Heura®

IMPACT REPORT 2023

TOWARDS A NET-POSITIVE FOOD SYSTEM

SUMMARY

MISSION-DRIVEN COMPANY

Our mission is to contribute to building a net-positive food system while accelerating the protein transition

Catalyser: Scalable technology to solve the challenges of the food system

We were born in 2017 with the firm purpose of generating value and challenge current social and environmental imbalances by promoting a new, more inclusive, equitable, and regenerative economic model.

We offer **solutions that make the problems of the current food system obsolete** and accelerate the shift to a world where our daily eating habits have a positive impact on humans, animals and the planet.

CEO COMMITMENT

In the 20th century, humanity made incredible strides in scaling up food production to feed a global population that grew from 1.5 billion to 8 billion in approximately 100 years. However, today's food system faces an even greater challenge: how to sustainably and healthily feed everyone at scale. According to the Scientific Group of the United Nations, inefficiencies in the food industry generate externalities amounting to USD 20 trillion per year, more than twice the global food consumption value.

Heura Foods is part of a new generation of companies offering **holistic solutions that address consumption needs while integrating health, environmental impact, and considering the rest of animals in the equation**. We believe that the role of companies in this century is to solve global problems while enhancing people's lives.

Seven years ago, we founded Heura with a bold **mission: to create a net-positive food system while accelerating the protein transition**. This mission, although might seem utopian, fuels our culture of non-conformism and drives us to continuously challenge the status quo.

Our goal is to create foods that render the problems of the current system obsolete. To achieve this, we are developing technologies that empower people to make better food choices and reduce societal friction, aligning values with behaviors.

In our 2023 report, you'll witness the significant impact of our solutions on global challenges. We have decreased our average CO2 emissions per kilogram of product while expanding our reach and impact.

When we started Heura, our dream was to inspire other companies to create better foods, focusing especially on the animal-based industry. Today, thanks to the trust of millions, **we are leading real change**. **However, we are only at the beginning of our impact journey**. We are continually developing disruptive technologies to extend the plant-based revolution into new food categories, creating products that combine indulgence, high-value nutrition, and sustainability where it was impossible until now. To scale this vision, we are working on sharing these technologies with other food companies, accelerating the change needed in the food industry.

Our commitment is to make this report outdated soon, demonstrating significant progress as we elevate the scale of our solutions and continuously reshape our goals. This is essential for building a net-positive food system.

Thank you for your trust. **I look forward to continuing to build the future of the food system together.**

Sincerely,

Marc Coloma, CEO and Co-founder

FOOD SYSTEM CHALLENGES

We are born to solve major **health and environmental challenges** of the current food system.

#1 HEALTH

The main cause of death worldwide is related to cardiovascular diseases and meat consumption is a key factor.

