

# Chapter 2

## The Transition Journey to the Circular Economy by Companies in the Valencian Region's Tourism Industry



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### Introduction

The transition to the circular economy involves three main principles: “eliminate waste and pollution, circulate products and materials, and regenerate nature” (Ellen MacArthur Foundation, 2022). The distinctiveness of the circular economy is that it enables the simultaneous improvement of at least seven Sustainable Development Goals (United Nations, 2015): SDG6 (Clean water and sanitation), SDG7 (Affordable and clean energy), SDG11 (Sustainable cities and communities), SDG12 (Responsible consumption and production), SDG13 (Climate action), SDG14 (Life below water), SDG15 (Life and land). This might provide reasons to understand why the European Commission established that the circular economy would be a prerequisite to the achievement of climate neutrality by 2050 in its Circular Economy Action Plan (2020). Likewise, the European Commission connected the circular economy to improvements in the Sustainable Development Goals.

When companies in the tourism sector decide to be more “circular”, they reach achievements on this journey but also encounter difficulties. They have shared these with us during the Innoecotur project (<https://innoecotur.webs.upv.es/>).

In this chapter, we present our findings after conducting three focus groups with 18 executives from hotels and restaurants. The information has been divided into main five steps perceived after analysing managers' comments.

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The chapter is set out as follows. After this introduction, a literature review is conducted for the two main frameworks that we use to support the analysis of the information collected in the focus groups. Then, the five steps on the journey to circularity are explained with examples of comments made by participants. Finally, the main conclusions are revealed.

## ***Frameworks in the Circular Economy Literature***

Literature about the circular economy offers two supporting frameworks for companies on their journey to becoming more circular. These frameworks are the barriers to transition and the R concepts for circularity. Table 2.1 shows a summary of seven barriers obtained through a literature review, although only two of these works refer to the hospitality sector. It is important to note that barrier analysis has emerged as an important topic in the last two years.

The number of R concepts has risen during the last decade. In our literature review, we found papers focused on three Rs (Ioannidis et al. 2021; Westgeest, 2022), four Rs (Kirchherr et al., 2017), nine Rs (Reike et al., 2018, 2023) and up to sixty Rs (Uvarova et al., 2023). In spite of the variety of synonyms expressing R concepts, Kirchherr et al. (2017) stated that the four most common R concepts are reduce, reuse, recycle and recover. Table 2.2 shows the nine Rs defined by Reike et al. (2018). We have included some examples from the Marriott hotel group's ESG<sup>1</sup> report.

## ***Focus Groups: Design***

To analyse the journey of companies on their transition to the circular economy, information was collected through three focus groups conducted in Alicante, Castellon and Valencia. Every focus group involved six participants, who were managers with experience in the transition to the circular economy. Moreover, two of the participants were executives in hotels, two managed restaurants, and the other two led firms which supplied products to hotels and restaurants. Hotels were selected according to their category and had four stars or higher. In the case of restaurants, the criterion was being included in a ranking or having received an award.

A guide was drafted to steer the three focus groups to facilitate the comparison of data collected. The University of Alicante, Jaume I University and the University of Valencia oversaw the selection of participants, moderated the three focus groups and transcribed the three recordings.

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<sup>1</sup>ESG: Environmental, Social, and Governance.

**Table 2.1** Barriers in the transition to the circular economy

Barriers	Examples	Authors
Economic/ Financial	Cost and financial barriers; Economically dominated thinking; Unwillingness to engage in trade-offs	Khan et al. (2022), Hina et al. (2022), Mishra et al. (2022), Takacs et al. (2022); Shao et al. (2023)
Competitive barriers	Low level of profit and market demand level; Consumer-related barriers; Market barriers; Perception that the quality of the finished product could be compromised; Product design	Khan et al. (2022), Hina et al. (2022), Mishra et al. (2022), Takacs et al. (2022), Shao et al. (2023)
Implementation barriers	The learning process and associated risk; Feasibility of circular economy implementation; Unused/wastage of material; Company's policies and strategies; Lack of industrial support; Collaboration; Complex and less integrated supply chain; Supply chain-related barriers; Staff motivation	Khan et al. (2022), Hina et al. (2022), Westgeest (2022), Shao et al. (2023)
Knowledge barriers	Lack of knowledge and skills	Khan et al. (2022), Mishra et al. (2022), Takacs et al. (2022)
Other resource barriers	Technical and/or technological barriers; Lack of physical and intellectual resources; Human resource shortages	Khan et al. (2022), Hina et al. (2022), Mishra et al. (2022), Takacs et al. (2022)
Cultural barriers	Top management resistance to change; Risk aversion; Strategic barriers; Internal stakeholders; Social, cultural and environmental barriers; Cultural barriers; Organisational barriers	Khan et al. (2022), Hina et al. (2022), Mishra et al. (2022), Takacs et al. (2022), Shao et al. (2023)
Administrative & Institutional barriers	Lack of government policies concerning circular economy; Legislative and economic barriers; Government and regulatory barriers	Khan et al. (2022), Hina et al. (2022), Mishra et al. (2022), Takacs et al. (2022), Westgeest (2022), Shao et al. (2023)

