Refresh

WHAT CAN DESIGN DO?

TO REDUCE FOOD WASTE

plat Institute of Augmented Gastronomy

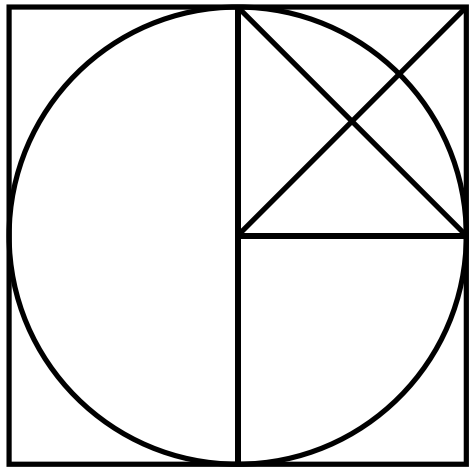
CONTENTS

1. About Us: PLAT Institute
2. The Problem
3. Inspirational Cases
4. PLAT Student's Research
5. Help Talent Grow

ABOUT US

plat Institute of Augmented Gastronomy

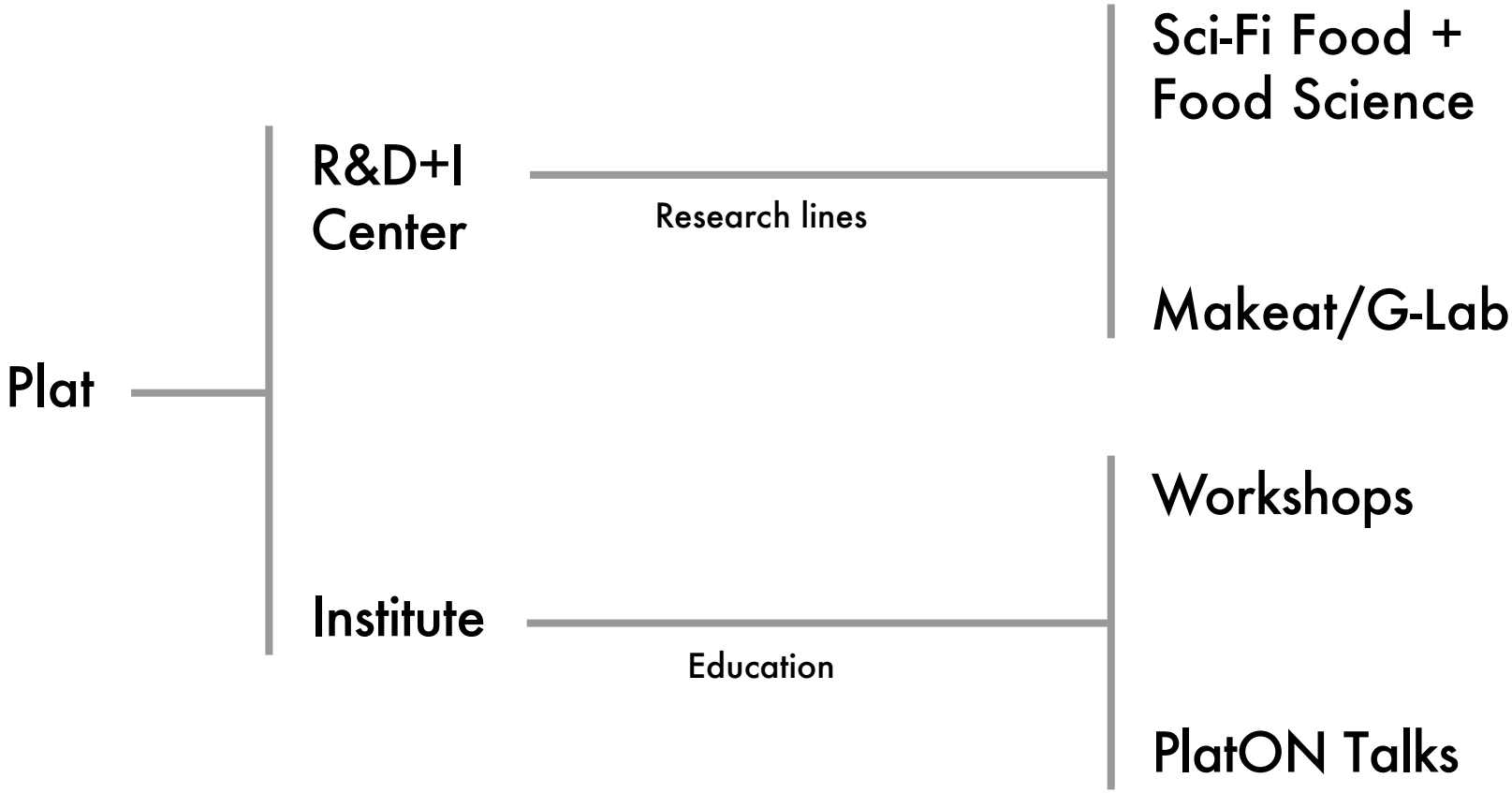
1. About Us: **PLAT**



Plat is an open-source educational platform that through R&D, innovation and creativity, addresses the food related challenges that humanity will face in the future.

