



Handbook for Circulink

A summary of experiences and conclusions for the Circulink initiative



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Introduction

Circulink is a collaboration between five partners from Portugal, Spain, Cyprus, Ireland and Sweden, where the goal has been to:

1. create an attractive educational program in circular economy for companies, organizations and educational institutions.
2. set good examples and create opportunities for stakeholders to develop collaborations in the circular economy.
3. Build networks and take advantage of existing initiatives or provide opportunities to develop new ones..

The conditions between the partner countries are different, but significant for all is that there is a very great interest in developing circular thinking. There are many initiatives with a focus on developing / educating / improving in the circular area.

In connection with our work with Circulink, Europe has experienced something as unusual as a pandemic, which made the work within the project more difficult, but also had the effect that the use of new technology, the need for local solutions and cycles, changed transport habits etc. have created new circular models. . For the benefit of both the local cycle and the environment.

In the work with Cirkulink, we have seen that the need for training in Circular Economy is great in both small and medium-sized companies, but also in public organisations. Educational efforts to understand how the Circular Economy works and how it can affect both the economy and the environment globally, regionally and locally.

Methods and technical references

1. The understanding of the different areas of circular economy and the response of companies / organisations / training providers to the training programme?

A) How do companies view the training in the project to better understand circular economy?

Sweden: The clearest thing in our work was that the participating companies and their representatives said that they were well informed and knew a lot about Circular Economy, but when we started discussing the training material, circular link and the business models that exist, the majority said that they did not have enough knowledge and would be served by further training. However, they were hesitant to set aside as much time as needed to complete the entire training package. They mainly saw that they could use parts of the material and that they were happy to see that the training could be concentrated on a half-day or three-four-hour session with a trainer. They saw the educational material as very useful, it is not too academic and it is easy to adapt to the needs of the company. We also conducted a test at Folkuniversitetet (an educational organization

that conducts post-secondary education, education for new Swedes and company-adapted educations). In their new course in the autumn of 2021, they will use parts of Circulink's educational material in the course. They could also see that there is a need in other courses to include Circular Economics as part of the course structure.

Spain: The local companies (as for example ECODES) and the University of Zaragoza who deals with the Sustainable Development Agenda (with sustainable development objectives. **#ForPeopleForPlanet**), they gave us their feedback to improve our training materials under the project and some ideas on how to be implemented at local level.

However, not only must existing companies adapt, but also the circular economy creates new niches of entrepreneurship and employment for which the necessary environment must be created to facilitate its start and consolidation.

Training in this area is therefore essential, aimed on the one hand at both managers/directors of companies who must make decisions, as well as intermediate managers and workers who must contribute to process efficiency and resource use. On the other hand, citizens who see in the circular economy an opportunity for entrepreneurship.

Among the many actions it contemplates, we are clear that the communication, commitment and the impetus to the change of economic model that from the training CIRCULINK is proposed with this project, will only succeed if there is a solid training behind, if professionals within companies, entities, administrations and institutions have the necessary and innovative training that is needed, and with the existence of human resources that can be incorporated with the preparation and qualification necessary for their performance.

Portugal: Despite being one of the EU countries that have forward in strategies, roadmaps and action plans for a Circular Economy, in line with the European Commission's ambitions, from the events consultation and feedback from the piloting phase, we could access that is still much work to do in terms of knowledge spreading under this field. The driver of this transition is based on encouraging and developing business models, collaborative strategies, products and services focused on the efficient use of resources. Stakeholders and SMEs representatives involved in this project stated the need for "getting knowledge of financing opportunities" and "strategies on how to move forward their business". They also showed interest in the development of a learning unit to Introduce Circular Economy, showing, not only interest in this subject – which is quite positive – but also some lack of basic knowledge. They also pointed out that the "the "circularity" subject is quite vast" and the "the best way to convince companies/entrepreneurs to attend this course is to show them the advantages and benefits about Circular Economy". So, training like the one provided by Circulink was quite welcomed, especially if it is tailored to business realities.

Ireland: In Ireland, we delivered the Circulink piloting with a blend of some local companies, but also some social partners including local social enterprises and a youth centre. Therefore, their understanding of the circular economy and their motivations for getting involved in this project varied greatly. At the outset it is worth mentioning that none of the participants were engaged in

the circular economy prior to the training, and none had any prior knowledge of circular business models, etc. They found the training to be very interesting, but their motivation for engaging with the training was borne out of curiosity with what the circular economy was and how their businesses and organisations could get involved in it. When participants began talking with us about the circular economy, their knowledge was limited to some examples linked to upcycling old furniture, refurbishing old technology and guitars, but they were not aware of the scope of the circular economy, and what qualified as circular economic activities in the broadest sense.

Cyprus: In Cyprus, a disadvantage was that the participating companies were not well educated about Circular economy concept. However, when we began discussing the training content, circular connection and business models, most said they knew some of the concepts such as Corporate Social Responsibility (CSR). Still, they highlighted they do not know how to apply it to their companies and the Circular economy's importance. Moreover, they even expressed interest in integrating some of the training parts in their formal learning processes. They also pointed out a lack of culture in the business sector regarding these issues in Cyprus. However, they are willing to integrate some of the Circular economy concepts to their regular trainings. It was also highlighted that the recently the Cyprus Parliament passed the regulation about social enterprises; therefore, there will be many initiatives the next years. The representatives also mentioned that the EU focuses on integrating the concepts of Circular Economic in all sectors, so such training will be fundamental.

B) How have the companies worked with circular economy and how has the Circulink project been used by the companies in the various partner countries?

