

Food as medicine

WHAT IS FOOD ?



OUR FAVOURITE DISHES



TRENDS WE FOUND

TREND TITLE
LAB-GROWN MEAT



Brief description of the trend
What kind of change does this signal or trend represent?
Lab-grown meat is meat that has been grown in a laboratory. They are not obtained from animals. They are grown from cells taken from animals as the basis for cultivation and cultured. They grow from cells taken from animals as the basis for cultivation and cultured. They grow from cells taken from animals as the basis for cultivation and cultured.

Relevance
How important would its effects be in the context you are working on?
The production of lab-grown meat will be based on farming of all and humans would not be required. This could reduce the need for land and water. It could also reduce the need for antibiotics and hormones.

Potential
Which countries or the opportunities might have in the future in the context you are working on?
Lab-grown meat could be used as a substitute for their natural counterparts. As bioengineered organisms, they can resist adverse field conditions.

Sources
Where did you get this information?
<https://www.fda.gov/oc/food/food-lab-grown-meat>

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<https://www.fda.gov/oc/food/food-lab-grown-meat>

Lab-grown meat

TREND TITLE
Artificial Seeds



Brief description of the trend
What kind of change does this signal or trend represent?
Artificial seeds are plant embryos covered with a synthetic hydrogel coating material, such as calcium alginate. These encapsulated embryos behave like organic seeds and can be used as a substitute for their natural counterparts. As bioengineered organisms, they can resist adverse field conditions.

Relevance
How important would its effects be in the context you are working on?
They can help to promote sustainable agriculture and food security.

Potential
Which countries or the opportunities might have in the future in the context you are working on?
1. More efficient use of resources.
2. The ability to develop better quality "nutrient-wise" food.
3. Improved crop diversity.

Sources
Where did you get this information?
<https://pubmed.ncbi.nlm.nih.gov/32900000/>

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Where did you get this information?
<https://pubmed.ncbi.nlm.nih.gov/32900000/>

Artificial seeds

TREND TITLE
Food supplements



Brief description of the trend
What kind of change does this signal or trend represent?
Food supplements are concentrated sources of nutrients (vitamins and mineral) or other substances with nutritional effect that can rebalance an un healthy diet.

Relevance
How important would its effects be in the context you are working on?
It fills the nutrient gap.

Potential
Which countries or the opportunities might have in the future in the context you are working on?
It allows people with particular food habits to stay healthy.

Sources
Where did you get this information?
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6000000/>

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Food supplements

TREND TITLE
Climate-conscious food



Brief description of the trend
What kind of change does this signal or trend represent?
The products are produced using methods that do not cause harm to the environment, improve health, such as using pesticides and fertilizers. They require less water and energy to produce than other foods.

Relevance
How important would its effects be in the context you are working on?
Can help reduce our carbon footprint and improve health.

Potential
Which countries or the opportunities might have in the future in the context you are working on?
It allows people with particular food habits to stay healthy.

Sources
Where did you get this information?
<https://www.ers.usda.gov/topics/food-choices-health/wellness/nutrition/>

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Climate-conscious food

TREND TITLE
"Smart Pantries"



Brief description of the trend
With consumers turning a keen eye to sustainability, new smart pantry products are making it easier to reduce food waste. 40% of food is wasted (U.S.); SILEX: AI-based integrated system that let you know when your food is about to go bad.

Relevance
How important would its effects be in the context you are working on?
provide accurate screening of food consumed and wasted.

Potential
Which countries or the opportunities might have in the future in the context you are working on?
if integrated in the right way it can truly improve household food consumption.

Sources
Where did you get this information?
wunderman thompson, silo

Smart pantries

TREND TITLE
Technology's outburst



Brief description of the trend
Technology is evolving rapidly due to several reasons such as advances in science and engineering, the rise of market demand and investments, globalization, competition between tech companies, COVID19, etc.

Relevance
How important would its effects be in the context you are working on?
The nature affects people's lives in many ways. It can help to improve the quality of life and to reduce the risk of disease.

Potential
Which countries or the opportunities might have in the future in the context you are working on?
It allows people with particular food habits to stay healthy.

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TREND TITLE
AI Crop Analytics Tool



Brief description of the trend
A machine learning and data analytics tool designed to detect crop diseases and pests at an early stage.

Relevance
How important would its effects be in the context you are working on?
provide accurate screening of food consumed and wasted.

Potential
Which countries or the opportunities might have in the future in the context you are working on?
if integrated in the right way it can truly improve household food consumption.

