

# Joint Purchase in a Circular Economy

A paper on Joint Purchases created for entrepreneurs and stakeholders in the tourism and recreational sector.

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# Table of contents

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<b>Introduction FACET</b>	<b>3</b>
<b>Increasing value objectives</b>	<b>4</b>
<b>Joint-Purchase</b>	<b>5</b>
<b>Different strategies</b>	<b>7</b>
<b>Joint Purchase model</b>	<b>9</b>
Needs & ideas	
Partners	
Specify	
Tender selection	
Purchase	
Usage & End-of-life	
Monitor & evaluation	
<b>Lessons learned</b>	<b>15</b>
<b>Appendix</b>	<b>18</b>
Questions for entrepreneurs	

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# Introduction FACET

The **Interreg 2 Seas FACET** project wants to encourage entrepreneurs in the tourism sector to apply circular solutions within their company, thereby creating new sustainable revenue models. With a strong consortium of project partners from Belgium, England, France and the Netherlands, experiments are being conducted with circular applications in the fields of accommodation, waste reduction and circular operation management.

A coastal region, the 2 Seas region (covering the coastal areas of Belgium, England, France and the Netherlands and connected by the Channel and the North Sea) has traditionally been a tourist destination with a strong impact on the regional economy. Tourism also entails mass consumption of raw materials. This can grow worldwide by 92% (water) and 189% (land use) in the period 2010-2050 (Tourism Watch) and puts pressure on the already limited raw materials in the region, where industry, agriculture and tourism are already competing. It is clear that we need to find a circular solution to ensure that tourism remains economically beneficial. The corona crisis was and still is forcing many to stand still. Now is the time to look at how we have organised our society and economy and how we want to build our systems post crisis.

Throughout the 2 Seas area, FACET locally develops various practical, accessible and small-scale pilot and demonstration projects to help entrepreneurs gain practical knowledge and experience to make circular business models. FACET provides expertise and support in setting up these pilots. At the same time, local and regional cooperation groups are set up between companies within and outside the tourism sector, suppliers and chain parties. These communities of collaborating parties are strengthened through the involvement of local governments, financiers and end users (i.e. tourists and residents). By involving governments, we look for ways to jointly tackle challenges within existing regulations. Appropriate financing constructions are also being sought for the realisation of circular concepts. This collaboration is a sure way to increase the introduction of circularity.

Awareness of companies in the tourism sector about the circular economy, new business models and other forms of cooperation is an important issue within the project. Consequently, best practices gained are shared and exchanged both regionally and internationally. This will build up practical knowledge and support entrepreneurs in changing to a circular business operation / circular revenue model. The FACET project contributes towards stimulating tourist entrepreneurs to develop and utilize circular applications.

The FACET project started in January 2020 and will run until March 2023.

## Our projectpartners:



# Increasing value

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Many entrepreneurs in the tourism & hospitality sector want to be more sustainable and shift to Circular Economy business practices. Where traditionally decisions were mostly based on financial impacts, nowadays also social and environmental impacts are becoming more relevant in the decision-making process. Ideally their businesses create value on the triple bottom-line (economic, social and environmental).

One opportunity to do so, is the joint-purchase of products and/or services. The main reasons for collaborating over joint purchases for the circular economy is twofold: to obtain benefits of reduced costs while lowering the environmental costs of that purchase. Entrepreneurs can also benefit in other ways from taking part in such agreements.

In tourism entrepreneurs utilize networks to discuss new business ideas, identify opportunities and access or share resources. Closer collaborations can be both formal, involving legal agreements or informal where there is high trust between partners. However, cooperative agreements between entrepreneurs are not business-as-usual, can be complex and range from negotiating for better price of sustainable packaging (economies of scale) to joint-ownership of assets like a bio-digester. Furthermore, these decisions are influenced by a variety of factors like the potential participants, organization and estimated benefits. Also the availability of resources, like practical knowledge (how-to) and other more general factors like government regulation and policy influence the choice and outcomes of such initiatives.

This guideline on joint purchase gives you a brief overview on the criteria for JP, some best-practices from other sectors and insights in different strategies that make such arrangement suitable for the Circular Economy. Furthermore, we present a working model that helps structure the collaboration process for Joint-Purchase in seven steps. Considering the wide variety of possible arrangements, the approach needs to be calibrated in practice to strengthen its usefulness for purchasing collaborations between local entrepreneurs.