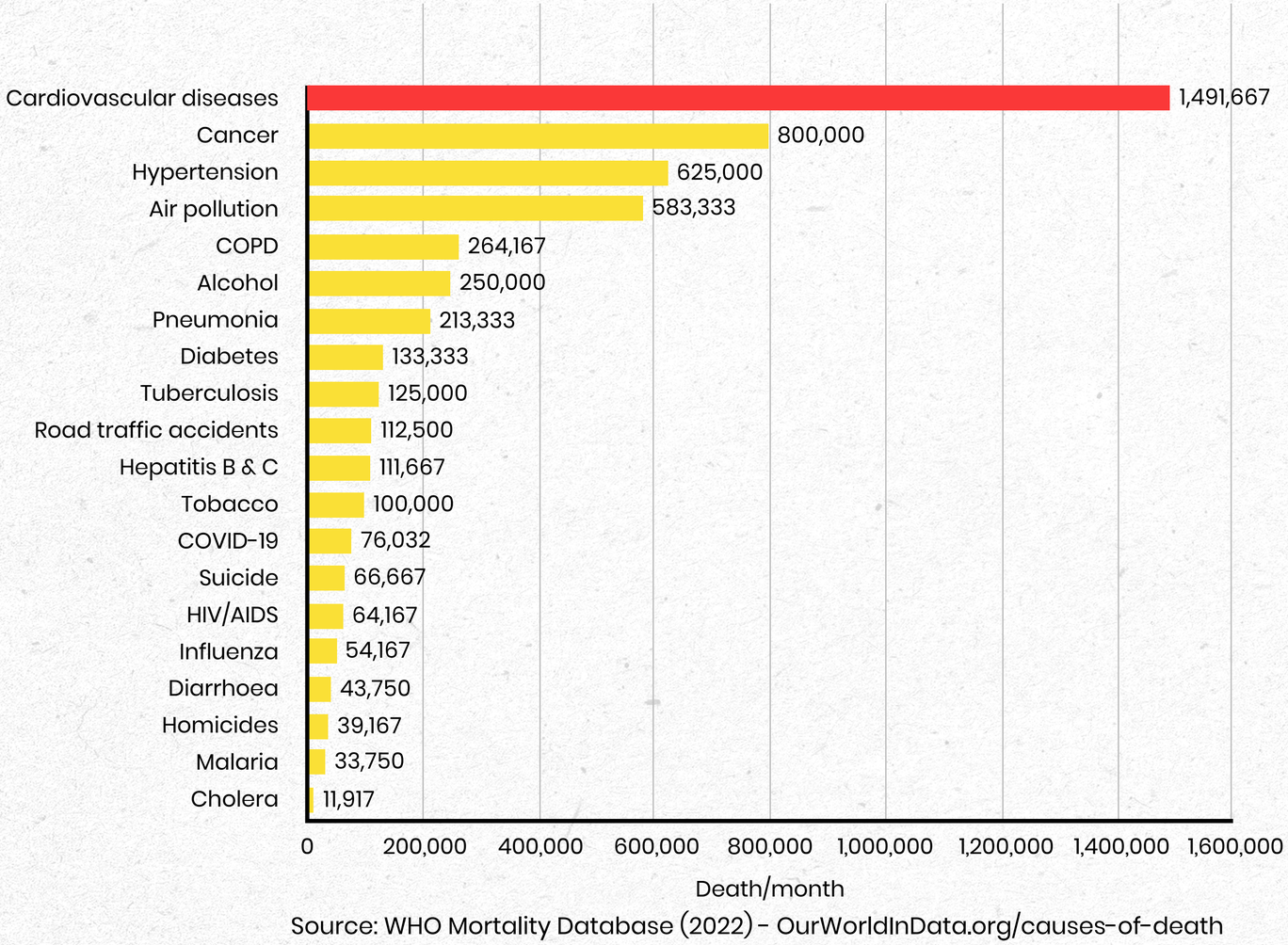
#2 PRODUCTION FEASIBILITY

Low efficiency in the conversion of plant food into animal protein. More than 50 calories are needed to feed a cow to obtain only 1 calorie of food.

#3 CLIMATE EMERGENCY

The food industry has a significant impact on climate change that contribute to greenhouse gas (GHG) emissions, deforestation, intensive resource use and other environmental factors.

#1 Health challenge: Cardiovascular diseases are the first cause of death



Source: WHO Mortality Database (2022) - OurWorldInData.org/causes-of-death

Cardiovascular diseases are the **leading cause of death worldwide,** with **meat consumption directly linked** to their incidence.

We **consume over 70% more protein than recommended**. Specifically:

- 4.7 times more than the recommended meat intake.
- 20% less plant-based protein than recommended.

High LDL cholesterol, a major risk factor for cardiovascular disease, is also directly associated with meat consumption.

