

# Co-designing a collective food service of artisanal gastronomic products with entrepreneurial university students<sup>1</sup>

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## ABSTRACT

This paper elucidates a co-design process with entrepreneurial university students to develop a food service that deals with artisanal gastronomic products. Employing the Design Science Research methodology, the study unfolds across three distinct yet interconnected cycles: relevance, design, and rigor. This systematic approach materialized as a tangible collaborative commercial service, considering the concepts of service design and co-design in the construction of the artifact. The result of this process includes the implementation of activities with an interdisciplinary team of researchers, as well as the participation of entrepreneurs in co-design workshops. The solution is a service implemented for collective entrepreneurship for university students working around the contexts of sustainable gastronomy. The obtained findings can promote insights into new service offerings that promote sustainable gastronomy entrepreneurship in academic environments and help qualify students as entrepreneurs through co-design and service design approaches.

**Keywords:** Artisanal Food Products, Co-Design, Design Science Research, Entrepreneurship, Service Design, University.

## INTRODUCTION

Universities are catalyst institutions for opportunities that can foster sustainable gastronomic entrepreneurship and promote social initiatives for the academic community. The UFRJ Origin Project (UFRJ-OP) is an interdisciplinary proposal for sustainable gastronomic entrepreneurship in a university environment that offers qualification for students and alumni. Social entrepreneurship (SE) refers to any innovative activity or process that aims to create social value, whether creating new businesses or redirecting existing ones (Alkire et al., 2019). With this, the dimension of SE experienced at UFRJ-OP understands that by serving the entrepreneurs, a challenging process is integrated, where the elements of service provision can cause intended impact.

To design innovative services, scholars recommend using the Design Science Research (DSR) method, as it can achieve satisfactory solutions to practical problems, integrating design theories into the process (Dresch et al., 2015). As service design (SD) moves into spaces of

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social change, there are calls for this process to foster theories and principles regarding an organizational and social change to support social transformation (Sangiorgi, 2011). SD is a collaborative, human-centered and iterative approach to creating new services, incorporating multidisciplinary contributions, and integrating tools and methods from design practice and theory (Patrício et al., 2018; Sangiorgi et al., 2019). In this sense, UFRJ-OP integrates the DSR considering the SD approach to enable the use of tools in the process.

Since Social Innovation (SI) indicates the emergence of a service configuration (Cipolla & Manzini, 2009), the UFRJ-OP that inspires sustainable entrepreneurship for university students demands, in turn, a structure to operate a new service. SD is also a research priority that can play a crucial role in service innovation through a holistic understanding of the stakeholder experience through co-design, with creative supporting visual tools to develop new value propositions (Patrício et al., 2018; Sangiorgi et al., 2019). The SD tools and methods were applied throughout the UFRJ-OP in search of insights and solutions for the proposition of a service ecosystem for the collaborative entrepreneurship of sustainable gastronomic products. In addition to designing the service according to demands and needs, the practice also aimed to promote empathy and collaboration between those involved to exchange experiences and gain confidence continuously. This study aims to describe the SD of a collective entrepreneurship in a university environment that seeks to improve the local food, pointing that the project aims to raise awareness of sustainable consumption among entrepreneurs' target audience. This paper is divided into seven parts: first the general context is presented through the introduction. Secondly, details about the parts of the project are written. Next, the literature review is reported in four sections. After that, a methodology is described, results are reported, and conclusion are generated.

## 1. PROJECT FLOWS

The UFRJ-OP emerged from a selection process that began with the identification of demands from the undergraduate gastronomy course. Hence, the UFRJ-OP flows (Figure 1) are the main categories that guide work teams' divisions and activities according to their skills and specializations. Despite these divisions, the participation of all those involved: researchers, undergraduate students and alumni integrated a collaborative process.

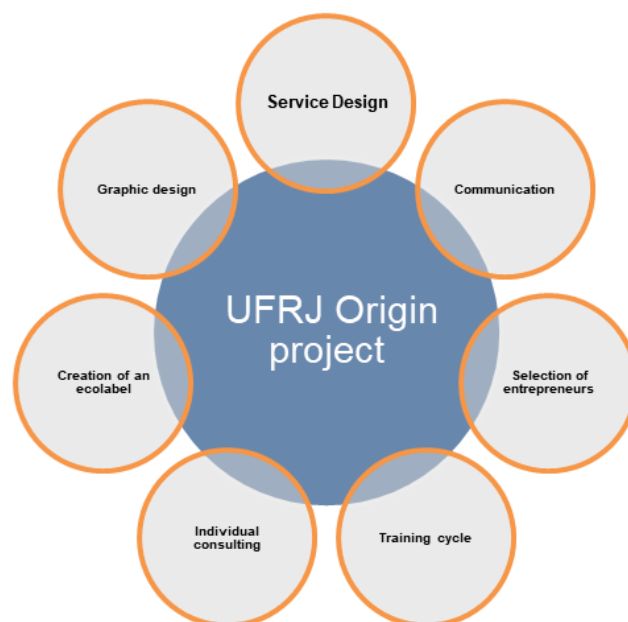


Figure 1. UFRJ Origin Project Flows (Authors).

There are seven activities flows in UFRJ-OP: Creation of an ecolabel; Selection of entrepreneurs; Entrepreneurs' training cycle; Individual consultancy to entrepreneurs; Graphic design; Service Design, and Communication. This paper focuses on SD flow to co-design a collective food service for entrepreneurs in a university environment that aims to promote artisanal gastronomic products improving the quality local food and fostering sustainable values.

## 2. LITERATURE REVIEW

### 2.1. Service design for social innovation and entrepreneurship

Design for SI aims to empower and replicate SI initiatives through new techniques and knowledge within communities (Manzini, 2014). This approach also proposes new lifestyles or possibilities for local production and consumption (Fassi et al., 2014). From these evidence, designing services to create new operating models based on actors and their interrelations as social resources can enable SI to happen (Cipolla et al., 2016).

Service is the application of competences by one entity for the benefit of another and it encompasses the concepts of social participation and interaction (Vargo & Lusch, 2004). Service projects, therefore, can be the means for SI to happen, since they facilitate new connections among social actors, who can be engaged in the service process as active agents (Cipolla et al., 2016). SD in SI has taken place not only because of a common emphasis in value-cocreation, but also provides systemic design activities and useful tools for value co-creation (Yang & Sung, 2016). In this sense, SD and SI have a degree of correlation and, together they face challenges in practice due to the complexity of the mix of stakeholders and systems involved in creating a value co-creation.

SD, SI and entrepreneurship are interdisciplinary subjects of interest where researchers seek to understand the correlation of services, tools, actions, people, organizations and artifacts that generate values in order to generate systematic social changes. The entrepreneurship part adds to this context to highlight the agents that accelerate social transformation because they have skills to operate solutions in a business system. While innovative solutions involve collaboration between social entrepreneurs and actors in the value co-creation process, SE generates social value and improvements in the individual lives or for society as a whole (Pellicano et al., 2018). This triad approach of SD, SI and SE, therefore, helps service organizations to achieve structures of community engagement, new ways of thinking and economic values to generate social impact and change, enhance service research and practice.

