



Promotion of the Circular Economy in Tourism

Experiences and Recommendations from the CIRTOINNO Project



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Title:

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1. Introduction

The purpose of this report is twofold:

1. To present partners' experiences from the varying activities accomplished in the South Baltic Interreg-project, CIRTOINNO, regarding the needs, interests and barriers of tourism SMEs in implementing CE ideas in their daily operations, and on this basis,
2. to elaborate recommendations for possible initiatives and policies for the promotion of circular economy (CE) ideas and solutions among small and medium-sized enterprises (SMEs) within the tourism and hospitality industries.

More specifically, the report aims at presenting the partners' recommendations regarding launching of

- a. advisory, educational, training, financial and other types of support services that may promote the development and implementation of circular, more sustainable practices, technologies, and business models among tourism SMEs;
- b. public policy initiatives that may support a transition toward the CE in tourism as well as in society in general.

The target group for these recommendations is not commercially operating tourism businesses, who instead may find inspiration for innovative CE initiatives in the CIRTOINNO report, "*Destination: A circular tourism economy. A Handbook for the transitioning toward a circular economy within the tourism and hospitality sectors in the South Baltic Region*" (Manniche et al., 2019), which was elaborated during the initial project phases. The Handbook provides a comprehensive analysis of the implications of the circular economy in tourism and presents multiple practical examples of circular technologies and solutions regarding use of energy, food, water and other resources that tourism businesses and destinations may apply in a short- and long-term perspective.

Rather than individual businesses, the target groups for this recommendation report are diverse types of organisations, institutions and government actors with responsibilities for or activities related to promotion of growth, innovation and sustainable development within tourism, e.g. local or regional development agencies, chambers of commerce, tourism destination organizations, energy consultancy organisations, educational or research institutions, national or international authorities within tourism, energy provision and environmental protection, etc.

In order to clarify the ground on which the recommendations (see section 5) have been elaborated and to make a more comprehensive, stand-alone document, we also want here to shortly introduce the content of the CE concept and what it means for the tourism sector (section 2), to describe the activities and results accomplished in the CIRTOINNO project (section 3), and to characterize the group of tourism SMEs in focus in the CIRTOINNO project, especially regarding their needs, interests, and barriers related to implementation of CE ideas and solutions (section 4).

2. What is the Circular Economy and what does it mean for tourism?

A comprehensive analysis of the CE within tourism is provided in the above mentioned CIRTOINNO Handbook (Manniche et al., 2019) and is not the goal here. However, a short summary of the ideas and principles of the CE and its implications in tourism is included here in order to motivate the recommendations given below.

What is the Circular Economy?

The concept of CE defines a set of principles for production and consumption, radically different from the linear 'take-make-use-dispose' regime prevailing in today's market economies, based on continuous growth and increasing resource throughput. The CE is designed to be restorative and regenerative. The CE requires a broader and more comprehensive design of radically alternative solutions over the entire life cycle of products and adoption of closing-the-loop principles within the entire economic system.

From supply chains to value cycles

The CE does not rely on unidirectional supply chains, in which each production, distribution and consumption link is focused on value maximization for the own good. Instead, the CE relies on *value cycles* in which value is created through reducing, re-using, recycling and recovering of resources. The CE is enabled by new business models and new forms of consumption, that discard ownership and rely on "active users" rather than "passive consumers".

CE calls for a radical change of our way of living and the economy as a whole

The CE goes further than calling for increased implementation of resource-effective and environment-friendly technologies in isolated links of production systems. Compared to previous business-as-usual economy models, the regeneration of resources is not only about material recovery, but also aims to improve our way of living and the economy as a whole. CE has the potential to understand and implement radically new patterns of production and consumption and help society reach increased sustainability and wellbeing at low or no environmental costs. Nonetheless, some protagonists of the CE concept such as the Ellen MacArthur Foundation, stress it can be considered as an 'alternative growth discourse' and not an 'alternative to growth discourse'.