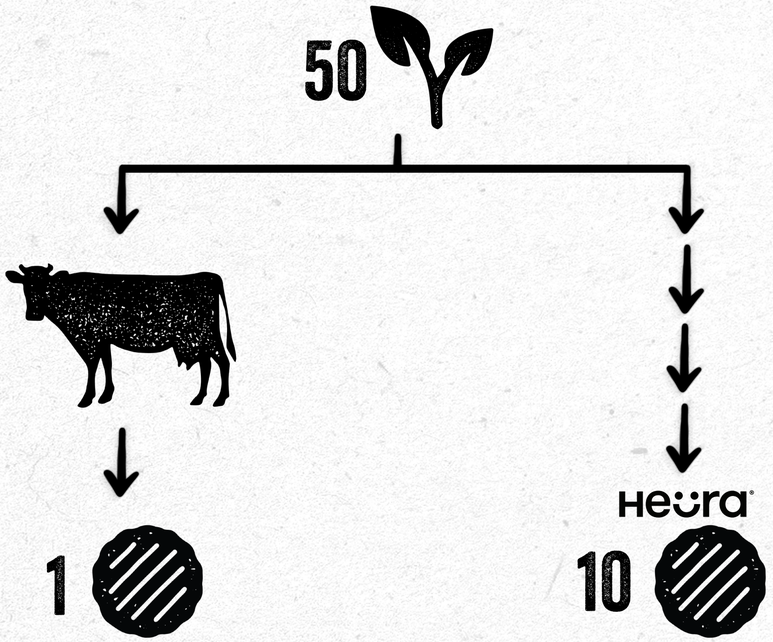
The **WHO classifies processed meat as carcinogenic to humans** due to its association with an increased risk of colorectal cancer. **It is estimated that for every 50 grams of processed meat consumed daily, the risk of colorectal cancer increases by 18%.**

Sources: World Health Organization (WHO) / Actual protein intakes from PB and animal sources in the EU (g/day) vs. recommended intake levels and suggested.

#2 Production feasibility challenge: the inefficiency of the calory transformation

Just as it no longer makes sense to extract whale oil to light our homes or use horses for transportation, it is equally outdated to rely on animals to meet our protein needs. This **current (inefficient) model uses 83% of the arable land while providing only 18% of the world's calories.**

Conversion of resources calories to final products:



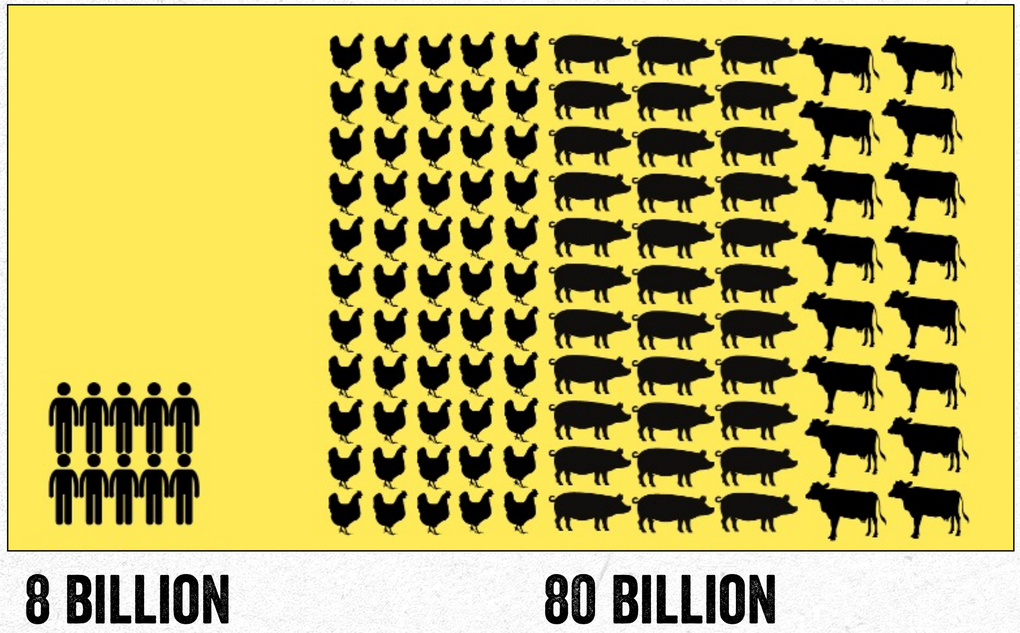
Source: Human appropriation of land for food: the role of diet. Global Environmental Change. Alexander et al. , 2016

