

### **PERSONAS**

We are targeting "the drifters" in society as described by the international marketing organization LOHAS (Lifestyles of Health and Sustainability). These individuals are driven by trends, product changes and easy life style. They want to perform their role in society and currently comprise 22% of the global population; which is roughly 71 million people in the United States alone! This group is accountable for 1.4 billion pounds (700 thousand tons) of food waste per month. We believe that our product service system can help make the sustainable choice in food waste management the easy choice for this demographic group.

John Brennan, is a single and 35-year young Francisco. John loves kayaking, and practicing radical sports. For him a perfect weekend is enjoying a waterfall and nature with his friends. Because he feels connected with nature, he doesn't always choose products that respect and help tl environment. But he is especially attracted to trendy, well-designed products.

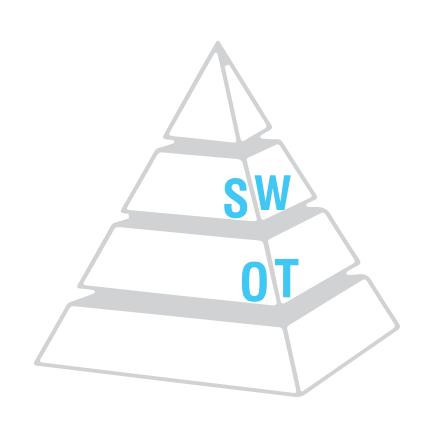


Emily Norman is a 39 year old architect, who is a single mother and likes to spend time with her children. She lives up to a healthy lifestyle and she goes to the gym 3 times a week. Emily enjoys cooking for her children and friends at her home. Because she likes organic products, she has a small garden in her home where she can grow herbs and some vegetables. But because she doesn't have a backyard in her city apartment, she doesn't know what to do with her organic

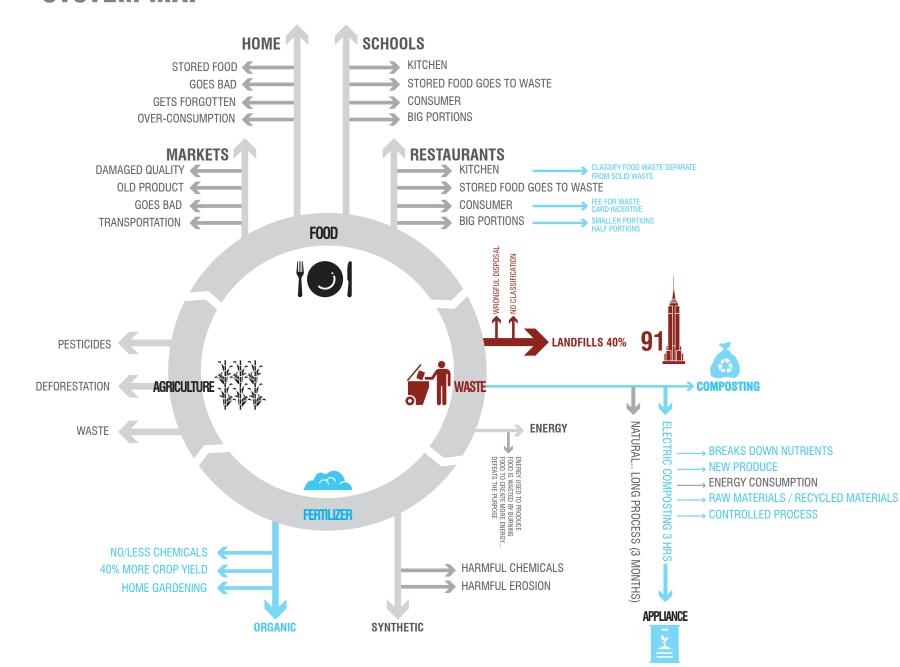


William Johnson is a 50 year old biologist, married with Sarah 47, and together they are growing up 4 children, Kaile, Mike, Chris and Alex, a lab dog and a couple of turtles. He is very aware of ecological issues taking place at the moment and is very concerned with doing the right thing. he has a deep love for nature and enjoys teaching his kids and close friends about it. Every Sunday he takes observe wild animals.





## **SYSTEM MAP**



For developing the OrganiKos product service system, a more meaningful understanding about the food economy was reached through research about the subject. We realized the complexity of the issue at hand and decided to target the home environment due to its huge impact and the low level of attention given to it. We also believe this to be a great opportunity to educate and incentive society towards more sustainable habits.