## Objectives

Our goal is to enable entrepreneurs to introduce circular economy principles into their purchasing activities and thereby create financial, social and environmental value. Shaping these arrangements is one objective within the FACET-project: we want to facilitate the collaboration between local entrepreneurs and help them to gain advantages in price and quality from joint-purchase projects.

Considering the variety of options, we chose to use a step-by-step generic model with steps to facilitate these collaborative processes. By applying theory into practice and organizing pilot projects we can improve the overall performance of participating businesses & validate our model.

## Contact us

Would you like to know more about the FACET project or joint purchase? Please contact us. Our contact details can be found on our website: [www.facetwiki.eu](http://www.facetwiki.eu).

# Joint-Purchase

Joint purchasing agreements are arrangements between (groups of) providers to purchase services, equipment and supplies. The aim of joint purchase agreements is to create buyer power which will lead to lower prices or better quality of products or services.

Aspects that influence such arrangement include:

- Entrepreneurs whom are purchasing in a network or partnership
- Type & frequency of purchasing
- Expected usage and maintenance
- Integration of potential Circular Economy solutions
- Possible alternatives to purchase, like renting

It can become quite complicated. Take for instance the initiative where a group of beach pavilions explore to buy a bio-digester together to turn waste (biomass) into energy. This would be a one-off purchase of an asset, which requires on-going management and maintenance. In addition, the partners need to think about how they will organize this. As you can imagine, the actual purchase is just a small part of the project and the complexities around it will be high.

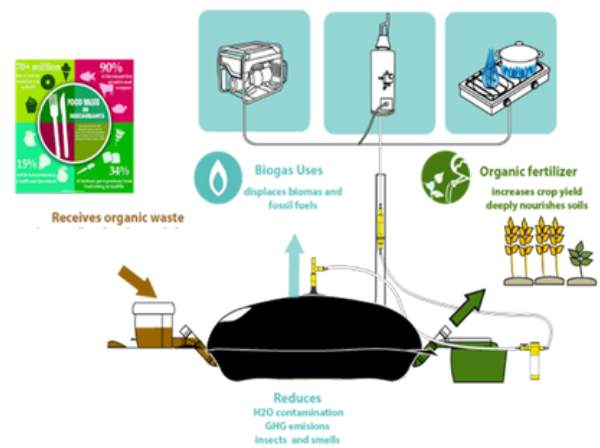


Figure 1. Bio-digester

There are a wide range of factors that affect joint-purchase decisions and the collective process also has to be shaped from scratch. Do you buy to use it yourself, or is it a component of a product you sell? Are these purchases regular? It all matters to define a good arrangement together, and of course this also has to include the business case: does the Joint-Purchase initiative offer enough advantages in terms of cost savings and sustainability for all participants?

As such, we can identify a number of barriers that possible prevent businesses in general to participate in joint-purchase projects. It has its risks and uncertainties, can be complex and needs to be organized properly. Another important barrier, which is market power - in the sense of competitive advantage: you might not want to share your approach with competitors. Besides that, a lack of resources (time, knowledge, money) can be a barrier, including the unknown (intangible) benefits, to participate in such project.

On the other hand, for those who are willing to take the jump, joint purchase can provide cost-efficiency effects due to economies of scale (buying more for less) or cost-distribution among participants (for bigger expenses of shared machinery for example). This can help to overcome budget restraints, even helping to improve internal cost or revenue structures.

Most best-practices described in this guideline are illustrations as inspiration for entrepreneurs within the FACET-project. There are not many specific publications about Circular Economy projects in the Tourism sector, but we did learn from past experiences in other sectors. One such (simplified) example is the joint tender of local authorities.

## Best practices

1.

### **Tender for best environmental quality paper in Greece**

Large orders would help to reduce the problem that sustainable products are often more expensive than their conventional counterparts. This initiative was led by three local authorities in Greece, who organized a campaign to extend the number of participating authorities.

Joint procurement had enabled cost savings of 20% over the usual spend. This figure included savings on the usual administration costs. This example demonstrates that joint purchasing agreements can be used to ensure that sustainable alternative products are cost effective

2.