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Where did you get this information?
wunderman thompson, silo

AI Crop analytics tool

TREND TITLE
Germplasm Bank



Brief description of the trend
A germplasm bank, also known as a gene bank, is a collection of plant and animal genetic material that is stored for the purpose of preserving biodiversity and supporting food security.

Relevance
How important would its effects be in the context you are working on?
The nature affects people's lives in many ways. It can help to improve the quality of life and to reduce the risk of disease.

Potential
Which countries or the opportunities might have in the future in the context you are working on?
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TRENDS WE FOUND

Lab Grown Food

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Brief description of the trend
Lab-grown plant embryos covered with a synthetic hydrogel coating material, such as calcium alginate. These encapsulated embryos behave like organic seeds and can be used as a substitute for their natural counterparts. As bioengineered organisms, they can resist adverse field conditions.

Relevance
They can help to provide sustainable agriculture and food security.

Potential
1. More efficient use of resources.
2. The ability to develop better quality, nutrient-rich food.
3. Improved crop diversity.

Sources
[Source information]

Impact Diagram
A diagram showing the trend's impact across five domains: Social, Technological, Economic, Environmental, and Political. The Technological domain shows the highest impact.

Erasmus+

TREND TITLE
LAB-GROWN MEAT



Brief description of the trend
The production of edible meat cell and organoid farming in cell and human seedbank.

Relevance
The production of edible meat cell and organoid farming in cell and human seedbank.

Potential
1. Sustainable production process for the edible meat.
2. Reduced carbon footprint for the edible meat.
3. Reduced risk for zoonotic diseases.

Sources
[Source information]

Impact Diagram
A diagram showing the trend's impact across five domains: Social, Technological, Economic, Environmental, and Political. The Technological domain shows the highest impact.

Erasmus+

TREND TITLE
Germplasm Bank



Brief description of the trend
A germplasm bank, also known as a gene bank, is a collection of plant and animal genetic material that is stored for the purpose of preserving biodiversity and supporting food security.

Relevance
It ensures a secure and diverse genetic pool and provides a resource for future crop and animal breeding.

Potential
1. Preserving genetic diversity.
2. Supporting food security.
3. Supporting biodiversity and supporting food security.

Sources
[Source information]

Impact Diagram
A diagram showing the trend's impact across five domains: Social, Technological, Economic, Environmental, and Political. The Environmental domain shows the highest impact.

Erasmus+

TRENDS WE FOUND

New habits

TREND TITLE
Climate-conscious food



Brief description of the trend
What kind of change does this signal or trend represent?
The products are produced using methods that do not cause harm to the environment, improve health, such as using pesticides and fertilizers. They require less water and energy to produce than other foods.

Relevance
How impactful would the effects be in the context you are working on?
Can help reduce our carbon footprint and improve health.

Potential
What possible opportunities might emerge in the future in the context you are working on?
They require less water and energy to produce than other foods.

Sources
Where did you get this information?
<https://www.erasmus.nl/eng/2019/04/04/food-and-environment>

This trend includes factors related to which of the following areas? Select in which area the trend can be found, and then specify the main level of analysis. Mark the circles in the small diagrams below each category.



Erasmus+

TREND TITLE
Food supplements



Brief description of the trend
What kind of change does this signal or trend represent?
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How impactful would the effects be in the context you are working on?
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Erasmus+