Sweden: The companies and organizations we met had very different conditions and experiences of circular economy. Kinnarps, which has a sustainability strategy, works intensively with environmental issues and also has a CE profile, did not have much need for the training package, however, the local representatives saw both opportunities and development potential in networks, collaborations but also in training based on local conditions and circulinks training. Gavlegårdarna, which is a municipal real estate company, representatives had very little knowledge of Circular Economy, but work very clearly with CE in their daily work. They considered that the training material could be used a little differently depending on which staff group is to undergo the training, but they were clear that they within the management would not be able to set aside more than half a day. They also saw clearly how they should use what they are already doing in their marketing as a CE company. The smaller companies had a relatively low knowledge of CE and how they could develop their company and the market in which they work. They thought the training in Canvas business models was a brilliant way to look at their own business and there they could also have the opportunity to work out new ideas and concepts. They thought the training material was good, but like the others, they saw that they could not complete an entire training within the framework of their regular work. A basic course and a specialized education according to their wishes would be ideal for them. The organizations that participated in the project considered it important to be able to get the training together with other companies. However, there were different opinions about whether these companies should be in the same industry, some thought it was ok while others saw it as a difficulty when discussing business opportunities and future changes.

Spain: Spanish attendees from the workshop were VET teachers of the Master Degree of the University of Zaragoza. They have the opportunity to gain knowledge related to the CE and how to deliver with innovative methodologies. They have highlighted the blend method, really useful in current situation. They have decided to include the CIRCULINK materials in their lectures with students.

In conclusion; the goal of the CIRCULINK project workshop at local level was the Dissemination, Awareness-raising and Training in the new Circular Economy model and its implementation, which includes among its actions the development of a specialized training programme that promotes business leadership in the circular economy, the training of workers to train and adapt the skills and skills in this field, as well as training aimed at entrepreneurship in the opportunities posed by the circular economy, both in new initiatives and in which they may arise within the companies themselves.

Portugal: Portuguese attendees from the piloting phase had different levels of comprehension about Circular Economy. The majority took the course to gain “general awareness” and “networking”, others stated that they were expecting “to learn a more ‘technical approach’ about CE”. One of the added values of the Circulink training course was - according to the trainers (and companies) that attended the multiplier events and/or the training event - the case studies and the Sustainable Business Model Canvas approach. The case studies gave to the trainers a practical helping in bringing the understanding of a complex issue, by extending experience or add strength to existing knowledge. In this case, they could resemble their realities to the realities that were explained in the case studies. Some of the attendees also mentioned that the training course/training contents could be “adapted to my business reality”. But, despite this, all of them saw this training as an added value and the Circulink Collaborative Area a good “contact point to share/check best practices”. For sure Ciculink outcomes plays a “trendy” subject and is “useful to my company”.

Ireland: As previously mentioned, none of the companies and organisations from Ireland who participated in the project has previous experience in the circular economy. Ireland’s circular economy is under-developed, and so, much of what motivated participants to engage with this project came from a curiosity for this ‘new concept’. As such, the Circulink training programme acted as a robust introduction for participants into the circular economy; but it also gave them practical examples of what constitutes the circular economy and the principles that should be considered when developing businesses and projects in this field. Participants especially found that the topic of diversity management was interesting in this regard, as they stated that they had previously not made the link between diversity and circular, but with the case studies and examples, they found this link to be interesting. They noted that it also helped to have national examples, like the diversity strategy of Dublin Bus, as this is something real that they can relate to. When introducing the circular economy to individuals, organisations and companies, there can be a lot of jargon at times, and new concepts to take on board. Participants noted that having case studies and practical examples really helped to make the content more relatable and tangible.

Cyprus: The findings from the training part confirmed that Cyprus continues to perform poorly in Circular Economy despite the significant improvement. There was no prior experience in the topics circular economy of any of the companies and organisations from Cyprus involved in the training. Interestingly, the key element shared by the companies is the focus on Corporate Social Responsibility and some initiatives such as recycling. Overall, the participants were satisfied with the main part of the training programme. A blended learning approach was followed, where participants could interact with the online material and the online collaborative area. They found the case studies, and the real-life examples valuable, and they noted that this approach helped them understand the topics. Moreover, participants examined the training material and worked in pairs to prepare specific checklists and other activities. The participants express their wish to see more training and initiatives in Circular Economy the next years. They also noted that the online environment is user-friendly, and each module's structure is beneficial. They also found the short introductory videos useful if you do not have prior knowledge on the topic.

C) Why did the companies / organizations consider it important to initiate a circular economy and how did they set up their strategy for CE?

Sweden: Despite the major initiatives taken within the EU, Sweden and the region, it is difficult to bring out both the knowledge and the possibilities of Circular Economy to already established small and medium-sized companies. Creating reduced energy use and saving financial resources is possible, but changing the way of thinking and contributing to greater change is much more difficult. Most companies we met do not have a real strategy for CE, but have an environment and sustainability profile. None of the companies we met had had a regular training in CE, however, several had had an environmental training for the employees. Kinnarps, which is a larger company, has a strategy for sustainability at the national level, and CE is also part of their sustainability work. Within the educational organizations we met, they had little or no direct education within CE, where they saw a great need to get CE in the educational parts that contain sustainability and the environment. The discussion was clear that it should be a matter of course work in all post-secondary education. Even in colleges and universities' economics programs, CE is not affected to the extent that it should and sometimes not at all. Everyone in the reference group saw this as an important piece of the puzzle for bringing knowledge into the future companies.

Spain: our Government of Aragon has an economic strategy in terms of circular economy. The objective of the department is to value this sector, not only to the one dedicated to the pure circular economy, but also to all those who are doing a circular economy by engaging in some kind of engagement with companies that give a second life to products or waste. The function of the department is to support, make visible and facilitate that the sector can continue its activity. We work in the circular economy within what is a productive process in the company and in the symbiosis of the opportunities for circularity that those waste or products arising from a company may have and that can be put into value by another company or others from a different sector . They would like to promote an online training courses for Smes in circular economy, for this reason our CIRCULINK project is in line with its perspective.