### **Procurement of eco-efficient office floor lamps in Zürich**

The tendering process involved development of a loose network between the purchasers, suppliers and sub-contractors, who were developing products to comply with the standards. These arrangements allowed the procurers to gain a better understanding of the development process before deciding on the criteria to be used. Suppliers were required to submit a lamp prototype before final selection. The floor lamps cut energy use by 50% with improved safety and ease of use. In addition the process improved knowledge of realistic sustainability goals and provided a range of alternative products .

3.

### **Joint procurement of photocopying machines by 75 schools in Freiburg**

Decisions were made to lease rather than buy the machines to decrease costs and improve energy efficiency, while environmental criteria were adopted in the tender documents. The machines are rented for four years, and the supplier provides and maintains all equipment, including refillable toner containers.

Regular payments are made to the contracting company depending on the number of copies that have been made. At the end of the rental period machines can be updated to the current model.

Intangible benefits like developing knowledge and building trust relationships with fellow entrepreneurs are important effects of a closer cooperation in regional networks. Working together as project partners helps to optimize their business performance.

# Different strategies

Joint-purchase projects offer a unique opportunity since they can overcome barriers that can withhold individual companies invest in sustainable solutions. Though what makes such project sustainable and how does it facilitate the adoption of the Circular Economy?

Within FACET the 9R-strategies for CE are used. This is a hierarchy of circularity strategies ranging from the most optimal level towards the least desirable level of consuming natural resources and materials, while minimizing the production of waste. The 9R-strategies give an indication of which one is better, more preferable. Rethinking product design so there is a minimum amount toxic materials used during production - for example, is more beneficial than burning the product at the end of life to recover some energy.

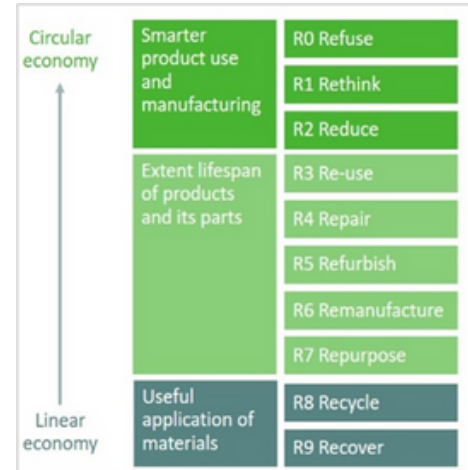


Figure 2. 9R Strategies for CE

Another approach is created by Circular Flanders (2018) in their 'Doelen en strategieën voor circulaire aankopers' (translation: 'Goals and strategies for circular buyers'). These strategies describe different, more specific activities or approaches that collaborating actors can undertake. These activities are linked to specific products or materials within their life-cycle.

A		B		C		D		E	
Reduce total amount of materials		Reduce non-renewable virgin input materials		Extend lifespan		Maximize potential reusability of components		Maximize the recyclability of materials	
A 1	Share internal	B 1	Measure share of recycled, bio-based or virgin materials	C 1	Extended guarantee	D 1	Design for disassembly	E 1	Design for recycling
A 2	Hire or share peer-to-peer	B 2	Increase share of recycled content	C 2	Make contractual agreements on repair and maintenance	D 2	Modular design	E 2	Insight into materials
A 3	Re-use, refurbish or upgrade	B 3	Increase share of bio-based content	C 3	Choose upgradeable products	D 3	Standardized design	E 3	Contractual agreements on return and recycling
A 4	Minimize use of material in design			C 4	Design for longer lifespan	D 4	Insight into composition and connections	E 4	Decrease toxicity
A 5	Less waste			C 5	Easy to repair and maintain	D 5	Contractual agreements on returns and reuse options	E 5	Biological degradable / compostable
				C 6	Modular, interchangeable design	D 6	Stimulate circular business models	E 6	Stimulate circular business models
				C 7	Contractually stimulate a longer usability period				
				C 8	Advise supplier on usage optimization				

Figure 3. Goals and strategies for circular buyers by Circular Flanders (2018)



Here is also more attention the financial and social opportunities; examples are activities like 'hire', 'share', and 'stimulate circular business models' which are less apparent in the 9R-strategies that focuses more predominantly on the environmental impacts.

