 million tonnes, are driven by in-country demand, while the remaining two-thirds are exported.

The Netherlands is a country with a rich history of global trade, dating back for centuries. Being the international stakeholder with the historical knowledge and responsibility Netherlands devotes feverish attention to the dissemination of paradigmatic economic change in the field of international development aid, commercial diplomacy, and its general promotion. After all, raw material supply chains, production processes and waste flows are global. That is why the government works with other countries as much as possible, in the European Union and within the United Nations.

The Netherlands as the producer of substantial amount of waste made significant progress in resource waste management. With comprehensive government policies, technical innovation, and investments in material efficiency, the country has achieved a circularity rate significantly higher than the global average of 8.6%.

Netherlands is expected to reach up to 18 million inhabitants by 2035 reaching the highest levels of land urbanisation and the density of populated area, which demands to be pioneer and BAT leader in intelligent urban sustainability solutions. With a dense and growing population, the Netherlands is faced with the challenge of managing its resource consumption and waste production.

Overall, the Netherlands has emerged as a frontrunner in the circular economy transition. This presents an opportunity for the country to leverage its expertise and knowledge in circularity into an export product, sharing valuable insights, skills, and technological solutions with the world. By becoming a leader in circular knowledge, the Netherlands can promote the both further solidify its position as a global trade powerhouse as well as to shape the global conversation on sustainability and resource efficiency, creating a win-win opportunity for both the country and the world at large. ((PACE), 2020).

One of the key drivers of the circular economy in the Netherlands is the groundswell of positive bottom-up movements and initiatives. These grassroots efforts have been met with encouraging government policies and support, creating an environment that fosters innovation and sustainability. As a result, the Netherlands now can leverage its expertise in circularity into an export product that can be shared globally.

In the current economy, the true costs of production – including carbon emissions, pollution, and ecological damage – are often not factored in. This means that these costs are passed on to future generations, rather than being borne by the parties responsible. In a circular economy, it is imperative that producers and consumers pay a fair price for resources, materials, and products, considering the societal costs associated with their production. The principle of 'the polluter pays' should guide pricing mechanisms, while also rewarding the provision of ecosystem services and the creation of socioeconomic value. To support the transition to a circular economy, the government is determined to take action to change the economic, physical, and social environment in ways that make it easier and more appealing for businesses and citizens to choose sustainable, circular products. These include promoting demand for sustainable products, removing risks, introducing policies for Socially Responsible Purchasing, standard setting, and normalization, as well as, tax adjustments and integrated pricing strategies (Netherlands, 2023-2030).

Thus, the transition to a circular economy requires an integral approach that addresses significant social issues, such as climate goals, energy transition, environmental challenges, sustainable food systems, biodiversity preservation, and climate adaptation. By focusing on these key areas and embracing the opportunities offered by the digital transition, this will not only lead to job retention and economic value preservation but also improve the quality of employment and promote social inclusiveness in all aspects of society (Netherlands, 2023-2030).

2.9.2

Social enterprises in Netherlands

The Netherlands is one of the countries that do not have any legal framework in place that is dedicated to social enterprises. This aligns with the Dutch government having so far chosen to support social entrepreneurship as an approach (in a similar way to other ambitious types of entrepreneurships) rather than social enterprises as (legally standardised) types of organisations. Therefore, support by the government is available through channels available for all enterprises. Considering the recent take up of the number of social enterprises, as well as the increasing attention among stakeholders, it may be argued that apparently there is no need for such a legal framework and the current ecosystem can make it work. Critical reflection of this increase also lead to a conclusion that by introducing a legal form that fits with the Dutch context even more can be achieved - this process is currently underway.

The Netherlands builds on a longstanding tradition of combining entrepreneurship and societal value creation. As such, many parts of the ecosystem already functioned in place once the term “social enterprise” set foot in the Netherlands. A potential scenario that a few experts mentioned could arise where social enterprises would not need such nomenclature, and could provide the new norm for all enterprises. Currently a lot of attention goes out to work integration and circular economy, while companies such as Fairphone and Tony’s Chocolonely act as leaders in growth and impact, further sering as role models in their aims to improve global value chains.
Finally, even though social enterprises appear to emerge partly due to the pressure on the Dutch welfare state, it remains unclear how and to what extent social enterprises can take a role in safeguarding the current state of Dutch welfare. It is clear that the era of “nice to have” has passed when it comes to social enterprises in the Netherlands. At this point, professionalism and an adaptation to the existing ecosystem should result in measurable and manageable creation of social value created by social enterprises.

2.10

The Nexus between Social and Circular Economy

The transition to a circular economy is not just about environmental sustainability; it also has important socio-economic implications. To ensure a successful transition, it is crucial to consider the socio-economic aspects of this shift. This includes:

- ensuring good, safe working conditions, proper terms of employment for all individuals involved in the circular economy,
- investment in and training of employees to ensure that workers have the skills necessary to thrive in a circular economy,
- to create socially inclusive work environments that promote diversity and equality,
- ensuring a fair distribution of benefits and burdens among citizens and businesses, as well as nationally versus internationally and between different generations.

By taking these factors into account, it can be ensured that the transition to a circular economy is equitable and benefits all members of society. The Social and Economic Council of the Netherlands has highlighted the importance of setting guiding targets for 2030 to provide clarity on the goals of the circular economy transition.

By determining national targets for 2030 in 2024, there will be a clear roadmap for progress, with a focus on how each product group can contribute to these overarching goals. The National Environmental Policy Plan (NEPP) plays a crucial role in translating the vision of sustainable development in the Netherlands into actionable environmental policies. One of the key challenges addressed in the NEPP is the realization of a sustainable, circular economy. By integrating environmental policy with social challenges outlined in the National Strategy on Spatial Planning and the Environment, a comprehensive and long-term action programme can be developed to drive progress towards a circular economy (Netherlands, 2023-2030).

Summary

This chapter provides a comprehensive analysis of how the social and circular economy concepts are being developed and implemented across partner countries, including Cyprus, Germany, Slovakia, Poland, and the Netherlands. It highlights diverse national strategies, legislative frameworks, and practical initiatives aimed at fostering sustainable economic models that address both environmental challenges and social inclusion. More detailed analyses and examples from all consortium countries are available within the training format developed through the project (**CIRC training format**) and on the project's hub platform (**CIRC HUB PLATFORM**). Overall, the chapter demonstrates that the nexus between social and circular economies requires coordinated, multi-level action to ensure economic resilience, environmental sustainability, and social well-being, paving the way for inclusive and sustainable futures across Europe.

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CHAPTER

Circular / Social Economy
=
Sustainable / Resilient Community

LEARNING OUTCOMES

The aim of this chapter is to foster a deep understanding that the journey toward sustainability extends well beyond the immediate responses to the current climate crisis. It is essential to grasp the delicate balance between the three pillars of the sustainability triangle—environmental, social, and economic—as the foundation for long-term resilience. Additionally, participants should understand the **key differences between a circular and a linear economy**, recognize the innovative potential that sustainability offers, and learn to distinguish between its various dimensions. Finally, the goal is to become familiar with the implementation of practical sustainability measures and gain a solid understanding of social entrepreneurship principles, especially within the **evolving context of EU** and UN policy frameworks.

3.1 INTRODUCTION

In recent decades, the term sustainability has become widely used. This concept permeates very different areas of our daily lives but is also used in more scientific contexts. Indeed, we speak of sustainability to describe an increasingly urgent approach to resource use and the impact of our actions on the human and natural environment in which we conduct our lives. Thus, sustainability has not only to do with the relationship between us and the environment but entails our approach towards an economy in different forms (production and consumption trends, waste management, etc.), social relations (job market, education opportunities, gender equality, etc.)

At the EU level, sustainability aims to ensure coherence between industrial, environmental, climate, and energy policies to create an optimal business environment that supports sustainable growth, job creation, and innovation. To support the transition toward a more sustainable model, the EU has established an ambitious agenda to transform the European economy into a circular one, where the value of products and materials is maintained for as long as possible, bringing major economic benefits and supporting green cross-sectional innovation.

3.2 Where does the concern for sustainability comes from?

The attention toward the concept of sustainability was raised around the 19th Century when ecologists and enlightened political economists such as Malthus warned of the environmental and social impacts that industry was having on civilizations and the world.

It must be said that this growing concern was due to the effects of the Industrial Revolution. This phenomenon led to significant technological transformation, including the discovery of fossil fuel and coal to power engines and later to generate electricity. The consequences of these technological transformations led to an exponential increase in human consumption of non-renewable resources that were growing in parallel to rates of population growth (and consequent increase in product demand).

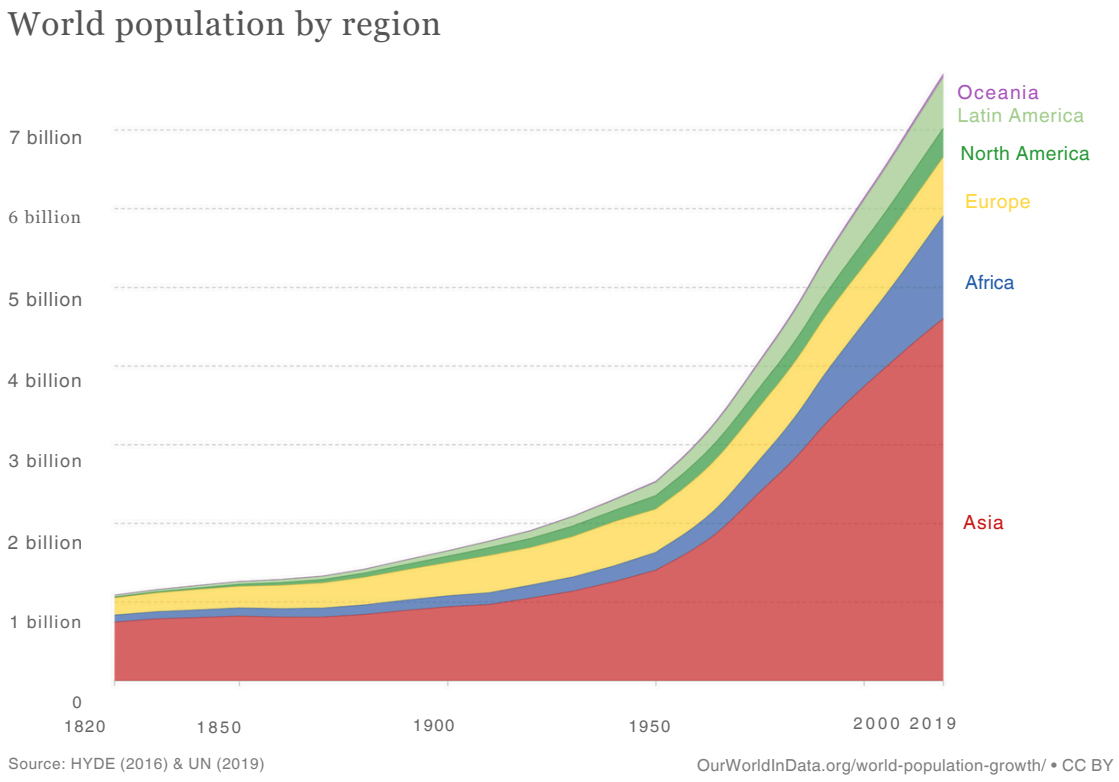

Figure 8: The pic shows the population growth rate in the 19th Century

In the 1950s, after World War II and the great depression, nations began to grow sharply, significantly impacting resource exploitation. Innovations such as plastics, chemicals, synthetics, nuclear energy, pesticides, synthetic fertilizers, and the increasing use of fossil fuels on the environment and rural wildlife started to cause environmentalists to be concerned about the **side effects of this new production model**.

By the late 20th Century, the world was facing significant environmental problems. Events such as the energy crisis of the 1970s alerted worldwide nations to how reliant they had become on non-renewable resources. In developing countries, people face poverty and starvation and regard development as essential to raising their living standards, while developed countries are concerned with the over-usage of resources.

Over the last 50 years, growing concerns have been drawn on the side effects of economic growth. For this reason, different initiatives at the state and international levels have been implemented to face the actual problem and significantly drive the business's impulse toward innovation that takes sustainability as a model for basing its economic activities.

In this regard, the interesting characteristic of sustainability is that this has not to be seen just as something that seeks to penalize the current systems on which we base our daily lives but rather as an opportunity for innovation and drive toward not only improving the current state of ecosystems but also for growth.

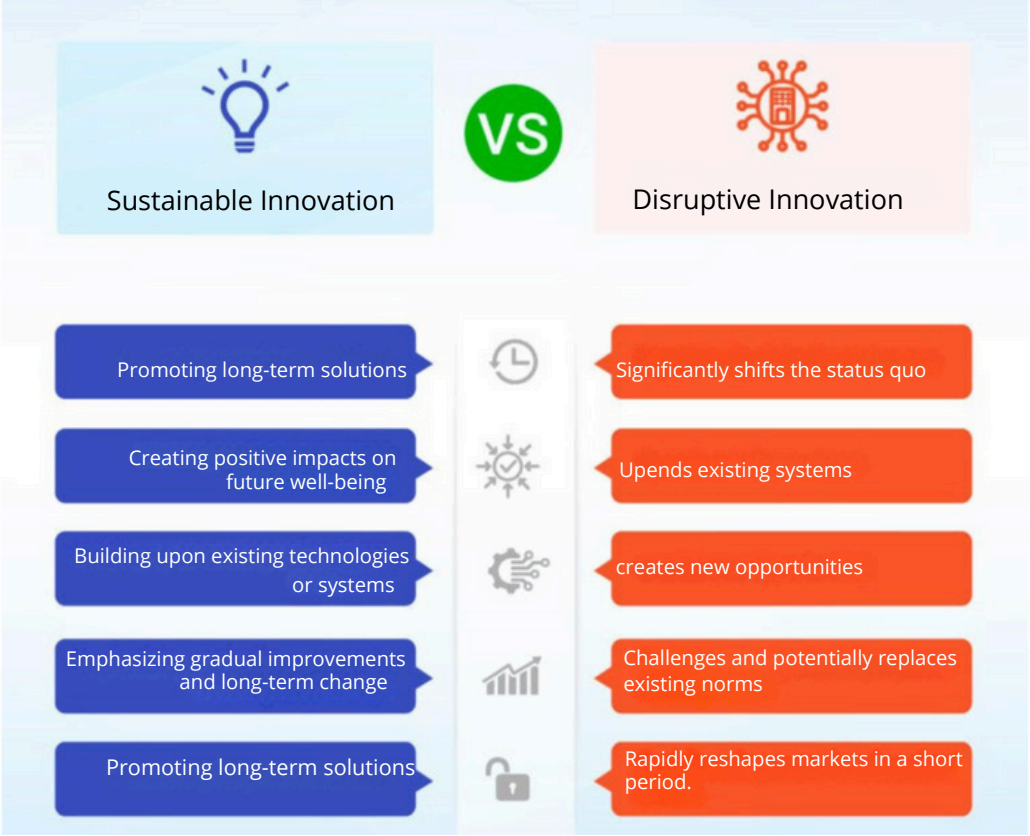

Figure 9: Sustainable versus traditional and disruptive forms of innovation. Source: Ideascale.

