WHAT CAN DESIGN DO?

TO REDUCE FOOD WASTE
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ABOUT US
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.
1. About Us: Ecosystem

- R&D+I Center
- Institute
- Workshops
- Sci-Fi Food + Food Science
- Makeat/G-Lab
- PlatON Talks

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

**Sci-fi Food**

**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.
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.
THE PROBLEM
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.
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
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
3. Inspirational Cases: Bon Apro\textit{f}it

Bon Apro\textit{f}it 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, seasonal and local agriculture
3. Usage of leftovers and reduction of waste
3. Inspirational Cases: Bon Aprofit
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**
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
4. PLAT Research: Peel-Plas
4. PLAT Research: Peel-Plas
4. PLAT Research: Peel-Plas
4. PLAT Research: Peel-Plas

peel~plas

FILL THE PEEL

plat

Institute of Augmented Gastronomy
**PROCESS**

1. Isolation

![Image of a dried substance](image1.png)

2. Destruction

![Image of a dried substance](image2.png)

3. Deshidratation

![Image of a dried substance](image3.png)

**PREVIOUS TESTS**

- PROTOTYPE 1: 70gr glycerin
  - Organic waste

- PROTOTYPE 2: 0gr glycerin
  - Organic waste

**PROTOTYPES**

- **PROTOTYPE 1**
  - 15gr glycerin
  - beetroot
  - 200ml water
  - 15ml white vinegar
  - 30gr gelatin

- **PROTOTYPE 2**
  - 15gr glycerin
  - 1 orange peel
  - 30gr cornflour
  - 15ml white vinegar
  - 200 whater

- **PROTOTYPE 3**
  - 15gr glycerin
  - beetroot
  - 30gr gelatin
  - 15ml white vinegar
  - 200 whater
  - 2 spoon dried peel
4. PLAT Research: Peel-Plas

THE BOTTLE MADE OF ORANGE PEEL, WATER, VINEGAR, GLICERINE
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
HELP TALENT GROW
Thank You!

FOLLOW US

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