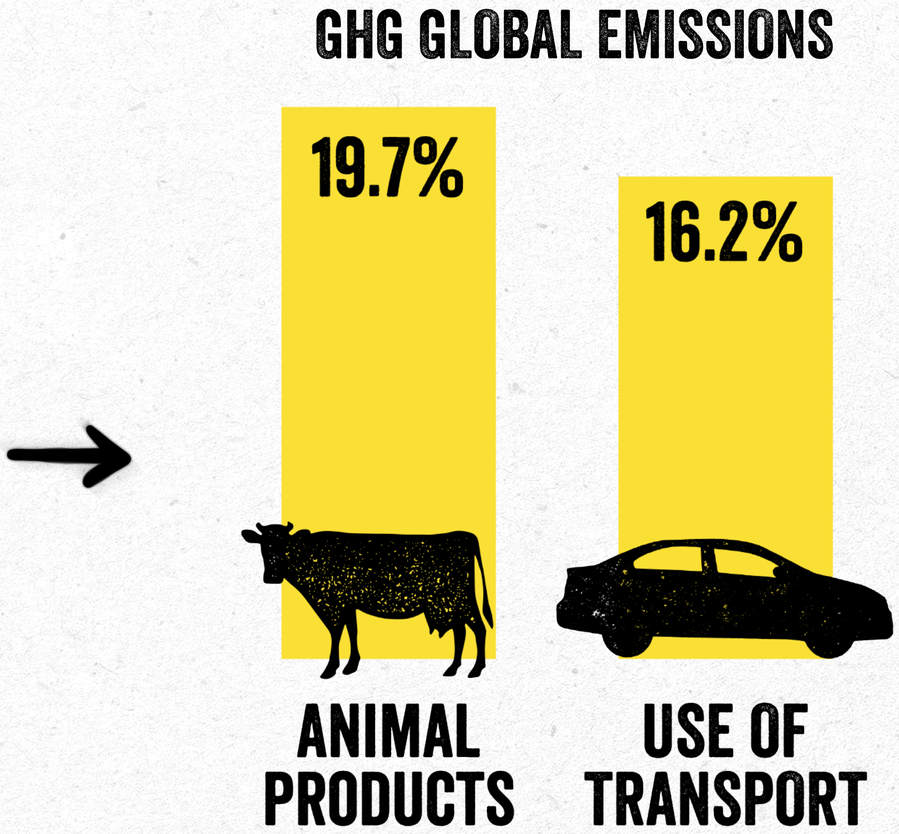
Percentage of cultivable land used for the livestock industry:

Source: Reducing food's environmental impacts through producers and consumers. J. Poore & T. Nemecek, 2018.

#3 Climate emergency challenge: the impact of having 10x livestock animals than humans

To meet the current demand for animal protein, 80 million animals are required on farms, impacting significantly the way we produce meat and protein. This positions the farming industry as a top polluter.





Sources: Global greenhouse gas emissions from animal-based foods are twice those of plant-based foods, X. Xu et al., 2021 / Climate Watch. The World Resources Institute. 2020