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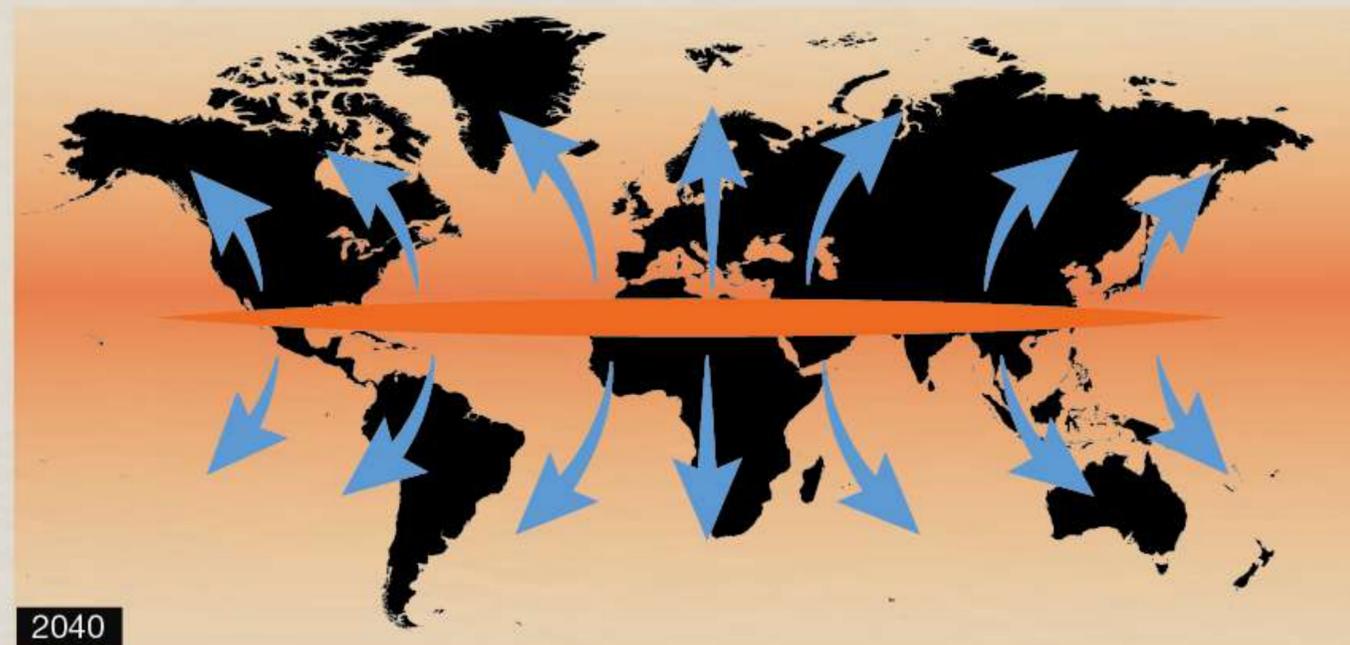
Erasmus+

July 20, 2040

HOW LIFE WAS LIKE IN THE '20s?



In 2040, the world has come a long way from the environmental state it was in 2023. Back then, the effects of climate change were becoming increasingly noticeable, with rising sea levels, frequent natural disasters, and declining air and water quality. However, over the past 17 years, society has made tremendous progress in mitigating these problems and restoring the planet's health. Renewable energy sources have become the norm, and the use of fossil fuels has dramatically decreased. Electric vehicles are widespread, and many cities have implemented strict regulations to reduce air pollution. The world has also made significant progress in reducing waste, with recycling and composting programs in place in most communities.



