

UrbanFoodSpots are cooling stations for sharing surplus food in urban areas and are designed to be used by various target groups. The concept for the UrbanFoodSpots has been developed within a research project resulting in the draft design of the cooling units and information system, the definition of the locations as well as organizational, legal, hygienic, financial, and other relevant aspects for the implementation.

**This case study shows the transformation of this start-up business model thanks to the CircularStart training materials.**

**Sector/Activity:** Reduction of food waste, creation of added social value and awareness for topics surrounding food waste and food production.

**Circular Business Model Category:** Uphill / Downhill

**Circular Business Model Strategy(ies):** Circular sourcing / Maximising production efficiency / Reuse - redistribute

**Circular Start-up type:** Waste-based / Platform-based

### STARTING POINT:

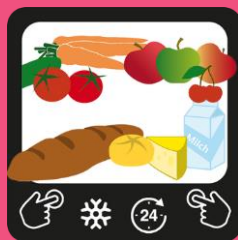
**Mission:** Food waste occurs along the whole food supply chain of harvesting, production, trade and consumption and is a global phenomenon. FAO data indicates that about one third of the world food production is either thrown away or lost which sums up to 1.3 billion tons of food lost or wasted annually. Global trends towards urbanisation, population growth, scarcity of arable land etc. deepen the need for innovative systems to close the link between surplus of food and demand for food on the other hand. Even successfully established initiatives for food sharing like public fridges or food banks reach the target groups only to a limited extent due to restricted access regarding the opening hours or income, leaving a high potential of food still wasted in residual waste of households or supermarkets.

To fill the gap, the development of a city-wide, user-friendly and safe offer to share food on a local level has been initiated: UrbanFoodSpots.

**Vision:** UrbanFoodSpots aim at the reduction of food waste by providing a food sharing system for urban areas. UrbanFoodSpots are units combining a cooling facility with an information system which









- will be an attractive, low-level system for passing on food
- will enable safe and secure food sharing suitable to the needs of various user groups
- will allow for food sharing up to 24 hours a day
- impose as low restrictions as possible on the users
- will offer trainings for safe food sharing
- will be located in urban areas
- can be integrated in buildings of interested institutions or can be used in public space.