OUR FORMULA TOWARDS A NET-POSITIVE FOOD SYSTEM

OUR SOLUTION

Improves health

Has a positive impact on the planet

Helps to address resource constraints

Respects animals

VS

ANIMAL PROTEIN

22%

higher risk of contracting a disease

19,7%

of greenhouse gases come from livestock farming

26%

of the earth's land surface is used for the production of animal protein

88B

Terrestial animals are slaughtered each year for meat production

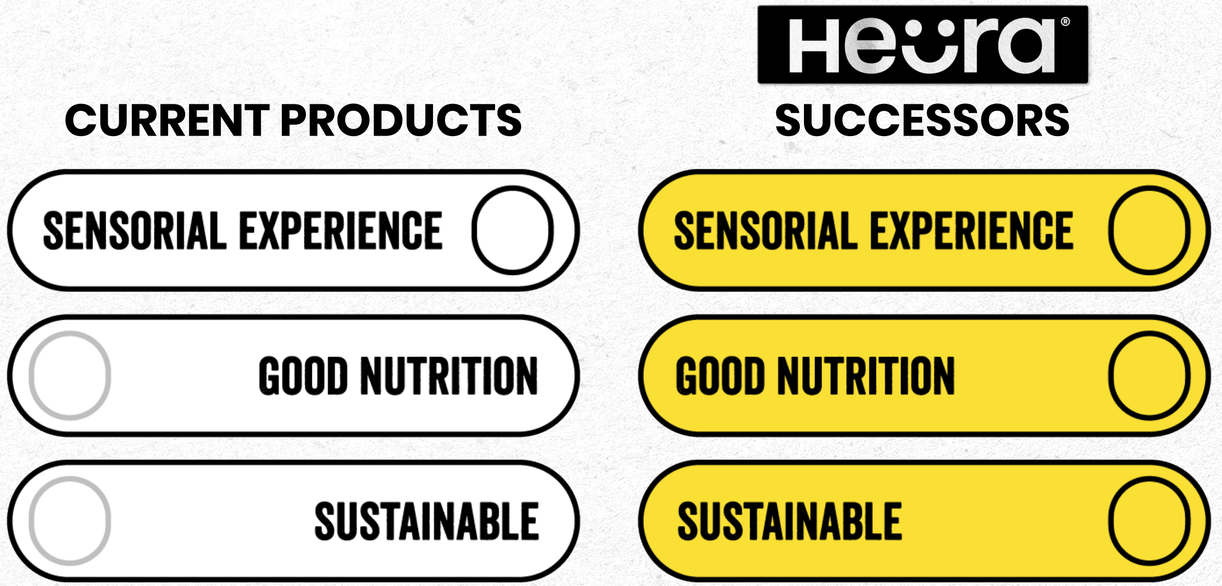
Source: Dietary Meat, Trimethylamine N-Oxide-Related Metabolites, and Incident Cardiovascular Disease Among Older Adults: The Cardio-vascular Health Study / Climate Watch. The World Resources Institute. 2020 / Greenpeace / Our World in Data

OUR SOLUTIONS: ~~ALTERNATIVES~~ SUCCESSORS

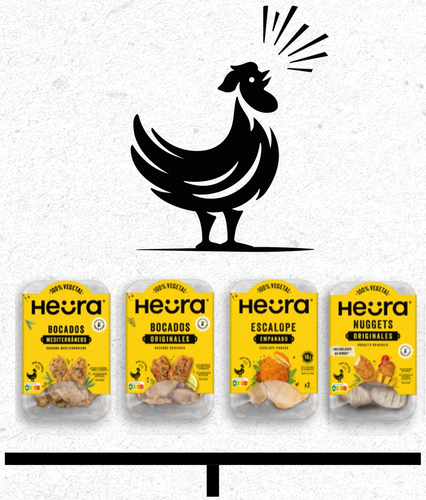
We are providing the experience consumers want with the best nutrition values and sustainability... breaking the boundaries of the food industry.

Our products provide up to 10 times more calories compared to animal-based alternatives, allowing us to feed four times the world's population while reducing our carbon footprint by 94%.

All this, without compromising on taste or texture. **That's why we call ourselves successors.**



OUR SOLUTIONS: ~~ALTERNATIVES~~ SUCCESSORS



DID YOU KNOW THAT

...the consumption and handling of poultry meat are among the main causes of human intestinal infections? These infections are mainly related to bacteria such as Salmonella and Campylobacter.

Source: Producción y productos avícolas.
Organización de las Naciones Unidas para la Alimentación y la Agricultura.

...in Catalonia, there are more pigs than humans, and the meat industry uses 2,024,000,000,000 liters of water annually for meat production? This is equivalent to six times the annual domestic water consumption in Catalonia.

Source: Fears for environment in Spain as pigs outnumber people (Spain Environment Ministry). The guardian, 2018

...livestock farming generates as many greenhouse gases as all the cars, trains, ships and planes put together? 14.5% of global greenhouse gas emissions and 80% of deforestation in the Amazon is attributed to livestock activity. With almost 2,000 tonnes, Spain is the EU country with the highest consumption of antibiotics in food-producing animals.