**A system
transition
perspective**

Truly circular business models cannot be conceived as involving only a single firm and cannot be implemented by individual businesses without interaction with external actors, primarily through the supply chain (or 'value cycle'). Fully understanding the CE necessitates a *system transition perspective*. The possible but still only embryonic and open-ended development towards a circular economy implies a transition of the dominant 'socio-technical regime' of the linear economy. This encompasses major transformations in the way societal functions such as dominant business models, financing, transportation, communication, education systems, housing, energy provision etc., are fulfilled. This involves not only technological changes, but also changes in regulation, laws and infrastructures, industrial networks, consumption cultures, etc.

**Obstacles for a
regime shift**

Whether or not such a transition will take place is certainly not given at present and it certainly will not be a simple, straightforward process of creating and diffusing new technical solutions, equipped with certain advanced, smart, universally applicable features that inevitably enable them to replace and outcompete existing technologies. Like any other regime, the linear regime is based on strong economic, political and social interests, including job and income structures and consumption cultures, which expectedly will constrain the diffusion of CE principles. Hence, the transition towards a circular economy is not an all-inclusive win-win situation but one that – at least in the phase of transitioning - creates winners as well as losers.

**CE challenged
by the travel
imperative in
tourism****Tourism in the CE**

A defining characteristic of tourism is the act of travelling, where tourists travel from their home to a given temporary destination. The international trend in tourism is towards MORE. More people are traveling, and they travel MORE often. This is supported by, amongst other things, a fast-growing low-priced international airline sector and an increasing number of destinations. These trends pose a significant threat to the environmental sustainability of tourism despite other measures to decrease carbon emissions.

**CE challenged
by the
hedonism of
tourism
consumption**

On top of the travels associated with tourism, holidays are also often a chance to let loose and use more. This is not only the case in terms of spending more money but is also built into what is expected of e.g. a hotel stay. Once the room is paid for, one expects to be able to use utilities, power, air conditioning, etc. as one pleases. Although steps

**The need for
tourism
businesses to
rethink
themselves**

have been taken to change tourist practices and sustainability measures have been implemented, there is much room for development of new perceptions and practices at tourist destinations and in the hospitality firms that service them. We argue that potentials exist, not only for reductions in resource use, but also for re-designing tourism products and services, and marketing them accordingly.

As is clear from above, a transitioning of tourism businesses towards the CE is not only about implementing new advanced and sometimes expensive technological equipment allowing for more efficient use of natural resources. Rather, the transitioning depends on a reconfiguration of the entire organization and its operation including products, services and business models, use and flow of resources, supply chains and cooperation partners etc. Tourism businesses should rethink themselves as not only providers of accommodation, food or spa services, but as producers of a multitude of (by-)products that can be valued instead of wasted.

**The key role of
tourism**

Tourism is a showcase, illustrating important elements of consumption in the circular economy (sharing economy, collaborative consumption, experience economy). Thus, tourism has a key role to play in encouraging transition towards more sustainable consumption practices.

**Hotels and
destinations as
CE living labs**

While tourism does have inherent issues relating to sustainability, it also represents a unique opportunity to re-configure the way people live – if only for a brief period of time. The fact that as tourists, we carry very little with us, and let ourselves immerse in new surroundings, means that tourism has the capacity to experiment with the way daily life is organized. It presents an opportunity for tourists to enter into ‘living labs’, in which they can experience, play with and radically re-think the organization of daily life. This is not only interesting from a societal perspective but represents a market opportunity for both businesses and operators as well as tourism destination organizations.

**Involvement of
tourists in the
innovation of
services**

Opportunities for a transformation of tourism markets and user practices from linear models that emphasize spending, hedonism and unlimited resource use, to vacations as experiments in circularity, are many. There is an obvious selling point in advertising a destination as a window to the future, and for individual companies to distinguish themselves successfully. There is also a potential for a much more

direct interaction with tourists concerning the resources they use and the way these are disposed of. In many tourism destinations, energy and water infrastructures are invisible and resources are led away as the guest is left unaware of their disposal and possible recycling. One specific way of changing this is through user engagements and smart interactions with hotel room resources, but the opportunities are many and can at this stage only be imagined.