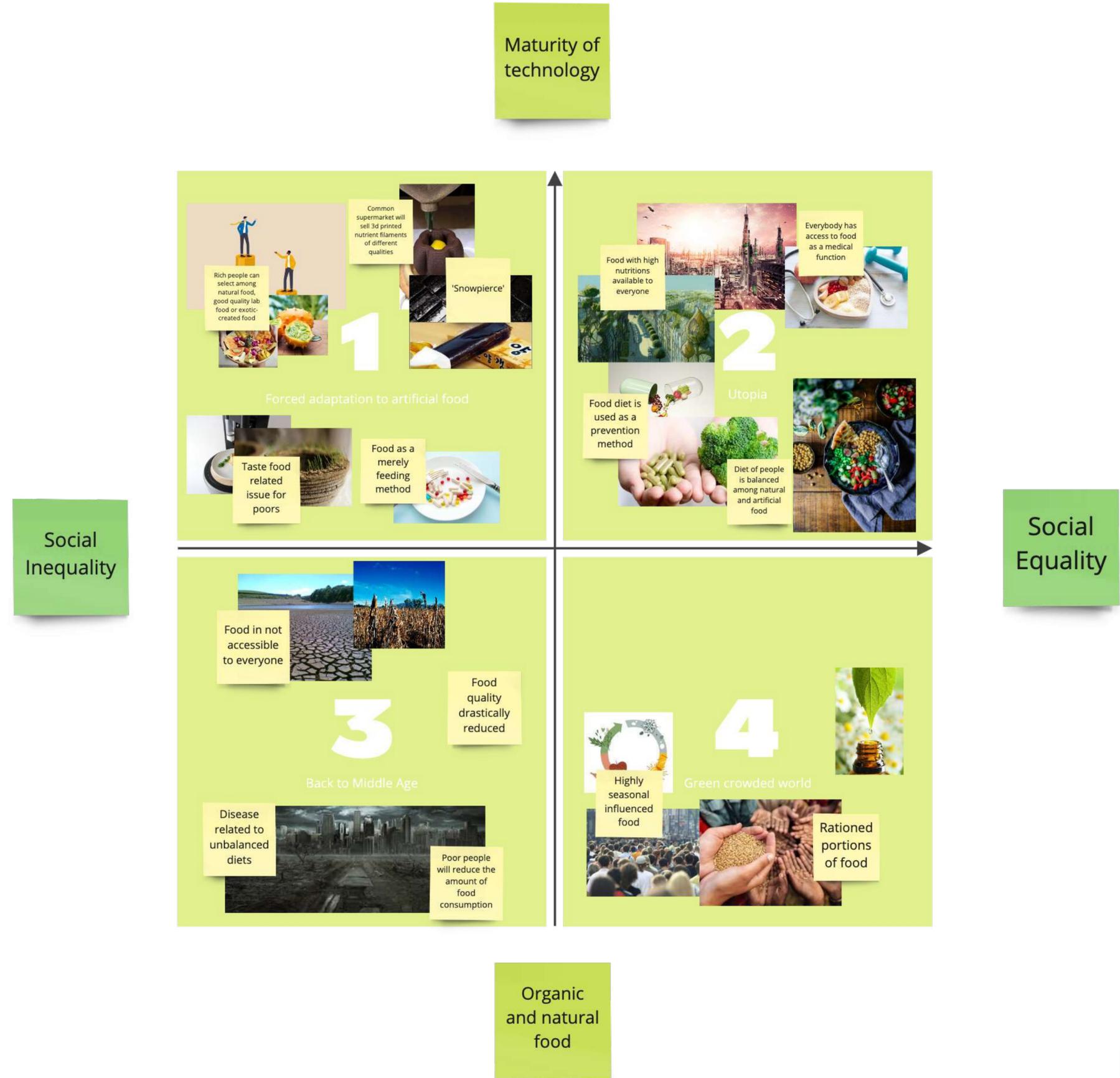
Overall, life in 2040 is vastly different from 2023 in terms of environmental impact. We've made substantial progress in mitigating the damage we've done to the planet and are on a path towards a more sustainable future.

DOMAIN

The domain we picked

As the rise of artificial food, the traditional food under the development of future tech such as lab-grown food and climate change

SCENARIO MATRIX



SCENARIO

Maturity of technology



We pick scenario which has high maturity of technology and social equality as our final one.