Source: Various

The analysis of the transcribed information was conducted by the Universitat Politècnica de València using the QDAMiner 5 software. Content analysis was the method selected to extract the information, code the sentences and divide them into the following groups:

1. Awareness about the transition to the circular economy.
2. Barriers and incentives in the transition to the circular economy.
3. Decisions for the transition to the circular economy.
4. Implementation of circular economy initiatives.
5. Reporting on advances in the transition to the circular economy.

The process followed in the content analysis resulted in 166 codes after a first draft and code reorganisation into groups.

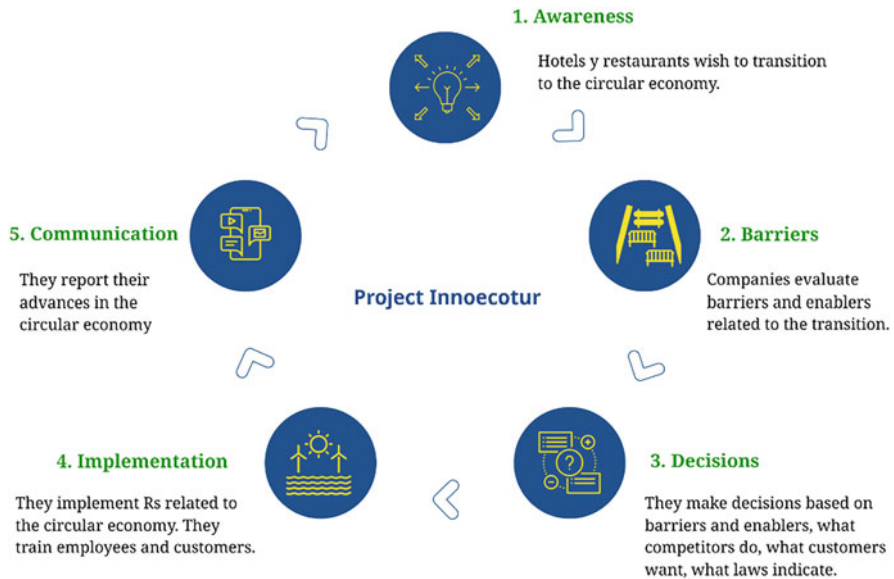
**Table 2.2** R concepts with examples

Rs	Examples (producer side) <sup>a</sup>	Example in Marriott <sup>b</sup>
R0. Refuse	Refuse the use of specific materials	Cage-free eggs
R1. Reduce	Using less material per unit of production	Switching single-use plastic in toiletry bottles to larger pump-topped bottles. Eliminate the use of paper for hotel reporting processes. Use of renewable energy. Responsible source
R2. Resell/Re-use	Enabling multiple re-uses	Laundry water reuse systems. Use food that would have been potentially discarded to create fresh jam from passion fruit skin
R3. Repair	Repair to extend the lifetime of the product	
R4. Refurbish	Components are replaced or repaired resulting in an upgrade of the product	MindClick's Design Impact Report™, to evaluate the environmental and social responsibility of new builds and renovations based on specified interior furnishings, operating supplies and equipment
R5. Remanufacture	Reconditioning, restoring	Reuse and breathe new life into existing land or buildings, rather than destroying old sites and rebuilding using new materials
R6. Repurpose	Reusing discarded goods or components adapted for another function	Send cleaned and repacked soap to local communities for hygiene needs
R7. Recycle materials	Separate and use secondary materials	Recycle used Nespresso capsules from guest rooms, returning one million capsules back to Nespresso
R8. Recover (energy)	Waste treatment to produce energy	In Hong Kong work with the city's first organic resources recovery centre, to convert food waste into electricity. Remove seaweed from beaches and sequester and store carbon in the soil
R9. Re-mine	Reprocessing	