### 2.2. Collaborative and Collective Services in entrepreneurship and food service

Collaborative and collective are terms commonly used interchangeably. Although similar, they are complementary. Collaborative refers to the phenomenon of engagement, participation and learning in services (Prange et al., 2016). Whereas the term collective corresponds to groups of relevant actors from different sectors with a common agenda to solve a specific social problem (Kania & Kramer, 2011). In this context, collaboration aims to share knowledge with other people to solve a problem and in the process work together towards the same goal. The

collective, on the other hand, is a way of collaborating where actions are taken together to achieve a result that has already been thought out during a development process.

Collaborative and collective services that address social issues and produce relational goods such as value, attention, and care are SI: they can contribute to sustainability and resilience of society to reinforce social cohesion, thereby creating a positive impact (Meroni & Sangiorgi, 2011). Enterprises that act collaboratively are entrepreneurial service initiatives that enhance new models of locally based activities by encouraging direct relationships with users and consumers (Jégou & Manzini, 2008). Direct relationships between food producers and consumers can configure collaborative services that enable SI (Jégou & Manzini, 2008). Reciprocally, these local producers can create networks of integrated or collective services to provide products needed to serve the local community or cover larger areas. In this context, the union of the topics of entrepreneurship, SI and food service, promptly raises sustainability issues.

Food narratives through entrepreneurship are shaped by local socioeconomic issues, where multiple stakeholders act to bring their past experiences and skills (e.g. with marketing and sales in other sectors) to position their sustainable food products and services (Giambartolomei et al., 2021). This way of reinventing food services brings to producers sustainable ways of thinking, but some entrepreneurs are consumed by their daily lives and need to improvise an extra source of income before making the transition to sustainability (van der Gaast et al., 2021). Therefore, they are less likely to experiment with new ideas about sustainability and will therefore have to join collaborative or collective forces to organize this. The resulting collaborative effort is then used to create a shared vision of sustainability through collective services that bridge divisions of labor (van der Gaast et al., 2021) and new ways to sell their products.

### 2.3. Sustainable services in the academic environment

To foster sustainable projects with external organizations, such as government or companies can connect a university to a broader group of stakeholders and help drive local innovation or create community-level projects (Rosenberg Daneri et al., 2015). However, sustainability often sits on the margins of mainstream subjects, with academic work in the field largely separate from campus operations and community service such that universities struggle to integrate sustainability into their governance and business models (Evans et al., 2015). Even though, projects based on academic domains can take advantage of funding and infrastructure from the institution and its stakeholders in the form of a “living laboratory” (Purcell et al., 2019). Placing sustainability as a central strategic agenda can connect the different constituencies within the university and others to progress on new services and shared purpose.

The university sector with its shared governance models and different performance drivers, (Purcell et al., 2019) where the integration of students and stakeholders is important as they bring their unique and diverse perspectives to sustainable development projects. This process can become part of a transformative institutional change that builds on top-down and bottom-up strategies (Purcell et al., 2019), also considering that collaboration is central to SD in a university environment, allowing a constant cycle of experimentation, prototyping and testing.

## 2.4. Designing services using DSR for entrepreneurship

The development of new services is an important stream of SD research because the process can benefit from a systematized methodology that builds on existing knowledge and robustly evaluates the suitability of research contributions (Teixeira et al., 2019). Design science research (DSR), e.g, is a metamethod that is spreading in research and projects in the service field (Patrício et al., 2018). According to Teixeira et al. (2019), DSR can support SD research to rigorously develop artifacts that are relevant to SD and to real-world challenges.

Since entrepreneurship is a way of serving and implementing new businesses, it can be understood as a genuine part of the service context. Entrepreneurship needs to be developed as a design science to increase a focus on relevant design and to help with developing practical tools for entrepreneurs (Zhang & Van Burg, 2020). DSR to developing entrepreneurial services aims to contribute to the design knowledge and actions. Using DSR as a method, this study aimed show how SD was approached in an interdisciplinary project to create a collaborative business service to entrepreneurial students and alumni.

## 3. METHOD

This study adopts DSR for building a collective food service of artisanal gastronomic products. According to Dresch, Lacerda and Antunes Júnior (2015), DSR develops artifacts that allow solutions to practical problems to prescribe and design. It is indicated to implement some innovation (Järvinen, 2007) to produce innovative artifacts and design theories as research results (Iivari, 2015). The structure of this article is guided by the three research cycles from DSR (Figure 2): Relevance Cycle, Rigor Cycle and Design Cycle (Hevner, 2007; Hevner et al., 2004).

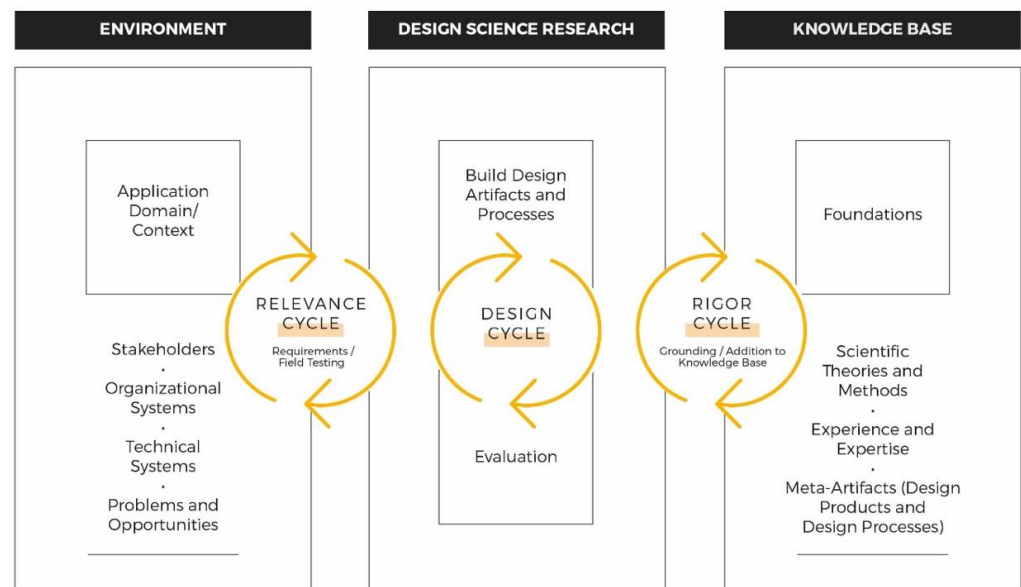


Figure 2. The three cycles of Design Science Research (Hevner, 2007; Hevner et al., 2004).

According to Hevner et al. (2004), this method is not a linear, which means that the Relevance and Rigor cycles precede the Design Cycle. This one is in the middle because it iterates between the core activities of building and evaluating the design artifacts and processes of the Research Cycle.

### 3.1. Relevance Cycle

The Relevance Cycle is related to the project development, the stakeholders, organizational and technical systems. DSR is motivated by the desire to improve the environment by introducing new and innovative artifacts and the processes for building these artifacts (Simon, 1996). Relevance Cycle applies an artifact implemented according to the original design practice, testing its utility (Brendel et al., 2021).