This attempt to move toward increasingly sustainable forms of production, consumption, and living has resulted in the Sustainable Development Goals or 17 goals set by the United Nations that represent an urgent call for action by all developed and developing countries in a global partnership.

Within the SDG framework is the 2030 Agenda, an agreement made in 2015 among the members of the United Nations in which Goals and targets will stimulate action in areas of critical importance for humanity and the planet.

Figure 10: this pic shows the 17 SDG goals by UN.

At the EU level, current sustainability policies that are supported are:

The European Green Deal covers action on energy, climate, transport, biodiversity, and pollution effects. The European Green Deal goals are to enhance natural capital, have no net emissions of greenhouse gases by 2050, have economic growth decoupled from resource use, have a toxic-free environment, and, finally, have no person or place left behind.

The 8th Environment Action Programme: a long-term priority, the scope of which is, by the latest 2050, to ensure all Europeans live well and within our planet in an economy where nothing is wasted.

3.3

Linear and circular economy

«Circular Economy is a production and consumption model involving sharing, leasing, reusing, repairing, refurbishing, and recycling existing materials and products as long as possible. In this way, the life cycle of products is extended» (European Parliament, 2023).

The circular economy concept was born to contrast with the linear production model. According to the linear one, products are created to be used, consumed, and wasted without considering an eventual second life that certain objects could have after their main/first use. In this regard, the linear model incentivizes the consumption and accumulation, not only of products that have a limited life and lifespan, but also of the resulting waste into which these objects - with a perhaps intrinsic value - will eventually turn.

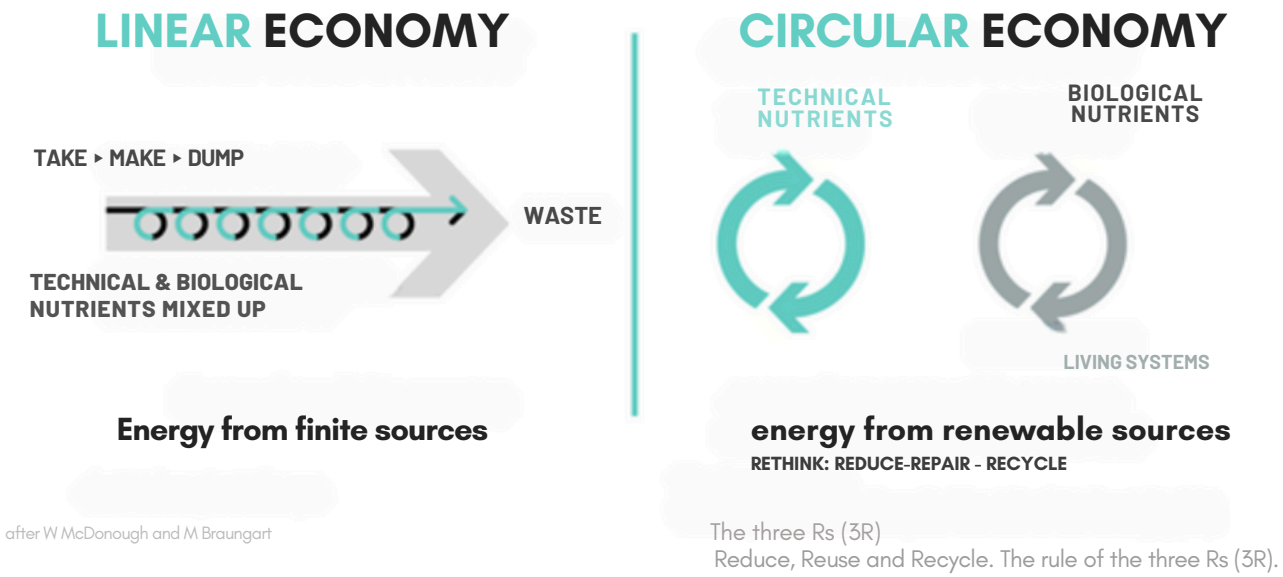

Figure 11 : Circular versus linear economic model. Source: Sustainability Guide.

In this context, the Circular model stimulates the reuse of objects in a smart sense and only considers waste and recycling (understood as responsible waste disposal) as a last resort. In this regard, objects are considered resources not only through their use but also their potential value. In fact, not only does the Circular model push towards the reduction of consumption and the conscious purchase and use of new products, but it also encourages people to consider alternative uses for objects that were created for other purposes or that in the linear frameworks of usability are just considered waste.

Although policies at the institutional level should primarily address waste-related issues, raising awareness of the value and waste chain of products can be extremely advantageous for businesses. Actions from below can push producers to change their production model by adapting more easily to consumption trends.

Among the benefits of adopting circular economy practices, we mention the reduction of resource exploitation and raw materials dependence, habitat disruption and loss, depletion of CO2 production, increased competitiveness, and innovation stimulation.

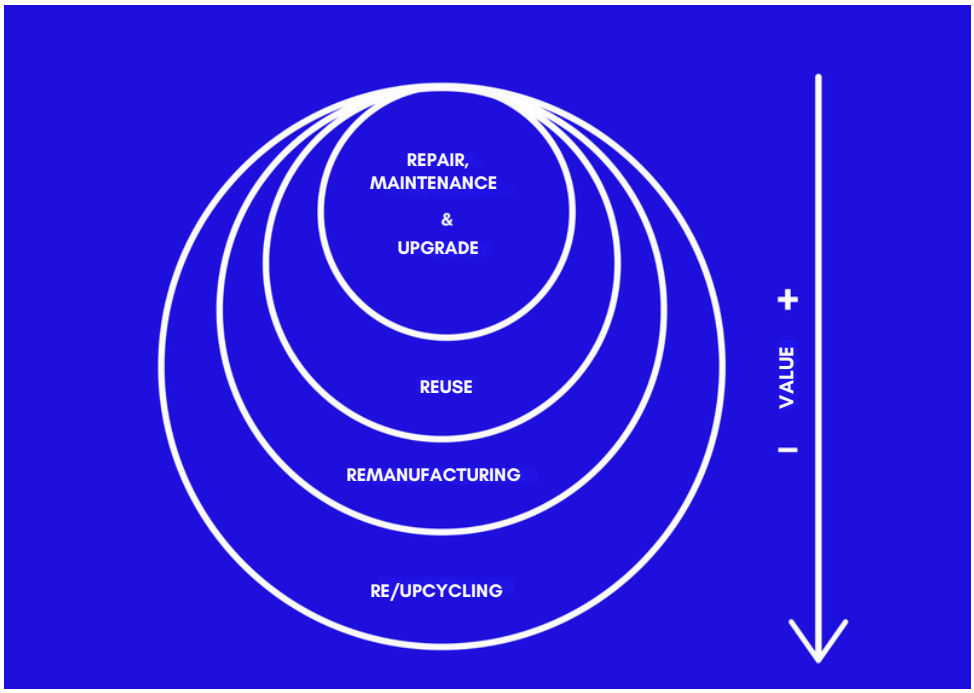

Figure 12: Value chain in Circular Economy. Source: Ethica, Anne Raudaskoski

Adopting circular practices of consumption really impacts the environment, social communities and economies. Indeed, from the perspective of innovation, favouring products with a more sustainable life cycle can be an opportunity for growth and competitiveness in the market. In **this platform** you can find more information.

The type of innovation pushed by sustainability is a type of responsible innovation, which considers its impact on several fronts: economic, social, environmental, etc. As far as the world of business and entrepreneurship is concerned, promoting good practices in terms of sustainability means considering the context in which one moves.

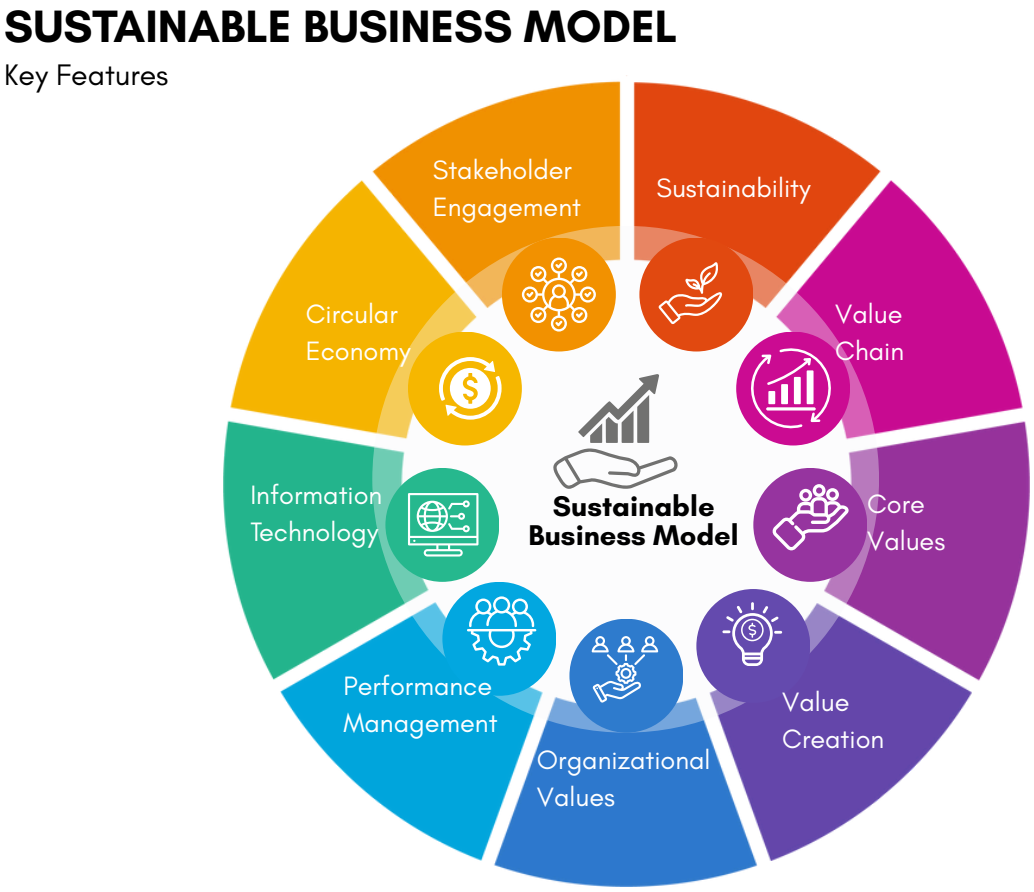

Figure 13: A Sustainable Business model will always consider the context in which it operates.

The interesting fact about sustainability is its potential. In the face of a degenerative model of production and consumption, sustainability proposes a regenerative system in which **innovation**, applied in several fields - including ecodesign - , can be the key to stimulating a new model of sustainable growth that favours all the dimensions involved, i.e. economic, environmental, and social.

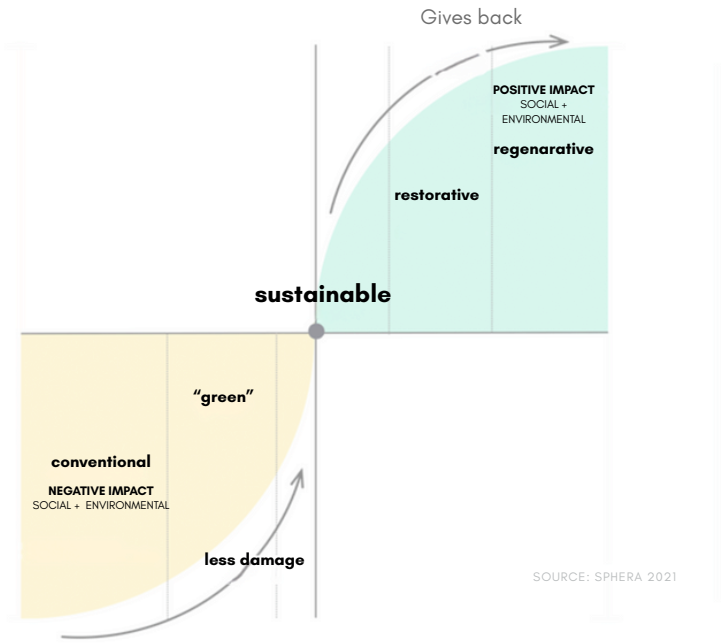

Figure 14: traditional (degenerative) and regenerative growth models. Source: Impact Festival.

Regarding the production/consumption topic, sustainability is one of the main concerns of the EU; as a general objective, it is promoted through different actions and areas. As per the Circular Economy, in 2020 the European Commission adopted a **new circular economy action plan** as part of the new industrial strategy. The main effort is transitioning EU industries to a climate-neutral economy, marking a change for the energy, manufacturing, transport, and construction sectors, together with eco-design, energy labelling and Sustainable Product Initiative.

3.4

Types of sustainability

Sustainability can be said in many ways. However, the fil rouge that connects all its declinations is how the term describes initiatives and actions aimed at preserving a particular resource or element. Sustainability, indeed, evokes a behaviour which entails the capacity to maintain or improve the state and availability of a certain matter over a longer period. In terms of values, sustainability contains a positive reach in the sense that although bringing up the concept of sustainability means recognizing unfair and damaging conducts or trends, it is proposed to redress the balance.

Sustainability has more disciplinary declinations; more specifically, we can identify the **environmental, economic, and social dimensions**, all of which can benefit from practical tools and case studies available on dedicated platforms.

The environmental dimension of sustainability refers to the set of objectives, programs, and actions to be implemented to keep the earth's ecosystem (local or global) and human activities in balance. In this sense, environmental sustainability deals with the conservation of natural resources and capital, meaning that elements such as water, air, minerals, etc., which are mainly threatened by human activity, need to be safeguarded, especially with a view to future generation. Platforms focusing on circularity and ecodesign can offer resources for such **resource conservation** approaches.

In this sense, talking about sustainability in the environment means being aware of the actions to be implemented in order to maintain the quality and reproducibility of natural resources over time, the integrity of the ecosystem to prevent the set of elements on which life depends on being altered, and the preservation of biological diversity.

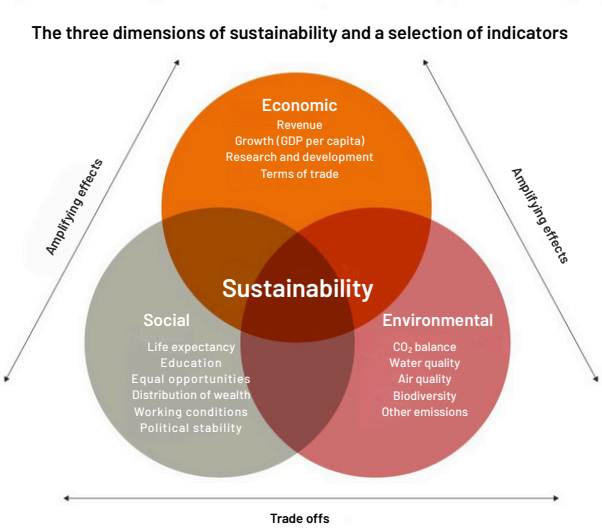

Figure 15: the pic shows the 3 sustainability dimensions and their interrelation. HEDING 2 Environmental dimension

In this regard, initiatives and programs are defined as environmentally sustainable when they ensure that the needs of the population are fairly met, excluding – at the same time - the risk of compromising the needs of generations to come.
Among the issues of interest in environmental sustainability are the challenges associated with the current energy transition, modes of appropriation, and types of energy sources (traditional and renewable). The task of those involved in environmental sustainability is to highlight the challenges associated with each technology and contextualize it in the global geopolitical landscape. In this regard, ***the concept of circular economy*** and the issue of sourcing alternative raw materials also come into play.