Certification and other governance approaches

There are different governance approaches with which to support a transitioning toward a more circular economy within tourism, including the use of Certification schemes. However, the analysis indicates, that the emergence and maturing of new markets and regulative frameworks starts by development and validation of “best practices”, which subsequently can evolve into industrial standards and certification schemes. Presently there exist only very few validated CE best practices on which to ground CE certification schemes, and the main development efforts therefore should be directed to the development and validation of “best practices”.

The mature tourism industry in Danish and Swedish partner regions

Tourism in the South Baltic partner regions

The tourism industries in the partner regions are very different and follow different development trends (see Manniche et al., 2019). Bornholm relies on tourism to a much higher degree than the other three regional economies. The tourism industry on the island experiences a development characterised by market maturity and a phase of economic optimization and renewal, meaning that there is an increase in the efficiency and profitability of businesses whilst the number of hotels, rooms and beds is stagnating. This also seems to characterize the hotel sector in Kronoberg - though from a lower capacity level and in a market context of growing demand, i.e. increasing hotel overnights.

Booming tourism in Polish and Lithuanian partner regions

In contrast, but starting from lower points of departure, tourism supply and demand is booming in both Pomerania and Klaipeda. The number of new hotels and similar establishments has grown by approximately 10% (2010-15) in both regions and the number of hotel rooms has increased by 34% in Pomerania and 29% in Klaipeda. These growth rates are mainly driven by foreign tourists, who also use the regional airports and thereby cause considerable growth rates in international flights.

The need of prioritizing CE in future tourism investments and planning

These trends create needs for future investments in and construction of new tourism facilities such as hotels, other types of accommodation, transport infrastructures, food supplies, information systems, service centres, amusements etc. Confronted by such large-scale upgrading of the Klaipeda and Pomerania tourism capacity, regional authorities will face major planning challenges regarding, for instance, protecting natural resources, provision of water and renewable energy, and reducing pollution. The CIRTOINNO project may play an important role by advocating for the advantages of a systemic circular economy approach to the challenge of securing an environmentally, socially, and economically sustainable output of the expected growth in tourism in the coming years.

3. The CIRTOINNO project

The main purpose of the CIRTOINNO project, initiated November 2016 and finalized October 2019, was to increase the innovativeness of small and medium-sized enterprises (SMEs) within the tourism sector in the South Baltic partner regions by integrating selected elements of the CE into their services, products and business models. Participating regions are Pomerania (Poland), Klaipeda (Lithuania), Kronoberg (Sweden), and the island of Bornholm (Denmark). It should be mentioned that Bornholm has a different status in the CIRTOINNO project than the other regions, as tourism SMEs on Bornholm do not participate in the diverse workshops and advisory services organized as part of the project. Instead, Bornholm as participating region, only does so through the research contribution of the Centre for Regional and Tourism Research.

The CIRTOINNO approach was in some way pioneering as the concept of CE derives primarily from the manufacturing industries and is mainly adopted by manufacturers and retailers. The project intended to create new knowledge on the broader implications of CE in the specific context of tourism and to translate the general ideas and principles of CE into real-world technologies and practices, applicable for small and medium-sized tourism businesses in the South Baltic area.

The CIRTOINNO project consisted of six Work Packages, creating a clear, logically grouped structure of activities needed to achieve the project's objectives and results. Four of them (WP3-6) were content related WPs, while others concern project management (WP1) and communication activities (WP2).