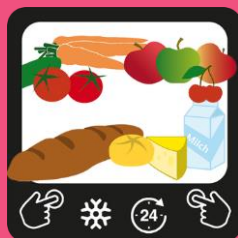




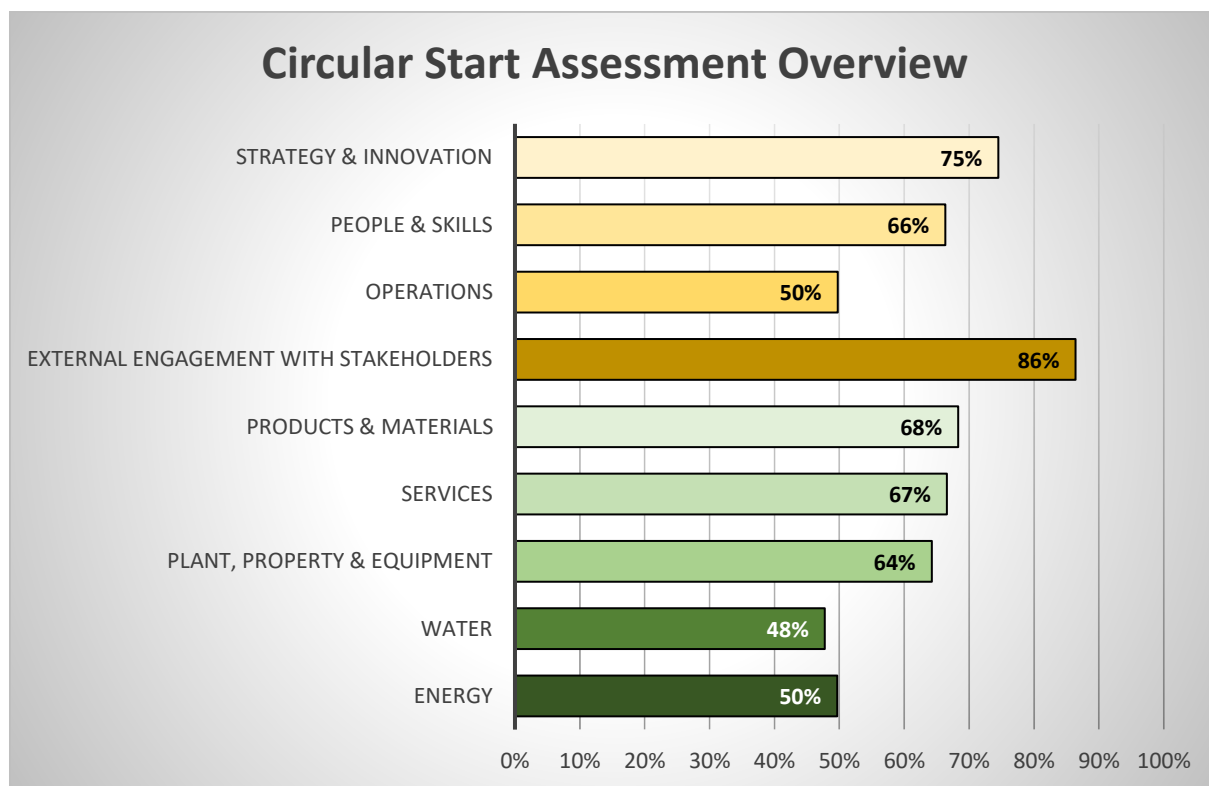
**Values:** UrbanFoodSpots offer physical and virtual opportunities for food sharing and activities for networking, involvement and discussion. One overall aim of the business idea is to raise and propose the fading value of food and the change of business and consumer patterns with the installation of urban cooling stations. UrbanFoodSpots offer benefits in all three dimensions of sustainability, e.g. saving resources or reducing waste deposit costs in the retail sector and economic benefits for the users. Social responsibility becomes a clear and very practical connotation when addressing the topic of food waste. The benefit for the target groups can be described as follows:

- Persons with high risk of poverty receive safe food for free without social marginalisation
- Promotion of community building by establishing local centres for food sharing activities
- Food industry and food trade save disposal costs and assume social responsibility
- Politics and administration are supported in reaching the aim of waste reduction
- Waste reduction and an efficient use of resources result in benefits for economy
- food sharing as socially acceptable activity and enhancing the value of food