Portugal: At a time when economic growth is increasing globally, the circular economy has assumed a more and more prominent role on the agendas of several countries, including Portugal. The strategic concept of the circular economy is based on the principles of reduction, reuse, recovery and recycling of materials and energy. With gradually scarce resources and an environmental need to promote better use of resources, the circular economy is essential both for maintaining levels of economic growth and for environmental preservation and resource conservation. And, has never before economic growth been so necessary: a study made in last august - "*MDS Research: Economic Situation in Portugal*" - concluded that the pandemic situation "has caused strong volatility in the companies' business, with a significant impact on revenue." More than two-thirds of the companies in Portugal (73.1%) "expect a reduction in their turnover in the period from April to June, compared to the first three months of the year", while 10.4% expect "to record an increase in their volumes business ". So, all the help is welcomed. Through the reuse of resources and a reduction in the production of waste, it is possible to make the resources generate value again. With this increase in the useful life of resources and their ability to generate value in more than one production cycle, in addition to making the use of resources more efficient, the capacity to create value in companies is increased. The major problem is: micro and SMEs do not have a clear strategy to implement CE strategies. Is necessary training, word spreading, information and guidance on how to shift their business models to turn them more sustainable and where/how to find financial support to do it. Circulink project expects to contribute to this awareness process, being an OER, available to everyone who wishes to increase his knowledge about Circular Economy and take advantages of collaborative approaches with peers, not only by learning from them sharing best practices but also by sharing resources, distribution channels, among others.

Ireland: At this stage in our piloting, participants have not yet taken the formal step to set up a CE strategy; however, they have engaged in the full piloting process and provided very positive feedback on the training. Their motivation for participating in this training, we feel, was down to a curiosity about the circular economy, which is still a new concept in Ireland; and also with 2020 being the year of COVID-19 and lockdowns, local community members and businesses expressed that they are interested to learn about new models and ideas that could help them to re-build the rural community and the rural economy after COVID. One participant in particular was passionate about this point, stating that there is a need to 'build back stronger', but also 'greener'. There was a lot of talk about being able to push the reset button on climate change and invest in rebuilding the rural economy after all of the lockdowns we have had in Ireland, but with a focus on environmental protection. As such, the circular economy provides a new model for rural businesses and communities to do just that; this is seen as having great potential for the Circulink training package moving forward.

Cyprus: The circular economy concept is underdeveloped in Cyprus. According to the participants, there are several obstacles to developing a circular production loop in practice. It was generally agreed that education, awareness, and advice are required to improve their business models to align them with the Circular Economy concept. Furthermore, participants highlighted the need for cooperation which is a critical problem faced by the circular economy sector. Importantly

participants noted that the circular economy is valuable, but it must also meet business needs and profitability to be considered a viable model for the industry's future. On the other hand, participants mentioned several examples demonstrating that the circular economy is beneficial for the environment and income.

2. Evaluations from the different countries / partners' work with Circulink

A) *What reaction / reception for the project did you get from the participants?*

Sweden: The companies and organizations we met during the project have been very positive and contributed with their opinions and thoughts. They have also tried to look at their own business and link it to Circulink. We have tested parts of the exercises, conducted discussions and had lectures on both Circulink and CE, which has been well received, what has been the big dilemma is the time aspects for the small and medium-sized companies' representatives and their opportunities to complete training based on Circulink's entire training program. We learnt that two main subject not included in the project were of very much importance for the companies, the first was public procurement and the second were Industrial Symbiosis. We included this in the Final conference and also the new European legislation for the financial system that can be crucial for developing CE. We have also according to this developed a presentation about these two issues that can be used.

Spain: The companies, organizations and the University were really interested in project and they gave us a positive feedback and contributions.

Some of the teachers have decided to include the training materials in their classrooms with students.

We have found a big demand for the Circulink platform for the training courses due the Covid situation as the training could reach more trainees.

Portugal: The companies, organizations and individual entrepreneurs that attended the multiplier events and pilot phase were quite interested in the Circulink Training. They highlighted the “preponderant subjects, a very good way to approach them” and “there are not many training offers in the market and there’s is still a lack of knowledge related to Circular Economy and Sustainable Business Models”. So, Circulink training and related outputs, had great receptiveness but, on the other hand, they also mentioned the need to “adapt the training to business needs”, and the same with case studies that were presented on the course toolbox: “to adapt the case studies to the client,/trainers if possible, use case studies close to the clients /trainees that will attend the course”. The lack of time to attend a training course is also an issue. Some stakeholders mentioned, “the time is not the best to attend a formal training, but I will check the learning platform and try the self-learning”. So “a modular version is very good since we can select the most appropriate subjects”. Despite many trainees mentioning that they missed face-to-face sessions while evaluating the piloting, others also highlighted the “online flexibly”. Trainers and trainees suggested to “developing more online exercises and/or adapt the existent in-class exercises to online”, in case of maintaining a 100% self-learning experience. At the same time, this could improve the level of reception, since the training could be followed online, adapted to the rhythm of each trainee.

Ireland: Participants in Ireland were very enthusiastic and supportive of this project. They saw the potential for Circulink and the circular economy to provide a new model for rurally based companies, organisations and communities to re-build after the turmoil that COVID-19 has caused. Many rural economies were only beginning to feel the full benefits of economic recovery from the previous economic crisis in 2008, so there is a lot of pessimism among rural businesses about their future with the economic implications of the COVID-19 lockdowns. While this was mentioned during the training, the positives that came from the training is that businesses and community groups could adopt the principles and models of the circular economy, and the social economy, to re-evaluate the values of the rural economy, and to engage businesses in achieving social impact and addressing some of the social and environmental issues that are currently affecting rural communities; rather than just reverting back to linear business models and rather than having profit at the centre of their strategy. There was a general consensus that with the right local support, there is potential for the circular economy to have a positive impact on local business, and in local communities.

Cyprus: Participants in Cyprus were satisfied with the training material and the project. Overall, we received positive feedback. They appreciate the usability of the online material, and they also expressed appreciation about the training material as well as the case studies, examples, but they are slightly affirmative about the balance between theory and practice presented in the modules. The majority of stakeholders agreed that the content and activities were explicit and well structured. The pace and level of content were easy to follow with clear definitions.

B) What opportunities / difficulties did the participants experience?

Sweden: The main opportunities that were highlighted were:

1. To be able to see which areas you already worked in and link it to CE.
2. That the training material was for discussion with exercises linked to the reality that companies / organizations have.
3. That you can choose parts of the education.