Social Inequality

Social Equality

Organic and natural food

SCENARIO

Utopia

Food with high nutrients available to everyone

Everybody has access to food as a medical function

Food diet is used as a prevention method

Diet of people is balanced among natural and artificial food

Food with high nutrients available to everyone

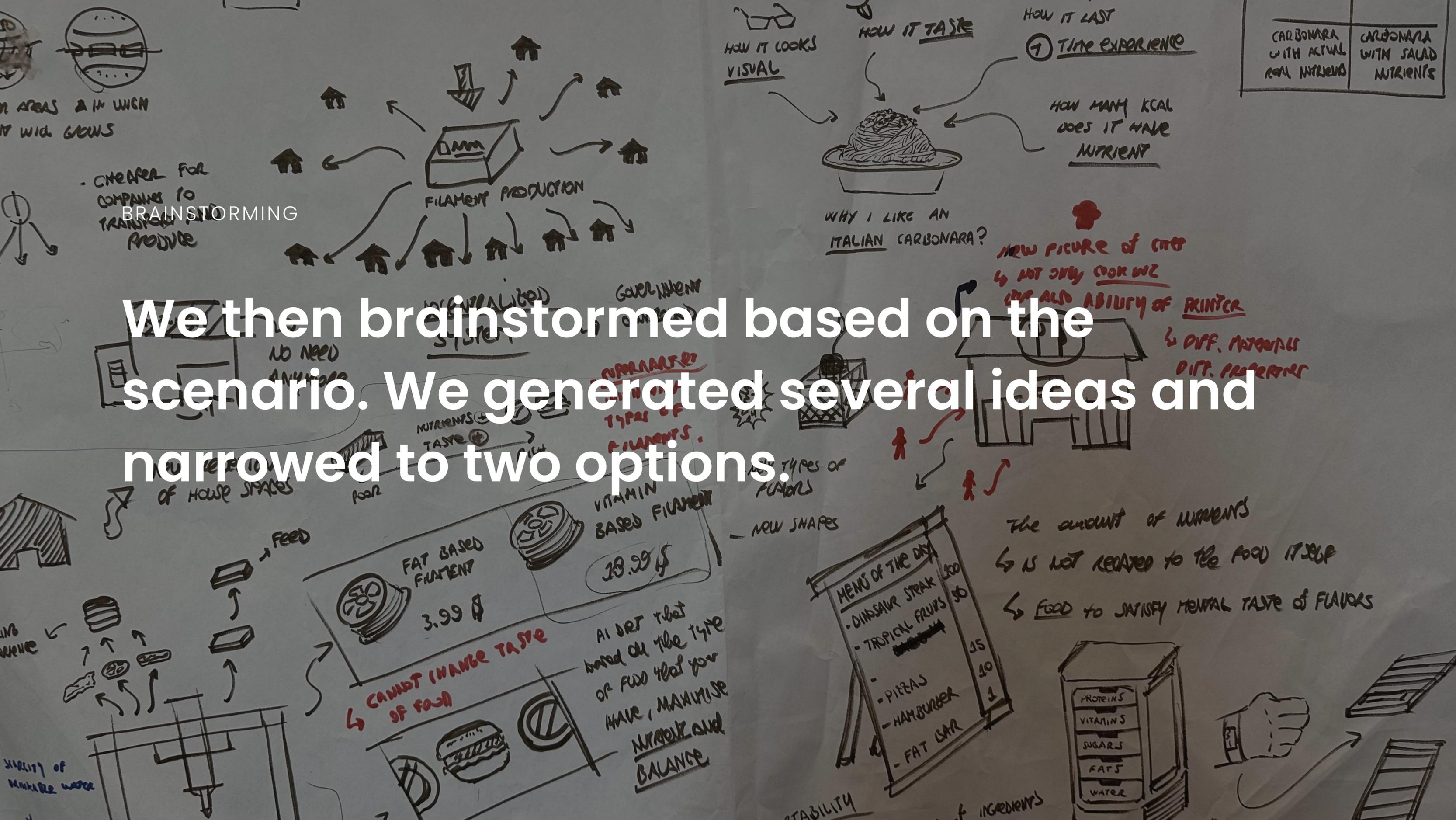
Everybody has access to food as a medical function

2

Utopia

Food diet is used as a prevention method

Diet of people is balanced among natural and artificial food



CARBONARA WITH ACTUAL REAL NUTRIENTS	CARBONARA WITH SALAD NUTRIENTS
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CHEAPER FOR COMPANIES TO TRANSPORT AND PRODUCE

BRAINSTORMING

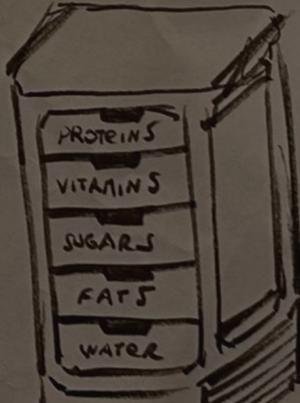
We then brainstormed based on the scenario. We generated several ideas and narrowed to two options.

CANNOT CHANGE TASTE OF FOOD

AI DRT THAT BASED ON THE TYPE OF FOOD THAT YOU WANT, MANIPULATE NUTRIENT AND BALANCE

STABILITY OF INGREDIENTS

MENU OF THE DAY	
- DINOSAUR STEAK	200
- TROPICAL FRUITS	50
- PIZZAS	25
- HAMBURGER	40
- FAT BAR	1



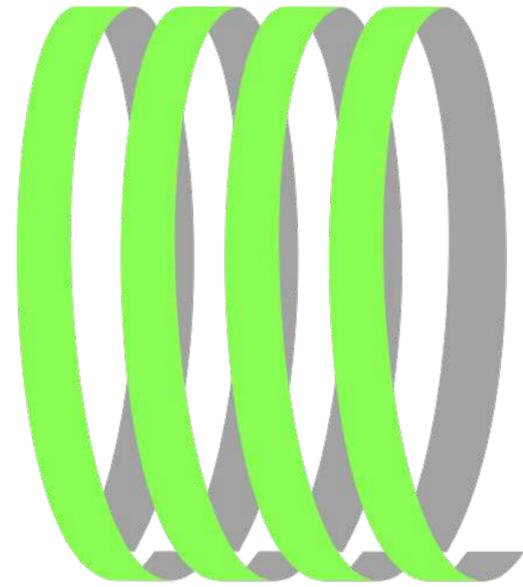
The amount of nutrients is not related to the food itself. Food to satisfy mental taste of flavors.