### 3.2. Rigor Cycle

The Rigor Cycle addresses how research is conducted and also is the knowledge base (Hevner et al., 2004). This stage integrates and extends existing knowledge in building an artifact (Brendel et al., 2021). Based on Cole et al., (2005) and Järvinen (2007), in DSR the field study of the artifact can be executed using appropriate methods such as action research. In agreement with them, the action research method was adopted. The five phases defined by the authors Susman e Evered (1978) were used: diagnosis, action planning, action taken, evaluation, and specification of learning. Diagnoses are related to initiating actions to identify the problem, analysis of the project segments, and exchanging experiences with the team. Action planning aims to raise possible alternatives and plan actions where solutions could fit the needs and expectations of the team. The action taken promotes meetings with the group of entrepreneurial students, supported by co-design dynamics. The evaluation seeks to study the consequences of previous actions using evaluation tools. Then, the learning specification identifies general findings from the entrepreneurs' feedback.

### 3.3. Design Cycle

This cycle is at the center of the DSR model (Brendel et al., 2021). According to Simon (1996), the nature of this cycle is generating design alternatives and evaluating the alternatives against requirements until a satisfactory design is achieved. Hevner et al. (2004) argues that the principle of DSR is that knowledge and understanding of a design problem and its solution are acquired in the building and application of an artifact.

## 4. RESULTS

The UFRJ-OP SD adopted the three DSR cycles. The following topics report actions that occurred in each project stage and study according to the method cycles.

### 4.1. Relevance Cycle at UFRJ-OP

The relevance cycle was the stage that generated motivations for carrying out the project. Empirically, the UFRJ-OP coordinator identified problems that guided the objectives and chose an interdisciplinary team with specific skills to develop a solution to improve the quality of local foods and generate opportunities for undergraduate students and alumni. Further, highlighting the need to understand the entrepreneurs, design with them, and figure out how their products would be commercialized. These initial parts contemplated the Relevance Cycle:

1. Problems and Opportunities: It is noted that at UFRJ campus some students generate extra income by selling artisanal food. Another opportunity observed is



that the academy is a place facilitative of local innovation and fostering values. In this sense, the UFRJ-OP team, initiated discussions on the commercialization of artisanal food products certified by the SOU UFRJ ecolabel, with the need to include them in the six dimensions of sustainability defined by the team: origin, production, offer, respect, affection, and diversity. Then, a plan to co-design dynamics for designing a collective service, apply activities supported by participatory design among the group of entrepreneurs, and finally to validate and evaluate the SD process for SI.

2. Stakeholders: People who benefit from UFRJ-OP are those who consume food on the UFRJ campus. Students of gastronomy, nutrition, and food engineering are the users benefit from the UFRJ-OP through the process of capacity building for entrepreneurship. An interdisciplinary team of researchers gastronomy, nutrition, marketing, communication, design, and psychology was responsible for architecting and operate the UFRJ-OP.
3. Technical Systems: The project was contemplated by the funding agency called Parque Tecnológico da UFRJ, coordinated by gastronomy professors to support the process of entrepreneurship in innovation and production of food and beverages.
4. Organizational System: Coppetec/UFRJ was the institution that made the UFRJ-OP possible because they support research, extension, and innovation projects. In addition, the UFRJ-OP team was composed of researchers from different departments. The design team was represented by researchers from the Production Engineering Program - PEP/UFRJ.

## 4.2. Rigor Cycle at UFRJ-OP

In this cycle the literature was reviewed to understand the concepts of service, design, SI, entrepreneurship and sustainability and how these areas could be related through practical and scientific knowledge. Furthermore, within the DSR process, action research was applied, SD approach was considered, and the artifact was proposed:

1. Literature Review: No ready-made artifacts were identified in the literature for this project to build upon or bring together aspects of SD, academic environment, entrepreneurship, SI, and sustainability. Since these limitations exist, to conduct the literature review the following topics were considered: SD for SI and entrepreneurship; Collaborative services in entrepreneurship and food service; Sustainable services in the academic environment; and Designing services using DSR for entrepreneurship.
2. Action Research: During the diagnosis, the problem was identified by the experience of the people who eat at UFRJ campus. An action plan to solve this was a to improve the local food through artisanal food products with quality certification from the fundamentals of the gastronomy course. Since the marketing of food products by students is allowed on the campus, this could favor local entrepreneurship. Once there was no project at UFRJ that brought together food and beverage certification with entrepreneurial training, a plan was adopted. It was also realized that by carrying out a project to promote the improvement of local food bringing sustainable aspects and engaging university entrepreneurship, a SI solution would be emerging. The plan was to take a project to create an ecolabel and design a business service with artisanal food

products certified. For this, a gastronomy researcher has assembled an interdisciplinary team of experts to carry out several actions (Appendix; Table 1). Thus, a SD team conducts collaborative processes with the entire team and students elected to the project. The service was evaluated by the students who co-designed through feedback on the process and outcome. The service was reviewed by the entire interdisciplinary team during testing at events. To specify the lessons learned, the project is being disseminated through writing a book and publications on the various parts of the project.

3. Service design approach: Meetings with the team sought to understand in a holistic way everything that would be part of the service directly or indirectly. And then the meetings became more focused on pointing out possible locations available for the service until the planning of workshops with the entrepreneurs. After the SD process, feedback was collected from the participants about how their experience was regarding techniques and tools. The process was positive and contributed to the SD team's know-how.

### 4.3. Design Cycle at UFRJ-OP

This cycle covered the service development. The process integrated co-design approach and used tools to assist in the SD process.

### 4.4. Meetings with team and experts

Meetings were held with the team to align goals and define tasks for each project flow. In the initial meetings, the SD team focused on conducting an immersion about the team's expectations concerning the goals. Issues related to potential entrepreneurs, possible consumers and stakeholders, service systems, and devices were discussed. Some visual tools were presented to the general team to facilitate the group's understanding and generate discussions, solve problems, and promote goal refinement.

The Miro Platform was used to develop tools and apply them in dynamics with the team. The first tool applied was the stakeholders map (Figure 3).

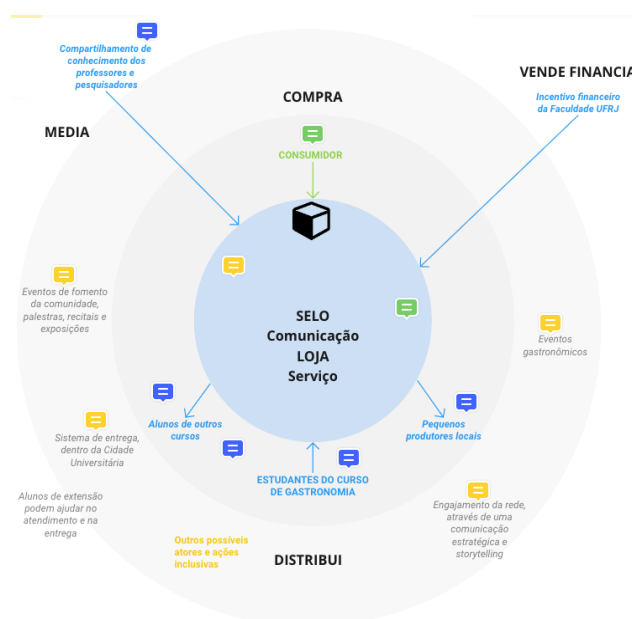


Figure 3. Stakeholders Map applied to UFRJ-OP team (Authors).



In the middle axis, team highlighted as most important of all the relationships and processes, the ecolabel, the team's communication in the project, and the availability of a store as a physical space to design the service. On the intermediate axis are the project's main beneficiaries, the students, and small local producers. Finally, the distribution processes, ideas on delivery, events, and communication strategies would be on the external axis. This map visualized the team's expectations on the people and project flows.