The main difficulties that were raised were.

1. That it is difficult to find time for such an extensive education.
2. That those who represented the companies were not always part of the senior management and then could not influence the opportunities to test it on a larger scale.
3. That the maturity / knowledge for CE within the company was low and linking a new business strategy to the company felt difficult.

Spain. As we have commented our main target group has been the VET teachers and they have shown the interest to implement in the classroom with students.

Opportunities

- 1.- New approach with innovative education materials in CE.

- 2.- Self-learning with the Circulink platform.
- 3.- Interactive and practical and realistic exercises and case studies.
- 4.- To be closer with the needs of SMEs.

Difficulties

- 1.- To implement the knowledge in the SMEs.
- 2.- To find time for learning.

Portugal:

Opportunities:

1. A good perspective on SBMs;
2. To meet new people, learn about new trendy subjects (sustainability, CE);
3. Case studies;
4. Distance learning;
5. Awareness about CE and its application to business areas;
6. Modular approach.

Difficulties:

7. Not enough time to learn about all case studies in deep;
8. Covid19 constraints;
9. To have a module focused on "Introduction on CE";
10. Include information about existent financial support for micro and SMEs for CE transition;
11. Time to attend the training;
12. No power to decide/implement CE strategies within the company.

Ireland: Obvious difficulties were caused by the lockdowns that we experienced during our pilot implementation due to COVID-19 cases rising in Ireland. Originally, our plan was to deliver this training in person and to ensure that all participants were actively engaged in each session and to create a space where ideas and experiences could be shared. Unfortunately, after we held our first meeting in a local youth centre, new restrictions were introduced in Ireland so that the piloting had to be delivered online. While we still had a good level of engagement, the experience was not the same for all participants. Based in rural locations, some participants lacked sufficient internet access to even have their camera on for the duration of the online sessions, and with this limited contact, the natural networking that takes place over a coffee break at a face-to-face session could not be simulated at the online sessions. We also had inconsistent attendance from some participants, so this was another difficulty that emerged. Lastly, because the training was delivered online with opportunities for self-directed study, participants expressed that they would have found it to be beneficial to be guided through all content in the programme, and so they would have liked more time to be able to review all of the materials. However, where participants did attend and did contribute, there emerged opportunities for future synergies on a local level; and there is support

for hosting some face-to-face workshops in the community during the summer months (2021), to engage local community actors in supporting some circular economy projects that were discussed at the sessions; including engaging members of the local Men's Shed (social group for older men) together to develop a repair workshop for the community; and running an upcycling project with local students.

Cyprus:

Opportunities

- The modules were well structured
- Interactive online assessments (Check your knowledge)
- The training material was useful and contains practical examples and case studies
- The online environment includes a list with additional resources which is very useful if you want to learn more about the topics
- Useful tips and knowledge for the development of Circular Economy Initiatives
- Easy access to the CIRCULINK website, and the online environment

Difficulties

- More practical examples for each step
- More example of Circular Economy strategy for SME enterprises

C) How would the companies view a continuation of the CE work linked to Circulink?

Sweden: In collaboration with Folkuniversitetet, we see that the project material will be able to become part of Folkuniversitetet's future educations and also as part of an entire course. In the collaboration with the University of Gävle, we see a potential to be able to develop and create regional projects about CE and collaboration meetings have already been held with HIG and the region. A number of applications for both educational and practical projects linked to CE have been written and submitted. Among other things, a collaboration with Chalmers, which has also made an education package, where we believe that Circulink can be connected and used for a continuation, even if it will not be the main track. Gavlegårdarna has declared that in 2021 they will raise the issue of a training in CE for the staff and link it to the environmental training to be carried out. The small and medium-sized companies are interested in being able to use the material, but no promises or decisions have been made. We will also continue to try to revive the municipal investment in "Sustainable business" where we can see that parts of Circulink could be included as a discussion material or as a lecture series.

Spain: All the stakeholders express their interests to use CIRCULINK project educational materials to be useful for their trainers and for the smes, highlight the Circulink platform due the Covid situation.

1.- Collaboration with the Chamber of Commerce or Government of Aragon to offer this training course to SMEs.

2.- The Circulink educational materials will be part of the training programme of the Education Department of the City Council of Zaragoza, called Zaragoza Dinamica in the field of Circular Economy to improve the skills of employers and employees in our industrial enterprises.

3.- We will provide with some workshops to entrepreneurs which work in the environmental field.

Portugal: Circulink stakeholders seemed positive about project outcomes and stated that they were willing to “spread the word” inviting others to attend the training course. The majority see the need and the usefulness of a CE shift, but they do not have the main power to take decisions and change ways of work. Despite this, individual entrepreneurs see this as “an opportunity” to start new businesses and opening horizons: refurbishing old furniture from the local community was one of the examples given, Circulink SBMC exercise helped to design this business idea.

ISQ Academy also compromised to share Circulink training throughout its official website, so clients could learn more about the subject and access the training for free.

Ireland: With the examples provided above, it is clear to see that there is support in our community for groups, organisations and companies to continue to collaborate and to develop circular economic projects as a result of the Circulink project. However, there is a sense that participants would prefer to meet in person and to develop these projects in person, in the community; and as such, there was little interest in continuing their collaboration through online platforms and channels, with participants preferring to ‘wait until the summer’ and hope that we can meet in person again then.

Cyprus: The majority of stakeholders expressed their interest in the project results and noted that they are willing to include some training material in their training. Moreover, the Chamber of Commerce and other social enterprises expressed their interest to use the training material for future workshops and activities.