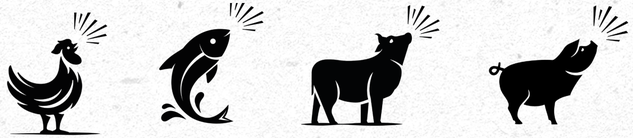
Source: Greenpeace.org /consumismo/carne Greenpeace.org

more than 55% of the ocean area is covered by industrial fishing gear? That is more than four times the area covered by agriculture.

Source: Tracking the global footprint of fisheries. Science. 2018.

AN HOLISTIC SOLUTION TO A GLOBAL CHALLENGE

THE LIVESTOCK INDUSTRY



PLANT-BASED INDUSTRY

Heura®

5 OF THE CHALLENGES

Cardiovascular diseases	50g/day increase in processed meat consumption raises the **risk of heart disease by 18%, while the same amount of red meat raised the risk by 9%** (University of Oxford).
Biodiversity loss	Livestock farming occupies **83% of global agricultural land but provides only 18% of the world's calories.** This disproportionate use of land makes **animal farming the primary cause of deforestation and habitat loss** (J. Poore & T. Nemecek, 2018; FAO, The State of the World's Forests, 2020).
Water pollution	Animal farming is a major source of water pollution. Runoff from livestock **operations can carry pathogens and other pollutants into water bodies, leading to eutrophication and harmful algal blooms** (American College of Cardiology).
Antibiotic resistance	According to the World Health Organization (WHO), around **80% of the total consumption of medically important antibiotics is in the animal sector**, which can lead to the development of antibiotic-resistant bacteria that can transfer to humans (Oxford Academic).
Zoonotic influenza	Intensive farming conditions facilitate the mutation and spread of viruses among animals and from animals to humans, posing a significant public health risk. The Centers for Disease Control and Prevention (CDC) **highlights that influenza viruses in animals, particularly in poultry and swine, can occasionally infect humans,** leading to potential pandemics (Oxford Academic).

ENVIRONMENTAL IMPACT: THE BEST TO DATE

Sustainability rooted on our DNA: ESG is at the core of our business model. We are committed to:

SUSTAINABLE DEVELOPMENT GOALS

Fighting **food waste**
Energy efficiency

Innovation with **low carbon materials**
Circular Economy
Supplier clean energy

Deforestation free
GMOs free

UN GLOBAL COMPACT

Committed to the Ten Principles of Human Rights from the UN Global Compart, a non-binding United Nations pact to get businesses and firms worldwide to adopt sustainable and socially responsible policies, and to report on their implementation.

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

The Science Based Targets initiative is a **collaboration between the CDP, the United Nations Global Compact, World Resources Institute and the World Wide Fund for Nature**. Defining a strong and public decarbonization plan with numeric science-based objectives (Near-term + Net-zero) to be Net Positive by 2050.

Certified B Corporation

Recertification in 2024: This certification underscores our commitment, dedication, and performance (minimum >80) across 5 areas of positive impact: Environment, Community, Customers, Workers and Governance.

COMPANY'S ESG MILESTONES

FISH COMPARATIVE LCA

REPORT LCAS (PB VS MEAT) - CALCULATOR

APRIL 21 — OCT 21 — NOV 21 — DEC 22 — JAN 23 — APRIL 230 — CT 23 — MAR 24 — APRIL 24 — MAY 24 — JUNE 24

CERTIFICATION

BASE YEAR

ADHESION

DEFINITION & VALIDATION

ESG RACI

5% REDUCTION

23% REDUCTION

R-CERTIFICT.

SBTI COMMIT
DECARDBONIZATION PLAN

COMMUNICATION ON PROGRESS - UN GLOBAL COMPACT

OUR DECARBONISATION PLAN

1 **Product design** with the lowest number of ingredients and the major number of funcionalities.

2 Evaluate **ingredients** and **materials** ensuring the best functionalities with the lowest negative impact.

3 **Highest impact standards** with our **partners** to influence the impamentation of efficiency measures and the acquisition of 100% renewable electricity.

4 **Routes & storage** optimisation

Green plan (AECOC) in Spain with all the logistic partners.

5 **Reduce Food Waste** across the value chain with different initiatives (shelf-life extension, product development,...).