Children

**Education and simulated cooking
experience**

Patients

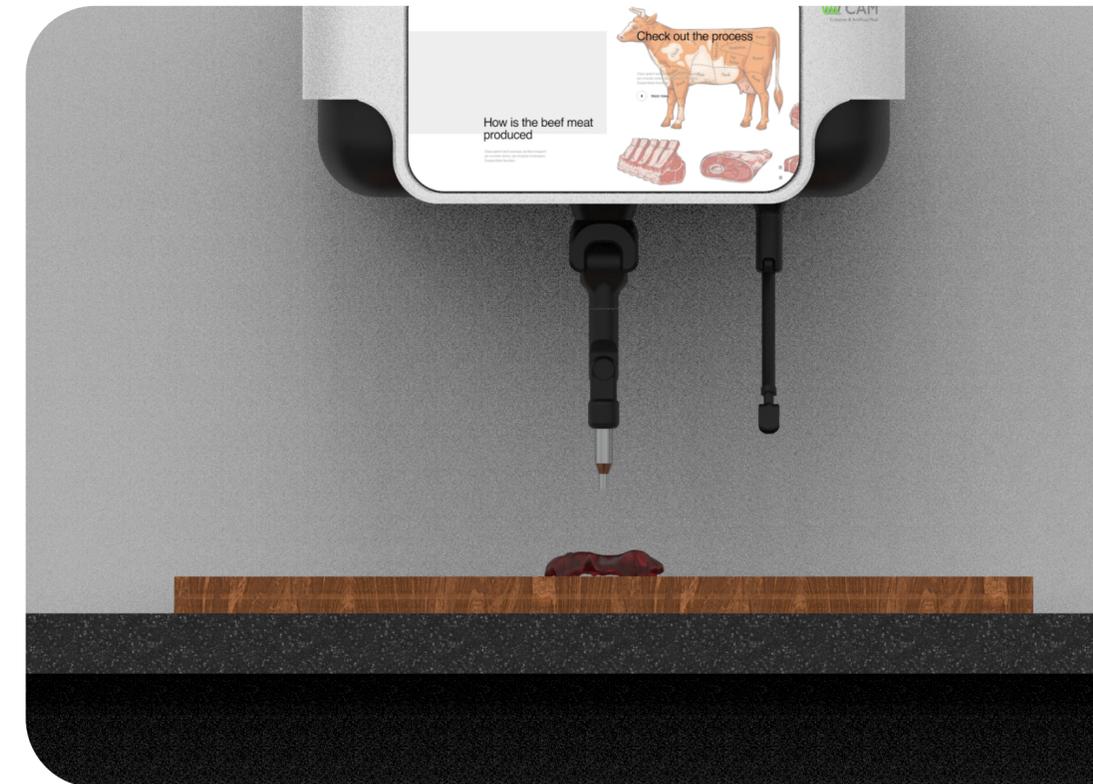