3. Were initiatives taken to cooperate with other projects linked to the circular economy in the various regions?

A) *What other initiatives were found and was any cooperation created between them?*

Sweden: A collaboration developed during the project is with the University of Gävle. There, Stephen Hinton, in collaboration with the Swedish Agency for Economic and Regional Growth, has produced material that has a strong connection to Circulink. There they want to have discussions within the companies about seven business models:

1. *Adequacy:* Consumers reduce their consumption with or without the help of companies.
2. *Bioeconomy:* Nature does the job over and over again.
3. *Product as a service:* Sell functions instead of products. The product responsibility remains with the seller.
4. *Resource efficient use:* Resource and energy use that minimizes waste

5. *Design for circularity*: Design so that products last longer and can be redesigned.
6. *Extend the life of the product*: Reuse, repair, renovation that maintains the value of the product.

The connections between Circulink and HIG's project are based on the same foundations.

- What is the problem? (e.g. Adequacy - The resource allocation per person is unsustainable.)
- What will be in demand in the future and why?
- What benefits can it give to society and to the individual (family)?
- What can this mean for our region in particular?
- What challenges do we face as entrepreneurs, society and individuals?

Important issues are:

How can we through education / discussions / collaborations stimulate business, organizations, municipalities to stimulate a transition to a circular economy?

What strengths are there in our region to develop circular economy?

How do you organize the work of pushing towards a circular economy?

How can municipalities and regions use procurement as a tool to both stimulate companies and become leaders in the transition to a circular economy? *

Another important collaboration that has been used in the project is the municipality's initiative for "Sustainable Entrepreneurship". For a number of years, the municipality has gathered entrepreneurs in Gävle to discuss sustainability, environmental issues and the circular economy. Unfortunately, this was discontinued during the project due to lack of resources so the collaboration opportunities were limited to a breakfast lecture on Circulink. Thanks to the project, however, there is a proposal that we at Gästrike Återvinnare together with the municipality revive the work.

The third collaboration developed during the project is together with Folkuniversitetet, where we conducted introductory training for course participants and they considered that the training material could form the basis for their new course in Sustainability and CE.

Due to the Circulink project the CE question became a lot more important when the new WMP (Kretsloppsplan) was developed and a delegation from almost all municipal departments from Gävle started a network and the aim now is to develop a project group working for a pre-study of how CE can be implemented in the municipality consisting environment, social and economic aspects taking account all different angles from the departments.

* Source: Circular Economics and Regional Development, University of Gävle.

Spain;

a.- Collaboration with the University of Zaragoza to be used the materials under the Master to train VET teachers.



b.- Collaboration with <http://circularsocietylabs.unizar.es/> Circular society laboratory with lines of work linked to sustainable socio-economic development in the province of Teruel, within the framework of a circular economy aligned with the 2030 Agenda (2015, UN).

c.- c.-City council of Zaragoza under Education Department for employment, Zaragoza Dinámica (training courses).

Portugal: ISQ R+Di Unit involved in the service “Circular Economy Coupon” – a national financed strategy to support CE shifting of micro and SMEs - is studying the possibility to include Circulink training in the consultancy offer, as a bonus. This consultancy service identifies a strategy for the circular economy, action plan and technical assistance for SMEs; is also aimed at implementing solutions that result from the outlined strategy for a circular economy, including the implementation of ISO 50001 energy management systems, and environmental management systems ISQ 14001. So, Circulink training can be a great proposition open-free to include in this “consultancy package”, supporting SMEs at several levels, including training.

Ireland: Throughout the conversations that were had between participants completing this programme, certain examples were mentioned including accessing funding through the LEADER rural development fund, and also gaining access to local eco-tourism networks. However, these networks and programmes do not specifically focus on the Circular Economy, and when we consider that the Circular Economy is not yet a policy priority for the Irish Government, and there is no national policy framework for CE activities in Ireland, then it becomes easier to understand how far Ireland has to progress in this matter. Again, there were some specific local examples of environmentally-friendly, or green, businesses that were perceived to be active in this community, including some zero-waste, and zero packaging businesses; however, participants were not able to identify any examples of any organisations or companies using circular business models in their operation; which is significant.

Cyprus: A cooperation developed during the project was with the Phoenix organisation, a social enterprise based in Nicosia, which is willing to implement Social Innovation initiatives with migrants and refugees in Nicosia. Moreover, many companies, individuals, even public bodies, expressed their interest in further collaboration. Also, key stakeholders asked our permission to share the material with the organisations.

B) How do companies see that a project like Circulink can continue to contribute to a circular economy after the project ends?

Sweden: The companies and organizations we met have a hard time seeing that the project can continue to contribute after completion, it requires a force that is on, creates discussions and has or is responsible for the training. Those who make it live on to a certain extent are that Folkuniversitetet will use the educational material in its courses. An additional aspect that was addressed was whether the collaboration “Sustainable entrepreneurship” continues, the training material can be used as part of knowledge-enhancing activities and as a basis for discussion. Those

who have already had the opportunity to participate in various contexts within the project have gained increased knowledge / awareness of CE.

Spain: the organizations would like to integrate the project as a training tool in its organisations to improve their knowledge concerning CE to reach more networks and other business.

a.- the training materials of the Circulink project will be part of the general training program related to Circular Economy deliver in the Department of Zaragoza Dinamica (City Council of Zaragoza) in order to promote the employment among unemployment to find new approaches and opportunities.

b.- Zaragoza Activa, (Department of City Council of Zaragoza), it is a good opportunity for its smes for create synergies and networking through Circulink workshops using the cases studies as best practices.

Portugal: The organizations, trainers and students that were contacted during the project lifetime, see the project outcomes as and added value helping to spread the Circular Economy awareness in several ways:

1) Circulink training can be included in the mandatory training for companies (in Portugal all companies, by law, must offer to their employees at least 40 hours of continuous training);

2) Trainers were especially interested in the Circulink toolbox and training methodologies. This material can be used/ included in their training, enriching the discussions raised, with new practical examples, theoretical contents, exercises, etc.;

3) Students (from Universities) / individual entrepreneurs were particularly interested in new Business Model ideas and share their whiling to continue to feed the Circulink Collaborative Area, for networking and collaboration opportunities;

All of them where unanimous saying that Circulink contributed to increasing their knowledge about CE and were whiling to “suggest the training to other people”.