With regard to the SDG, goals 7, 13, 14 and 15 are lowered on the environmental dimension of sustainability and, in particular, define actions such as combating environmental degradation, preserving marine life, stocking up with clean energy, and actions against climate change as strategic goals to be achieved.
Paying attention to the issue of environmental sustainability also means putting emphasis on the relationship between the environment and the economy. Indeed, finding a balance between environmental threats and economic growth is one of the biggest challenges in our society and dedicated ***tools and guidelines*** can support this balance.

3.5 Economic dimension

The economic dimension of sustainability has to do with how economic activities are conducted in terms of development and production. More specifically, economic sustainability aims to create a balance between economic growth, resource efficiency, social equity and financial stability.

The economic pillar of sustainability ensures that economic activities are conducted in such a way as to preserve and promote long-term economic well-being for both the population and the environment. A mindset in economic sustainability includes the responsible management of resources (both natural and produced), business and corporate responsibility, efficiency and innovation of economic system and at the enterprise level, consideration toward the social impact and equity, commitment to promoting policies, programs and initiatives that address crucial social issues such as poverty, gender equality, access to education and health care, environmental sustainability, and other social issues, areas where dedicated ***best practices and tools*** can be of support.

The economic dimension of sustainability is strictly connected with both the environmental and social ones. On the one hand, it deals with resources (for example, by promoting affordable and clean energy) and the impact of the economic models on ecosystem conservation; on the other one, it has to do with the need to promote inclusive scenarios to promote decent work and sustainable economic growth.

3.6

Social dimension

The social dimension of sustainability must do directly with the human actors involved directly and indirectly in promoting a sustainable system.

More specifically, paying attention to the social dimension of sustainability means rethinking the well-being and social inclusion of all human beings who participate in a certain economic system, again, directly, and indirectly.

The purpose of paying attention to the social dimension of sustainability is to understand that implementing sustainable actions means having an impact on communities, which can and should be positive and distancing itself from the use-consume-discard model that looks at some social actors as dispensable individuals and collectivises.
The positive social impact that must result from actions implemented in the context of sustainability must, therefore, come not only from institutions typically dedicated to the cause but rather from all actors implementing actions that can influence the society of which they are a part.

To name a few examples of the impact that a social focus on sustainability can have, there is: reducing poverty in different forms, promoting decent and inclusive forms of employment for all, supporting good health and practices that do not undermine the well-being of citizens, promoting inclusive and quality education, and pursuing gender equality.

3.7

Social entrepreneurship in the context of sustainability and circular economy

Social enterprises are defined as model of business with specific social objectives that serve their primary purposes. To this regard, social enterprises recognize the economic dimension of sustainability and if on the one hand they seek to maximize profits, on the other they work to maximize benefits to society and the environment, together with reinvesting their profits to fund socially relevant programs and actions.

As we have seen, sustainability consists of several dimensions that, while theoretically they can be separated, from a practical point of view they are interdependent. For this reason, a social enterprise wishing to define its field of action within sustainability and social impact cannot avoid considering the environmental, social, and economic impacts of its actions.

To this regard it is interesting to briefly delve into the Triple Bottom Line (TBL) theory, a widely adopted framework to measure and report social, environmental, and financial performance of business. The TBL approach encourages companies to take a holistic perspective on their impact and be better equipped to navigate a rapidly changing world.

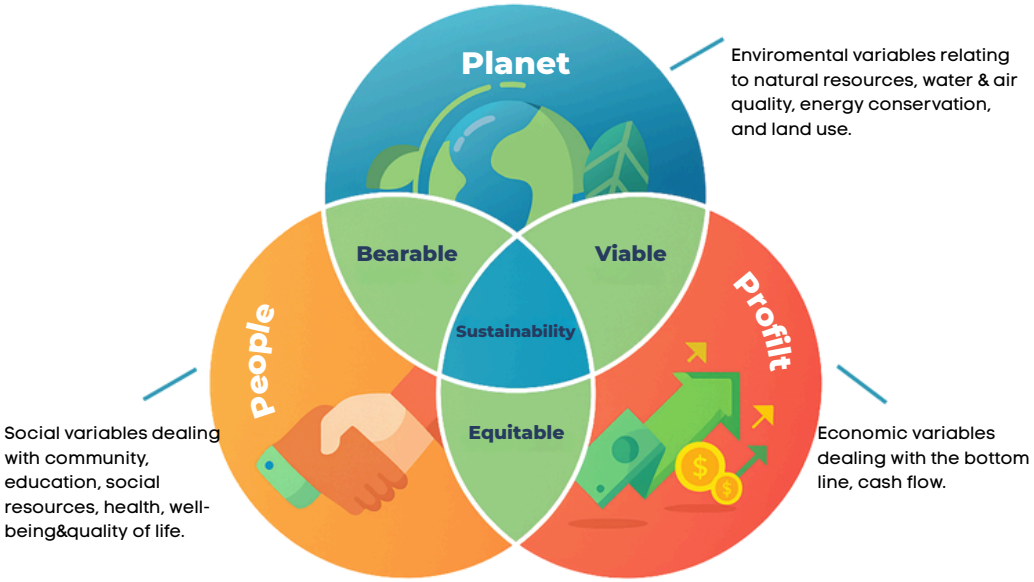

Figure 16: The TPL. Source: ESG Summit Europe, Linkedin

It must be said that social enterprises which implement ***circular solutions*** face unique challenges in scaling their businesses (and therefore scaling their impact) because they are operating within an economic system that is designed for a linear economic model.

However, precisely because that of Circular Economy is an increasingly urgent but little explored topic in entrepreneurship, it can be said that this could represent an excellent push and opportunity for innovation to cover sectors missing from the economic market.

The social network of stakeholders on which a social enterprise is based can be instrumental in developing innovative models and proposals in social impact, considering circular and sustainable actions. In this way, the transition from a Linear to a Circular Economy would take a bottom-up approach, stimulating community inclusion and, in this sense, working towards an inclusive economy starting from the very actors of change.

Social enterprises and their potential for innovation can be crucial in operating a bottom-up, inclusive transformation on several fronts, including promoting Circular Economy models and by spreading informal education patterns based on best practices and advocacy to stimulate change even at higher levels.

Indeed, while the term sustainability tends to circulate in spheres related more to the environmental one, we have come to understand how sustainable actions affect not only this dimension but also the economic and social ones. Supporting and promoting sustainable models mean producing and promoting value and clashing with linear production-consumption models in which the intrinsic value of products, in which economic, social and environmental value is accumulated, is hidden and discarded.

That of sustainability can be seen as an opportunity for social enterprises which, being rooted in the analysis of stakeholder needs at micro levels, can look at sustainability and the Circular Economy as opportunities to expand their business (and their social impact) with effects on social and economic inclusion, advocacy and, more generally, promoting good practices in the field.

At the policy level, the European Union and the UN are trying to implement common strategies to foster the circulation of sustainable practices that cut across all areas of sustainability to foster innovative growth that respects those dimensions that are more fragile and neglected by traditional development models.

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CHAPTER

QUADRUPLE HELIX
Nobody Has Everything

LEARNING OUTCOMES

By the end of this chapter, learners will be able to comprehend the interrelationship between the social and circular economy as a framework for achieving a just transition and advancing sustainable, inclusive development. They will also understand the rapid impact of collaborative innovation driven by quadruple helix orchestration, leading toward quintuple helix approaches that emphasize environmental action. Additionally, learners will recognize the necessity of applying practical strategies at the grassroots, bottom-up level of communities, alongside the integration of transversal basic education to support systemic and inclusive change.

4.1 The Nexus between Social and Circular Economy

Social inclusion and sustainable development are two important concepts that are interrelated. Social inclusion means that everyone can participate in society, regardless of their background, identity, belief, or situation. Sustainable development means that we care for the environment, the economy and social justice, so that we do not exhaust or damage the earth for future generations.

The relationship between social inclusion and sustainable development is that they can either reinforce or undermine each other. If we promote social inclusion, we can also stimulate sustainability, because we create more diversity, innovation, solidarity, and participation. If we pursue sustainability, we can also improve social inclusion, because we provide more equality, well-being, security, and quality of life.

But if we ignore or violate social inclusion, we can also endanger sustainability, because we cause more conflicts, poverty, exclusion, and waste. If we neglect or harm sustainability, we can also hinder social inclusion, because we create more injustice, pollution, scarcity, and vulnerability.

Therefore, it is important to see and promote social inclusion and sustainable development together, as two sides of the same coin. They are not only necessary for a sustainable circular economy, but also for a social, fair, ethical, and empathetic society

4.2 Social-Ecological Systems Framework

When planning the sustainable solutions, the Social-Ecological Systems (SES) framework reminds us on the need to think about the action and its impact in wide system of complex interactions between social and ecological systems. It recognizes that social and ecological systems are interconnected and interdependent, and changes in one can have cascading effects on the other (Geels, 2002). Because of this the quintuple helix model of thinking calls for ex-ante proper collaboration of four traditional societal sector ‘stakeholders.

The (linear) systems In which societies lives in play a critical role in design, finding, implement sustainable consumption and production patterns. This involves changes in consumer behaviour, business models, and social systems influence resource consumption patterns, waste generation, and recycling practices, which, in turn, impact ecological systems. The ability of social systems to adapt to circular economy principles involves changes in consumer behaviour, business practices, and policy frameworks. Enhancing adaptive capacity requires educational programs, regulatory support, and the development of new technologies to facilitate circular practices.

The CE practices aim to minimize environmental impact and contribute to the resilience of social-ecological systems. One important aspect of the SES Framework is the feedback loops. Feedback loops in the SES framework can be observed in the circular flow of materials within the economy. Positive feedback loops can emerge when recycling rates increase, leading to reduced demand for virgin resources. Negative feedback loops may occur if there are challenges in recycling processes or if social systems resist adopting circular practices.

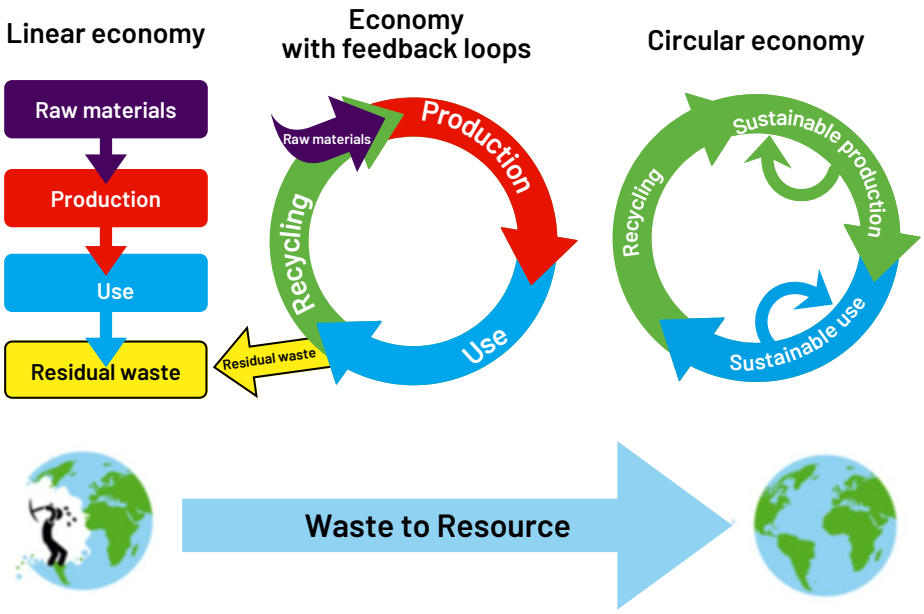

Figure 17 a. Comparison of three types of economy: linear, one with feedback loops, and circular. Source: VANG (I&M 2014)

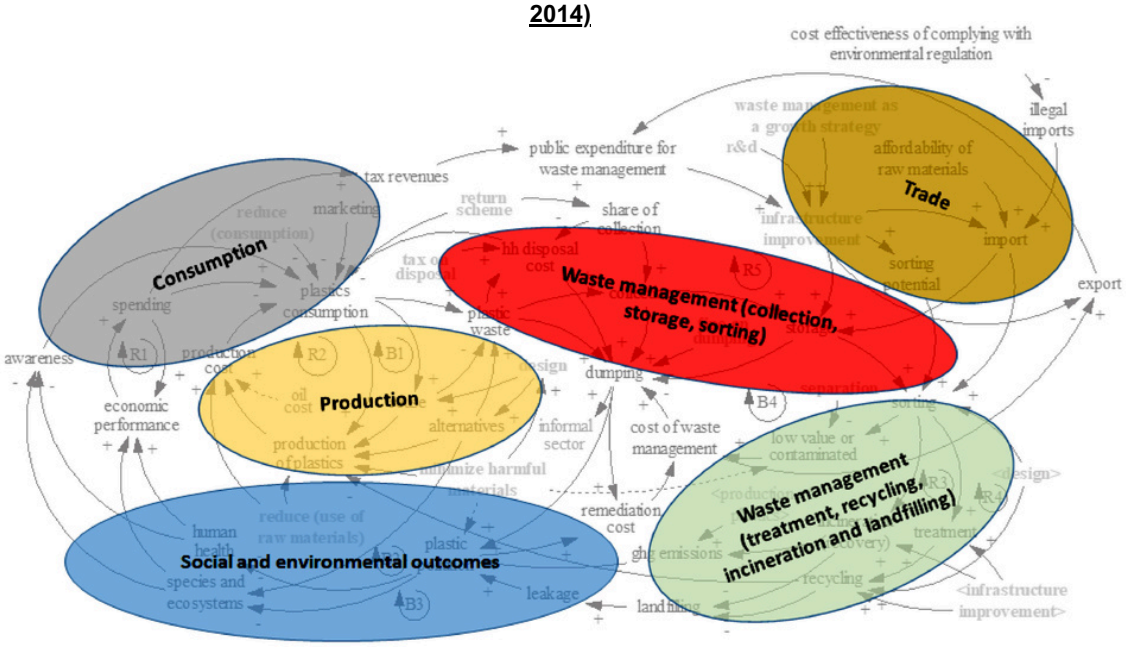

Figure 17 b. Systemic Approach adopted by the Basel Convention on the control transboundary movements of hazardous wastes and their disposal.

Changes in social systems and business practices can influence the broader socio-ecological landscape. The SES framework provides a holistic lens to examine the interactions between social and circular economy systems.

4.3

Social Capital Theory Framework

Social Capital Theory is a sociological and economic concept that focuses on the value derived from the existence of the communities, social networks, vivid norms of reciprocity and trustworthiness embedded within those groups (networks). Social capital is seen as a form of capital that is created through social relationships and interactions. It emphasizes the idea that social networks can have tangible benefits for individuals and communities.