Medical functions and accessibility



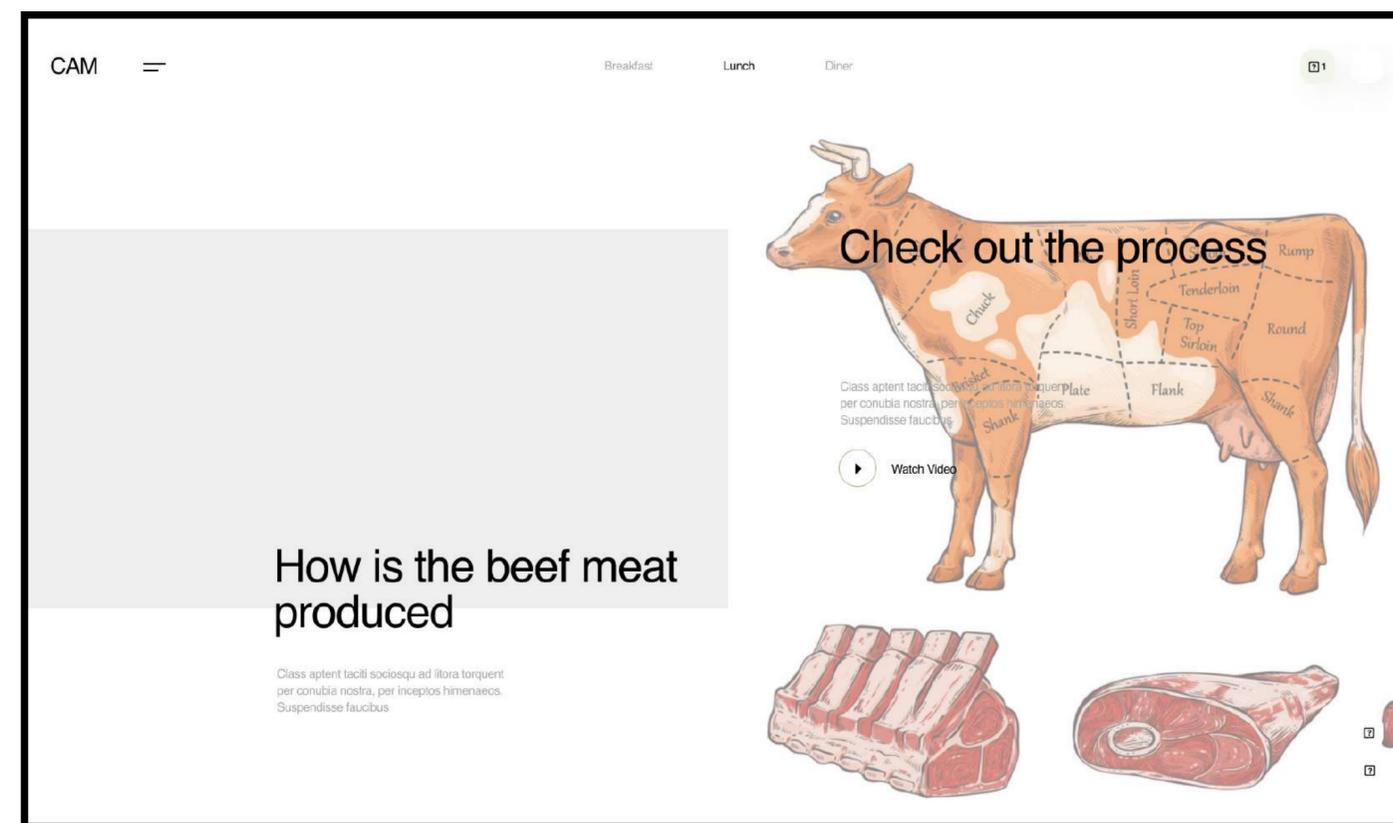
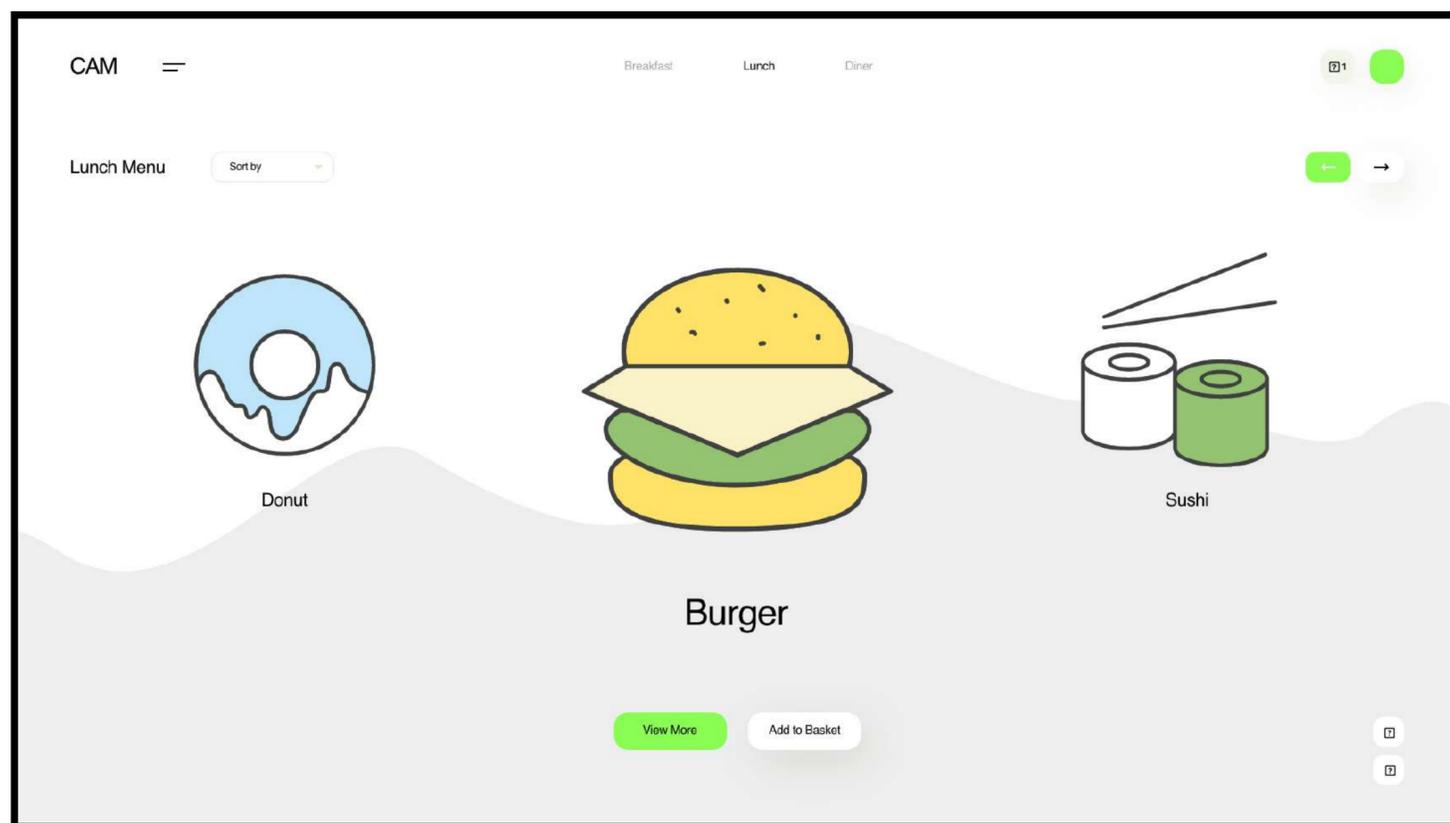
CAM