AUDIO CHART	ASPECTS	UPSTREAM	DOWNSTREAM	ISSUES	OPPORTUNITIES
CLIMATE CHANGE	Emissions from energy consumption -Appliance -Fertilizer Production -Service BIOGAS Transport CO2 emissions	Service generates CO2 Electric consumption from product  Design for disassembly Green materials	Energy consumption by product from consumer use Maintenance policy	Emissions of CO2 Energy consumed by product  Material qualities of product Laws against CO2	Develop partnerships with electric companies  Use electric cars  Design for disassembly  Green design and package
ENERGY	Energy consumption for -treatment -Production -Distribution	Amount of energy consumed by production  What type of energy is consumed?	Energy consumed by costumer while using the product Transportation and distribution of product	Energy costs that the consumer has to pay  Costs of Energy  Type of energy Extraction of raw materials for production	Develop partnerships with electric companies     Use electric cars  Find alternative transportation methods Find alternative renewable energy sources for
WATER	Water consumption for refinement of fertilizer  Water usage in cleaning the appliances Cleaning practices	Water consumption in the production of fertilizer  Water consumption in services	Cleaning the appliance	Water pollution from fertilizer runoff  Waste of water	production Add a cleaning/ washing cycle to the appliance to avoid over consumption of water
BIODIVERSITY	Land use for facilities Raw materials for	Raw materials extracted for products	Longevity of the product  Costumer behavior	What the costumer does with a broken product?  Human behavior Use of raw materials	Use only certified materials Use recycled materials  Responsibility towards refurbishing products
CHEMICALS	Use of chemicals for refinement process  Car emissions CO2  BIOGAS  Manure treatment	Use of chemicals in production  Employee Exposure to chemicals	Consumer exposure to chemicals  Manure	Emissions of CO2  Harmful chemicals in production  Exposure leading to diseases	Organic chemicals for fertilizer production  Development of costumer guide to educate costumer on manure handlement
AIR POLLUTION	CO2 emissions -from cars -from facilities  Manure smell BIOGAS	Emissions from production and distribution	Manure smell BIOG-AS	Car emissions  Smell of food scraps	Alternative transportation  Odorless Product
WASTE MANAGEMENT	Compost product pick-up  Refinement process  Distribution Water and energy waste	Production and distribution of product Package waste Supply waste	Food waste disposal by consumer Package waste Water waste	Safe handling of disposal Water waste Energy waste	Usage of green or recycled packaging Re-purposing products Add cycle loads to appliance Smart energy control technology
OZONE LAYER DEPLETION	CFC from facilities  CFC from fertilizer  CO2 from	CFC exposure for products	Emissions from products	Legal obligations and regulations	Reduce CFC Emissions
OCEANS AND FISHERIES	Waste runoff into oceans	Company mismanagement on disposal	Consumer waste runoff	Ocean water pollution due to waste runoff	Policies against waste runoff Efficient management of wast disposal Create awareness campaign to educate costumer on ocean pollution issues
DEFORESTATION	Land for facilities  Raw material consumption	Packaging Use of Raw materials for production	Mis-use of product  Easy discarding of product by costumer	Consumer behavior Pollution	Use of green materials to avoid raw material consumption  Online interface to reach costumers  Design for disassembly

## **ABOUT ORGANIKOS**

generations to meet their own needs — By 2050 human footprint across the globe as well as fashioning a positive, 16 percent of U.S. methane emissions." lasting impact in society by targeting human behavior. Hence, fostering brighter lives for people today and for generations to come.

We aim to elevate society from negligent behavioral patterns to superior performance by promoting social, environmental and economic health in every aspect of our organization and in our communities. Our goal is to sponsor a prosperous world that functions within nature's boundaries and provides for human needs. Our objective is to become a model for community-led sustainability by inspiring, educating and enabling people towards healthier practices.

## FOOD WASTE

Sustainability means different things to different people. It is "Getting food to our tables eats up 10 percent of the total U.S. most commonly defined as meeting the needs of the present energy budget, uses 50 percent of U.S. land, and swallows 80 generation without compromising the ability of future percent of freshwater consumed in the United States. Yet, 40 percent of food in the United States today goes uneaten. That population will proximate 9 billion. And unfortunately the is more than 20 pounds of food per person every month. Not contemporary world that man has created isn't always only does this mean that Americans are throwing out the perfect for sustaining a steady, equitable, and affluent equivalent of \$165 billion each year, but also 25 percent of all future. OrganiKos is an organization with the mission to freshwater and huge amounts of unnecessary chemicals, generate mechanisms for society to develop long, healthy energy, and land. Moreover, almost all of that uneaten food and fun lifestyles. We're taking steps to reduce the human ends up rotting in landfills where organic matter accounts for

> -Dana Gunders Wasted: How America Is Losing Up to 40 Percent of Its Food from Farm to Fork to Landfill

Laryssa Tertuliano. Industrial Design. SCAD Marina Busato. Industrial Design. SCAD John Worthley. Electrical Engineer. PENN Phillip Han. Collaborative Design. KCAD Christa Iscoa. Architecture. SCAD

For more information our website: www.christaiscoa.wix.com/organikos



On a yearly bases, food waste in landfills occupy a space equivalent to china. Furthermore, 91 Empire State buildings could be filled with this amount of waste.