WP3:

As the CE is still a new concept, the project started with joint research activities in order to discuss the implications and relevance of the CE concept for the tourism sector and to identify concrete CE solutions used in tourism or services industries on a global scale. This resulted in the mentioned report, "*Destination: A circular tourism economy. A Handbook for the transitioning toward a circular economy within the tourism and hospitality sectors in the South Baltic Region*" (Manniche et al. 2017), providing multiple examples of CE technologies and practices regarding use of energy, food, water and other resources that tourism businesses and destinations may apply in a short- and longer-term perspective. It should be stressed, though, that at the moment there exist only very few fully developed, tested and documented CE business cases from the tourism sector. Hence, validated CE 'best practices' to be transferred and diffused throughout the tourism sector still do not exist and depend on further maturation of technologies, supply chains and markets. A certification scheme specifically focussed on CE principles will await the establishment of such best practices.

WP4:

The Handbook was the starting point for the development of a self-assessment tool, which is one of the project's main outputs. The iSAT tool is intended to serve as an initial check, which will help SMEs to review their current business practices, compare them with the provisions of the CE and identify areas where new or improved solutions may be developed and introduced. It should also – with the support of advisors - indicate the changes necessary to be made by individual SME in order to comply with CE principles. The tool has an additional learning value – it supports the awareness of tourism companies about CE and the possibility to apply its principles to different fields of business activity.

The iSAT builds on the findings of the Handbook:

1. The self-assessment tool is organised in order to place the companies on a “circular economy ladder” with four steps (linear economy, green economy, the circular economy 1.0 and the circular economy 2.0) that derives directly from the Handbook (see: Table 2, pp. 57-58).
2. The iSAT tool was provided with questions that should support companies to primarily identify and evolve their circular maturity. The solution is based on the Handbook content (see: Table 2, pp. 57-58, and chapter 4, pp. 75-144).
3. The tool is divided into technological (regarding energy issues such as heating, water and electricity) and non-technological, “soft” parts regarding the overall company management such as waste management, supply chain management, overall consumption, promotion activities, transportation, interior design, customer service etc. (hotels/accommodation: see chapter 4.2., pp. 77-101; restaurants: see chapter 4.3. 102-127; spas: see chapter 4.4., pp. 128-144).
4. The resulting part of the tool is a report, composed of recommendations on how to go through the required transition process and providing guidelines on how to implement the changes towards circular products, services, and business models, based on the case studies from the Handbook.

The iSAT tool was developed by project partners and further distributed by the CIRTOINNO website for testing by partners as well as stakeholders and SMEs for later improvement. Gathered feedback served for simplification of the tool and for adapting it to be used by advisors through the opportunity of sending a final report directly from the tool to the advisor. On basis of the iSAT report, advisors can provide more dedicated advisory services.

The final version of the iSAT tool will be available at www.cirtoinno.eu.

WP5:

The objective of WP5 was to develop, test and provide a model for cross-border training dedicated to tourism SMEs (i.e. businesses within the accommodation, restaurant and spa industries) in the South Baltic region with the aim to support their capacity to implement principles of circular economy in their daily operations.

A team of project partner representatives and external trainers, coordinated by Linnaeus University, exchanged their knowledge and views through a series of meetings aimed at the creation of concepts and materials for training. A set of end-user's needs was identified and led to the decision that the training should consist of five specific modules: 1) A theoretical introduction to circular economy ideas; 2) Design thinking, focused on design of (tourism) services; 3) Business model innovation; 4) Marketing, focussed on how new services and products may be introduced to the market; and 5) Energy efficiency as a technological aspect of circular economy innovation. All the training modules focus on innovative changes as part of SME's modernization.

Materials for the entire training course were tested during a series of workshops for SMEs in Poland, Lithuania and Sweden, led by a cross-border team of trainers. Selected trainers carefully observed how the workshops could be improved, e.g. by taking into account similarities and differences between Lithuania, Poland, and Sweden. In order to strengthen the effect of intercultural learning and stimulate cross-border cooperation, cross-border workshops were organized on Bornholm (Denmark) and in Klaipeda (Lithuania). Lithuanian, Polish and Swedish SMEs participated and trainers from Lithuania, Poland and Sweden provided the chosen workshop modules on circular economy introduction, design thinking, business model innovation, marketing and energy efficiency. As a result, a set of materials was created for each module, including theoretical basis, case studies and a set of practical exercises, guidelines for trainers including objectives, suggested agenda, presentation, set of tips for the training, etc. Each training module also has a video tutorial explaining the purpose and encouraging the use of materials for each module.