Creative & Artificial Meal

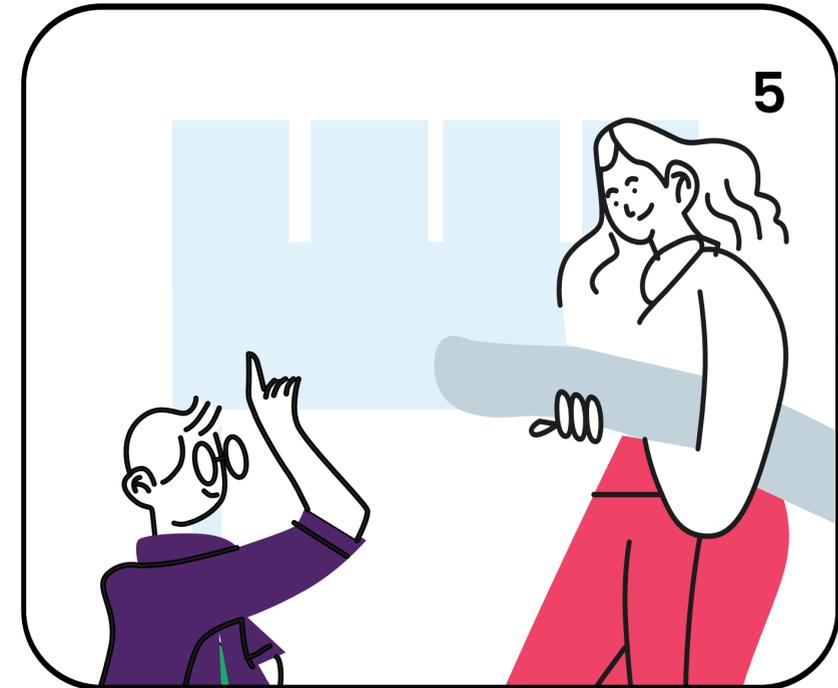
CAM is a product that offers a creative artificial meal cooking experience for parents and their children.



Interface



Scenario



A family of children and their parents spending a Saturday afternoon learning about cooking and traditional food. The parents introduce a new tool to the children – a 3D printer for food. The printer is capable of printing various food ingredients into intricate shapes and designs, but it still leaves some steps for the children and parents to complete.

They use the 3D printer to print the base layer of their dishes. As the printer is printing, the screen on the printer will introduce some knowledge of the raw materials to the children. Then the children and parents work together to complete the final steps of cooking, such as seasoning the dishes, adding the final touches, and plating the dishes. The children learn about different traditional foods and cuisines, and gain a deeper appreciation for cooking and knowledge of food production.