 <b>KEY PARTNERS</b>	 <b>KEY ACTIVITIES</b>	 <b>VALUE PROPOSITION</b>	 <b>CUSTOMER RELATIONSHIPS</b>	 <b>CUSTOMER SEGMENTS</b>
<p><b>Potential partners:</b> Food retailers, wholesalers, schools, kindergartens, bakeries, refrigeration equipment companies (use and repair of old and defective devices), city administration (parking spaces), recycling - compost, urban gardening platforms? Fruit and vegetables)</p> <p><b>The role of customers as consumers and suppliers:</b> Citizens of the area around the UFS benefit from free, guaranteed fresh food, as well as the possibility to hand in leftover food after celebrations, before vacation and in everyday life; could also be integrated into the control system of best before dates and edibility.</p>	<p><b>Key activities:</b> Acquisition of project partners and discussions with potential consumers and suppliers; Testing for accessibility and inclusion; Use / acquire expertise on leftover food and recycling: Which organizations have a particularly high number of leftovers? In what form are free groceries particularly in demand (especially in the UFS system) ?; Are there emotional barriers to accepting free groceries? Can you counteract this with the right messaging?</p> <p><b>Possible negative effects:</b> power consumption -&gt; solar panels ?; inedible food -&gt; meticulous examination !; unwanted legitimization of food surplus and food waste -&gt; correct framing</p>	<p><b>Goals and created values:</b> Reduction of food waste, social factor by lightening the financial burden for food for families etc., raising awareness of food overproduction and general surplus, financial income through potential advertising to UFS, appreciation of food to which no direct financial value is tied; Set quantifiable goals to track performance: How many kg of food should be put back into circulation in what time? Reached partners and customers, keep the energy consumption of the cooling systems low -&gt; kWh target?</p> <p><b>Various purposes:</b> Free food, recycling of surplus food, social meeting point, exchange on topics related to food (production, waste, price &amp; taxes, environmental factors, working conditions) - Can be enjoyed through room design,</p> <p><b>Possible competition:</b> "togoodtogo", dumpster, vending machines? - Competitive factor: unsalable residual masses can be attached.</p>	<p><b>Customer relationship:</b> virtual exchange between customer and operator, possible newsletters / notifications, notifications adjustable when the product you are looking for is available ?, target group: families, students, ecologically conscious consumers, low-income households,</p> <p>Customers actively expand the circularity of food through their activity as suppliers and consumers. The 'use phase' is extended and the food is given the potential for full utilization.</p>	<p>Buyers need to see value behind the food even though they have no monetary reference value. "Refrigerator effect", drinks yes / no ?, communication not "free groceries", but something like "participating in a better food cycle", the aim is to have many light users in order to serve a wide range of customers and bring as much food as possible back into circulation, key customers would be lower income -&gt; social value creation.</p>
 <b>COSTS</b>	 <b>KEY RESOURCES</b>		 <b>CHANNELS</b>	
<p>Reduction of eco-social production costs along the food value chain. Social profit indirect. Screens instead of posters for advertising - what is more sustainable in the long term? Running costs could be financed sustainably through advertising income, project partners and project funding; Can UFS be a franchise system? - Infrastructure for residential buildings - e.g. in the courtyard.</p>	<p><b>Resources:</b> Refrigerators, electricity, food, parking spaces, software developers and maintenance, hardware construction and maintenance, solar energy ?, food must be edible and not otherwise usable (no competition to models like "togoodtogo"); Recycling of refrigeration equipment.</p>		<p><b>REVENUES</b></p> <p>Job creation; UFS as a desirable infrastructure with seating and as a public place to linger, exchange and as an incentive to create local meeting points, composting of food waste, added value for urban gardening associations, theoretically possible application in all urban areas with excess food -&gt; there is potential for scaling</p>	



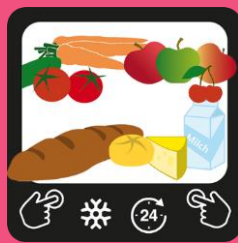
Initial circularity profile – Results from the application of the Assessment Tool



FOLLOWED LEARNING PATH:

Units	IDEATION	INTEGRATION	VALIDATION	IMPLEMENTATION
Unit 1	x	x	x	x
Unit 2	x	x	x	x
Unit 3	x		x	x
Unit 4	x	x	x	
Unit 5	x			x
Unit 6			x	x
Unit 7	x	x	x	
Unit 8	x			x
Unit 9	x	x		x





## FINAL CIRCULAR BUSINESS MODEL:

**Mission:** Food waste occurs along the whole food supply chain of harvesting, production, trade and consumption and is a global phenomenon. FAO data indicates that about one third of the world food production is either thrown away or lost which sums up to 1.3 billion tons of food lost or wasted annually. Global trends towards urbanisation, population growth, scarcity of arable land etc. deepen the need for innovative systems to close the link between surplus of food and demand for food on the other hand. Even successfully established initiatives for food sharing like public fridges or food banks reach the target groups only to a limited extent due to restricted access regarding the opening hours or income, leaving a high potential of food still wasted in residual waste of households or supermarkets. To fill the gap, the development of a city-wide, user-friendly and safe offer to share food on a local level has been initiated: UrbanFoodSpots.

Additionally, we want to look at our own resource flows, specifically energy and water. The use of solar energy for our cooling facilities and collection of wastewater on-site, can help us achieve our circularity goals and self-set standards.