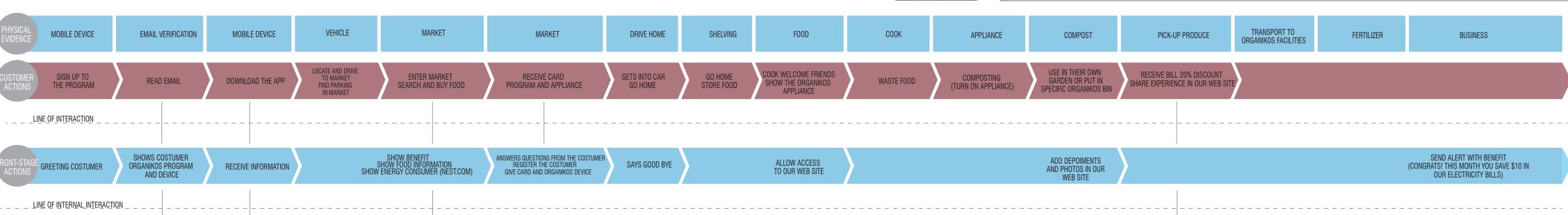
PRODUCTION AND

PACKAGING OF FERTILIZER

DISTRIBUTE TO

FARMS AND MARKETS

**STORYBOARD** 



## **PRODUCT SERVICE SYSTEM**

**CUSTOMER JOURNEY MAP** 

We have developed an innovative way to positively impact the waste food issue in United States. Our solution tightens the cycle of the food system in the country. We offer a product, a service and a web site (all part of a product-service system program) that remove s the barriers and makes composting easy! The product is an electrical appliance that compost s the waste food generated in the American household. This appliance is Energy Star certified, and has cycles that prevent the waste of electrical energy and water. The one-step grind-and-dry technology is already commercially available, but our product is different in that it also provides a closed loop service to make the most of the valuable nutrients that many households would otherwise throw away.

We understand that our customers don't usually have the backyard to compost their own food, and they don't yet have a municipal service to pick it up. So OrganiKos provides a door-front service that picks up the compost generated in user's home, relocating it to Organikos' facilities, where it is manufactured into organic fertilizer. Our Fertilizer is USDA certified organic. Our service has options for different kinds of residential eating habits and numbers of home occupants, and each of these services is priced to make it attractive to the targeted users. OrganiKos' enriched organic fertilizer is then sold to markets and farms. Our premium service actually delivers the enriched fertilizer to the community garden of our customer's choosing! Our premium service also provides a starter herb kit with the delivery of the product. Lease options average 18 months, at which point users can continue the service or return the product to OrganiKos. The contract includes an MATRIX CHART annual maintenance visit by OrganiKos specialists.

Because we don't want to raise your electric bill, your participation in the program grants you the benefit of a discount on your electricity bill, and includes rebates for solar photo-voltaic (PV) panels. Finally, our website connects our users, allowing them to share their composting experience and providing specific information about how each food should be composted. We also rank the users by the amount of composting they accomplish through an innovative app. Our program aims to end the food waste in the United States by changing costumer's behavior by introducing the circular economy concept.

## **STRATEGY CANVAS**

The canvas helped us compare what different companies are doing to address the food waste issue and the level of focus of their systems. This also enabled us to visualize how our system will set apart from the rest. Also, how the different components of our program target the different environmental issues discussed in the AUDIO analysis chart.

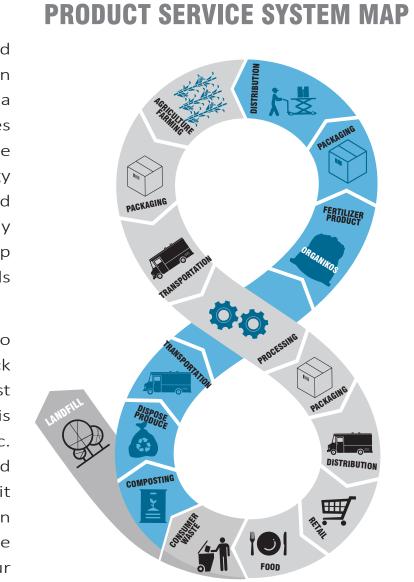
Service

Information

Fertilizer

Scale

Energy consumption



GIVE BACK BENEFIT INFO

	Applian	Fertilize	Service	
Climate Change	×	×	~	
Energy	~	~	~	
Water	<b>✓</b>	×	×	
Biodiversity	<b>✓</b>	~	×	
Chemicals	<b>~</b>	~	×	
Air Pollution	~	×	~	
Waste Management	<b>✓</b>	×	<b>~</b>	
Ozone Layer Depletion	×	×	×	
Oceans and Fisheries	×	×	~	
Deforestation	×	×	×	