In times of profound, paradigmatical societal changes, the trust is crucial where various actors, including consumers, producers, and recyclers, need to collaborate. Social capital can enhance cooperation in implementing circular practices above the borders of traditional economic productive sectors. Even more the ability to think out of box (own traditional approach and acting in own field of expertise, sector) can yield added value which could not be expected in one's own work sector both in social and circular economy transition.

Circular economy practices benefit from strong social networks. For instance, community-based recycling initiatives rely on social connections to encourage participation and efficient waste management. Collaborative networks can also promote the sharing and reusing of products, contributing to circularity. Those practices require a shift in societal values towards sustainability and responsible resource use. Social capital can play a role in influencing these values, leading to increased acceptance and adoption of circular practices. They further involve engaging communities in sustainable behaviours such as recycling, upcycling, and reducing waste. Social capital can encourage active community participation in circular initiatives, fostering a sense of collective responsibility.

4.4

Community Engagement and Participation

The transition to a circular economy represents a fundamental all around the societal shift - at the heart of this transformation is the recognition that sustainable practices must extend beyond technological innovations to include active engagement and collaboration with local communities. The involvement of communities is not merely a strategic choice; it is a fundamental necessity for the success and longevity of circular economy initiatives. This introduction explores key dimensions of this importance, highlighting how community engagement enhances stakeholder ownership, leverages local knowledge, drives behavioural change, stimulates job creation, and fosters social cohesion. By understanding the pivotal role of local communities, we gain insight into how circular economy initiatives can be rooted in the social fabric, creating a foundation for lasting and impactful change.

Involving local communities in circular economy initiatives fosters a sense of ownership and responsibility. When communities actively participate in decision-making and implementation, they become stakeholders in the success of these initiatives. This can lead to greater adherence to circular practices and long-term sustainability (Haigh, & Hoffman, 2019)). Local communities possess invaluable knowledge about their environment, culture, and specific challenges. Engaging them in circular economy initiatives ensures that strategies are tailored to the local context, accounting for cultural nuances and addressing unique waste management and recycling needs (West & Carrier, 2004)). In addition, community engagement plays a pivotal role in raising awareness and promoting behavioural change. By involving residents in educational programs and outreach efforts, circular economy initiatives can influence consumption patterns, waste sorting habits, and overall sustainable practices.

There are a lot of challenges and considerations when the community will be engaged within new activities such as communication and education gaps and balancing local and global interests. Effective community engagement requires clear communication and education. Gaps in information or understanding can hinder the success of circular economy initiatives. Therefore, strategies should prioritize transparent communication and education programs. Achieving a balance between local priorities and broader environmental goals is crucial. Community engagement should involve dialogues that consider both the immediate needs of the community and the broader objectives of circular economy initiatives.

4.5 Triple, Quadruple, Quintuple Helix

Italy, and Sardinia, are constantly seeking innovative solutions for sustainable development, particularly through the collaboration between the circular economy principles and social enterprises. Therefore, we carried out an analysis based on the quintuple helix model to analyse the dynamics of collaboration between the key four traditional societal, (vertically, bottom-up/top-down settled) sectors: state-regional-local governments, business actors, knowledge institutions, civic society/ngo towards the livelihood environment.

The nexus between social and circular economy is an interdisciplinary field that explores the interconnectedness of social and environmental dimensions in economic systems. Several theoretical frameworks have been proposed to understand and analyze the relationship between social and circular economy, Social-Ecological Systems Framework (Berkes, F., & Folke, C. (1998)), Social Innovation Theory (Mulgan, G. (2007)), Social Capital Theory (Putnam, R. D. (1993)), Institutional Theory (Scott, W. R. (2001)), Capabilities Approach (Sen, A. (1999)), and Social Network theory (Wasserman, S., & Faust, K. (1994)). Below the SES, are Social Capital Theory are analyzing and show the connection between social and circular economy.

Universities and research institutes in Italy have actively contributed to the collaboration by conducting studies on the intersection of circular economy and social entrepreneurship. These training centres have been instrumental in disseminating knowledge, promoting innovation and producing skilled professionals. Sardinian academic institutions have also engaged in research, providing a knowledge base for the region's unique challenges. A virtuous example is certainly the Department of sanitary-environmental Engineering at the University of Cagliari, led by Aldo Muntoni, or the Department of agriculture, led by Pierpaolo Roggero of the University of Sassari: just two examples of how the Sardinian intelligentsia, through numerous projects, including international ones, is pushing in the direction of a more sustainable approach. Considerable effort is also being made by schools which, although they do not have an ad hoc subject designated to tell the story of sustainability, use the space of civic education precisely to weave that educational and formative thread that should lead future generations to bring together concern for the environment with social concern.

Civil society (NGOs and communities of individuals).

In the context of sustainable development, the interaction between civil society and the circular economy and social entrepreneurship sectors in Italy and Sardinia presents a compelling narrative. Despite the evolving legislative challenges faced by the third sector, non-governmental organisations (NGOs) and associations in Italy have been instrumental in acting as catalysts for change and advocates for sustainable policies.

The dynamic legal landscape poses challenges to the third sector in Italy. Nevertheless, NGOs and associations continue to be resilient advocates, navigating complexities and adapting strategies to support sustainable causes.

This resilience demonstrates civil society's unwavering commitment to promoting positive change, so much so that it is seen as the real driving force in promoting sustainable policies.

4.6 Conclusion

In conclusion, the intersection between social and circular economies presents a dynamic and interconnected framework for fostering sustainable and inclusive development. The urgency to address environmental challenges, coupled with the recognition of social and economic inequalities, has propelled the adoption of circular economy principles. The circular economy, designed to optimize resource use and minimize waste, is intricately linked to social dynamics, emphasizing the importance of inclusivity, community well-being, and responsible consumption.

Understanding the nexus between social and circular economies is imperative for several reasons. It allows for a holistic sustainability approach, addressing environmental and social aspects simultaneously. The integration of social and circular economy principles maximizes positive impacts, leveraging circular practices for societal benefits such as job creation, community empowerment, and poverty reduction. This intersection contributes to reducing inequalities by prioritizing inclusivity in employment and community engagement, fostering a more equitable distribution of benefits across society.

Community well-being is enhanced through the integration of social and circular economy models, involving local communities in decision-making processes, and promoting sustainable practices. Circular economy practices, such as recycling and remanufacturing, create new job opportunities, contributing to economic growth and resilience to economic shocks. Consumer engagement is facilitated by understanding the interlink between social and circular economies and promoting responsible consumption habits.

Policy development becomes more effective with the recognition of the interdependence of social and circular economy objectives, leading to regulatory frameworks that support both environmental sustainability and social well-being. Moreover, the integration aligns with the global Sustainable Development Goals, emphasizing the interconnectedness of environmental conservation and social progress.

The foundation for inclusive growth lies in social economy principles, where organizations prioritize social and environmental objectives over purely profit-driven motives. These entities, including cooperatives, non-profits, and social enterprises, adhere to principles such as social solidarity, social justice, and sustainability. The role of the social economy in fostering community development and addressing social inequalities is multifaceted, encompassing community empowerment, job creation, and sustainable business practices.

Circular economy principles and practices, as outlined, provide a strategic economic model aimed at minimizing waste and maximizing resource efficiency. Core principles, such as designing for longevity, closed-loop systems, and collaboration, contribute to a regenerative system. The integration of digitalization and technology adoption further enhances the efficiency of circular practices.

In the field of social and circular economy, theoretical frameworks like the Social-Ecological Systems Framework and Social Capital Theory help analyse the interconnectedness of social and ecological systems. These frameworks shed light on the dynamics, dependencies, and feedback loops between social and circular economy systems, providing insights into challenges and opportunities.

Community engagement emerges as a pivotal element in the transition to a circular economy. Active involvement of local communities enhances stakeholder ownership, leverages local knowledge, drives behavioural change, stimulates job creation, and fosters social cohesion. Effective community engagement requires clear communication, education, and a balance between local and global interests.

In essence, the marriage of social and circular economies offers a path towards a more sustainable, resilient, and inclusive future. By recognizing the interplay between economic activities, social well-being, and environmental sustainability, we can chart a course for comprehensive and lasting positive change.

Engaged in dialogue with policymakers, these organisations strive to establish legislative frameworks that support circular economy initiatives and create an enabling environment for social entrepreneurship.

Civil society support goes beyond advocacy and extends to practical assistance to social enterprises. NGOs and associations actively collaborate with social entrepreneurs, offering mentoring, networking opportunities and resources to enable their success. This collaborative approach strengthens the symbiotic relationship between civil society and the burgeoning social entrepreneurship sector.

Moreover, through grassroots movements, awareness-raising campaigns and educational programmes, NGOs and associations influence consumer behaviour, promoting a culture of conscious consumption aligned with circular principles.

In Sardinia, local communities emerge as essential partners in integrating the circular economy and social entrepreneurship. Their embrace of social enterprises as engines of positive social and environmental impact demonstrates the intrinsic connection between these enterprises and community well-being.

The intricate dance between civil society and the circular economy and social entrepreneurship sectors in Italy and Sardinia underlines the transformative power of collective action. Despite legislative challenges, NGOs, associations, and local communities actively contribute to shaping a more sustainable and inclusive future. Their efforts not only promote change but also actively support and engage with social enterprises, consolidating the role of civil society as a dynamic and indispensable partner in the journey towards a more socially and environmentally aware society.

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CHAPTER

Towards Sustainability and Resilience: Education, Social Economy and Green Jobs

LEARNING OUTCOMES

In this chapter you will learn how circular economy is at present being taught in contexts of formal and non-formal education, how teaching content related to it has evolved over time, what obstacles remain that have prevented circular economy teaching from gaining a more prominent place in formal education and what should be some guiding principles for teaching it to socially marginalized adults. In the second part, you will be acquainted with the formal and non-formal teaching of social economy in Europe, and in particular in the six partner countries Cyprus, Germany, Italy, the Netherlands, Poland and Slovakia, a situation characterized by notable differences in emphasis, depth, and methodology, reflecting varying levels of commitment and understanding. This is followed by an overview of available online and research resources. In the final part, you will learn more about the role that circular skills are likely to play in future labour markets. Circular jobs – employment opportunities that contribute to the circular economy through practices like recycling, repairing, sharing, and sustainable production – are gaining traction, yet the global implementation of the circular transformation remains uneven. Some countries are advancing quickly, supported by robust policy frameworks and industry engagement, while others lag due to structural, economic, or political challenges. In this context, it is crucial to embrace "out of the box" thinking – challenging conventional models and exploring innovative, unconventional ideas about global development – to truly grasp and drive forward the shift toward a sustainable circular future.

5.1

Introduction

Education in the Circular economy (CE) is essential for developing the necessary skills to support the transition from a linear to a circular model. It requires a focus on practical and vocational learning, higher education, and lifelong learning across various fields. Circular jobs often demand more experience and specialized training, particularly in activities like sorting, repair, and redesign. Educational institutions and employers must integrate knowledge of circular business models into their curricula to close the "deep skills" gap. This gap is more pronounced in lower-income countries, where there is less investment in tertiary education and vocational training. Developing comprehensive skill mapping and reskilling programmes is challenging due to the broad scope of circular sectors and activities. In particular, there is a need for a better understanding of the skills required for technical sectors such as remanufacturing, especially in low-income countries.

This chapter discusses the challenges and potential of integrating CE education into both formal and non-formal educational systems, particularly in Europe. Despite the European Union prioritizing CE since 2015, it remains underrepresented in educational curricula. The concept of CE is often introduced through the broader framework of Education for Sustainable Development (ESD), but this integration is typically superficial, with CE often mentioned in passing without substantial focus. ESD, supported by the United Nations, emphasizes sustainable development but lacks a clear, practical emphasis on CE, which complicates its incorporation into education.

In formal education, CE is mostly taught indirectly through ESD, and its presence in national policies, curricula, and teacher education is uneven. The lack of detailed CE curricula and the focus on broader sustainability issues means that students may not gain a deep understanding of CE. Independent evaluations suggest that ESD, including CE, is often treated as an "add-on" rather than being fully integrated into educational systems. This results in low-quality content and modest progress in implementing CE education.

Figure 18: Learning for a Sustainable Future

The concept of CE itself is still evolving and contested, with debates about its true sustainability and practical applications. Initially driven by practitioners and policymakers, CE has only recently gained traction in academia, leading to a more systematic and complex understanding of the concept. However, this complexity, along with differing interpretations of CE, has contributed to the hesitancy in fully integrating it into educational curricula.

In practice, CE education is often driven by individual teachers and schools rather than national or regional policies. This bottom-up approach has led to varied implementations, with some teachers using practical activities like field trips and hands-on learning to teach CE concepts. However, there is a lack of systematic data on how CE is being taught, and many educational materials available are outdated or do not fully capture the contemporary understanding of CE.

This chapter also highlights the challenges of teaching CE to adults, particularly those at risk of social exclusion. Effective adult education in CE requires understanding the learners' backgrounds, including their prior knowledge, and learning abilities, and using inclusive and practical teaching methods. It suggests using local resources and real-life examples to make CE concepts more relatable and engaging for adult learners.

Overall, while there is some progress in integrating CE into education, significant barriers remain, including time and budget constraints, lack of expertise, and the absence of a well-defined curriculum. For CE education to be more effective, it needs to be clearly distinguished from broader sustainability education and tailored to meet the specific needs of different learner groups, especially in non-formal and adult education contexts.

The Social Economy (SE) in Europe prioritizes people over profit, focusing on collective interests and social goals. With nearly 2.8 million organizations employing 13.6 million people, SE is gaining political visibility, especially in terms of employment and social cohesion. Education in SE varies across Europe; countries like Germany and the Netherlands have established formal and non-formal SE education, while others like Cyprus and Slovakia are still developing their approaches. Online platforms like Coursera and resources from the European Commission and OECD offer additional learning opportunities. Despite regional differences, the importance of SE education is increasingly recognized.

5.2
The Circular Economy in Formal and Non-Formal Education

Have you ever heard or read, listened to a radio programme or podcast, or watched a TV programme about a country or school where CE is being taught as a subject? Pretty unlikely, isn't it? Perhaps you have already heard or read about a school or a teacher who has organised a learning activity about CE or something similar, such as sustainable development. Or you already have had the opportunity to participate in a guided tour of a circular business, such as a recycling company? Or attended an event organised by or visited a space run by local CE activists? Maybe. In fact, this probably describes in a nutshell the current state of affairs of CE teaching in most European countries. In the first part, we will try to explain why this is so, despite the CE having been a central policy goal of the European Union since 2015.

If as an adult educator you were asked to teach a group of people at risk of social exclusion what CE means and how its principles could be applied in practice, how would you proceed? Would you start from scratch or rather look around – on the internet, in your local community, etc. – if somebody else has already come up with some good ideas? But where to find them and what would be the best approach? In the second part, we will briefly discuss which approaches might be the most promising and which less.