It is difficult to categorize the JP-strategies advised by Circular Flanders with use of the 9R-strategies. Not only is it arbitrarily, the JP-strategies are defined to improve input, throughput and output during the life-cycle of materials used. It is a different, complimentary way of looking at the opportunities at hand. Moreover, the context is also different in the sense that these circular solutions are implemented by a group of organizations that (temporarily) partner to draw on the benefits that each alone would not be able to achieve. They imply collaborative solutions.

Now that you know a bit of the background, let's look at a specific joint purchase model that has been developed within the FACET project. The model consists of 7 phases that are explained in the next chapter with practical tips for applying the model.

The model has been developed for different user groups:

- Advisors can use the model to involve entrepreneurs in the process of joint purchase;
- Entrepreneurs who want to take the first step in joint purchase and who want to take the lead in this are offered a manual on how to organise a joint purchase project.



# Joint Purchase model

A model is a simplification of reality, which in itself is far more complex and unique. However, a model can help us to understand and make sense of reality and provide some common ground. Taking this into account we chose to create a Joint Purchase-model that is process-oriented and provides a step-by-step approach to organize a collaborative JP-project.

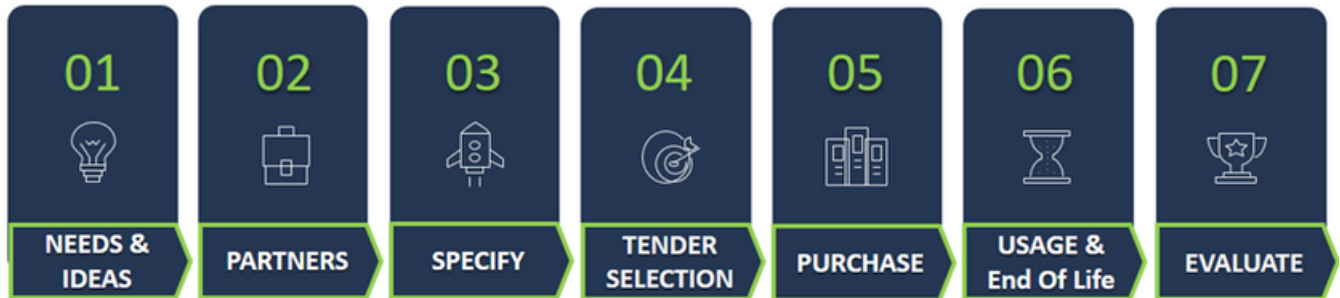


Figure 4. Joint Purchase 7 step model

This model is based on both the Circular procurement process (Kruisbergen, 2015) made with experts and practitioners that resulted in a circular procurement roadmap, and Circular Vlaanderen's Seven steps CE-purchasing process. Both show a sequence of phases moving from the strategic preparations to tactical organization and the operational phase. For the sake of simplicity the FACET JP-model contains seven phases as shown above in figure 4. These seven steps which help you as entrepreneur to organize a collaborative JP-project are described here below in further detail.

## Needs & ideas

Organize a Joint-Purchase meeting: select and invite entrepreneurs for meetings with prospective groups of similar participants (across the sector, supply chain, business network). Start with current experiences in JP-initiatives including their vision, goals and ambitions. What are the needs? Which goods or services are suitable for a Joint-Purchase project? During the meeting ideas can be collected during a brainstorm session.

Another option is to prepare for such meeting by means of a small survey that addresses the drivers, barriers and enablers behind the participants' needs. Make an inventory of these practical needs before the meetings so they can be discussed.

One important aspect is to define what makes the project ideas suitable within a circular economy? Here the 9R-strategies can be applied. In addition it is advised to identify desired outcomes, which can be financial (what is the business case?) but also can have social and/or ecological impacts. .

## Partners

Choosing the right composition of partners, both from companies and related suppliers is important. Hospitality entrepreneurs can run variety of business types like hotels, restaurants, beach clubs, camping's, vacation parks, harbors (including watersports accommodations), and other resorts.

Maintaining network links can be difficult for small firms with limited managerial resources or established routines, particularly if the network is large and diverse. As an entrepreneur you need to build up the competences through participating in collaborative benefits and learn to understand the limits to participation so that ties can be maintained and benefits accrued.

Now how do you find participants? Cluster most feasible ideas into themes that are central to attract a good potential partner network around them to evolve. Common benefits like a good business case and improved circularity are also strong connectors.