Ireland: There was support among the participants on the pilot programme that a Circular economy committee could be established in our local community, and they would develop some CE projects locally, accessing funding from local development companies, and using the Circulink materials to widen the knowledge-base of the community about the circular economy. While participants shared that they felt that the programme was too detailed for the time they had to dedicate to learning activities, and it would be good to have a series of specific workshops across an academic year to cover the full training programme in detail. Participants also agreed that the Circulink materials should be shared with regional education providers, local development companies and green networks, who could use the training materials to promote CE with learners, businesses and community members in their networks.

Cyprus: Some organisations noted that it is helpful that they can have free access to all material after the completion through the project website. Participants also mentioned that they will use some of the project results for training and capacity building. The Circulink toolbox and teaching methodologies were of particular interest to trainers. With new practical examples, theoretical contents, exercises, etc., this material can be used/ included in their workshops.

C) What success factors do companies consider to be the most important in order to succeed in implementing / improving circular alternatives?

Sweden: Here there were many different opinions and suggestions on what is required for a company / organization to be able to become more circular. These were the most common:

1. Consumer awareness, the company can change direction and take more CE initiative if the consumer is aware and chooses from a sustainability perspective.
2. Paying business strategies, that companies / organizations see that circular alternatives pay off both financially and in terms of customers.
3. Environmental awareness, knowledge of how humans and our activities affect both the local environment and the global environment.
4. Governance / support from the state, if it pays to choose a new path, more people will choose it.
5. The level of knowledge within small and medium-sized companies, that if the company is to survive in the future, we need to create knowledge within the company's walls.
6. Cooperation between companies, municipalities, regions and the education system, a forum is needed for both technical development, new design, discussion and research to achieve success.

Spain: Recommendations from local organisations which deals with the CE;

a.- The circular economy is in line with the efficiency of the use of the resources that we have. Make the most of that resource and redirect it in the circuit continuously, but, in addition, also work at the source, in the design, prevention, that not only the resource is recirculated, but that its use is avoided. Let's not exploit again what is still available in nature.

b.- the AITIIP technology center, of a private nature, with state scope and collaborations with all the countries of the European community, as well as at an international level, mainly with America and Asia. For us, the circular economy is a fundamental pillar, in fact, together with digitization, they are the two axes that we have drawn as strategic at mid-and long term.

Portugal: During the piloting training, we could collect informally, some opinions taken from brainstorming exercises. Both MEs held in Portugal were also a good opportunity to explore some ideas about the success factors of implementing a circular economy strategy:

1. Knowledge, awareness. From decision-makers to consumers (civil society). Training and awareness campaigns continue to be essential to implement (and sustain in time) any CE approach;
2. Financial support, incentives. Access to R+Di programmes, lower taxes, financial incentives to energy/resource efficiency (for companies and individual consumers);

3. Cooperation platforms. Companies must see that CE as a win-win strategy and not as a competitive strategy;
4. Waste = value. Once again awareness is needed. Not only from the consumer point of view but also the producer point of view;
5. New laws. Governance that supports sustainability actions, green energy, rewarding “greener” companies. Review the European List of Waste (LoW) to encourage the reuse of waste (and industrial symbiosis).

Ireland: Perhaps this speaks to the profile of the groups and individuals who participated in our piloting, however the general consensus among participants is that in order to introduce circular economic activities in rural communities in Ireland, there is a need to have a strong backing for the programme in the community. As such, the ideas that were shared among the group included:

1. Establishing a local committee to support the CE;
2. Host workshops and training events to educate whole communities in CE;
3. Engage local schools and older person’s homes in promoting CE as an intergenerational project;
4. Establish local collaborations between members of the community and business pillars;
5. Re-invest profits from projects in ensuring a social impact locally for the initiative.
6. Promote CE with the younger generation.

Cyprus: We were able to gather some opinions taken from brainstorming exercises informally during the pilot training. The two MEs held in Cyprus also offered an excellent opportunity to discuss some ideas on the success factors of implementing a strategy for a circular economy:

- Setting up a local committee promoting the CE;
- Host seminars and training events aimed at informing whole CE communities;
- Establishing local partnerships between community members and business pillars;
- To achieve progress, a collaboration between businesses, municipalities, regions and the education system needs a forum for technological development, new design, debate and research.

4. What initiatives were discovered that could be used as inspiration for other companies?

We have gather a lot of examples on the webplatform. Please go to [Collaborative approaches for linking circular economy initiatives - \(circulink.eu\)](#).

5. Experiences from the project countries and their own work in the project.

A) How did the project partners to carry out the project tasks?



Sweden: It has been a very special situation in Europe during the project implementation, which made the work more difficult, however, through strategic work we have been able to complete all the project tasks that were included in the project application. We have had fantastic discussions with our participating companies / organizations about both CE as a phenomenon, how we create a sustainable future from a CE perspective and how we through education / discussion forums should be able to raise the level of knowledge and get more companies working with CE. What we clearly see as our own company and as many of our participants in the organized forums pointed out is that these EU projects often go a little overboard, they become too ambitious and sometimes rigid as the goals set in the application would sometimes need to be adjusted from the outside the local and regional conditions as well as the inputs given during the “journey”. Based on the goals and purpose of the project, we feel that the project has contributed to improving and developing knowledge about CE.

Spain: We could carry out all the activities of the project almost in presencal way with our participants, as we could organized the pilot testing and the multiplier event at the same time before the lockdown at the beginning of March.

The Covid situation has only affected at the end of the project regarding our dissemination activities, and we have based on all our efforts to spread the project through digital communication tools.

Concerning the pilot testing/ multiplier event we have received a very positive response from our stakeholders, given us always a practical feedback.

The project give us the possibility to implement this training at local level as we can see that there is a gap in training materials and a big interest from private and public sector to support the Circular Economy focused on entrepreneurs.

We have a real perspective for the exploitation of the education materials developed during the project for our City Council of Zaragoza, Education department which train entrepreneurs and smes managers in CE, and CIRCULINK project will be complementary in the training course, and a new approach to teach for the trainers.