A research wall was managed by the SD team and set up with the general team (Figure 4) to highlight the main parts of the UFRJ-OP such as: processes that would be seen during the project, people, devices, products, ecolabel dimensions, spaces and actions involved.

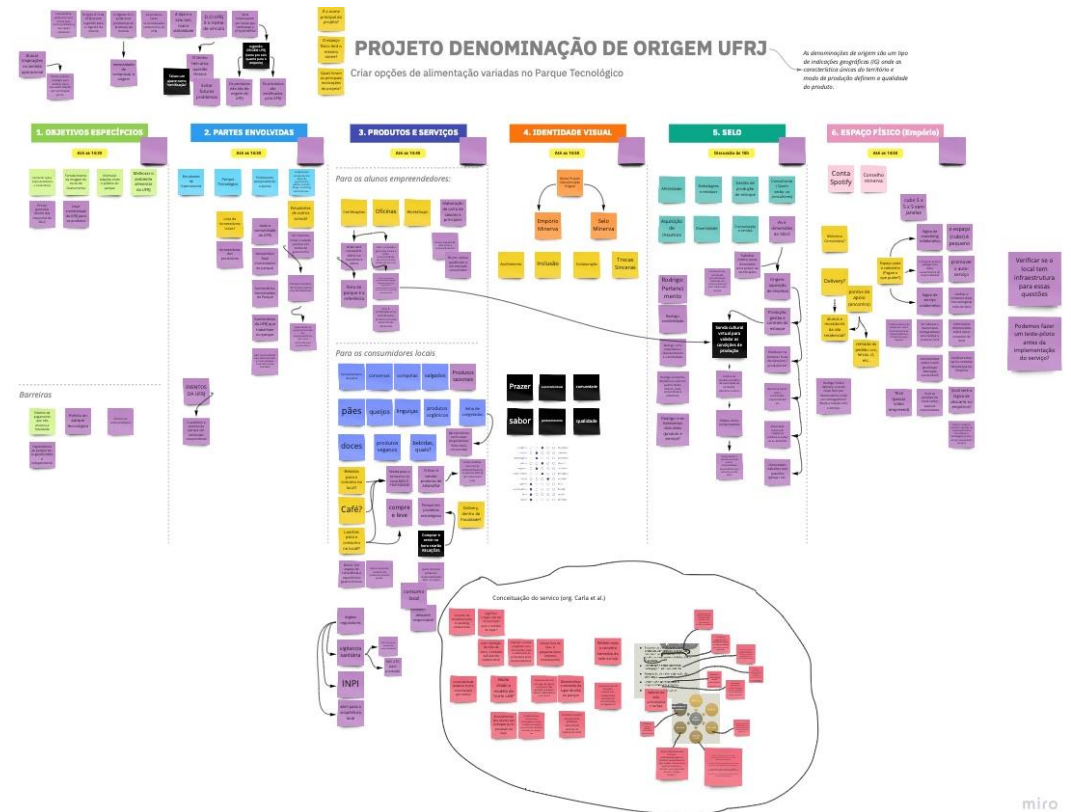


Figure 4. General view of the final research wall (Authors).

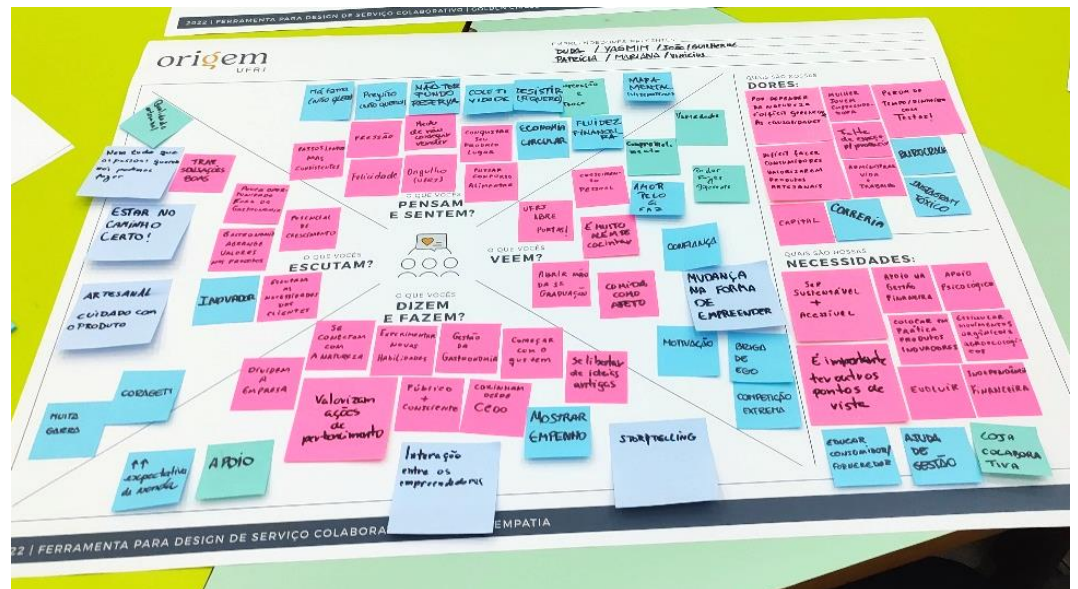
The research wall synthesized data by grouping it according to specific categories or by creating a simple mind map. It helped in aligning goals and dividing roles to the overall team. Some ideas and concepts reported were a service located in a collaborative space; desire for the service to be more than just a store; service that promoted conviviality; desire to involve students in a delivery system; desire to guarantee an outdoor area; opportunity to generate value on sustainability when selling products. Despite the desires, the team agreed in promoting workshops with the entrepreneurs so that they could design together the service they would operate. Furthermore, concepts of sustainable processes and collaborative services were highlighted during the process both in meetings with experts and in workshops with the entrepreneurs.

## 4.5. Workshops

The workshops with entrepreneur students were divided into three sessions, mediated by the SD team, a psychology professor, and coordinated by the UFRJ-OP leading researcher. The first workshop, named "How we got here" aimed to carry out engagement activities among the

Figure 1 consists of two photographs. Photograph (a) is a close-up showing a person's hand writing on a pink sticky note placed on a large grid. The grid has various colored sections (pink, blue, yellow) and some text like 'PARA DESIGN DE SERVIÇO ORÇAMENTO'. Photograph (b) shows a group of about ten people standing behind a large table, each holding up a grid filled with colorful sticky notes, representing their individual service design proposals.

The first workshop included activities such as: introduction of the participants; interview between entrepreneurs and presentations for a collective recognition process and preparation for individual video recording; application of the empathy map (Figure 6) and Golden Circle (Figure 7). These two filled tools are presented in English and digitized in the Appendix (Figure 13; Figure 14).



The SD team initially filled out the empathy map, explained how it worked, presented it to the entrepreneurs, and then the entrepreneurs enriched this tool entrepreneurs sharing their stories and motivations for their businesses. The empathy map brought the group together and provoked recognition of the parties involved as a collective, supporting ideas of possible collaborative services and the importance of sharing experiences. The perceptions highlighted by entrepreneurs were: Need to systematize the process; value of artisanal food products is only perceived within the gastronomic area; value actions of belonging; seek to reach a more conscious public; change the form of entrepreneurship; and the small producer needs to perform several functions". The entrepreneurs had in common the vision that their businesses go far beyond cooking. They value actions that are in connection with nature, as well as organic, agroecological, sustainable, and accessible movements.