The set of materials will be available on the project website www.cirtoinno.eu.

WP6:

Work Package 6 aimed at developing and testing a model of capacity building advisory services, dedicated to tourism SMEs in the South Baltic area and building upon the results of the other WPs, i.e. the Handbook made in WP3, the self-assessment tool of WP4, and the workshops and training materials carried out in WP5. The advisory services should be developed and delivered through a close consultancy interaction between the advisors and individual SMEs and were supposed to result in a practical action plan for the SMEs about how to introduce (innovative) selected solutions.

The WP6 team of project partners representatives was coordinated by Energy Agency for Southeast Sweden (who specialized in technological advisory services, mainly concerning energy efficiency) but with strong support of Klaipeda Chamber of Commerce, Industry and Crafts, who focused on non-technological advisory services (business models, life-cycle management, supply chain management etc.)

The advisors from the CIRTOINNO partner institutions initially exchanged their experiences with advisory services in general and shared their impressions from the WP5 testing

workshops. Later, two-three advisors in each country (Lithuania, Poland, Sweden) selected tourism SMEs with needs of advice and prepared for pilot services with them. Through these pilot sessions scenarios of relevant services in particular areas were tested and developed.

The participating SMEs highlighted the need of financial grants and subventions supporting the implementation of more advanced (and expensive) solutions and boosting their innovative potential. In the meantime, companies may be more interested in simple "quick-wins" solutions.

The pilot advisory services also highlighted the need of SMEs of building and managing new types of cooperative links to external stakeholders and entities such as local and regional experts, advisors and institutions related to specific issues, e.g. energy management, marketing solutions, waste management, changes in business model, etc.

The model of capacity-building advisory services in technological and non-technological areas was finally developed, translated and prepared for publishing. A set of scenarios for advisory services will be available on the project website www.cirtoinno.eu.

4. The needs, interests and barriers of small tourism businesses regarding CE

Through the CIRTOINNO project, especially the direct interaction with tourism companies during workshops and consultancy services, the partners have gained important experiences about the needs, interests, capacities and barriers of tourism SMEs in relation to the CE. These experiences have been collected during the summer 2019 by the Centre for Regional and Tourism Research (CRT) through Skype-based oral interviews with partners or through their written interview replies.

In addition, CRT in December 2018 developed an online survey which was distributed by local project partners to the tourism SMEs from Sweden, Poland and Lithuania, that participated in the CIRTOINNO workshops and consultancy services. After completion of the workshops, participants were asked to respond to an online survey consisting of five questions about their motivations, needs and barriers to engage in circular economy innovation and business support. However, the survey only received 15 responses, nine from Sweden, four from Lithuania and one from Poland. Due to the few responses, the results of the survey are not presented here directly, but the survey responses correspond very well with the experiences made by partners based on their direct interaction with the (same) SMEs. Thus, the survey results are also represented in the description and analyses below.

Before we present the partners' experiences about the needs and barriers of tourism SMEs regarding the CE, we should recall some general features that characterize the particular type of participating companies. They are often owned and run by a family; their staff often has a relatively low level of education, they lack managerial professionalism, have limited financial resources, and usually they rely on widespread standard technologies. Thus, compared to larger companies such as global hotel chains, most tourism SMEs have a limited innovativeness and low capacity for developing and implementing new technologies and ideas. This obviously is important when considering recommendations for relevant support initiatives.