## Specify

Create a partnership agreement as it will help to be more successful (Burja, 2009). Such agreement contains: the reasons and objectives of the joint activity, the name of the participating members, product(s)/service(s) to be purchased (possibly including quantities), and the procedure to be undertaken.

Clarify the needs with specifications: what are the results you want to achieve and how do you define the objectives? Can the outcomes be measured? What is the business case? Which aspects or criteria make it more sustainable?

Also Specify how to measure the outcomes. This can be done by coupling information of procurement volumes with data on materials, emissions-intensive production processes or products, waste generation and management along the products' lifecycles (Thiebault & Tonda, 2018). This is valuable input for the evaluation afterwards.

It is possible to draw on the earlier examples given from the 9R-strategies and the 'Doelen en strategieën voor circulaire aankopers' from Circulair Flanders. The table underneath (Kristensen, et al, 2021) gives some examples of criteria used in joint purchase including one best-practice.

<b>Durability</b>	<ul style="list-style-type: none"> <li>• Requiring quality and durability standards</li> <li>• Demanding a minimum guarantee and availability of spare parts</li> </ul>
<b>Resource efficiency</b>	<ul style="list-style-type: none"> <li>• Setting criteria for use of electricity in the use phase</li> <li>• Setting criteria for fuel consumption</li> </ul>
<b>Reuse</b>	<ul style="list-style-type: none"> <li>• Demanding delivery of products in reusable transport packaging</li> </ul>
<b>Refurbish/retrofitting</b>	<ul style="list-style-type: none"> <li>• Retrofitting of building appliances through energy service contracts</li> <li>• Refurbishment of furniture</li> </ul>
<b>Recycling</b>	<ul style="list-style-type: none"> <li>• Demanding the use of low or no harmful materials and products to improve the recyclability of the products themselves and their packaging</li> <li>• Demanding that products can be dismantled for recycling</li> </ul>
<b>Buy recycled</b>	<ul style="list-style-type: none"> <li>• Purchase of textiles with recycled fibres, recycled paper etc.</li> <li>• Require a minimum of recycled material in packaging.<sup>7</sup></li> </ul>

Figure 5. Examples of criteria Kristensen, et al, 2021

## Best practice

### 4. Turning coffee ground into mushroom burgers

The main idea is to collect the waste stream of coffee ground from the six beach pavilions. This is done by the wholesaler that brings supplies and can return with the ground without making extra miles. The coffee ground will be delivered to GRO who grow oyster mushrooms on it and turns these into several food products (mushroom burger, crunchy deep-fried balls and chips). These products can be sold by the beach pavilions as alternative to meat, whilst having a meaningful story to tell their guests. Next step in this best practice is to explore the form of agreement.



## Tender selection

The tendering process is a key stage in the procurement of sustainable goods and services and it is necessary to gather good information on potential suppliers who understand requirements of circular economy practices, which include understanding of the need to minimize waste and maximize potential for recovery and reuse of products and materials at the end of their useful life.

The first step in tendering is to make a thorough analysis of potential suppliers to identify those that could meet your requirements for the product, service or work that is being considered. At this point it is useful for the joint purchasing partners to undertake a search for possible suppliers, listing those that seem most promising. It may be useful to consider whether these firms are supplying sustainable goods or services to other firms, have a track record of adopting innovative practices, and have a generally good reputation or can be informally recommended through local business networks.

Finally, the joint purchasing partners should develop a list of questions based on their agreed requirements featuring both essential and desirable criteria for the required purchase (Kruisbergen, 2015). At this point, early in the tendering process, it is advisable to engage with potential suppliers. Having them on board early is critical to ensure that circularity can effectively be embedded in the specification phase, according to Thiebault & Tonda (2018, p.26). Both purchasers and suppliers can then engage in initial communications considering issues such as:

- Describing the agreed outcomes expected from the joint purchase, explaining the type results required, and how success will be evaluated;
- Providing an opportunity for suppliers to ask questions and gain a good understanding of the purchasing criteria;
- Encouraging suppliers to identify improved efficiencies in the design of the product or delivery of the service;
- Exploring the opportunities for suppliers to develop innovative solutions;
- Giving suppliers an opportunity to fine tune their solution to best meet your needs.