5.3
CE in national education policies and curricula

In early childhood, primary and secondary education, CE is most likely to be found in teaching content related to the cross-curricular pedagogical framework of Education for Sustainable Development (ESD), launched and promoted by the United Nations. Sustainable development – defined as 'a development that meets the needs of the present without compromising the ability of future generations to meet their own needs' in the 1987 Brundtland report – is based on two key concepts: the fight against poverty and 'the idea of limitations imposed by the state of technology and social organisation on the environment's ability to meet present and future needs' (World CE Forum). It was put on the international agenda (Agenda 21) during the 1992 UN Earth Summit of Rio de Janeiro. Subsequently, member states elaborated ESD concepts that were then to be anchored in national education systems during the decade of 'Education for Sustainable Development' (2005–2014). In 2015, the United Nations General Assembly adopted ESD as subgoal 4.7 (of goal 4 'Quality Education') of its 17 Sustainable Development Goals (SDGs) for the Year 2030 'to ensure that all learners acquire the knowledge and skills needed to promote sustainable development' (United Nations General Assembly).

In Germany, for example, this led in 1998 to the publication of a guiding framework that outlined the planned transition from two earlier frameworks of Environmental Learning and Global Learning to ESD. In this text, CE is mentioned, without further explanations, as one of the foremost topics to be taught about the economic dimension of ESD, along with ecological production of goods and services, minimisation of energy use, internalisation of external (that is environmental) costs, social equity, material flow management and substitution. In 2007, a modified version of the guiding framework with recommendations was adopted by the Standing Commission of the Ministers of Education of the 16 federal states (who, in Germany, are mainly responsible for education) and updated in 2015 to include the United Nations' SDGs. In 2019, the ESD Guideline for North Rhine-Westphalia, Germany's most populous federal state with a population that corresponds roughly to that of an average EU member state, thus mentions CE as one example for addressing the economic dimension in ESD:

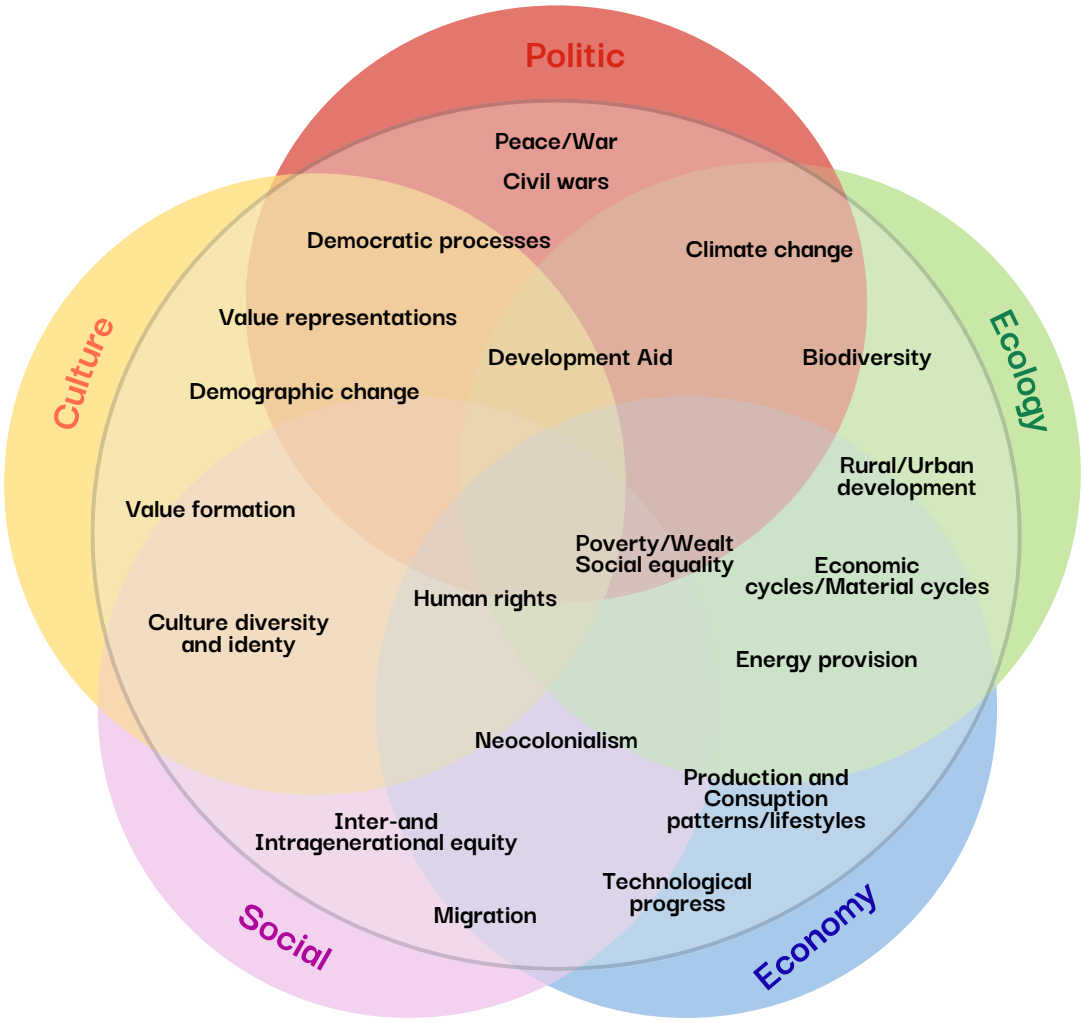


Figure 19: Dimensions of ESD and selected topical content in the ESD guideline for North Rhine–Westphalia, Germany. Adapted from the above-quoted Guideline.

Economic issues also deal with production and consumption patterns in interaction with the utilisation of resources. They examine the forms and consequences of global economic networking and the resulting value chains, implications of the consumption of finite raw materials as well as technological possibilities or the significance and forms of the expansion of renewable energy sources. In addition, strategies for a precautionary economy, a CE or fair trade can be assigned to this dimension. (Ministerium für Schule und Bildung Nordrhein-Westfalen 2019, p. 19; author's translation and emphasis).

On the surface, educational policy appears to have hardly changed in twenty years: CE is to be taught as part of ESD.
Official monitoring of the progress made in implementing ESD is based on countries' self-reporting on four indicators (SDG 4.7.1) that aim to measure whether ESD has successfully been mainstreamed in a) national education policies, b) curricula, c) teacher education and d) student assessment on a scale from 0 to 1, as well as on the identification of best-practice cases.

In the German example, the four indicators have been reported recently as having now reached respectively 1.0, 0.904, 0.95 and 0.917 according to data published by the German Federal Statistics Office. By contrast, independent evaluations, such as Holst et alii (2023) based on a document analysis in combination with expert evaluation, paint a bleak picture, said to be in line with results for other countries: overall, ESD has been introduced mostly as an 'add-on', that is of 'predominantly medium to low content quality, often as a supplement to otherwise frequently unchanged requirements/ objectives/ explanations', with modest progress made between 2017 and early 2022 (see Figure 20 below).

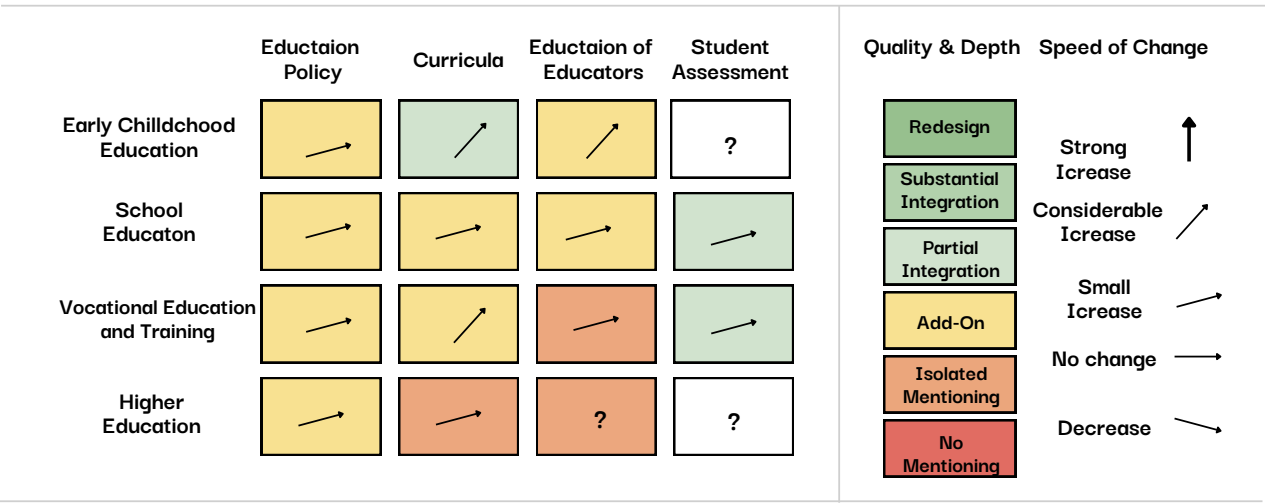


Figure 20: The status of and progress with the implementation of Education for Sustainable Development (ESD) in the German education system. Colors and arrows refer to the rounded mean external expert evaluations of quality and depth of implementation as well as speed of change. No data exists for student assessment in Early Childhood Education (ECE) and no data was assessed for student assessment in Higher Education (HE). Speed of change could not be evaluated for training of educators and student assessment in HE due to a lack of appropriate data (indicated with a question mark).

CE in particular seems to fall under the rating of 'Isolated Mentioning' at the educational policy level given the paucity of information in policy papers. Detailed CE curricula, whether for students or teacher training, are lacking or are at least not publicly available. This pertains also to the role of education in CE national road maps which have been published by and for many European countries since 2016. While stressing the key role that education is expected to play in the transition towards circularity, they are short on practical details (see, for example, an OECD road map for Slovakia from 2022). Before addressing the state of current teaching practices, we will therefore have to address another open question: what does 'CE' actually stand for?

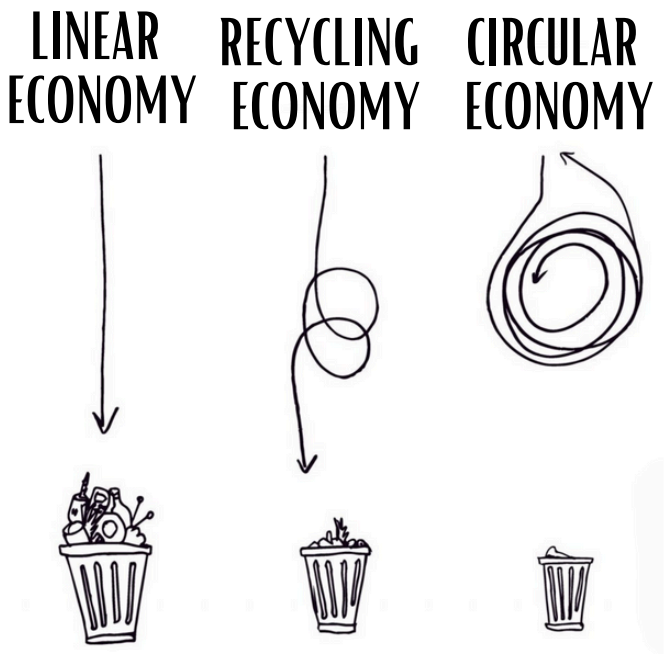
5.4

CE – a contested and still evolving concept

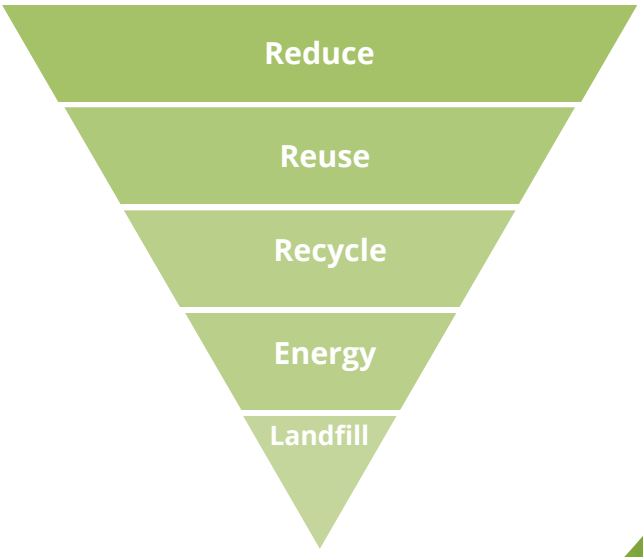
Although precursor concepts of CE, such as cradle-to-cradle, the performance economy, biomimicry, industrial ecology, regenerative design and the blue economy, go sometimes back more than half a century, CE as an academic field of study is comparatively recent. Scholarly publications were initially sparse and their number only took off significantly in the 2010s.

Indeed, the early, often celebratory, promotion of CE was very much being driven by practitioners, that is policy-makers, the corporate sector, business consultants, trade associations and foundations, rather than by academic researchers. This accounts, for instance, for the huge amount of grey literature and the nature of much of the simplified didactical material in use (see Figure 21).