Source: <sup>a</sup>Reike et al. (2018); <sup>b</sup>Marriott International (2022)

### ***Focus Groups: Results***

The results are presented according to the five steps that tourism companies follow on their journey to the circular economy. Figure 2.1 shows a summary of these steps and the main topics involved in them. The five steps are the five code groups indicated in the previous section. Therefore, the first step starts when a company considers the transition to the circular economy, while the second step refers to the barriers, the third step to the decisions they make about what initiatives to undertake, the fourth step focuses on the implementation of these initiatives, and the fifth step involves companies' reporting advances in terms of the circular economy.



**Fig. 2.1** The transition journey to the circular economy

**Table 2.3** Frequency of codes about awareness

The circular economy is important	Hotels	Restaurants	Suppliers	Total	%
A1_For everything and everybody	1	1	2	4	22%
A2_ For customers	2	2	4	8	44%
A3_For companies	2	2	4	8	44%
A4_For employees and customers	1	1	2	4	22%
A5_For global agencies	1	1	2	4	22%

### ***Awareness About the Transition to the Circular Economy***

This group of codes includes the opinions of participants in the three focus groups about the reasons why their companies considered transitioning to the circular economy. Participants indicated the importance for their own companies, customers and international organisations, some of which had to include sustainability activities to participate in contracts. Table 2.3 shows a summary of codes related to awareness. The frequencies indicate that participants believed that the interest of companies to transition to the circular economy was that customers demanded sustainability, and this becomes the purpose of companies.

Examples that illustrate the comments behind the codes in Table 2.3 include the following A2.1 and A2.2 are examples for code A2 in Table 2.3, while A3, A4 and A5 are linked to their corresponding codes in the table.

- A2.1. The circular economy is important to customers.
- A2.2. We have won a big client and the reason why was that we obtained a sustainability certification. We are working to reduce our carbon footprint by incorporating photovoltaic energy, for example.
- A3. More and more companies are working on the transition to the circular economy, inside and outside companies.
- A4. Circular economy initiatives will be an important factor to attract talent and customers to a hotel and other businesses.
- A5. Many international agencies include sustainability initiatives as a prerequisite for companies interested in participating in tenders.

### ***Barriers and Enablers to Implementing the Circular Economy in the Tourism Industry***

On the second step in the transition to the circular economy, companies in the tourism industry evaluate the potential barriers and enablers they might find when they implement actions to become more circular (Tables 2.4 and 2.5).

The opinions of participants about barriers to implementing the circular economy were divided into six types: economic, business, knowledge, cultural, social,

**Table 2.4** Frequency of codes about barriers in the transition to the circular economy

Barriers	Hotels	Restaurants	Suppliers	Total	%
B1_Economic barriers	1	1	2	4	22%
B2_Business barriers	1	1	2	4	22%
B3_Knowledge barriers	2	2	4	8	44%
B4_Cultural Barriers	3	3	6	12	67%
B5_Social barriers	1	1	2	4	22%
B6_Administrative barriers	2	2	4	8	44%
B7_Institutional barriers	1	1	2	4	22%

**Table 2.5** Frequency of codes for incentives to companies

Incentives available	Hotels	Restaurants	Suppliers	Total	%
I1_Lack of incentives	2	2	4	8	44%
I2_There are incentives	1	1	2	4	22%
I3_Companies should not be penalised when they do the right thing	2	2	4	8	44%
I4_Reward companies which do the right thing	2	2	4	8	44%
I5_Lack of information	2	2	4	8	44%
I6_Incentives should exist throughout the value chain	1	1	2	4	22%
I7_Incentives are welcome	1	1	2	4	22%

administrative and institutional. Table 2.4 shows the number of participants who indicated the presence of each barrier by sector. Frequencies indicate that cultural barriers are the most important in the tourist industry.

*Economic barriers* refer to the cost associated with measures that help companies in their transition to the circular economy. Participants in the focus groups indicated that the investments needed for the transition imply elevated costs which are difficult to take on board. Examples of participants' comments about code B1 in Table 2.4 were:

- B1.1. The trade-off between sustainability and profit is when it is difficult to ensure profitability and a return on investment.
- B1.2. The company cannot afford the cost involved in implementing an improvement, like switching to electric vehicles.
- B1.3 There is a cost related to recovering the containers and sending them to other companies.