Initiating communications with suppliers at an early stage will enable the purchasing partners to evaluate key issues in the tendering process, including the potential to provide solutions to sustainability issues. Other salient points could be whether there is effective competition

competition between suppliers, depending on how many could provide for the agreed criteria. Whether there are enough suppliers with sufficient capacity to meet requirements for all the joint purchasing partners.

At this point it may be useful to tap into the knowledge of other firms, engaging relevant networks. Be focused, concrete and clear about what you want out of the engagement process and prepare your questions for the market.

Meeting with groups of key suppliers: an essential part of the tendering process is to meet with groups of potential key suppliers. This allows you to discuss your needs and enables suppliers to ask questions and present possible solutions in response. You can also meet with these suppliers individually; although care should be taken that you remain fair and transparent.

Supplier briefing during tender: the briefings should better explain the tendering requirements, enabling suppliers to ask questions and seek clarification. Answers to questions should be documented and published online after the event, in order to ensure fairness and transparency in the bidding process.

Supplier debrief: arranging to debrief suppliers following a tender is an important part of your engagement with the market. You should let suppliers know the reason/s their proposal was unsuccessful and explain how it performed against the criteria.

**In summary**, key steps in the tendering process to ensure that all the joint purchasing partners are satisfied with the selection include:

- Develop a shared commitment and consensus between the joint purchasing partners on specifications and quality standards;
- Agree on the balance between circularity of the purchase and acceptable price, if necessary develop some agreed scenarios relating to this point;
- Ensure the participants involved in the selection process have basic knowledge of circular purchasing;
- Describe the selection- and granting criteria based on the shared aims and values
- Identify a number of potentially suitable suppliers;
- Choose the right supplier together;
- Create the final product order(s).

## Purchase

Purchasing is an activity that happens between firms in the value chain. After the potential suppliers have been identified the purchasers can make a request for quotation (RFQ) from the suppliers who have suitable products or services. The RFQ will provide information on all costs involved, delivery times and payment details as well as an expiry date for the quotation. All offers should be reviewed and compared by the firms involved in the joint purchase.

Once the potential supplier of goods or services has been selected by the joint purchasing partnership all participants should consider how to manage the relationship for long-term success. That means acting as trusted partners, who share common values relating to the adoption of sustainable practices. This will involve participating in a common commitment to supplying and implementing goods and services which demonstrate circular economy principles.

Positive relationship building from the point of view of the joint purchasing partners requires maintaining good practice in purchasing activities, for example in tracking orders, paying invoices promptly, keeping track of inventory and repurchasing intervals. In addition, for a circular economy purchase it will involve monitoring the sustainability aspects over time and willingness to communicate results with the initial supplier. A long-term, high trust relationship between supplier and purchaser should include the ability to request improvements or even innovation in the goods or services to continually improve their circular economy characteristics.

**In summary** the key points involved in purchasing are to:

- Focus on collaboration and managing risks together (sponsor – contractor/supplier);
- Inventarise common interests and risks of all parties. Outsourcing risk costs money;
- Focus on long-term partnerships;
- Create innovation capabilities and learning capacities;
- Build for impact and create incentives.

## Usage & End-of-life

Once delivery has been taken the goods should be inspected and distributed and payment made. It is during use that the circular economy effects of the purchase will become apparent. In order to ascertain whether the expected gains are achieved, it will be necessary to monitor the performance of the purchase over its useful lifetime. This will involve deciding on and collecting some measurement of success in terms of fitness for purpose and contribution to circular economy objectives. In some cases this could be straightforward, for example, the use of a product claiming to providing energy efficiency gains should be reflected in lower total energy usage. Alternatively, benefits may be more intangible, such as the effect of increased customer satisfaction arising from the use of circular economy products and practices. This might be monitored by an increased number of returning customers or by use of a short survey to sample customer responses.

Identification of how the purchase translates into better sustainable practices will affect the decision of the joint purchase partnership when considering repurchasing the good or service. For this step, it will be necessary for firms to be willing to share their experience of usage to a certain extent to facilitate the decision to buy again and to agree whether or not to request some form of upgrade from the supplier. In addition some thought should be given to the appropriate practice of dealing with the end of life, particularly of material goods.