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[illegible]

In the Golden Circle suggestions emerged for new recipes, uniting two or more products from different entrepreneurs, tie sales, and actions that generate some social contribution. They also wanted the service to have a physical space, points of sale, events, and fairs. With the center circle, the entrepreneurs achieved the for their existence that were: The strengthening as a collective of entrepreneurs; flexibility of schedule; possibility of sharing spaces and equipment; confidence of being within a support network; and knowledge construction. The products defined by the entrepreneurs to be commercialized by them were teas, artisanal chocolates, mead, kombucha, sauces, preserves, molecular sphere drinks, jams, veggie burger, desserts, festive and well-married cakes.



Figure 1 consists of two photographs. Photograph (a) shows a group of participants sitting around a table in a room with posters on the wall. Photograph (b) shows a close-up of participants sitting at a table with a laptop and papers, engaged in a discussion.

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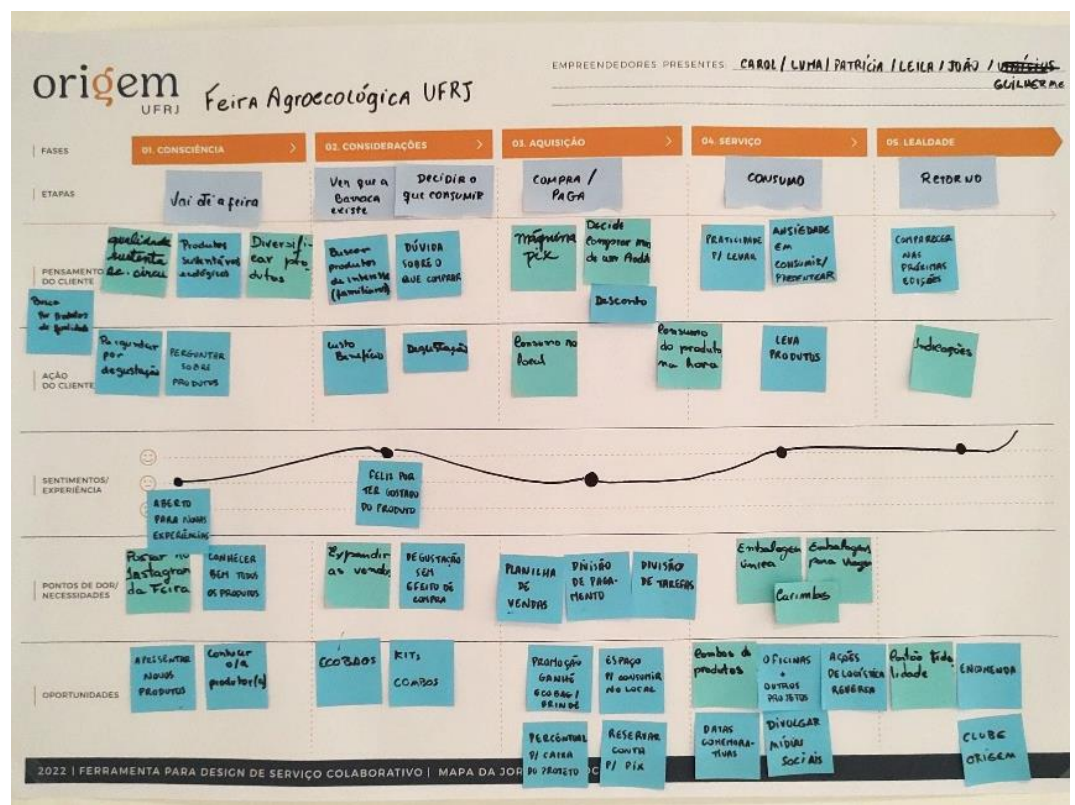


Figure 9. Journey map filled out collaboratively by the entrepreneurs of the UFRJ-OP (Authors).

At this stage, the group understood that the agroecological university fair, a weekly event at UFRJ, would be the best environment to implement the new service. This environment could be advantageous for gathering a public already aware of the value of artisanal and sustainable products. A concern for the SD team was the availability of a collective payment method, but this was solved through the group's own actions of trust and sharing. When thinking about the user's journey, insights emerged regarding planning combined sales, actions to build customer loyalty, and promotions to strengthen the ecolabel SOU UFRJ.



Figure 10. Blueprint filled out collaboratively by entrepreneurs of the UFRJ-OP (Authors).

The next step was to apply the Blueprint to indicate the perspectives of the user, the service provider, and all relevant parties that are involved. With this tool, some needs were solved, such as: to-go packaging, disposable and sustainable products for on-site consumption, payment machine, sales and stock spreadsheet, communication management and production, cleaning material, and place for stock, among other challenges and needs. In addition, a name for the service designed was named as "ECCO SOU" (Collective Commercialization Space for the SOU Ecolabel).

The third workshop called "How do we organize ourselves to carry out?" had the objective of aligning the actions and solutions raised in the previous workshops. For this, an agreement brainstorming (Figure 11) was generated and the results were reviewed and digitalized.



Figure 11. Third workshop "How do we organize ourselves to carry out" (a) agreement brainstorming and (b) reviewed and digitalized tools.

The entrepreneurs have set a percentage of the monthly profit to maintain a cash fund, have shown concerns about providing standardized sustainable packaging, and are thinking about constant improvements to scale the service. Three major areas for the division of responsibilities were aligned: management, communication, and customer service. From these three categories it was suggested that each entrepreneur should apply for the area of greatest proximity, and the group itself suggested the main actions that were necessary to start the service. This agreement was recorded in a framework suggested by the DS team and filled in like the previous tools (Appendix; Figure 17). At the end of the whole process the group of entrepreneurs were comfortable taking on the defined tasks and willing to make the collaborative service possible.

#### 4.6.Feedback from entrepreneurs

A form was applied to the entrepreneurs who attended the workshop in order to collect their expectations about the co-design process and the designed service. Ten entrepreneurs attended the workshop, but nine answered.

In relation to familiarity with the tools applied, most of them already knew about brainstorming but had never used it. The entrepreneurs reported positive experiences about the workshops overall. Some highlighted excerpts were:

"I now have a systematic view of the marketing stages and more ease when defining priorities".

"The workshop provided the opportunity to think more in the collective".

"I have a better understanding of the group's and each person's ideas, their divergences and convergences.

"I can foresee the client's look and their reactions from production to delivery and understand my place in the market".

The group seems unsure about the efficiency of the projected service, although most of them think that the designed solutions would be sufficient. Concerning what could be improved in the co-designed service, entrepreneurs reported insecurity about putting into practice everything that was decided and a desire to design services in other scenarios besides the agroecological fair at UFRJ.