Portugal: The Covid19 affected, without a doubt, not only the project outcomes development but also the project dissemination, implementation activities and exploitation. We experienced difficulties and delays, but it also revealed to be an opportunity, not only to have more time for development and fine-tuning the outcomes but also to disseminate the project in a way that wasn't possible before. Portugal experienced a long lockdown in March and April and the sense of the “unknown” invaded a bit the minds of all. So, during this period it was hard to develop and implement Circulink activities since there was no “agenda” from project stakeholders. Little by little, people become used to the “new normal” and we could experience a new phenomenon: the spreading of internal and external zoom meetings, free webinars, teams' meetings, online workshops and conferences, sponsored by, for example, other Erasmus+ projects. These were a great opportunity to “spread the word” about Circulink project in a way that wasn't possible before.

We have waited for the post-summer period, waiting for the pandemic “slow down” to implement the ME and piloting phase. This revealed to be a good strategy, since the objectives we not only reached, but surpassed.

Ireland: The Circulink project brought a new topic to our company, as we had not previously worked on CE projects. It helped our cause greatly by being able to gain support from expert partners like GA and ISQ, who had so much previous knowledge of the CE. On a local level, the project gave us the opportunity to engage local businesses, social partners and members of our local community and to raise their awareness of CE and to gauge the level of support for CE initiatives locally. What we have learned is that there is an appetite for CE locally; however, rather than moving immediately to starting their own CE businesses, community members showed more support for delivering a series of smaller scale local projects that are related to CE in the community, and that will help to address some of the social issues that are affecting our communities at this time. While the project implementation was made more difficult due to COVID-19, it also gave us the opportunity to work with a diversity of local partners and stakeholders who showed an interest in the project, and who were not all based in our region. By hosting training and events online, we were able to reach a wider cohort of people and groups, than if we had have ran the training in person in our community; so, this was an unexpected positive from the whole experience. We were also happy to be able to contribute something positive and active for people to do and to engage with, especially when so many have lost their jobs and livelihoods due to COVID-19.

Cyprus: The project had a positive impact on the participants and participating organisations involved in the project, as their involvement in this project had positive effects both on each organisation’s development (experience, exchange of know-how, and production of new knowledge) and on the promotion of Circular Economy. The project's high-quality outputs increased the project’s impact and maximised the broadest range of benefits for the participants and participating organisations. Staff members of INNOVADE were informed about the project and outcomes through internal meetings, newsletters, and trained them to use the project’s material. Furthermore, our organisation benefited the most from the close cooperation with other European partners. During the project, we had the opportunity to collaborate with different organisations from other countries in order to produce the final outputs of the project, therefore we have gained some vital experience, more specifically, the development of the training materials and the implementation phases provided an opportunity for partners to learn from each other’s expertise.

B) What experiences and lessons do the project partners take from the project??

Sweden: There are many lessons that the Swedish partner takes from the project.

1. There is great potential for developing companies into more circular ones.
2. There is a great interest in learning more about CE

3. However, there is little time within small and medium-sized enterprises to both train and discuss CE. There are many parts that attract the attention of small and medium-sized companies / organizations.
4. There are collaborations that should be used to create more circular projects, business models and changed / improved value chains.
5. That the connection between customer attitudes and companies' opportunities for new thinking and changed business models is vital.
6. Discussing challenges and opportunities based on a problem is rewarding and constructive.
7. How can we create business models based on function instead of product and how can companies secure revenue and retain ownership of the product for upgrade / development?

Spain

- 1.- We have learned about a very useful topic for our entrepreneurs communities and smes in our city.
- 2.- We have integrate this training in our organizations to deliver in the training programme of our City Council, new opportunities to develop more training courses.
- 3.- We have create synergies between stakeholders in the events.
- 4.- We have provided with new methodologies and approaches to the VET teachers to deliver in their classrooms with students.

Ireland: For FIPL, the Circulink project has been a very positive project. Staff from FIPL have learned a lot about the circular economy; and have had the opportunity to promote this new concept in Ireland to local members of our community. What we have learned through our delivery of this project includes:

1. The circular economy is not widely known and not well-developed in our region.
2. There is huge potential for the CE to offer new models for rural economies in Ireland to rebuild after the numerous lockdowns we have experienced due to COVID-19.
3. There is also potential for CE models and practices to be introduced locally to help address and target some of the social issues we are facing as a community.
4. There is support on a local level from businesses and members of the community pillar to create partnerships that will help to promote and develop CE projects in our region.
5. It is better to meet in person to have more natural networking than to meet online, but we managed to complete a successful implementation of the project and to promote CE in our community despite these difficulties.

Cyprus: Overall, each country involved in the project has brought experience, exchange of know-how and production of new knowledge to the project. This project covered a very big demand and the lack of innovative approaches and strategies to address the Circular economy challenges. The project's material can be used in other projects on a larger scale. Additionally, materials can be used in different fields in order to present to relevant stakeholders guidelines & ideas for designing learning activities, sample cross-curricular units and case studies.

C) What have the companies' commitment and opportunities to participate looked like and what difficulties / opportunities do the project partners see in the companies?

Sweden: Our goal was that the reference group / forum meetings would be many companies / organizations in widely different areas but both the changed situation in the municipality with reduced resources for a "Sustainable business", the pandemic that changed the opportunities for several companies and the tasks / requirements they in their normal course of business, small and medium-sized companies have led us to invest in a smaller reference group. However, those who participated from it have shown great commitment and contributed to both developing and improving Circulink's materials and also disseminating the information and ensuring that we were able to try and evaluate all parts of the project.

Spain: As in Spain the pandemic was really hard, we have started to meet with all the stakeholders again in a shy way. We need to see the evolution, as our main target are VET teachers.

Although, our Public Administrations highlight the numerous difficulties that implementing CE currently poses, both due to administrative procedures (for example through the inclusion in the specifications of public procurement of CE principles), as well as the lack of means that has been indicated as the main barrier to the adoption of CE by the Aragonese administrations.

The opinion is that the implantation of the CE will suppose a clear improvement environment in Aragon and will generate related jobs. However the consumers' interest and awareness will gradually increase over time.