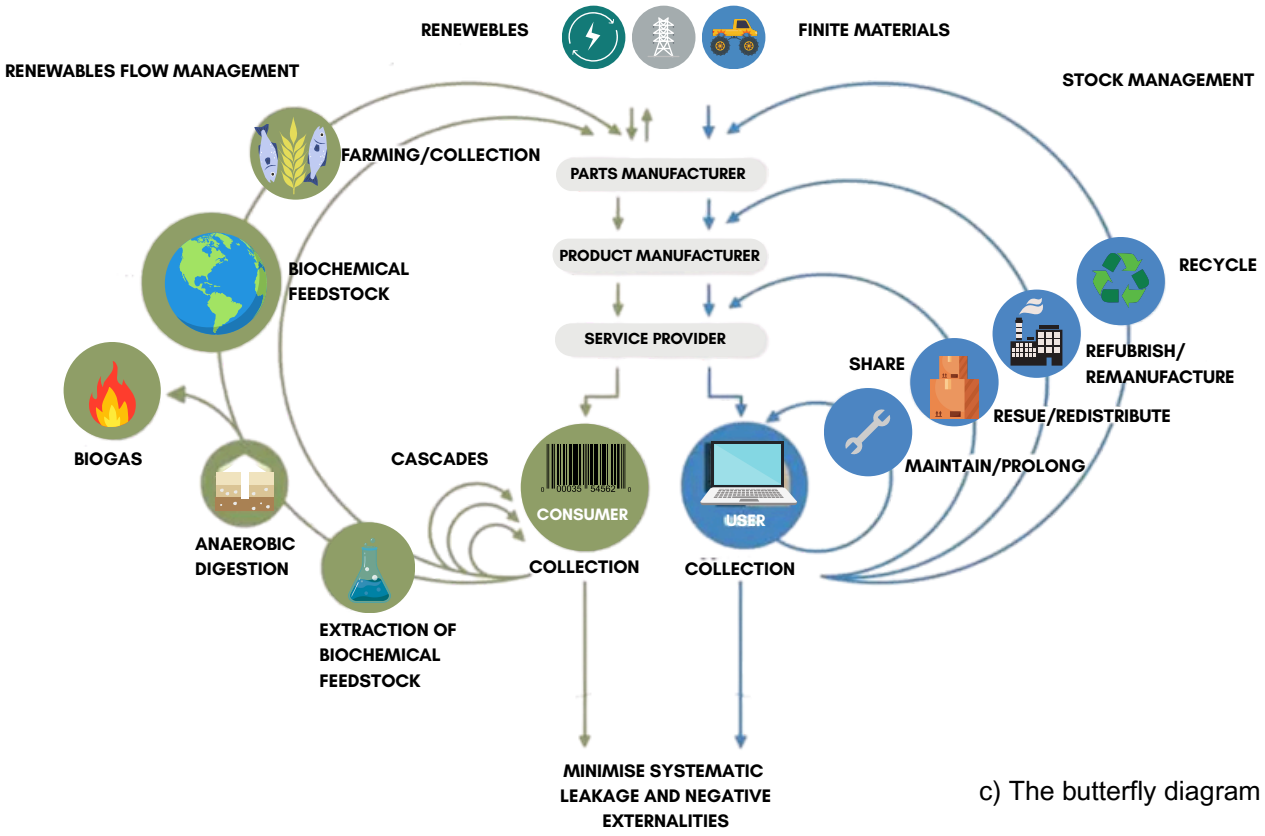
Figure 21: From simplicity to complexity. Examples of graphical representations of CE core principles (Sources from top to bottom: Anew®, Rapp Nilsen 2019, Ellen MacArthur Foundation, Kirchherr et alii 2017, European Environmental Agency 2019)



a) From Linear to Circular Economy (mid-1970s)

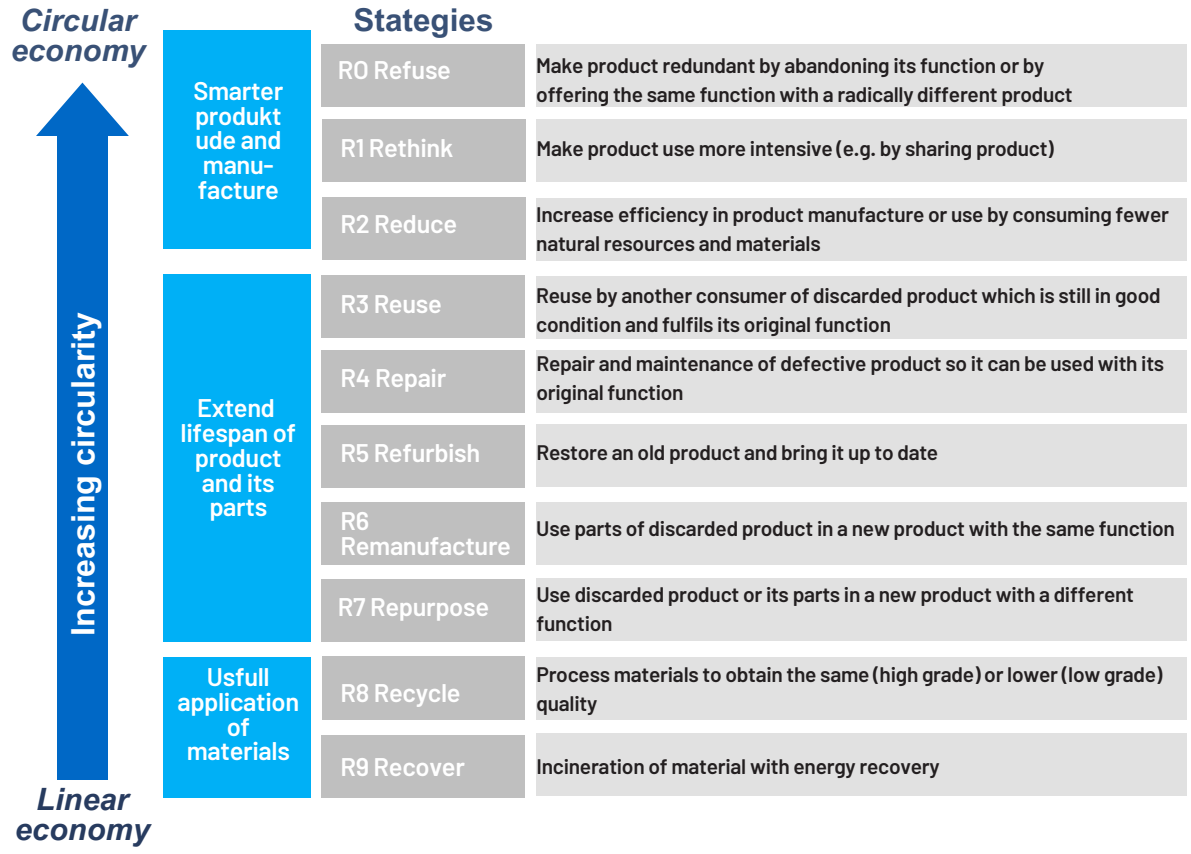


b) 3 Rs and the waste hierarchy (1980s)

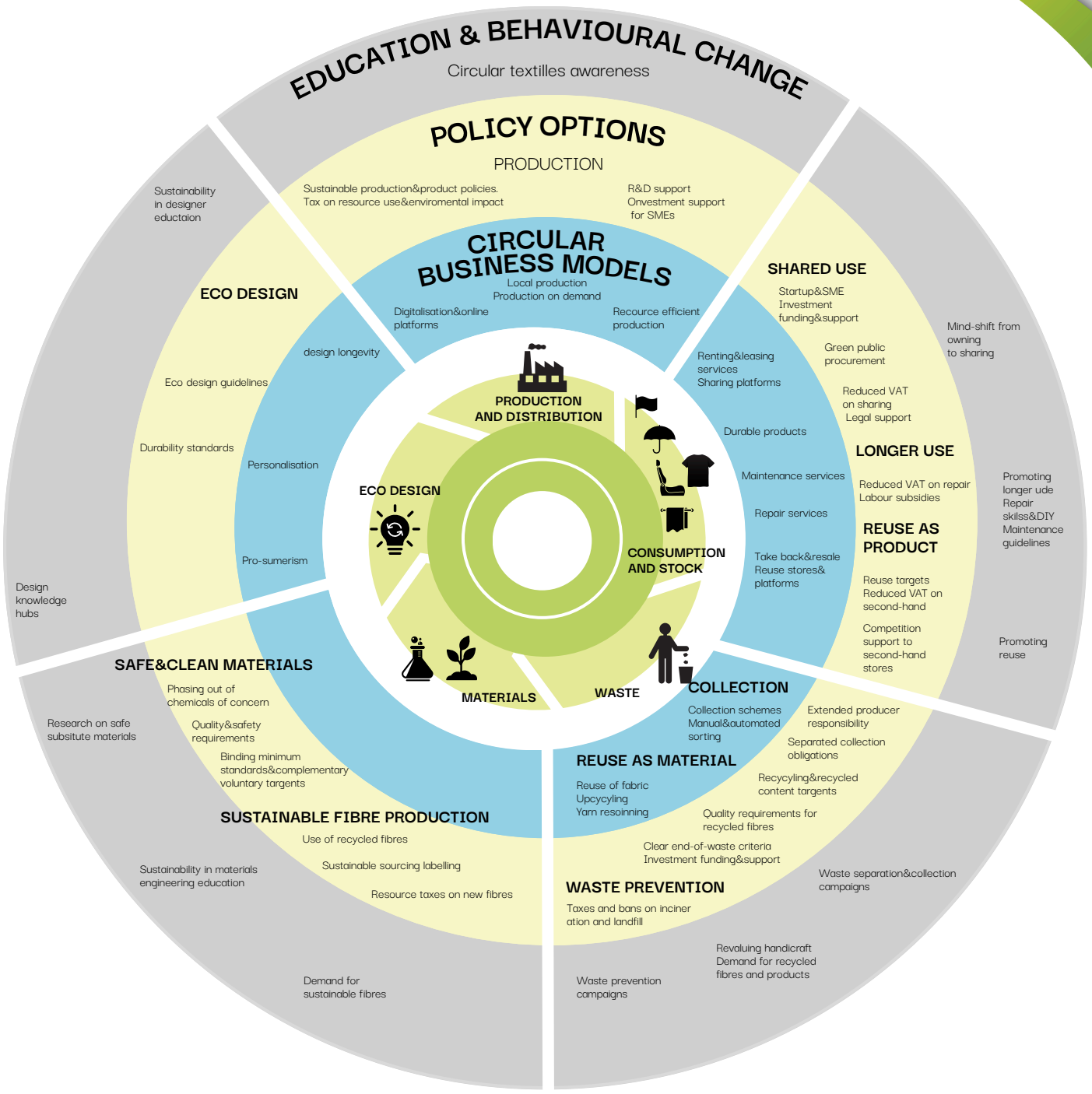


c) The butterfly diagram (early 2010s)

1 Hunting and fishing
2 Can take both post-harvest and post-consumer waste an a input



d) The R-framework (2017)



e) Textiles in Europe's circular economy (2019)

When we look at the practical origins of CE, we'll probably find that they were closely linked to waste management and recycling. In Germany, for example, where the conservative minister for environment Klaus Töpfer (1987–1994) was an early promoter of a CE, his initiatives gave rise to several pioneering recycling schemes and led to the CE and Waste Act of 1994, replacing an earlier Waste Act and followed by the CE Act of 2012 and its update in 2020. The legal definition of CE in these texts refers mainly to waste treatment, with the aim of promoting the CE in order to preserve natural resources and ensure the protection of people and the environment in the generation and management of waste.

After influential policy-makers, such as the World Economic Forum and the European Union, adopted the principle of the transition to a CE as a major policy goal in the early 2010s, academic funding improved greatly and academic scholars increasingly co-shaped the concept. This development has had several consequences. In a characteristically scholarly manner, academics in particular have more recently striven to create a more systematic and comprehensive – and therefore more complex – definition of the concept, while others have questioned core assumptions of CE concepts on fundamental scientific grounds, such as thermodynamics and system boundaries, or pointed out unsubstantiated claims on economic, environmental and social benefits. This in turn has led to critically diverging and politically divisive interpretations of what CE means.

Although the opposition between academic researchers and practitioners should not be overstated, it is possible to distinguish at present between three types of attitudes: a sceptical one, which questions the sustainability of a CE, a radical one, which advocates a root-and-branch ecological, economic and social transformation, both more often found among the first group, and a reformist one, better represented among practitioners who prone a more cautious approach in the face of uncertain economic benefits. Moreover, review articles on CE research have pointed out that CE as an academic discipline is still very much in the making and that the literature has mainly focused on technical studies. These are characterised by an emphasis on beginning-of-life (e.g. design) and end-of-life (i.e. waste management) aspects, often from a corporate perspective, with recycling as the most frequently referred to R-strategy, followed by remanufacturing, repair and, far behind, reuse. Mid-of-life aspects, that is consumption, have, by contrast, received little attention despite their centrality to CE development. Business model invention, on the other hand, is a very young field where consensus is lacking, especially when it comes to CE- and sustainability-oriented novel business models that often deviate from the conventional business model canvas. Finally, as some scholars have stressed, not a single technological but various cultural barriers, 'particularly a lack of consumer interest and awareness as well as a hesitant company culture', are perceived by businesses and policy-makers as the main obstacles for a transition to a CE.

before 2012

after 2012

in peer-reviewed scholarly articles

in publications by practitioners

Defining the Circular Economy

In a study looking at 114 definitions in publications that range from peer-reviewed academic publications to policy papers and reports by practitioners, the authors (Kirchherr et alii 2017) have identified several key components in an attempt to arrive at a 'definition ideally serving as a conceptual foundation for future work on the topic':

R-framework and waste hierarchy. The best-known core principle of a circular economy is probably the R-framework expressed in the easy-to-memorise 3Rs (or 4Rs), namely reduce, reuse, recycle and recover (with some authors defining up to nine Rs), as ways to replace, in that order of priority (waste hierarchy!), the manner in which materials in the production/distribution and consumption processes are being treated in a linear economy where they are perceived as having a limited lifespan.

Systems levels. The second core principle is the systems perspective, which refers to the fundamental shift, rather than incremental changes – at three levels: macro (city, region, nation and beyond), meso (eco-
industrial parks) and micro (products and services, businesses and consumers) – that is required for the transition to a circular economy.

Aims of a circular economy. They are the same as those of sustainable development and are to be realised simultaneously in three dimensions: environmental quality, economic prosperity and social equity, without compromising the needs of future generations.

Business models and consumers as enablers of the transition.
Over time (before and after 2012), the R-framework and the waste hierarchy have been less frequently mentioned while the systems perspective has gained in importance (29% to 47%), along with the meso level, possibly because of the definition of CE as an industrial system promoted by the Ellen MacArthur Foundation. The 4Rs, which are part of the official EU definition, are only referred to in 6 to 7% of the definitions, while the 3Rs appear in 35–40% of them and the pair reuse and recycle in 23% but with the same frequency (25%) in practitioners' definitions. Recycling is the most frequently occurring R (79%), followed by reuse (74 to 75%) and reduce (54 to 55%). In 6 to 7% of the definitions recycling is the only R mentioned. The idea of a waste hierarchy is present in only 30% of them and even less often (11%) in those of practitioners who seem to have a more selective perception of the R-framework, perhaps because terms such as reduce are associated with less consumption (or sales) and therefore less economic growth. Only 12% of the definitions contain a reference to sustainable development and only 23% to its three dimensions, with economic prosperity being the most frequent reference (46% and even 53% among practitioners), ahead of environmental quality (37-38%), while social equity lags far behind (18–20%); only one definition refers to future generations. Business models figure in 11% of the definitions and slightly more often (14%) in those of practitioners, while consumption is part of only one out five definitions. For a graphical visualisation of these results see the Wordles on the previous page.

To sum up, CE theory resembles a minefield rather than a comprehensive and consolidated body of knowledge. No wonder that policy-makers, curriculum developers, teachers and other educational stakeholders appear hesitant and may find it difficult to include CE in teaching programmes. Is Finland showing the way? (See text box on the following page)

Exemplary Finland?

In Europe, Finland is widely perceived as a frontrunner. In 2016, the country was the first in the world to prepare a national road map for the transition to a circular economy under the leadership of the Finnish Innovation Fund Sitra, which also includes provisions for the educational sector.

Between 2017 and 2019, Sitra, in collaboration with over 50 educational institutions and organisations, developed and tested free and openly available learning materials and courses for all educational levels during a four-year period. More than 70 000 children and young people studied circular economy at some 250 schools during the school year 2018–19, notably 75% of the 12-year old and 40% of the 15-year old students. Six universities of applied sciences respectively elaborated a methodological guide for teaching about the circular economy, a 15-credit study unit that included five credits of circular economy theory as an online course and a 10-credit module of developing business models for a practical circular economy. Multidisciplinary minor subject study modules were also developed at five universities on ten topics, such as Circular Economy Design, Materials for Renewable Energy and Metal Recycling Technologies. The Novida company, a content provider of vocational and general upper secondary education and training, provided online courses for promoting sustainable development. Further results included teaching materials and online courses for distance teaching: The Decarbonised Design for construction, the Circula game, the Circular.now online introductory course, the Climate.now course on climate change and Leadership for Sustainable Change. Sitra also developed a didactic lifestyle carbon footprint calculator and info sheets for 100 smart ways of living sustainably.