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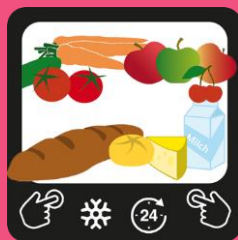
- will be an attractive, low-level system for passing on food
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- will allow for food sharing up to 24 hours a day
- impose as low restrictions as possible on the users
- will offer trainings for safe food sharing
- will be located in urban areas
- can be integrated in buildings of interested institutions or can be used in public space.






Embedded into the urban infrastructure, the UrbanFoodSpots can on top of its core purpose act as motivators for discussions about current topics surrounding our food value chain and raise awareness of failings and potential of our agriculture- and food-systems.

**Values:** UrbanFoodSpots offer physical and virtual opportunities for food sharing and activities for networking, involvement and discussion. One overall aim of the business idea is to raise and propose the fading value of food and the change of business and consumer patterns with the installation of urban cooling stations. UrbanFoodSpots offer benefits in all three dimensions of sustainability, e.g. saving resources or reducing waste deposit costs in the retail sector and economic benefits for the users. Social responsibility becomes a clear and very practical connotation when addressing the topic of food waste. The benefit for the target groups can be described as follows:

- Persons with high risk of poverty receive safe food for free without social marginalisation
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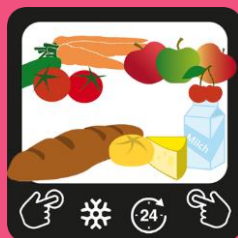
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<p><b>COSTS</b></p> <p>Reduction of eco-social production costs along the food value chain. Social profit indirect. Screens instead of posters for advertising - what is more sustainable in the long term? Running costs could be financed sustainably through advertising income, project partners and project funding; Can UFS be a franchise system? - Infrastructure for residential buildings - e.g. in the courtyard.</p>	<p><b>REVENUES</b></p> <p>Job creation; UFS as a desirable infrastructure with seating and as a public place to linger, exchange and as an incentive to create local meeting points, composting of food waste, added value for urban gardening associations, theoretically possible application in all urban areas with excess food -&gt; there is potential for scaling</p>			