plat Institute of Augmented Gastronomy

1. About Us: **Ecosystem**



plat Institute of Augmented Gastronomy

1. About Us: **Ecosystem**

R&D+I Center
Scientists, gastronomy authorities, visionaries and creatives working together on solving problems of tomorrow while bringing new business opportunities today.

Institute
From Idea to Reality – exchanging knowledge and inspiration through organization of courses, workshops, conferences and events in our futuristic lab in Barcelona.

Refresh

1. About Us: **R&D+I Center**

Sci-fi Food
Research Lines: Augmented Gastronomy, Non Gravital Food, Edible Sounds, Immersive Spaces, Food & Space.

Food Science
Research Lines: Brain Food, Shared Economy & Food, Sustainable Food, IA Food, Sports & Food, Food for Longevity, Retail & Tech, Personalized Food, Hospitality.

Makeat / G-Lab
Center of Digital Manufacture in Gastronomy. Open source lab for creating, experimenting and reinventing the future of food and gastronomy with robotics, 3D food printing, Mixed Reality, and latest technologies.

plat Institute of Augmented Gastronomy

1. About Us: **Institute**

Workshops
Thinking on problems of 2050, creating opportunities now.
We create unique and innovative workshops in which we study new areas of Food-Tech and Food Design.

PlatON Talks
A community for sharing and exchanging dreams and knowledge in order to create opportunities for a better tomorrow. Through panel talks, conferences and events we gather multi-talented people with diverse visions and spread our open-source knowledge and values.

Refresh

THE PROBLEM

plat Institute of Augmented Gastronomy

Refresh

plat Institute of Augmented Gastronomy

2. The Problem

A chronic market failure

Between 33-50% of all food produced globally is never eaten, and the value of this wasted food is worth over $1 trillion. To put that in perspective, in the USA food waste represents 1.3% of the total GDP.

Morally wrong

Meanwhile 800 million people go to bed hungry every night. That is 1 in 9 people on the planet who are starving or malnourished. Because we have a globalised food supply system, demand for food in the West can drive up the price of food grown for export in developing countries, as well as displace the growth of crops to feed native populations and drive accelerated degradation of natural habitats. In the UK for example, over 1 million people accessed a food bank last year, whilst in the USA 40 million Americans live in food poverty.

2. The Problem

Environmentally catastrophic
Food waste is really, really bad for the environment. It takes a land mass larger than China to grow the food each year that is ultimately never eaten – land that has been deforested, species that have been driven to extinction, indigenous populations that have been moved, soil that has been degraded – all to produce food that we then just throw away. In addition, food that is never eaten accounts for 25% of all fresh water consumption globally.

When food waste goes to landfill, which is where the vast majority of it ends up, it decomposes without access to oxygen and creates methane, which is 23x more deadly than carbon dioxide.

We need to educate the new generations, transforming all this problems into new creative and innovative business opportunities.

INSPIRATIONAL CASES

plat Institute of Augmented Gastronomy

3. Inspirational Cases: **AgriDust**

A project of recovery and valorization of fruit and vegetable waste. Working with six chosen types of waste (coffee grounds, peanut shell, husk tomato, bean pod, orange waste and lemon waste) a biodegradable and atoxic material is born. The material is constituted of 64.5% from waste and 35.5% by a binder based on potato starch.

AgriDust can be used to create pots for plants and packaging, moreover using cold technolog it lends itself as material for 3D printers (where the classic extruder is substituted by a syringe).

3. Inspirational Cases: **AgriDust**

plat Institute of Augmented Gastronomy

3. Inspirational Cases: **Algae Water Bottles**

Product design student Ari Jónsson has combined red algae powder with water to create a biodegradable bottle.

The resulting mixture had a jelly-like consistency. It was heated before being poured into a cold mold. The mold was swirled inside a container of ice water until the agar formed a bottle. Just a few more minutes of refrigeration, and the bottle was ready for use.