Tourism SMEs needs, interests and barriers in implementation of CE

A little group of pioneering, sustainability-orientated SMEs

There is a small group of sustainability-oriented tourism SMEs, that are sensitive to environmental and social issues. These companies are willing to cooperate and are looking for new solutions in the spirit of CE. Moreover, they are open to innovations and changes in the business model, which, however, is not always straightforward for them to actually start implementing. In the long-term perspective, it is worth

supporting these SMEs in creating their own way of switching to more circular solutions and including it in the company's strategy.

But most tourism SMEs have no knowledge of CE

However, most SMEs have a very limited understanding of environmental sustainability and of the term "circular economy". SMEs often have no knowledge about how to integrate constituent CE elements into their existing business model or how to proceed with transforming their entire business model into a circular business model. Hence, they first need to get basic and simple information that allows them to understand what CE is and how they can benefit by following circular principles. After obtaining such information, their interest in the topic and willingness to take specific actions increases.

SMEs' first steps for implementing CE

The first step should be to become familiar with the basics of the circular economy (e.g. dictionary on the CIRTOINNO website, relevant parts of the Handbook, examples/best practice on the CIRTOINNO website, video materials made for the training about CE). The next recommended step is to complete the self-assessment tool iSAT, developed in the CIRTOINNO project. The summarizing report provided after answering the questions in the iSAT contains several tips on how to start and an indication of simple solutions for quick implementation.

Tourism SMEs have limited experiences with marketing

Most of the attendees in the CIRTOINNO workshops had very limited or no experience with marketing activities. Their marketing-related knowledge and expertise even among their designated marketing employees, was also very limited. What they mostly focused on was sales, rather than marketing or promotion. They don't know the potential customers of their circular services or products or how they can reach them through marketing and promotion. So, they need to be educated about different general marketing and promotion strategies, techniques, and media they can use for their business. This is not something solely related to circular services and products, but for their whole business. This need was even more evident for digital and social media marketing activities that are much less costly and require much fewer working hours than the traditional offline marketing strategies. Knowing about how to implement digital and social marketing strategies successfully to reach the right target market would help the SMEs that have limited resources (time, budget, staff) to eventually increase sales and profit, which they strive for.

A business culture characterised by passivity toward innovation

Although many SMEs, when introduced to the CE concept, are very interested and like the ideas and principles, they demand not only presentation of good ideas and information about the potential benefits, but also support in finding money for investments and in preparing and supervising the implementation. According to Polish project partners, Pomeranian SMEs are not proactive but very passive in taking innovative action themselves, even confronted with the launch of new regulation that forces them to change.

The need for broad, hands-on supervision and facilitation

In all partner regions, however, partners found that it is necessary to support SMEs in simplifying the complex problems and solutions connected to CE implementation. Tourism SMEs need (and expect) multi-faceted, complex supervision and facilitation about how to implement circular ideas. Thus, educational and interactive consultancy services need to start from a very basic level and to be practical, solution-oriented, hands-on and focused directly on the companies' specific products/services and conditions. Companies require a deeper diagnosis which points to concrete solutions, tailored to them, as well as guidance through the next steps. These companies often decide on the basis of a small-steps-method, starting with simple "quick-wins" solutions and products/services which they can quickly use in their activities.

Main barriers for change

It is the common experience of partners from workshops and advisory services, that the overall most important barrier for uptake of CE ideas and principles among tourism SMEs is lack of financing to support changes, such as regional, national and EU innovation funding. Also, the "black", fossil-based energy infrastructures prevailing in most regions, form an important obstacle for truly circular and sustainable business models. Moreover, the wider supply chains and knowledge systems, based on circular principles, are still weak and it is hard for SMEs to find suppliers and cooperation partners with the right products and qualifications. For example, according to project partner IMP, many tourism SMEs in Pomerania are reluctant to engage with local energy consulting firms due to lack of trust in their capability to realistically estimate the expected resource and cost savings resulting from energy-related circular investments.