While resonance among learners and other stakeholders has been positive, developers described the lack of CE expertise among teachers, funders, public administrators, decision-makers and companies as the main challenge. No information in English seems yet available on the project's follow-up.

5.5

Circular economy teaching in practice

EU policy papers on CE regularly emphasise the Union's bottom-up approach to CE and compare it favourably with the top-down one adopted by China since the 1990s. Existing practices of Education in CE (ECE) seem to confirm this for educational systems, as the initiative for them are, with few exceptions (see ANNEX Green box Exemplary Finland?), left to individual teachers and schools. National or regional repositories for teaching materials, for instance, generally offer few teaching resources. Nor seem systematic data on the implementation of ECE to have been collected. We will therefore have to rely on fragmentary or indirect data publicly available, such as a teacher survey and published learning materials.

To get a glimpse of how current ECE looks from the teachers' perspective, we have used the preliminary results of a small online survey conducted among secondary school teachers in four EU countries (Germany, Greece, the Netherlands and Portugal) as part of an ongoing Erasmus+ project.
CicloSchools, that seeks to promote ECE in secondary schools. Most of the participating teachers declare themselves wiling to implement some form of ECE in their classrooms (87%) and confident to meet the knowledge, skills and understanding needs of their students (73%), stimulate them to participate in CE-related activities (74%), effectively implement suitable instructional strategies (62%), accurately evaluate these (54%) and to have the appropriate content knowledge (52%). At the same time, a large majority (over 80%) agree or strongly agree that teachers should develop their competencies in this field and introduce CE into their subjects or in a cross-curricular way. This confirms general findings in the literature that point out teacher knowledge and teacher training as weak points of ECE. Among the main challenges teachers are facing are time and budget constraints (40% and 12% respectively), as well as (non-existing) curricula (11%). Interestingly, the methods already used or recommended emphasise the importance of practical activities (e.g. field trips to circular businesses and organisations, case studies, guest speakers, hands-on learning, experiential activities, etc.) and interactive and multimedia content (e.g. educational apps and games, coaching, peer and project-based learning) with theoretical approaches rather in the background, in line with recommendations found in the literature on ECE.

Cursory desktop research for publicly available online teaching resources tends to confirm the widespread adoption of these methods. Lesson plans or learning activities for younger students in early childhood education, primary and lower secondary schools often take the form of teaching topics linked to their personal experience. Examples include activities on household waste management ('urban mining'), personal consumption patterns with regard to food, clothes or smartphones, discussions and activities on how to make the school more circular or lifestyle carbon footprint calculators that show how to reduce CO2 emissions at the personal level. Older students are more often taught, for instance, through simulation games, visits to circular businesses and initiatives and the organisation of discussion groups. Some students may also choose a CE topic to prepare the presentation of a personal research project. Many in-school activities are typical for conventional teaching methods, such as the use of worksheets. However, the sample consulted leaves the impression that most of the examples identified do not frame these learning activities in a circular context, are inspired by older conceptions of CE and fall rather under the paradigm of Education for Sustainable Development. This risks students not gaining a clear idea of what CE means. Furthermore, practical activities are sometimes critically seen as creating a feel-good atmosphere at the expense of an understanding of the wider implications of the transformation required for the transition to a CE. Another potential drawback may be that older students miss out on the current scientific, political and societal debates about the CE, although these are very tentative conclusions in the absence of empirical data.

In conclusion, we suggest that the successful implementation of ECE in schools are hampered by the following factors:

- Time-on-task constraints force teachers to choose between concentrating on curricula core subjects, which are crucial for the assessment of students' academic performance, and introducing new topics, such as CE, that also require more preparation. These constraints become stronger over time, which might explain why ECE occupies a more prominent place up to the lower secondary level.

- Budget constraints make it difficult to fund extramural activities, such as field trips, or the acquisition of appropriate teaching materials, such as circular games.

- Lack of CE expertise is common, as CE content seems not yet available for teacher training and further education.

- Lack of a well-defined curriculum for CE (see above), because of the length of curricula revision cycles (10 to 20 years).

- Continued adherence to the current ESD framework risks preventing a proper understanding by teachers and students of the specificity of the CE transition. Certainly, ECE has an established, though peripheral, place in ESD, but the latter is much more vast in scope (see Figure 2) and ECE has a different focus. Imagine two circles of uneven size that are partially overlapping. In practice sustainable development and CE are often confused: most non-experts, and many experts, see the transition to a CE as one way to achieve sustainable development and, more rarely, as a further development of it. But remember, ECE as part of ESD is what teachers are paid to teach at present.

So what should or could a more efficient ECE for the general education system look like? CE research postulates that consumers, along with businesses, are the main enablers of a CE and that the circular transition will require major political, social and economic transformations. This seems to plead in favour of teaching ECE as part of consumer and civic education, with a bit of circular theory thrown in, while the more technical and business aspects could be left to vocational and educational training (VET), on the one hand, and to higher education institutions, on the other. Unfortunately, the consumer part is still an understudied field in circular research (see above) and consumer education has historically occupied a marginal place, notably in ESD, in general education curricula and teaching.

Given the central place of technically-oriented studies and, to a lesser extent, of business model invention in CE research, one might expect a stronger presence of ECE in VET and higher education institutions, at least with regard to professional training or studies in these two fields. However, the situation is very much the same as in the general education system. In VET curricula, CE-related subjects, such as renewable energy, recycling and reuse of residual materials, have been included already a number of years ago, for some technical professions, while sustainability-related topics can be found for a wider number of industries. As in the general education system, circular initiatives by schools or individual teachers play a minor role. In some cases, VET students implement small circular projects at the school lab or at their workplace. Providers of professional further education, similarly, seem reluctant to include ECE in their courses.

As shown above, CE is still an emerging academic discipline. Although it already has some of the institutional trappings, such as dedicated scientific journals, others, such as dedicated degree programmes or full teaching posts, are still rare. Among the close to 21 000 degree programmes offered at German higher education institutions, only two could be identified as exclusively focusing on CE, with a handful of others combining it with other specialisations, such as water or waste management and recycling technologies, compared to more than a hundred programmes across a wider range of disciplines, that include sustainability or sustainable in their name. A number of institutions offer introductory courses to CE and have incorporated circular learning modules into their curricula, mostly in technical disciplines and based on an older conception of CE. The Technical University Berlin, for example, has a Department for CE and Recycling Technologies, set up in 1975, which offers an introductory course to CE and also cooperates with local circular initiatives such as the local Haus der Materialisierung.

In the field of non-formal education, non-profit organisations have played an influential role in the last 25 years. Launched in 2010, the Ellen MacArthur Foundation in particular has become a reference and crucially co-shaped our present understanding of CE. There are probably several thousand others across Europe that also have developed training courses and educational material or organised educational events (e.g. living labs) for a wide range of target groups, including educational institutions and the general public. Since the call year of 2014, for instance, over 800 Erasmus+ projects, indexed under the keyword 'CE', have been completed and 322 further are ongoing as of July 2025, according to the funding programme's database. While these educational efforts, due to a lack of resources and expertise, may rarely attain the quality of products and services offered by commercial providers of educational content or not have the same outreach or continuity, some pioneer innovative approaches. Of particular importance are circular practices, such as libraries of things, repair workshops and workshops on artistic upcycling, as well as social enterprises implementing circular principles in their economic activities.

To sum up, whereas much of mainstream education remains associated with older conceptions of a CE, that could be characterised as a recycling economy, there are a considerable number of organisational or individual initiatives by various kinds of educators that promote CE content within and beyond educational institutions in the sense of a more contemporary understanding of CE.

5.6 Which approach for socially marginalised adults?

In the following we will only suggest some general guidelines for designing methods, activities and learning modules for the target group of socially marginalised adults who seek employment in the circular economy and wish to set up a circular business. Practical examples for the approach are the subject of a separate publication, ***Circular City Meets Social Enterprise. Towards a Curriculum for Adult Inclusion***, which can be downloaded **here.** Additional methods and practical tools can, moreover, be found on our Circular City Hub platform under 'Tools' **here.** The platform also offers virtual spaces where adult educators, learners and other interested persons are encouraged to exchange and discuss their views, ask questions or propose solutions. The Hub Platform Guidelines can be found **here.**

Most of the teaching resources referred to above will obviously not be appropriate for this target group. Resources designed for children, for example, are often not appealing to adult learners, though intergenerational learning might be a good option in some contexts. Those conceived for formal education may repel adults who have had a difficult educational trajectory or because the kind of learning practiced in schools is deemed too artificial. Still others may require a certain level of education.

The planned training should be as inclusive as possible. For this reason, it is best to establish at the outset learner profiles of the future trainees that assess their existing knowledge of and experience with circular concepts and practices, as well as their learning capacity, in order to design a training tailored to the target group and to select suitable teaching materials. A good way to do this is through individual interviews, because some persons may be reluctant to speak openly about these subjects in front of a group, and to proceed in two steps: a first interview to assess the future trainee and a second one during which trainer and trainee agree on the learning goals to ensure learners' motivation.

When assessing a learner's familiarity with circular concepts and practices, it is generally (though not always) preferable to avoid abstract questions and rather ask the interviewee whether they have, for instance, already heard of, visited or worked at particular local circular businesses or similar ones elsewhere, whether they have already bought second-hand clothes or repaired themselves clothes or taken to them a repair workshop instead of buying new ones, whether they return plastic bottles if a national or local recycling scheme exists, and so on.

Learning difficulties are a sensitive subject. Complete or partial illiteracy are common. Immigrants may not be fully proficient in the majority language. Some people have sensory or other impairments that restrict their ability to fully participate in certain learning activities (hands-on activities, field trips, etc.). People with back problems may thus be unable to adopt the same posture for prolonged periods of time, those with ADH may struggle to focus on the same subject for an extended period of time. Others may find it difficult to learn in groups (e.g. autism spectrum) and their response to this situation might affect other learners.

Finally, trainees should understand well what to expect and manifest their willingness to attend the training under the conditions agreed upon. This will help avoid high dropout rates, absenteeism and lacklustre participation.
Training materials and teaching methods should take into account special needs and accommodate different types of learners: some learn best by reading a text, studying visual material or watching a video, others by listening or asking questions, while haptic learners prefer learning by doing (hands-on!). Alternating different types of learning activities or active and passive learning phases generally make for a good approach. Adults who have left school a long time ago frequently feel uneasy when confronted with conventional teaching methods current in formal education, such as teacher-student questions or abstract tasks, and prefer real-life examples.

This points to the importance of using local resources rather than ones that can be found online. For example, rather than discussing and working on the case study of a circular business, think of visiting a local circular business where learners can ask questions and better relate to the topic under discussion. Drawing general conclusions should come at the end of a training session or a training course.

Moreover, much of the CE literature is in English and tends to be full of academic, technical or corporate jargon. Training methods and materials have, however, to be prepared for your local language and in one that can easily be understood by the trainees. When familiarising trainees with core circular principles such as the R-framework and the waste hierarchy, prefer easy colloquial language (e.g. 'waste pyramid' or a graphical illustration rather than 'waste hierarchy') and avoid a simple translation of the 3, 4 or more Rs, if it doesn't work well in your language and sounds contrived. Instead, try to convey the underlying idea that some practices are more circular than others at preserving or making more efficient use of material and energy resources in a manner best suited to your target group. After all, the Rs are just a convenient way to do this in English and you might be able to create another interesting one, whether catchy (alliteration, rhyming, etc.) or not.

Finally, regularly collecting feedback will help adjusting methods and materials during an ongoing training and improving future training courses. Feedback is best obtained in a plenary session or through individual conversations. Avoid questionnaires, which tend to lead to complacent ratings. A post-training evaluation of the learning outcomes, discussed with the participants, and follow-up contacts with them six months or a year later will allow you to measure the impact of your training.

5.7
The Social Economy in Formal and Non-formal Education in Europe

Social Economy (SE) is a special economy, putting people before profit. Driven by collective interests, social and environmental goals guide economic activities. Social economy organizations are active in almost all sectors. They include cooperatives, associations, mutual companies, foundations and social enterprises. The social economy landscape is diverse, with almost 2.8 million organizations in Europe that provide more than 13.6 million jobs, according to the European Commission.

The SE has been gaining more and more political visibility in these past years as a model that generates positive outcomes, notably in terms of employment and social cohesion across Europe. In the first part of this text, we are going to see how social economy is taught in European formal education, and in the second part, how it is taught in the non-formal education field. For those two parts, we will mainly focus on CIRcular City consortium countries: Germany, Cyprus, Italy, the Netherlands, Poland, and Slovakia.

5.7.1
How is social economy taught in Europe nowadays?

The teaching of social economy in Europe is a dynamic and diverse field. While there is a growing recognition of its importance, the approach varies significantly across European countries.

As Lioara Mariana Mudura, a doctor in Economics (University of Oradea, Romania) wrote in an article about “The Evolution of the Social Economy Concept in Europe”: “Since its emergence in 1830 until today, social economy has been perceived differently by the European countries and has taken many forms”. For her, in countries such as Cyprus, Poland or Slovakia, “the concept of social economy enjoys a medium level of acceptance” whereas in Germany, France or Belgium, for example, social economy is increasingly recognized, and universities and vocational schools are incorporating it into their curricula. Nordic countries like Finland or Sweden are known for their strong cooperative movements. They also established solid social economy education programmes, with a focus on cooperative principles and management.

5.7.2
Examples of Social Economy Education in Europe

France - is one of the most advanced in Social Economy Education in Europe. There, social economy is taught to two main different target groups: students in an increasing number of specialized Master degree programmes dedicated to the social and solidarity economy (SSE). These programmes delve into the theoretical foundations, legal frameworks, and practical management of social enterprises. Employees through integration into Business and Management programmes: Social economy is increasingly being incorporated into broader business and management curricula. Students learn about the social enterprise model, its impact, and its role in sustainable development.

Germany – like France – boasts a robust social economy sector, and its educational landscape reflects this, because the concept of a "social market economy" is deeply ingrained in German society. Many German universities offer courses and programmes related to SE. These programmes often combine elements of economics, sociology, political science, and law to provide a comprehensive understanding of the social economy.

The Netherlands - have a long-standing tradition of cooperatives and social enterprises, making it a fertile ground for social economy education. Dutch educational institutions also integrate Sustainable Development Goals into social economy curricula, emphasizing the role of the sector in addressing global challenges.

Poland - SE is still a relatively new field, even though the country has experienced a significant growth in the social economy sector in recent years, which has led to an increased demand for skilled professionals. Nowadays, some universities offer courses or specializations in social economy, cooperative studies, or social entrepreneurship within faculties of economics, sociology or management.

Cyprus - is in the process of developing its social economy sector. The educational landscape in the field of social economy is still emerging, so we don't yet have too much data about the state of social economy education in Cyprus.