*Business barriers* express the risk of eroding competitiveness when the cost associated with implementing actions to be “circular” results in lower margins than those of competitors. Examples of participants' comments about code B2 for this barrier in Table 2.4 were:

- B2.1. Being “circular” implies investing a lot of time to find suppliers as there is no list of circular suppliers available. The time invested in the process of finding them increases the cost for the company.
- B2.2. Reducing our margins due to investments in circularity makes it difficult to compete with rivals which do not invest and do not even know what laws demand.

*Knowledge barriers* are about the lack of knowledge related to what the circular economy is. Participants' opinions about code B3 indicated that this barrier appears with customers, companies and governments:

- B3.1. There is a need to translate the circular economy into a language that everybody understands, with examples indicating how many euros a company might save, as occurred with LED lightbulbs.
- B3.2. Customers do not know what sustainable gastronomy, ecological, and proximity products are.

*Cultural barriers* deal with the resistance to change, in this case, to transition to the circular economy. This barrier is present in both companies and customers. Participants in the focus groups mentioned the following about code B4:

- B4.1. Sometimes you have to fight against those who do not understand or who only see it as an extra cost.
- B4.2. When the customer does not demand sustainable products.
- B4.3. Risk aversion and being unable to work in a different way than we are used to.

*Social barriers* concern the engagement of all the people in the transition to the circular economy, especially those who are more aware of sustainability. This code in B5 was expressed by a woman who defended the involvement of other women because they are more interested in the circular economy:

- B5. Give opportunities to women as they are more aware of the circular economy.

*Administrative and institutional barriers* deal with laws and regulations which limit companies' progress towards the circular economy. Examples of opinions related to codes B6 and B7 were:

- B6. Local government barriers block the implementation of innovative waste-reducing initiatives.
- B7. Additional benefits could be given to companies to encourage the efforts they have made towards the circular economy.

Enablers in the form of incentives to companies include codes that refer to participants' comments about their perceptions of the availability or lack of these incentives. They also felt that companies are sometimes penalised despite doing the right thing. Table 2.5 includes the codes I1 to I7, defined for the analysis of incentives.

Examples of comments cited by participants in relation to code I5's lack of information show their different perceptions depending on the sector:

- I5.1. There is a lack of information when the sector is fragmented with many small companies, i.e., the restaurant sector.
- I5.2. We obtain all the information available because the Hotels Association in our region is a strong organisation.

## ***Decisions About the Transition to the Circular Economy***

When companies evaluate their options to transition to the circular economy, they consider what is valuable about what they offer to customers. This is because companies adapt their products and services to what customers really want. However, even if customers are aware of the circular economy, companies need to confirm that their suppliers are also willing to transition to the circular economy. Table 2.6 includes the frequency of codes about decisions related to the circular economy. The data in the table indicates that the transition might be a challenge for some companies based on customers' interest in the circular economy.

Examples of comments around the codes mentioned by participants in the focus groups, which are shown in Table 2.6 are:

- D5.1. Sometimes cultural barriers appear on the suppliers' side, as they do not accept the idea of moving towards the circular economy or obtaining a certification.



**Table 2.6** Frequency of codes for decisions for the transition to the circular economy

	Hotels	Restaurants	Suppliers	Total	%
D1. Customers are not aware of the circular economy	3	3	6	12	67%
D2. Customers are aware of the circular economy	3	3	6	12	67%
D3. Some customers are more much aware of the circular economy than others	2	2	4	8	44%
D4. We do select suppliers based on their advances towards the circular economy	2	2	4	8	44%
D5. Some suppliers do not accept the idea of moving towards the circular economy	2	2	4	8	44%
D6. Suppliers accept our demands to moving towards the circular economy	1	1	2	4	22%
D7. Lack of a well-organised supplier network	1	1	2	4	22%
D8. It is difficult to find suppliers for some products	1	1	2	4	22%

**Table 2.7** Frequency of codes for the implementation of actions

Implementation of circular economy initiatives	Hotels	Restaurants	Suppliers	Total	%
Measure before reducing	3	3	6	12	67%
Sustainable Development Goals as a guide	1	1	2	4	22%
R0. Refuse	1	1	2	4	22%
R1. Reduce	3	3	6	12	67%
R2. Reuse	2	2	4	8	44%
R5. Remanufacture	1	1	2	4	22%
R7. Recycle	1	1	2	4	22%
R8. Recover	3	3	6	12	67%

- D6.1. Suppliers accept our demands if the investment required to move towards the circular economy is not substantial.
- D7.1. The lack of a well-organised supplier network implies that we need to spend a lot of time selecting products day after day.