The algae bottle retains its unique shape until it is empty, and then it begins to break down. It's an all-natural alternative to plastic.

3. Inspirational Cases: **Algae Water Bottles**

plat Institute of Augmented Gastronomy

3. Inspirational Cases: **Bon Aprofit**

Bon Aprofit started from a very simple question: is there a fun and nice way to Connect kids with fruits and vegetables? The result is a series of edible tableware made from organic, local and seasonal fruits and vegetables.

Through this they encourage:
1. Healthy eating
2. Ecological, seasonaland local agriculture
3. Usage of leftovers and reduction of waste

3. Inspirational Cases: **Bon Aprofit**

plat Institute of Augmented Gastronomy

3. Inspirational Cases: **HyO-Cup**

Brooklyn-based design studio Crème uses home-grown vegetables to produce a sustainable alternative to disposable coffee cups.

The studio grows gourds in moulds to create the biodegradable cups.
It claims that these cups can be manufactured on a mass scale – offering a more environmentally friendly alternative to paper coffee cups, which are typically lined with unsustainable plastic polyethylene.

3. Inspirational Cases: **HyO-Cup**

plat Institute of Augmented Gastronomy

3. Inspirational Cases: **Decafé**

Through an artisanal process based on culinary techniques, Raúl Laurí (decafé's creator) turns the used coffee grounds into amazing products.

Coffee is a very common product that's known and consumed worldwide and on a daily basis. It's the second most commercialized good and it can be considered as a very valuable product that transports thousands of beautiful experiences every day. In Raúl's designs you can experience, smell and feel all of the sensations you can get out of a cup of coffee.

3. Inspirational Cases: **Decafé**

3. Inspirational Cases: **Mogu**

An innovation-driven, environmentally-conscious company, dedicated to developing and scaling-up a range of mycelium-based technologies for the production of naturally-grown biomaterials and products, able to satisfy the market demand for sustainable and high-performance alternatives.

They believe that naturally grown-materials can provide a sustainable alternative to traditional synthetics derived from the exploitation of fossil fuels and finite resources.

3. Inspirational Cases: **Mogu**

3. Inspirational Cases: **Avani**

Avani was established in the year of 2014, spearheaded by individuals who strive to be difference makers utilizing technology as a convenient solutions that can easily be adopted by businesses and end consumers. Avani provides a full range of sustainable packaging and hospitality products made from renewable and natural ingredients that are fully compostable.

They strive to continuously become a bridge in helping and encouraging communities and businesses to ignite initiative that can generate sustainable impact for the environment. Encouraging the term ‘Responsible’ as a core driving value of the preceding three key factors; Reduce, Reuse, Recycle.

3. Inspirational Cases: **Avani**

PLAT STUDENT'S RESEARCH

plat Institute of Augmented Gastronomy

4. PLAT Research: **Peel-Plas**

plat Institute of Augmented Gastronomy

4. PLAT Research: **Peel-Plas**

plat Institute of Augmented Gastronomy

4. PLAT Research: **Peel-Plas**

plat Institute of Augmented Gastronomy

Refresh

4. PLAT Research: **Peel-Plas**

peel~plas

FILL THE PEEL

plat Institute of Augmented Gastronomy

PROCESS

1. Isolation

2. Destruction

3. Deshidratation

PREVIOUS TESTS

70gr glycerin
Organic waste

0gr glycerin
Organic waste

PROTOTYPES

PROTOTYPE 1

15gr glycerin
beetroot
200ml whater
15ml white vinegar
30gr gelatin

PROTOTYPE2

15gr glycerin
1 organge peel
30gr cornflour
15ml white vinegar
200 whater

PROTOTYPE 3

15gr glycerin
beetroot
30gr gelatin
15ml white vinegar
200 whater
2 spoon deshidrated peel

Refresh

4. PLAT Research: **Peel-Plas**

THE BOTTLE MADE OF ORANGE PEEL, WATER, VINEGAR, GLICERINE

plat Institute of Augmented Gastronomy

4. PLAT Research: **Peel-Plas**

24 HOURS
4 PEOPLE
1 RESULT!

peel~plas

FILL THE PEEL

Judit Mérida
Laia Castells
Adriana Cánovas
Patrícia Rosas

plat Institute of Augmented Gastronomy

Refresh

HELP TALENT GROW

plat Institute of Augmented Gastronomy

Refresh

Thank You!

FOLLOW US

@PLAT.INSTITUTE

plat Institute of Augmented Gastronomy