**WHICH ELEMENTS/CHARACTERISTICS OF THE BUSINESS IDEA/MODEL WERE IMPROVED THANKS TO THE CIRCULARSTART MATERIALS?**



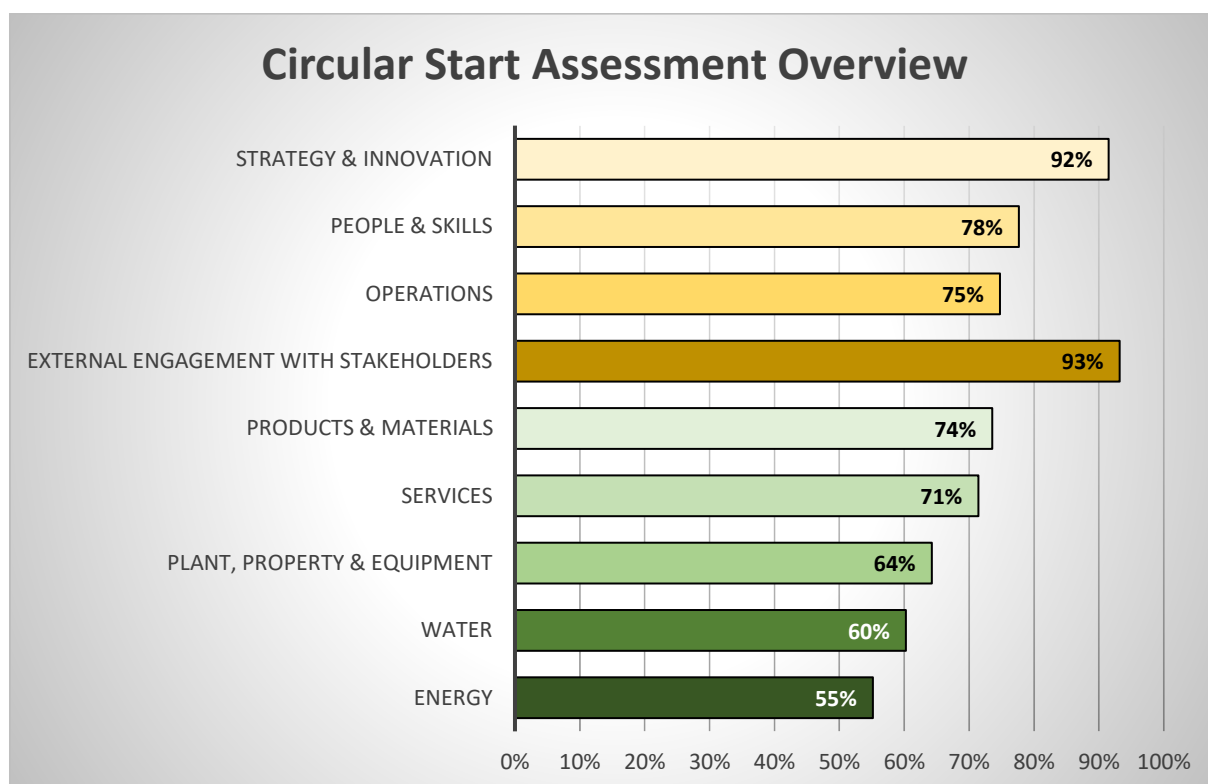
- + **Vision:** look at energy and water resource flows more thoroughly. offer solutions and ways of resource reduction. Think of throughput increase and user frequency.
- + **Mission:** Additional purpose as awareness creating force.
- + **Key partners:** In order to have more control over issues of hygiene and edibility of the passed on products, we decided to focus on business partners as suppliers. While people may be able to share food via our platform in the future, their role will be consumers (takers) only for the initial phase.
- + **Customer Segments:** one of our main goal is to reach various target groups and design the UrbanFoodSpots barrier-free. When opening our first UrbanFoodSpot we need to keep all sorts of potential barriers in mind and work specifically on eliminating them.





- + The CircularStart materials gave fresh input on every step of the way, and made us look more closely into the different sections and stages of our project plan. Starting with the expansion of stakeholders over the possible addition of a wastewater collection facility on-site, Circular Start helped to uncover some of our blind spots and helped make our project plan comprehensive and aligned with our vision.
- + Trust is a very essential ingredient for the successful operation of the cooling stations.

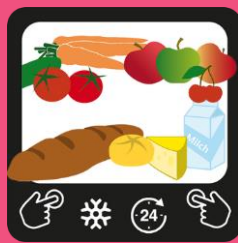
Resulting circularity profile – Results from the application of the Assessment Tool



NEXT STEPS

WHAT	WHEN	HOW (People, Resources needed)	POSSIBLE DIFFICULTIES?
<b>Find funding</b>	Oct-Dec 2021	Project-Lead: 1 person ca. 5 hours a week	Niche Project
<b>Find spaces</b>	Dec 2021 - Feb 2022	Project-Lead: 1 person ca. 5 hours per week	Fear of attracting the “wrong” crowds
<b>Find partners</b>	Nov 2021 - Feb 2022	Project-Lead: 1 person ca. 5 hours per week.	Economic return on investment may be missing
<b>Build prototype</b>	Mar 2022- Aug 2022	Hired engineer: 10 hours per week- 1 person or separated amongst more people	Must be modular for different circumstances.
<b>Testing phase</b>	Aug 2022- Nov 2022	At least 3 people: 1 engineer, 1 food manager & 1 project lead	Lack of interest from the target communities





## KEY MESSAGES



“Stakeholder Management is more than just a means to an end.”

“All resources should be looked at even if they are not present in the endeavour’s core business.”

“Monitoring and validation are key activities for a circular, sustainable business.”

“Circularity also encompasses mitigating social costs and fostering social returns on investment.”

The concept for the UrbanFoodSpots has been developed by a research project lead by the Austrian Institute of Ecology, Vienna, Austria. More information can be found under [http://ecology.at/urban\\_food\\_spots.htm](http://ecology.at/urban_food_spots.htm) (in German only).

## Foodsharing with UrbanFoodSpots