Slovakia - SE education in Slovakia is still in its early stages of development. A growing number of universities and higher education institutions are starting to offer courses or specializations related to social economy, social entrepreneurship, or cooperative studies.

Italy - has a rich history of cooperative and social enterprises, and its social economy sector is steadily growing. However, a recent report by AICCON (Italian Association of Cooperative and Social Economy Consultants) highlights a gap in the Italian higher education system's ability to prepare students for the social economy sector. The report emphasizes the need for stronger collaboration between universities and social economy organizations to co-develop curricula and educational materials.

5.8
The state of non-formal education to social economy in Europe

Germany - is well-advanced in non-formal education of social economy. Indeed, there is a growing emphasis on social entrepreneurship, with programmes focusing on business models with a social impact. Germany's renowned dual-apprentice system, combining on-the-job training with vocational education is also applied to social economy subjects, and it is always easier to learn about a subject when you can practice it at the same time.

Netherlands – the educational system often incorporates work-based learning, providing students with hands-on experience in social economy organizations. Indeed, internships and placements in cooperatives, social enterprises or NGOs are common there.

Poland - education in the social economy takes more often place via non-formal education than in tertiary education. NGOs, cooperatives, and social enterprises often organize training courses, workshops and conferences on various aspects of social economy.

Cyprus - non-formal education in the SE sector is still in its formative stages. Despite these, there are still some potential avenues because many NGOs and cooperatives in Cyprus are likely to organize workshops, seminars and training sessions on the topic of SE. These initiatives often cater to specific target groups, such as unemployed youth, women or marginalized communities.

Slovakia - there is also a growing emphasis on practical and non-formal learning, with many programmes incorporating internships, projects and case studies. The Slovak government has shown increasing interest in supporting social economy development, which could lead to more opportunities for education and training.

Italy - has many non-formal education programmes to teach about social economy. There is a growing focus on preserving and strengthening the cooperative identity, given Italy's strong cooperative tradition as we said earlier.

5.9 SE goes further - online tools to learn SE

Based on the foregoing, we can say that social economy education in Europe varies widely across countries. Overall, there is a growing recognition of the importance of social economy education, but the pace and depth of implementation differ significantly.

Along with how the individual EU states are progressing towards the most advanced countries that have already created their formal educational programs for social economics as an established profession, everyone who tries to navigate the development must be able to take the first and basic step - to develop their own activity and actively search for information and the best presented practices for building a socio-economic business plan. By exerting one's own efforts and carrying out an ex-ante web survey, every pupil and trainee becomes the creator of the most suitable educational curriculum for the development of the social economy.

Online platforms - because of the many forms and practical realizations of socio-economic work - there are no online platforms or tools dedicated exclusively to social economy. Nevertheless, several resources can provide valuable knowledge. Some online platforms, such as Coursera, edX or Udemy, offer courses in economics, sociology and business management that include fundamental knowledge for understanding the social economy. For example, on edX, you can find an online course about Economic Democracy from The University of Edinburgh. There is a free way to take those courses, but if you pay you will have access to more functionalities, like graded assignments and exams. They last an average of six weeks.

Research websites -The online platform of the European Commission, The Organisation for Economic Co-operation and Development (OECD), World Bank (WB), World Economic Forum (WEF), United Nations´ Agencies (UN) offers a wealth of information, studies, and reports on the social economy, including concrete measures to support the SE", starting with the brainstorm onto the labour market policies ending on private and public (partnerships) funding, including to EU funds.

Other Resources – social media - As even the highest global and European political documents define the current stage of "how things work" the social networks, working, chat groups buzzing at social media are an excellent source of information about what is happening in the current stream of social economy development. Platforms like LinkedIn, X (ex-Twitter), Facebook have groups and communities dedicated to social economy "what's-ups" – as the live stream for accessing resources and getting quick answers to questions.

However, it is important to remember that a deep understanding of the social economy in the European Union requires combining online "liquid sands" learning with "well-rooted" hard-data proven academic studies, practical experience, and engagement in the sector which is currently emerging within the structure of EU DGs as Proximity Economy, Proximity and social economy ecosystem – well-structured and anchored in the solid structure of EÚ policies via the 'A New Industrial Strategy for Europe'.

https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1593086905382&uri=CELEX:52020DC0102i

5.10

The Future of Jobs (Report 2023)

Following the successful onset of the policy of transition from a linear economy to circular models of production and consumption, the labour markets in individual countries are also changing, and the requirements for the qualifications, skills and knowledge of the workforce are also changing. In the most developed countries, green transformation does not become a separate educational subject - it becomes a so-called transversal skill, which means that an individual will use it in various moments of his working and private life. It is therefore knowledge as a value equipment for work and private life in accordance with the limits not of one's monetary income for work, but with the biological-environmental limits of the global world. Information and knowledge necessary for professional work growth are acquired during lifelong learning, while learning is based on value transversal value equipment.

Just as the influence of the owners of the world, expressed in monetary value, declines against natural disasters and environmental externalities, causing astronomical damages and losses, the influence of consumers of the youngest generations, who feel existentially threatened by the climate crisis, is increasing. They are resistant to the majority's desire for overconsumption, which industrialized countries experienced after World War II. Even more, companies are facing pressure to speed up their green transition, as just over 1 in 4 adults say sustainability is one of their top non-negotiables in a new job.

The global shift towards green jobs is also proven by an analytical document of the social network LinkedIn, which declares a global community of 800 million network users who prioritize terms such as green skills and jobs, or green talent. (Global Green Skills Report 2022)

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https://economicgraph.linkedin.com/content/dam/me/economicgraph/en-us/global-green-skills-report/global-green-skills-report-pdf/li-green-economy-report-2022-annex.pdf?trk=eg_fow_grn_nav

The report shows some interesting trends:

- Green skills and jobs are urgently needed to support the green transition. Most jobs requiring green skills are not traditional green jobs. Five trends shaping the green economy The demand for green talent will be will soon overtake the offer
- The recruitment of green talent is accelerating faster than overall recruitment
- Currently there is a good balance green skills that are needed
- The fastest growing green skills are both mainstream and emerging

The report states that the solution to the climate crisis, which is reaching its exponential phase starting to fuel itself (perpetual motion machine), requires the collateral action of the main stakeholders of cohesion in national companies as follows:

- **Policymakers:** Champion green skills and prepare the workforce for the green transition
- **Business leaders:** Invest in upskilling current and future green talent
- **Global workforce:** Gain green skills to power change and compete for the best jobs

Several documents of the UN, OECD, ILO, WEF, and key world think-tanks in the field of social economy draw attention to the fact that changes in the labor market respond to several factors changing the framework and rules in which the workforce does its work - lifelong learning and reskilling need to become common by employer practice, while a relatively rigid approach to creative and innovative combining of existing work and continuous education in the existing workforce persists. Such models of work and education have the potential to strengthen the worker's resistance to unexpected changes by increasing his flexibility and ability to see things from the perspective of interruption or end of the job.

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5.11

Good for the planet and good for workers. What skills does an employee need to have in the circular economy?

The circular economy has become a global challenge for all countries of the world and all continents. The labor market in each country Working on the transition from a linear to a circular economy requires different knowledge and skills, primarily depending on the economic maturity of that country. Global documents (CIRCULAR GAP MONITOR 2024,) on global circular transformation divide countries according to their economic development into:

Shift *(Enjoy affluent, comfortable lifestyles and perform well on social indicators, however, they consume far more than their fair share of materials)*

They MUST:
A) Built environment: Reward market players for investing in circular solutions and business models/Make circular building projects an attractive investment option/Close the labour and skills gap with a mix of education and policy/
B) Manufacturing: Encourage products to be designed for circularity: durable and easy to reuse, repair and recycle/ Use pricing and convenience to nudge people toward sufficiency lifestyles/ Foster a cultural shift through education and legislation

Grow *(middle-income countries are and will likely remain key manufacturing and industrial hubs)*

They MUST:
A) Food system: Roll out policies to encourage nutritious choices and cut food waste/ Reform economic incentives and regulations to prioritise regenerative farming and holistic land management/ Empower and protect farmers engaged in regenerative agriculture/
B) Manufacturing: Remove barriers to scaling circular manufacturing with clear and mandatory targets and aligned incentives/ Direct capital investments and promote technology transfers to scale up green tech/ Develop a plan for sustainable skills development for the jobs of tomorrow

Build *(Lower-income countries generally struggle to meet basic needs for healthcare and education)*

They MUST:
A) Food system: Unlock investment in climate mitigation and adaptation/ Enable farmers to invest in innovations to increase agricultural output and quality/ Ensure ‘future-proof’ skill sets with training and skills pathways and recognise Indigenous, regenerative practices/
B Built environment: Cultivate enabling policy conditions for a circular built environment value chain/ Allow local governments to plan and adapt for circularity with financial and technical resources/ Facilitate labour-intensive circular building solutions with skills development and informal economy processes.

REFERENCES
https://www.circularity-gap.world/2024

Depending on which country the circular transition applicant lives in, he can define the key priorities for ensuring the social and environmental resilience of his country. Subsequently, in cooperation with those around him, he can define the procedures and content of education recommended by the most important knowledge panels of the world's circular transformation: The workforce from the point of view of creating circular jobs into:

- **Core Circular Jobs** (Prioritize Regenerative Resources, Sustain and Preserve What's Already There, Use Waste as a Resource),
- **Enabling Circular Jobs** (Rethink the Business Model, Design for the Future, Team up to Create Joint Value, Incorporate Digital technology) and
- **Indirectly Circular Jobs** ("Indirectly circular jobs are jobs that indirectly uphold the circular economy. These jobs occur in other sectors that do not play a direct role in furthering the transition to the circular economy but can still adopt circular strategies"). (Circular Jobs Monitor)

The most important information for the bearers of the transformation from a linear to a circular economy in the case of the CIRcular City project are precisely the countries named as SHIFT = developed.
In **SHIFT** - the most industrially developed countries of the world.

Owners and qualified employees of companies receive education on how to produce products in the circular economy primarily as part of standard formal education. Since a highly qualified workforce must handle a lot of information for their own expertise, education about the circular economy must be in absolute harmony with information directly related to the production of the employee and his company. Here we are talking about the lifelong education of company management (so-called white collars) and the education of the production workforce (so-called blue collars). It can be said that managers are expected to have their own motivation for continuous education, which can help ensure the competitiveness of the manufacturing company.

The huge material depot is already allocated as the material stuff - it represents a great potential for the creation of new jobs, especially for low-skilled and socially, socially and health-disadvantaged working groups. Recycling, reuse, repurpose jobs in their connection with subjects of the social economy, which work with financial and legislative support of the state, can, with creative invention and motivation of managers, produce new values from products that in a linear economy would have already ended up in a landfill.

In the most developed countries of the world, it is primarily a matter of slowing down consumption, which generates the most industrial - not biological waste that can return to the biocycle of nature - waste. The strategies Reuse, Recycling, Remanufacturing Repurpose, Redesign represent the most effective circular strategies for the creation of industrial, but also micro-enterprise circular jobs. And finally, these jobs can be achieved even by low-skilled labor - regardless of the reason for which the individual entered this group of residents (socially, socially, health-endangered and excluded person).

In the most developed countries of the world, in the period after the Second World War, the most aggressive forms of private ownership developed with excessive influence on the political administration of the country, which caused disproportionate wealth of a small part of society, unfair models of distribution of public goods and services. And it is in these countries that the transition to fairer forms of sharing and redistribution represents a huge potential for social economy policy.

https://www.circular-jobs.world/

The transition to a circular economy from a linear economy is a political agenda transformed into concrete measures for all components of society - industrial producers, educational institutions, administrative management of nation states, and in current practice, since the approval of the Closing the Loop Directive, the main agent of popularization and expansion of this agenda throughout society - non-governmental organizations and global environmental activities and movements. The state of global circular existence has been measured since 2018 (9.2%) and in 2024 it confirmed a downward trend at the level of 7.2%." If the results of this transformation currently sound insufficient, it is necessary to consider the fact that the industrial production of the century operates in a linear economy. Efforts starting with the initiative of the conference in Rio de Janeiro in 1992 as "A new blueprint for international action on the environment" are only decades old.

In 2024, the Circularity Gap Report for the first time put people at work and keeping their jobs stable at the centre of attention in monitoring the year-on-year development of the circular transformation of the global world at the heart of this story, exploring the jobs and skills that drive the circular transition above the priority of reaching the annual peak speed circulation transformation. "This topic must permeate the entire society - many things—such as policy, finance, education, migration, and the current state of the economy—influence people's livelihoods and the labour market."

It is necessary to consider the fact that purely technological solutions for the introduction of circular practice can also mean the disappearance of existing jobs, which has the potential to cause dissatisfaction of ordinary working people with solutions that ensure the sustainability of the environment, whereby such a change can put working people in a position to think about the environment about yourself and the world. Circular solutions must first consider the sustainability of work for the individual - in this context, it is necessary to capture the existing skills and at the same time the decisive importance atypical forms of work – temporary, flexible, or informal for example jobs – and given the interplay social equality and gender dynamics that affect decency work results. The circular transition must have a positive effect the labour market by providing new job opportunities, also in the framework of the global redistribution of value and opportunities, so that the loss of job opportunities, especially in the global south, is bearable for the catching-up economies of the world.

The main circular sectors which may benefit from local, renewed historical skills and knowledge:

- **CIRCULAR CONSTRUCTION SYSTEM** - there is a huge potential for revitalization and scientific and technical innovations of original - nature-friendly, solutions - a great potential, as solutions built on traditional and historically regionally anchored construction provide a lot of space for the creation of green professions. In the building of skills and new branches of the green transformation, it is possible to expect the development of government educational tools, open to the migrant workforce from third countries.

CIRCULAR FOOD SYSTEM - Growing economies have a huge potential for increasing attractiveness in regenerative agriculture and bioeconomy models, as they have not yet completed the large population migration between the countryside and urban centres. By combining the traditional ability to live in the countryside in connection with the historical awareness of sustainable agriculture, it must be combined with the highly productive scientific and technical potential made accessible by new forms of social entrepreneurship to broad layers of the rural population. At the same time, there may be preventive non-adherence to the trajectory of fast foods and their wastage. Preserving diversity in ownership forms and the size of the farm can prevent monoculture macro-agriculture, regardless of local biodiversity and seasonality of the local food chain. In addition, the local workforce involved in short "Farm2Fork" supply chains is motivated to produce quality and its marketing, regional brand. These centres also act as centres of innovation, pioneering techniques to reduce food loss and transform waste. Moreover, the emphasis on local and seasonal food means that food losses, emissions and environmental impacts are much lower.

Beyond the tasks directly related to the growth of the circularity index in developed countries, there is one more specific task, and that is the export and internationalization of the best solutions and knowledge-based non-financial assets to developing/GROW and low-income/BUILD countries. It is not conceivable that these countries will overcome the same development towards excessive consumption in the coming decades and centuries, based on which they will transform into circularly sustainable countries. It is for this reason that it is obvious that the importance of non-governmental humanitarian and development services will increase on a global scale. However, the subject of the export of financed projects must be the transfer of the best circular practices from developed countries to other parts of the world - wherever there will be a suitable political situation for collaboration and cooperation.

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