This is where the circularity of the purchase can be revisited, as disposal would have been one of the factors discussed in the first step of sharing needs and ideas. The solutions should reflect the principles of the 9R's and thought given to possible repair, reuse, refurbishment or repurposing as achievable objectives before the item becomes waste. At that point the potential to contribute to other business activities should also be considered, such as remanufacturing, material recover operations, or recycling activities.

## Monitor & evaluation

Joint purchase arrangements have to contribute to the overall business performance of the participating companies. This can be established ex ante (before) and ex post (afterwards). In step 3 of the Joint-Purchase model some attention is given to the business case. Even better is to integrate social and environmental performance indicators in addition to the financial ones. Thus we create a triple bottom line to benchmark the actual delivered results to afterwards.

For measuring afterwards, a customized version of the monitor- and evaluation tool can be used by the business experts that guide the joint purchase process. Where beforehand the current situation is defined plus the desired outcomes, the final measurement gives insight into how far these objectives are met by the JP-project.

Establishing the baseline using 'key performance indicators' (KPI's) that target financial, environmental and social values is on itself a delicate exercise. These have to be determined by the entrepreneurs together with the process guidance in order to set up a workable and relevant method. The FACET monitoring- and evaluation tool provides a wide array of KPI's that can serve as example.

With these tools FACET aims to enable joint-purchasing arrangements between entrepreneurs in the tourism & hospitality sector that contribute to sustainability (triple bottom line).

# Lessons learned

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Building these relationships between entrepreneurs for joint purchase projects does require time and effort. It is good to take notice of the insights from Thiebault & Tonda (2018, p.26) who share some useful insights in their article Building Circularity into Our Economies through Sustainable Procurement.

**Bringing circularity in procurement practices cannot happen overnight. Iterative processes supporting a learning-by-doing approach tend to be more successful.**

**Start by identifying and targeting 'quick wins' such as materials or components retaining value after the end of the use life, or products or components where product life-service can be extended.**

**Thinking beyond the boundaries of the individual company: engaging all stakeholders in the value chain is of utmost importance and constitutes the backbone of a systemic approach.**

FACET does provide process facilitation, expertise and an innovation voucher to kick-start initiatives. Our university partners provide knowledge (best-practices, examples, validated working models), while the entrepreneurs and business developers offer practical experience and can participate in pilot-projects.

Our goal is to facilitate three joint purchase initiatives with entrepreneurs in France, The Netherlands/Belgium and the UK. These initiatives get guidance and on the other hand help test the JP-model and approach.

## Contact us

Do you want to start with circular entrepreneurship, but need some help? Please contact the FACET experts. Our details can be found on our website [www.facetwiki.eu](http://www.facetwiki.eu).



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# Appendix

## Questions for entrepreneurs

### A. Entrepreneurs' experiences of joint purchasing

1. Do you make regular purchases of certain items?
2. How are your routine purchases managed?
3. Do you have an in-house purchasing manager who coordinates activities?
4. Have you ever been involved in collaborative joint purchasing with other firms?
5. if yes .... can you explain your experiences?  
If no.....have you ever considered collaborating with other firms for joint purchasing?

### B. Benefits of joint purchasing

6. Do you think that joint purchasing is a good way to invest in circular economy goods and services?
7. Do you think that joint purchasing will encourage suppliers to supply circular economy goods and services?
8. Do you think that joint purchasing will help to plan for a circular lifecycle of goods?
9. Do you think that joint purchasing will result in a cost advantage for goods and services?
10. Do you think that joint purchasing will result in learning to improve management of other inter-firm collaborative projects?

### C. Risks and barriers of joint purchasing

11. Are you confident that you have the skills to join a joint purchasing collaboration?
12. Do you feel that joint purchasing will take a lot of investment in time and resources?
13. Do you think you have good, trustworthy relationship with other firms interested in joint purchasing?
14. Do you think that a legal contract would be essential of a joint purchasing agreement?
15. Do you envisage any problems working collaboratively with other firms for joint purchasing?

## Joint Purchase cooperation questions

1. What types of goods and services are suitable for Joint Purchasing?
2. What is the frequency of purchases?
3. Which processes/routines need to be developed?
4. What is the status of the customer who is purchasing?
5. Are there potential alternatives to purchasing?
6. Which Circular Economy principles are applicable for each purchase?
7. Which product suppliers are willing to start a joint purchase cooperation in order to change to more circular offers?