5. Recommendations for circular economy support initiatives

In order to structure our elaboration of possible recommendations for relevant CE initiatives, we have used a simple analytical framework (also applied in the Handbook), based on two overlying dimensions: the scope and the scale of the recommended initiatives.

In the first dimension, the *temporal scope of intervention*, we distinguish between, on the one hand, initiatives that could be launched immediately and that aim at implementing and adapting already accessible circular technologies and practices, and, on the other hand, types of initiatives that have a long-term perspective and that aim at the creation of new technologies/practices, elimination of existing restrictions and barriers or establishment of larger infrastructures, supply chains or regulative framework conditions.

The second dimension, the *scale of intervention*, addresses the scale or the target of a possible support initiative. Does it aim at promoting change in, respectively, individual (or smaller groups of) tourism businesses, an entire (local or national) tourism sector/destination, or the economy and society as a whole?

Combining these two dimensions results in a matrix that is used to structure our recommendations regarding relevant initiatives in support of CE transition in tourism and society at large (see the below Table 1).

First, however, we will provide a few more overall observations and perspectives of relevance for the promotion of a transitioning to the CE among tourism businesses as well as in the society in general.

Circular solutions are emerging from bottom-up

Systemic transition towards a circular economy is a complex, multifaceted process involving technological changes as well as changes in regulation, laws and infrastructures, industrial networks, consumption cultures, etc. In order not to be paralysed confronted with such complexity, it is crucial to underline the open-ended, bottom-up and entrepreneurial element of the ongoing development of new circular solutions. A grand scheme of universal ready-made CE technologies and a one-size-fits-all route to their diffusion and implementation does not exist. Rather we witness a mushrooming emergence of new circular technologies and business models driven by individual (often manufacturing) companies, realized through social interaction and learning with suppliers and customers, and targeted specific business opportunities connected to particular production and consumption contexts.

Businesses and employees are the creators of CE

Hence, a CE transitioning will not depend on diffusion of a supply of ready-made universal solutions but primarily on the ideas and initiatives of business owners, managers, skilled staff, networks of suppliers, customers and other stakeholders, identified on the basis of their practice-related knowledge about specific opportunities and needs. Rather than high-profile university researchers and visionary public support agencies, the true innovators of circular technology are the varying types of practitioners, professionals and users related to the specific (economic or social) domain where the technology is required and applied (i.e. managers, marketers, receptionists, electricians, plumbers, technical suppliers, etc.)

Advocate for pragmatic and situated step-by-step approach

Hence, in the promotion of enhanced implementation of CE principles among tourism SMEs, it is crucial not to complicate the obstacles of change by pushing for too ambitious goals. Instead, it would be prudent to advocate for a pragmatic, stepwise and situated approach, taking into account local conditions and potentials and drawing on specific opportunities in relation to the socio-technical setup one is embedded in. Very often, circular transformation processes start with steps, which are not truly 'circular' but just more resource efficient. Moreover, often the driving motive for starting a change towards more circular business operations is the highly mundane, almost trivial one of saving costs.

Table 1. Recommendations for initiatives aimed at promoting the CE within tourism

Target/scale of promotion initiatives	Time perspective for promotion initiatives	
	Immediate perspective: Adaptation and implementation of existing technologies/practices	Long-time perspective: Creation of novel (not yet existing) technologies/practices
Individual tourism businesses	<p>Elaborate glossy, easily readable information materials, brochures and posters explaining the relevance of CE ideas and principles for tourism SMEs and with practical examples of tourism-specific circular business models, products, technologies and practices, investment demands, resources and costs savings, opportunities for funding etc.</p> <p>Offer to groups of tourism SMEs the five modules of training workshops, developed and tested during the CIRTOINNO project, i.e. 1) theoretical introduction to CE; 2) Design thinking; 3) Business model innovation; 4) Marketing; and 5) Energy efficiency (see www.cirtoinno.eu).</p> <p>Offer customised advice services for individual and groups of tourism SMEs about existing technological and non-technological circular solutions developed and tested during the CIRTOINNO-project (see www.cirtoinno.eu).</p>	<p>Encourage SMEs in building relationships and interaction with local and non-local suppliers and partners regarding new circular technologies/services, local food supplies, take-back arrangements, reuse and recycling, construction and refurbishment, energy provision, sharing economy arrangements etc.</p> <p>Develop and validate “Transformational Living Lab” concepts for tourism SMEs, including marketing and pricing models that reward sustainable, responsible consumption</p>