To the business field, the general idea expressed by stakeholders is that a high percentage of companies do not know in detail the activities that the CE advocates for production or the advantages that its introduction may involve business level. CE is considered in the medium and long term in companies.

Portugal: Several contacts were made on the first ME that was held in Portugal that, unfortunately, couldn't be able to proceed due to Covid19 constraints. Several companies and national business associations shifted their ways of work (closing services for undetermined periods, remote working, team's unavailability, modification of procedures, change of contact persons, etc.) so we also needed to change the initial action plan. On the other hand, what seemed to be a threat was also an opportunity since we could reach organizations and people (university students, trainers, entrepreneurs) that were difficult to reach in previous times. Remote working permitted people to be more open and willing to attend remote conferences and online training. The pandemic situation was an opportunity to re-think the ME event implementation in two different cities and by reaching 34 extra attendees remotely that we wouldn't reach if we did not broadcast the event; and trainees were able to keep motivated to finish the training course, having the opportunity to attend remote synchronous sessions.

We think that the time to implement ground-breaking changes (circular economy strategies) in companies wasn't (and is still not the best), but it was, for sure, was a good time to enrol people in continuous training. We hope that, when better times come, the economic recovery be accelerated by the new knowledge gained during this hard period about "work-life-balance", sustainability, circular economy and environmental principles, and that Circulink can contribute a bit in the life (personal and professional) of the ones who heard about it and also the ones who attended the training course.

Ireland: Staff from FIPL are committed to supporting our local community to engage with CE practices. Based on the feedback received through the piloting, our aim is to host a series of community events when possible, to promote CE and to establish and build local synergies between businesses and community groups, so that the rural economy where we work can be rebuilt, cognisant of CE practices and ideals. While we are in lockdown, it will be difficult to establish these networks and projects, as people feel that they need to meet and work in person in order to plan and deliver something constructive like this. However, for the meantime, it is a positive of this project that we have been able to meet and work with new stakeholders, and forge new local partnerships with businesses, community groups and social partners, directly as a result of the Circulink project.

Cyprus: There will be a variety of barriers to moving to a circular economy. First of all, some companies expressed concern that the debate on any change has centred solely on economic factors, without considering the structural and social aspects required to transition society to a circular economy. Our goal is to host a series of events/workshops to encourage CE and create and develop local synergies between businesses and community groups based on the multiplier events' feedback. INNOVADE is committed to supporting the interested enterprises to engage with CE practices.

6. Conclusions

On review of the content of this handbook, the first thing that comes in mind is the huge difference between the partner countries, not only in terms of the knowledge and awareness of the Circular Economy (CE) but also what is ongoing with the CE initiatives in the countries. We can also see a difference between cities and the rural areas. Cyprus and Ireland are at the beginning of a process of adapting CE practices, while Sweden, Spain and Portugal have started adopting the organisational structures, education and regional projects linked to CE. Circulink has, as we can see, made an impact of starting discussions about CE in all countries, though in different aspects and the project can also be credited with bringing the subject up in different forums. The initiatives have also started new networks in the partner countries, and as we can see, they will continue after the end of the project which was one of the aims of the project. Another aspect, that we had as a goal, was that

the Circulink was to be a part of educational programmes and we are very pleased that there are educational organisations/educational schools and regional departments that will use Circulink's platform and the educational programme, beyond the project lifecycle. It has been important that the Circulink project was incorporated in other educational programmes so it will be used both as a standalone programme to promote CE practice, but also as part of other projects/programmes that are being offered by external stakeholders. We can see that the Circulink project results can be of use into the future with the incorporation of its training package into other programmes.

One experience that we noted from the SME's was that the total Circulink educational programme length was too long for small and medium size companies. They cannot afford to allow their staff to attend the whole course. It is therefore important that partners specify that the education materials can be adapted and applied in a modular way, so that it can accommodate the availability and preferences of different companies. On the contrary, for some of the educational organisations/schools the programme will be lengthened and incorporated into other programmes and degrees currently on offer.

Another influence that the Circulink project has had in the partner countries is that it has provided the opportunity for new initiatives to be started up with the stakeholders, for example:

- A. An application for cooperation between different departments in a municipality on how they can work together to be more circular in their approach to both environmental and social aspects.
- B. SMEs have taken initiatives to start up and develop networks or include CE in their ongoing networks.
- C. Cooperation between educational institutions, municipality, regional organisations and other stakeholders.
- D. Important discussions and questions that been raised during the piloting process of the Circulink project including:
 - What are required of us (the companies) in the future?
 - What advantages can this change provide for our society?
 - What possibility and challenges are we as companies, organisations and as individuals facing in the future?
 - What kind of knowledge do we have to have to be prepared for the "Green Deal"?

Another conclusion we have reached through our work on the Circulink project, is that at application stage, we did not realise all of the different subjects that the companies would have liked to be included in the education programme, including.

- How will “the green” procurement process effect the companies and what demands will come in the future?
- Industrial symbiosis and the “new” co-operations.

We have taken this feedback into account when planning the Circulink Final Conference, and additional PowerPoint slides have been made available through the Circulink platform to address these additional training needs.

The timing of the Circulink project was perfect due to the New Green Deal that was launched by the EU at the same time as we were planning the final conference.

Of course, we have to mention that we have had difficulties during the project due to restrictions, lockdowns and public health guidelines due to Covid-19, and as such we missed the opportunity to meet with our project group, also as a result the international partners could not participate in person at the Final conference. The lockdowns and restrictions in the partner countries made it difficult to engage companies to participate in face-to-face training and this affected partner organisations at different times as all countries were in lockdown and facing restrictions during different periods over the last year of the project. The companies were not allowed to meet in face-to-face settings and a lot of our stakeholders were struggling for survival. The success could have been even better during a normal year; but the project team mobilised their digital capacity to promote the project and its results among stakeholders in their countries, through hosting online workshops and events, ensuring that Circulink can have a lasting impact among CE actors, community groups and SMEs in our networks.



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