### ***Implementation of Circular Economy Initiatives***

This step involves the implementation of initiatives that companies have selected after considering barriers and enablers, what customers really want, suppliers' capabilities, and the impact on profitability. Table 2.7 shows the frequencies for R concepts applied by companies participating in the focus groups. To organise the information collected, the nine Rs model by Reike et al. (2018) was applied.

Kirchherr et al. (2017) concluded that the four most common R concepts were: reduce, reuse, recycle and recover. In our results, the most frequently mentioned concepts were reduce, recover and reuse.

Examples of comments on R codes included in Table 2.7 were:

- R0.1. Plastic bags from laundry suppliers are refused, and reused textile bags are the norm. Boxes from suppliers are refused.
- R1.1. The surplus energy from photovoltaic infrastructures is used in the swimming pool in some months of the year.
- R2.1. Water from showers and water tanks is recovered and reused to water the golf course. Additionally, water from showers is used in the water tanks.
- R5.1. The building was refurbished instead of constructing a new one.
- R7.1. We recycle plastic and create products with it.
- R8.1. Plastic is recovered to prevent it being thrown into the dustbin.

It is clear from the participants' comments that waste management is an important element in the circular economy. In fact, we obtained additional information from participants about how they reduce waste. Some comments were coded as follows:

- W1. Managing waste (22% companies): W1.1. We separate waste in specific containers. W1.2. We work with waste management companies that support social causes.
- W2. Challenges with waste management (22% companies): W2.1. There is a need to evaluate where waste is generated in the value chain. We end up paying costs which clearly belong to our suppliers. W2.2. Separating waste and recycling costs money.

The transition to the circular economy also requires training employees and customers to increase their awareness of circularity. Two codes were defined to indicate the two recipients of training, employees and customers:

- T1. We train employees about the circular economy (22% companies).
- T2. We train customers about the circular economy (22% companies).

### ***Reporting Circular Economy Initiatives***

Reporting advances in circularity is the last step on the journey towards the circular economy. The defined codes indicate what companies report, and they indicate that companies consider the circular economy as adding value for customers and as part of their experience:

- C1.1. We report the value of the circular economy initiatives we implement (22.2% companies).
- C1.2. We report the customer experience about the circular economy initiatives we implement (22.2% companies).

- C2.1. We report the circular economy certification obtained (22.2% companies).
- C2.2. We report our carbon footprint in real-time (22.2% companies).

## Conclusions

This chapter presents the results of a study undertaken to map the journey taken by tourism companies in their transition to the circular economy. The analysis centred on the tourism industry in the Valencian Region and was based on the information collected from three focus groups, with industry managers who have experienced a transition to the circular economy. The analysis was divided into the five steps on companies' transition journey. The main conclusions obtained from the analysis of the different steps on the journey were the following.

The conclusion from the awareness step is that companies basically transitioned to the circular economy because they were customer-centred and, therefore, they tried to offer circularity because this is what customers demanded.

The barriers and enablers step revealed that the most important barrier was cultural according to the companies. This manifested itself as an aversion to risk as the transition to the circular economy implies doing things in a different way. This barrier also applied to suppliers, denoting a challenge for companies when there is no well-organised supplier network that can offer sustainable products. In terms of enablers, companies mentioned that they sometimes felt as though they were penalised despite doing things well.

The main conclusion of the decisions step referred to the impact of cultural barriers in terms of suppliers. The result is that, although customers are aware of the circular economy, companies cannot provide a circular experience to them because of constraints imposed by suppliers.

The main conclusion of the implementation step was that the advances in the R concepts made by companies in the sector analysed centred on actions that involve reducing, recovering and reusing. The analysis of information provided by participants in the focus groups indicated that companies implemented the same initiatives as the world's leading hotel groups.

On the last step, reporting the initiatives implemented by companies, the main conclusion is that companies reported both the added value for customers and the certifications that prove this, for example carbon footprint levels in real-time.

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