Table 1. Recommendations for initiatives aimed at promoting the CE within tourism (continued)

Target/scale of promotion initiatives	Time perspective for promotion initiatives	
	Immediate perspective: Adaptation and implementation of existing technologies/practices	Long-time perspective: Creation of novel (not yet existing) technologies/practices
The entire tourism industry/destination	<p>Continuously and systematically collect data, knowledge and relevant business cases about CE in tourism in order to identify and validate 'best practices'</p> <p>Establish and encourage local fora/networks for learning, knowledge exchange and diffusion of CE ideas, business models and technologies among tourism SMEs (energy, water, food etc.)</p> <p>Specifically, develop local partnerships and communities for sharing economy arrangements related to tourism (e.g. collection among locals of diverse types of used equipment such as bikes to be reused by visitors/tourists)</p> <p>Involve citizens in interactive local and regional policy and planning processes with the aim to develop goals and strategies for sustainable tourism and uptake of CE practices within tourism</p> <p>Launch (local/regional, national or EU) funding programmes for tourism SMEs aiming at diffusion/implementation of existing circular/sustainable technologies and practices (buildings, energy, water, food, refurbishment etc.)</p> <p>Include CE in curriculum of tourism educations and develop CE courses/educations for staff in the tourism sector</p>	<p>When validated 'best practices' have been identified, develop indicators on circularity in tourism SMEs and destinations to be included in the iSAT tool, international certification schemes (e.g. Green Key), online hotel booking platforms etc.</p> <p>Launch funding programmes for cross-industry creation of radical new circular/sustainable technologies for tourism (e.g. regarding transport systems, buildings, water systems)</p> <p>Launch funding programmes for development of circular tourism supply/value chains, including sustainable transport systems, renewable energy, local food production, establishment of new reuse/recycling companies ("scavengers")</p> <p>Develop and implement destination branding strategies that are based on CE principles</p>

Table 1. Recommendations for initiatives aimed at promoting the CE within tourism (continued)

Target/scale of promotion initiatives	Time perspective for promotion initiatives	
	Immediate perspective: Adaptation and implementation of existing technologies/practices	Long-time perspective: Creation of novel (not yet existing) technologies/practices
Overall economy and society	<p>Local and national follow-ups to EU's 2015 CE strategy on reduction of plastic, reuse and recycling of natural resources, waste reduction, renewable energy, etc.</p> <p>Increase general incentives for CE transition through taxation of CO² emissions and use of virgin resources, financial support to staff training, energy investments, consultancy services etc.</p> <p>Launch (regional, national and EU) funding programs targeted diffusion of CE solutions throughout the (public and private) economy, including energy efficiency</p> <p>Launch (regional, national or EU) information campaigns and educational programs for diverse support actors such as energy consultancy firms, public planning authorities, banks and investors in order to enhance their qualifications and knowledge about CE</p>	<p>Develop national, regional and local regulatory frameworks for transition of energy systems to renewable energy, including creation of smart, local GRIDs</p> <p>Launch regional, national and EU strategies and innovation support programs for creation of radical new circular technologies and solutions (electric transport, grey water systems, waste management, renewable energy, efficient buildings, reuse of building materials etc.)</p> <p>Launch cross-sector strategies and funding for establishment of new circular supply/value chains and businesses based on resource cascading ("scavengers")</p> <p>Develop national or international accreditation and certification systems for recycled, reused materials, e.g. building materials</p>