#### 4.7. Implementation

The designed service first test took place at a festive event on the university campus (Figure 12). After that, the UFRJ-OP collective business service has been implemented since August 2022 and takes place once a week in the UFRJ Agroecological Fair. This fair has been held for a few years on the UFRJ campus and brings together consumers who support sustainable values. As a result, the UFRJ-OP entrepreneurs identified this environment as a local business opportunity and an awareness of the values related to the origin and production of the supplies, the relationship with the academic community, respect for the environment, affection for food, and diversity of people. Since implementing the service, the project has been posting on Origem UFRJ (n.d) Instagram where the public can follow the process and the evolution of the service (see the posts about the evolution of the project and selected products: [www.instagram.com/origemufrj](https://www.instagram.com/origemufrj)).



Figure 12. First test (a) a tent at a festive event on the UFRJ campus and (b) entrepreneurs tested their service.

#### 5. CONCLUSION

This paper described a co-designing a collective food service of artisanal gastronomic products with entrepreneurial university students from UFRJ. The SD process considered sustainability dimensions and used the co-design approach in activities with the overall team and workshops with entrepreneurs. Some tools assisted the SD process, and the result was implemented in an event that takes place once a week at UFRJ. The artisanal food products produced are certified by the SOU Ecolabel, in other words, they are recognized for integrating sustainable values. The general feedback from the entrepreneurs about the workshops was positive and showed insights for future improvements. The limitations encompass two dimensions: a need for a physical space to operate the service in its own store. However, given the difficulty of agreements and liability concerns, the space has not yet been achieved. In any case, the entrepreneurs have a kitchen equipped just for them on the UFRJ campus to produce their products. Another limitation experienced was the number of entrepreneurs eligible to participate in the UFRJ-OP, and their engagement during the workshops. As there were ten



selected entrepreneurs, some were not always available to participate. A risk can happen if some entrepreneurs drop out, but there is an expectation that a new selection of students or alumni entrepreneurs for a second version of the UFRJ-OP could occur. The results achieved inspire replication and design of new services and motivate the food and service science community.

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## APPENDIX

Table 1. Scenario of the whole project.

Video screenshot	Title and link
	<p>Origem UFRJ URL: <a href="https://www.youtube.com/watch?v=MqUy4anFxdU">https://www.youtube.com/watch?v=MqUy4anFxdU</a></p> <p>Please note: this video is not discussed in this study, but it explains - in Portuguese - and share images the concepts and development of the whole project.</p>

ENTREPRENEURS PRESENT: PHARMACY STUDENT AND KOMBUCHA PRODUCER / GASTRONOME AND PRODUCER OF FESTIVE AND WELL-MARRIED CAKES / NUTRITION STUDENT AND ARTISANAL CHOCOLATE PRODUCER / FERMENTATION RESEARCHER AND MEAD PRODUCER / STUDENT OF NUTRITION AND PRODUCER OF FROZEN FRUITS AND JAMS / STUDENT OF GASTRONOMY AND PRODUCER OF SAUCES AND PRESERVES / GASTRONOMY STUDENT AND MOLECULAR SPHERE DRINK PRODUCER.

**origem**  
UFRJ

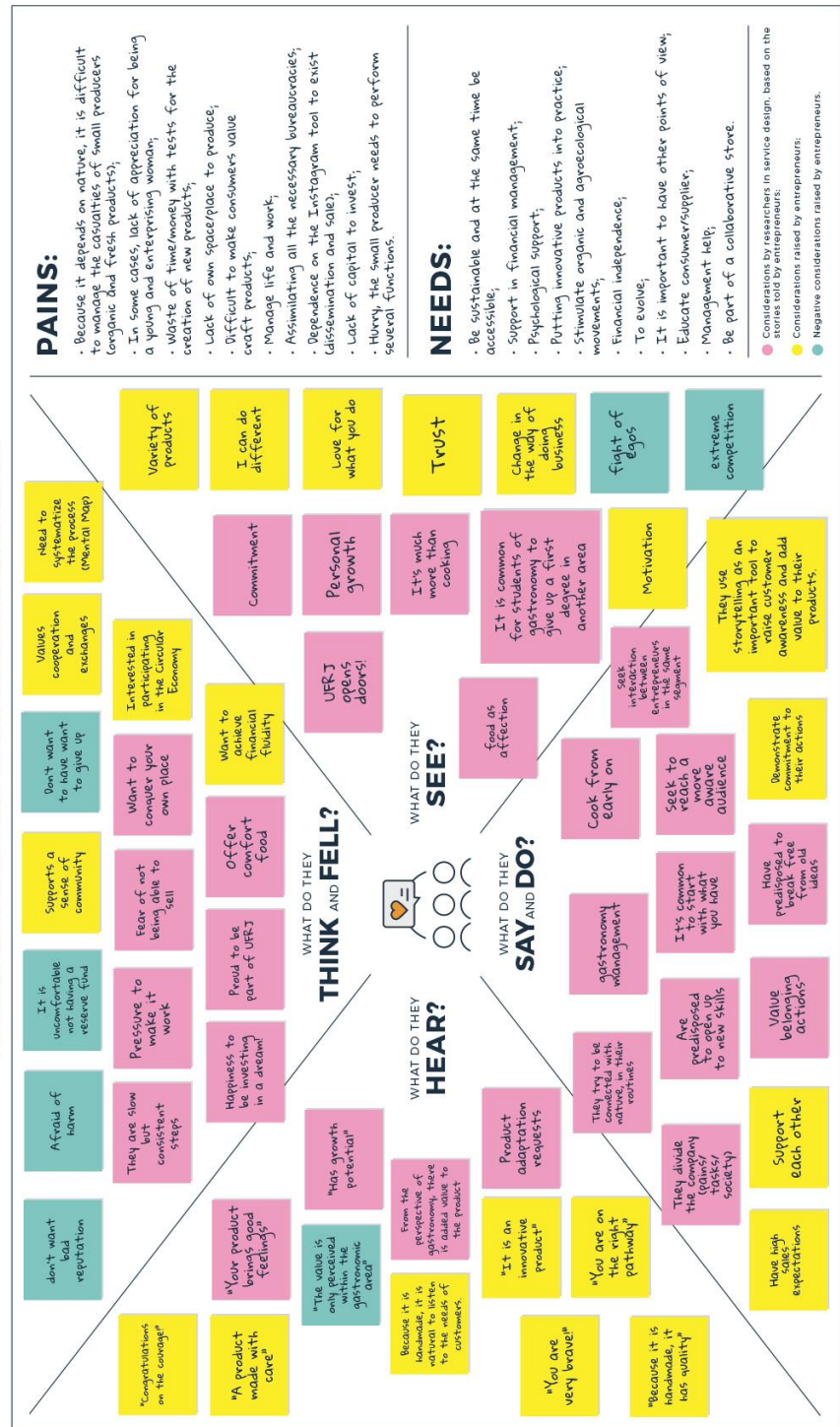
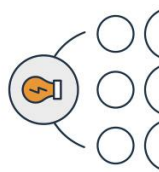


Figure 13. Digitized tool – Empathy Map developed in Workshop 1 (Authors).



ENTREPRENEURS PRESENT: PHARMACY STUDENT AND KOMBUCHA PRODUCER / GASTRONOME AND PRODUCER OF FESTIVE AND WELL-MARRIED CAKES / NUTRITION STUDENT AND ARTISANAL CHOCOLATE PRODUCER / FERMENTATION RESEARCHER AND MEAD PRODUCER / STUDENT OF NUTRITION AND PRODUCER OF FROZEN FRUITS AND JAMS / STUDENT OF GASTRONOMY AND PRODUCER OF SAUCES AND PRESERVES / GASTRONOMY STUDENT AND MOLECULAR SPHERE DRINK PRODUCER.