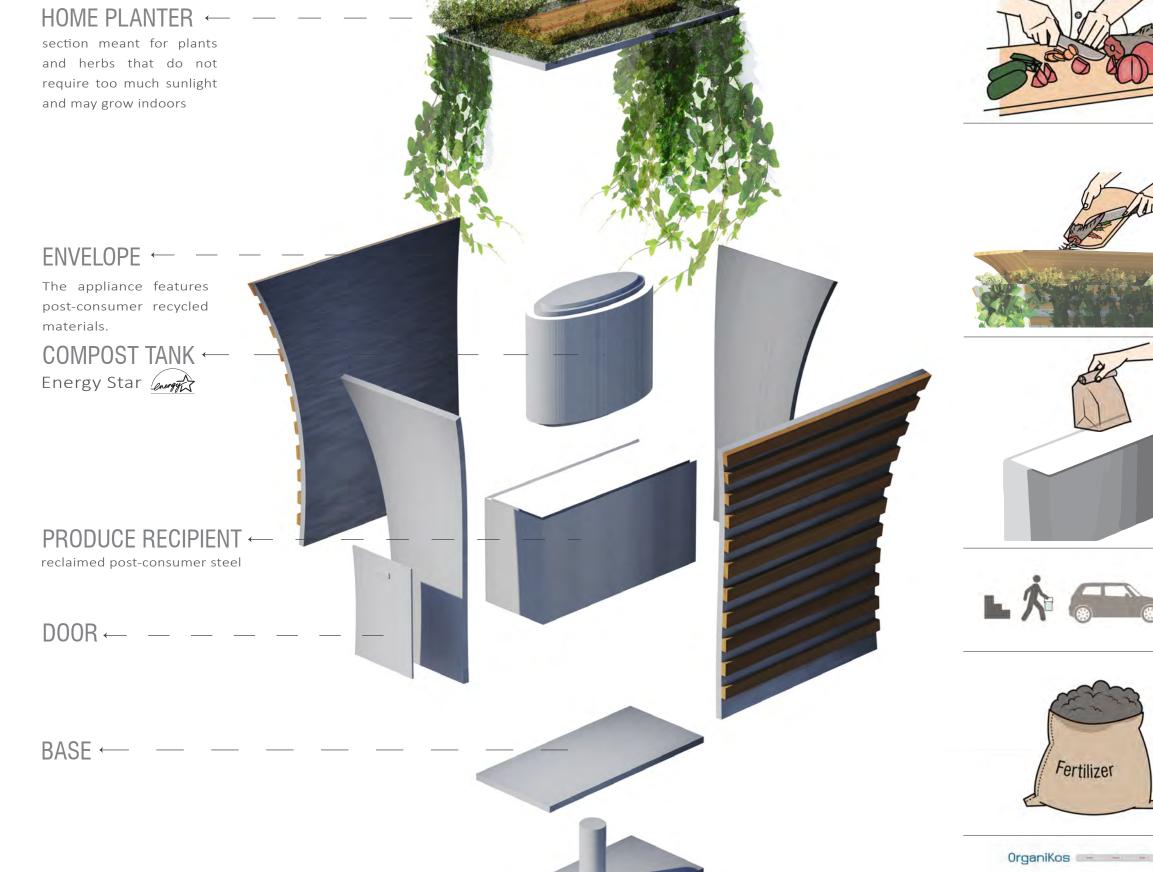
# reclaimed post-consumer wood HOME PLANTER section meant for plants and herbs that do not require too much sunlight and may grow indoors

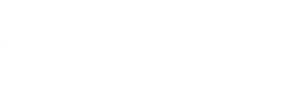
	Applian	Fertilize	Service
Climate Change	×	×	<b>✓</b>
Energy	~	<b>✓</b>	<b>✓</b>
Water	~	×	×
Biodiversity	~	~	×
Chemicals	~	~	×
Air Pollution	~	×	<b>✓</b>
Waste Management	~	×	<b>/</b>
Ozone Layer Depletion	×	×	×
Oceans and Fisheries	×	×	✓
Deforestation	×	×	×

Price

## **PRODUCT DESIGN**

**ORGANIKOS COMPOSTER** The appliance has been designed with a clean and modern look in order to incentivize our customers and engage them in the composting process. It features a section meant for plants and herbs that do not require too much sunlight and may grow indoors; this as well is meant for the user to grow fond of the process ultimately developing healthier behavioral habits. The appliance features post-consumer recycled materials. Design for disassembly and refurbishing has been taken into account to maximize its life cycle.







OrganiKos -

Laryona Tertulance Industrial Designs SCAO Macrosi Designs SCAO Industrial Designs SCAO

Philip Hais Collaborative Drouge HCAS John Wortsley Coll Engineer: PENN