WHAT?  
HOW?  
WHY?

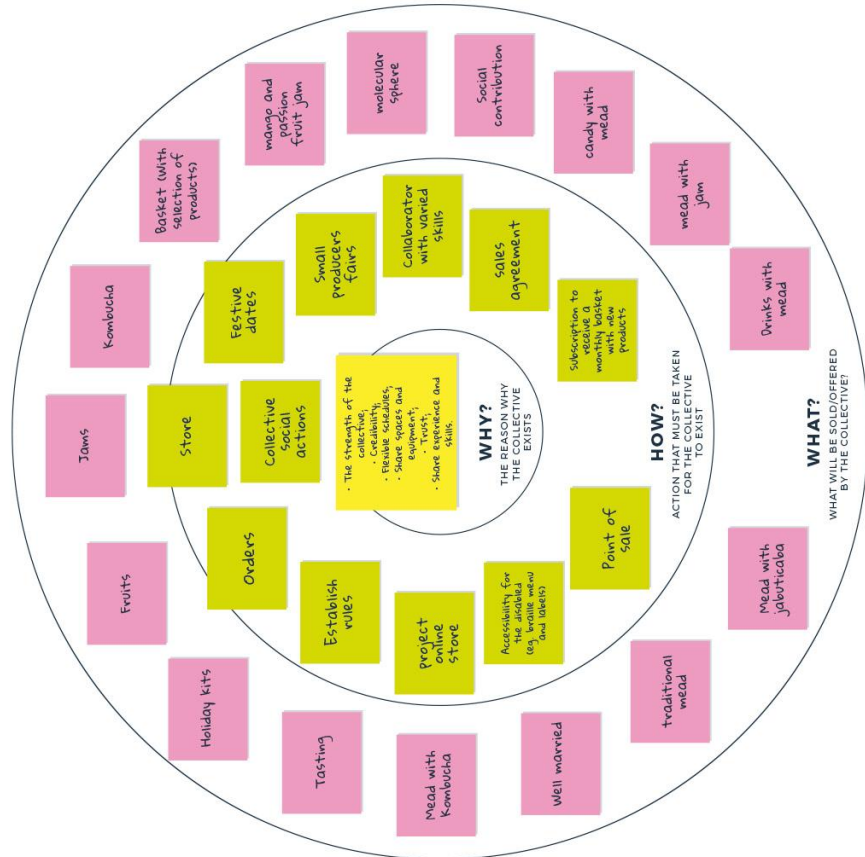


Figure 14. Digitized tool - Golden Circle developed in Workshop 1 (Authors).



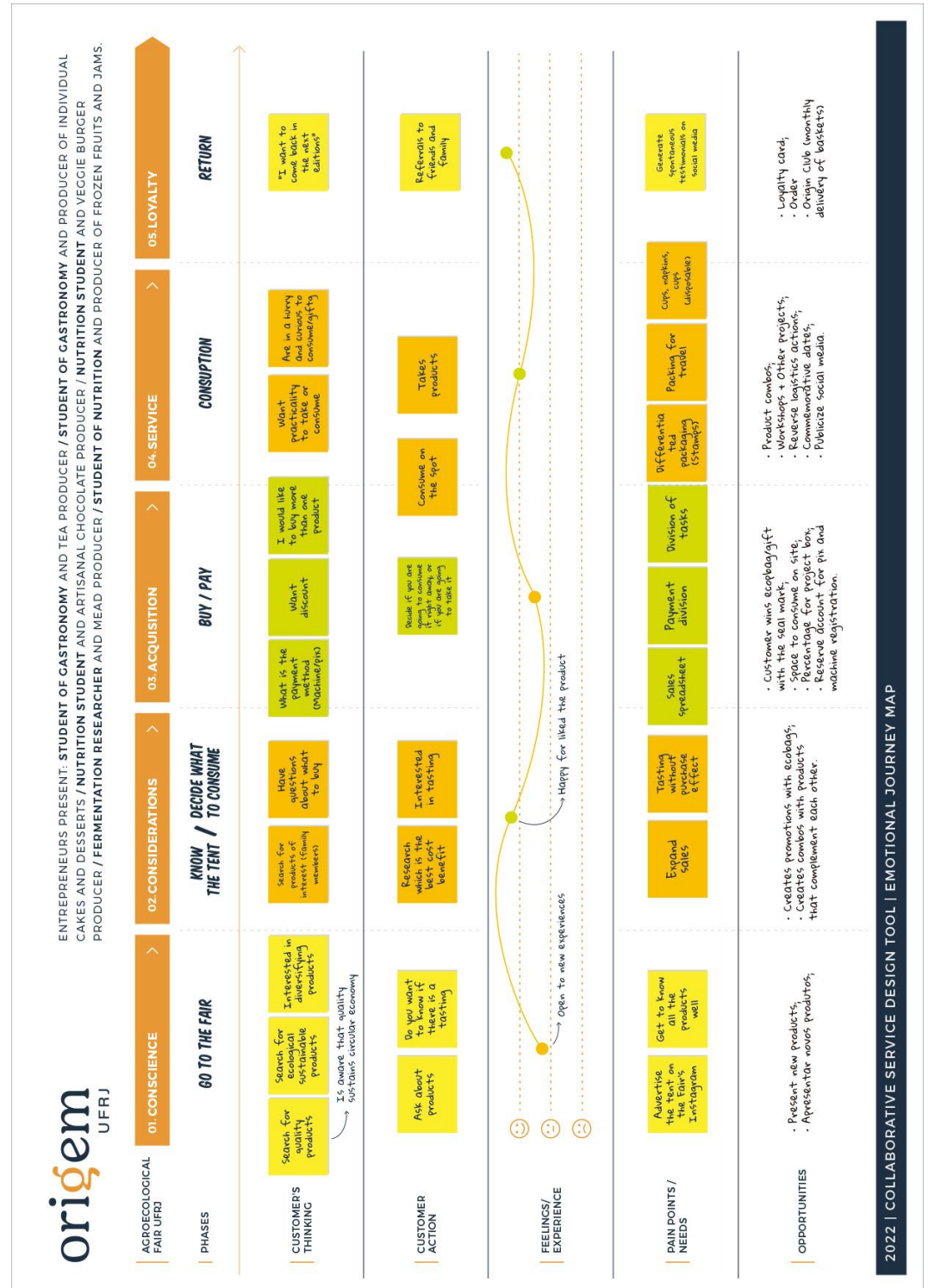


Figure 15. Digitized tool – Emotional Journey Map developed in Workshop 2 (Authors).

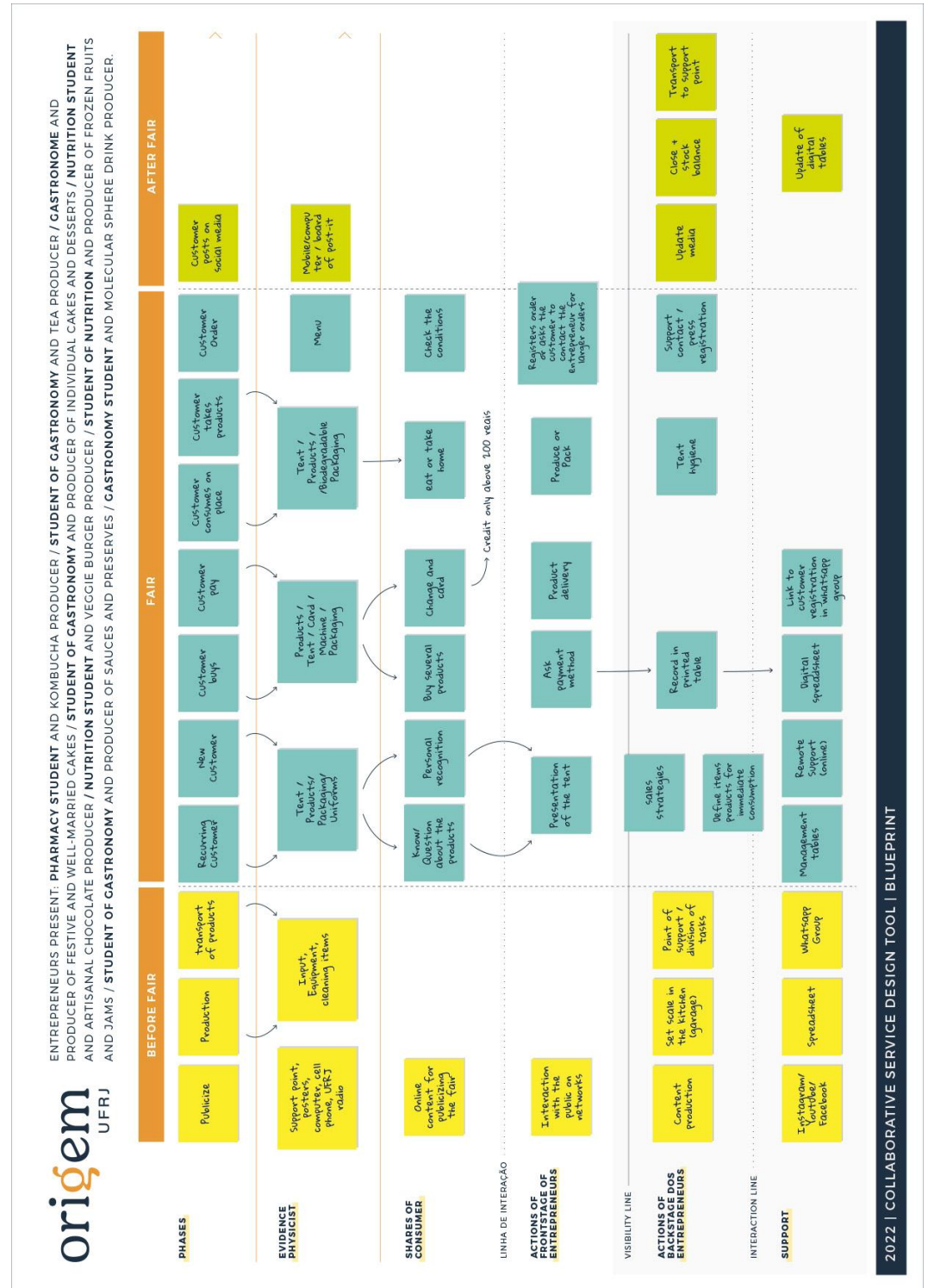


Figure 16. Digitized tool – Blueprint developed in Workshop 2 (Authors).



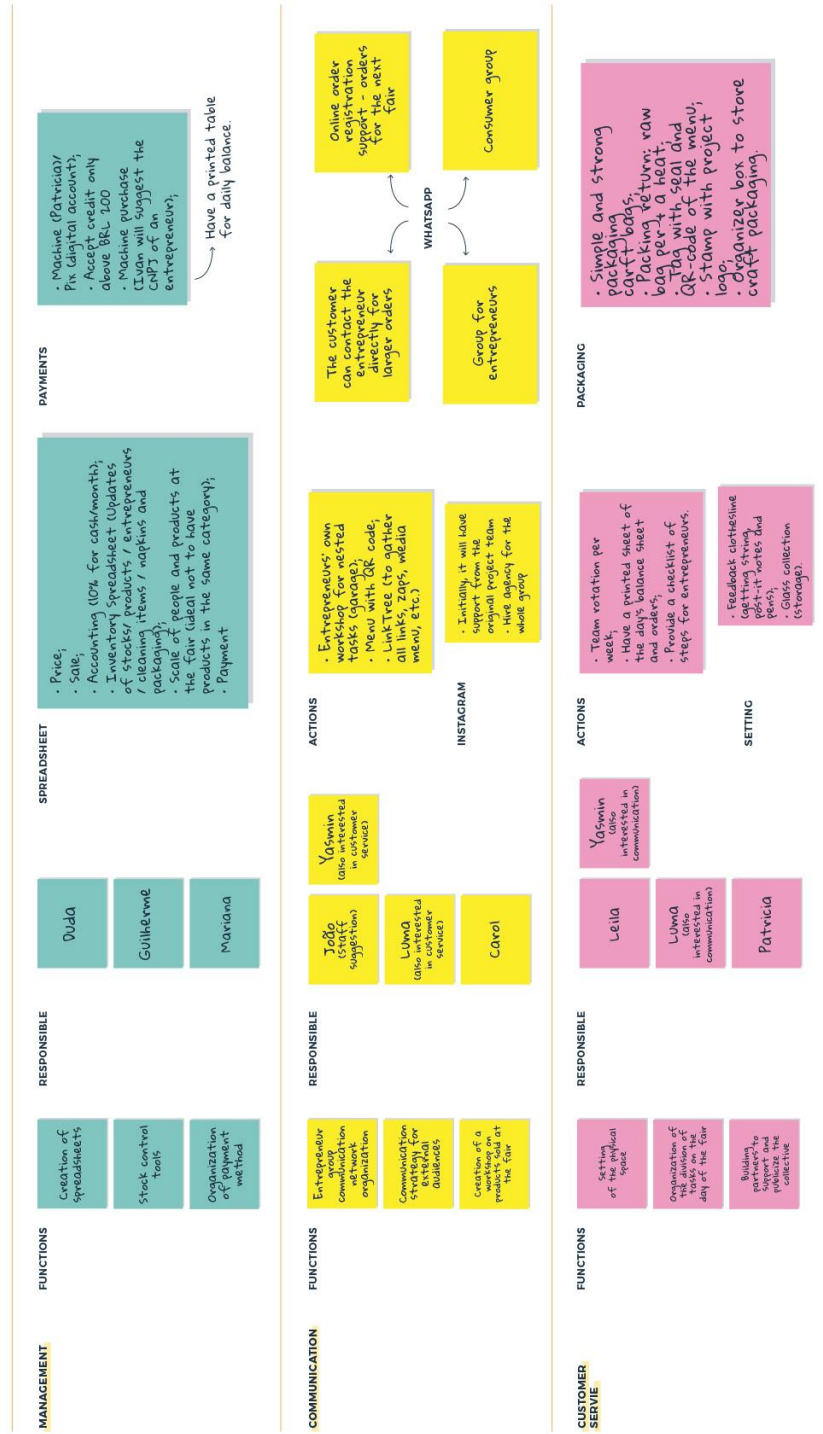


Figure 17. Digitizes tool – “How to organize ourselves?” developed in Workshop 3 (Authors).