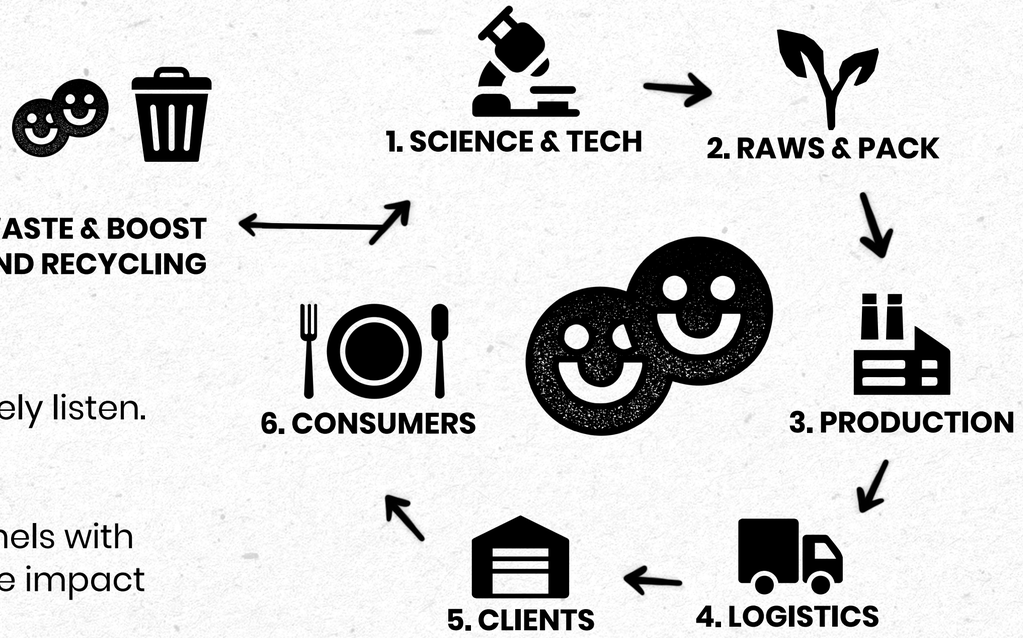
6 **Consumers engaging plan:** spaces and channels to actively listen.

Empowered community: generating information channels with science-based data about the impact of our food choices.

7 **Partnerships** with **zero-waste organisations** (Too Good to Go,...).

Donations to **NGOs**.

8 Promote **recycling.**



GOALS & TARGETS

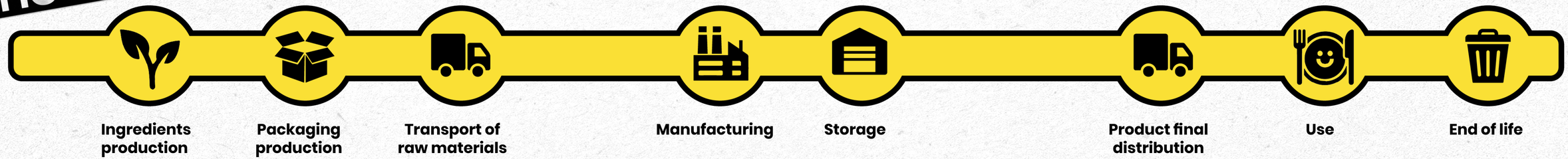
To deliver on our **mission**, we focus on **nature leading climate actions.**

Curb GHG emissions in line with 1.5°C - SBTi	**Co2 reduction in line with 1.5°C SBTi by 2030**
Reduce food waste across the value chain	**20% operation reduction by 2025** **50% E2E reduction by 2030**
Transition into circular economy	**100% recycled materials** **100% r-pet in trays** **Reduce packaging. Pack optimization project (pack 3.0)**
Certified B Corporation	**Recertification by 2024** **3 impact models. Score = from 92 to 150** **Target: 1° plant-based company with the highest score in the world**
Suppliers' engagement plan	**100% certified sustainable suppliers** **GMOs and deforestation-free supply chain / certifications**

CARBON FOOTPRINT: FROM SEED TO FORK
(& FURTHER)

THE INDUSTRY SCOPE 2

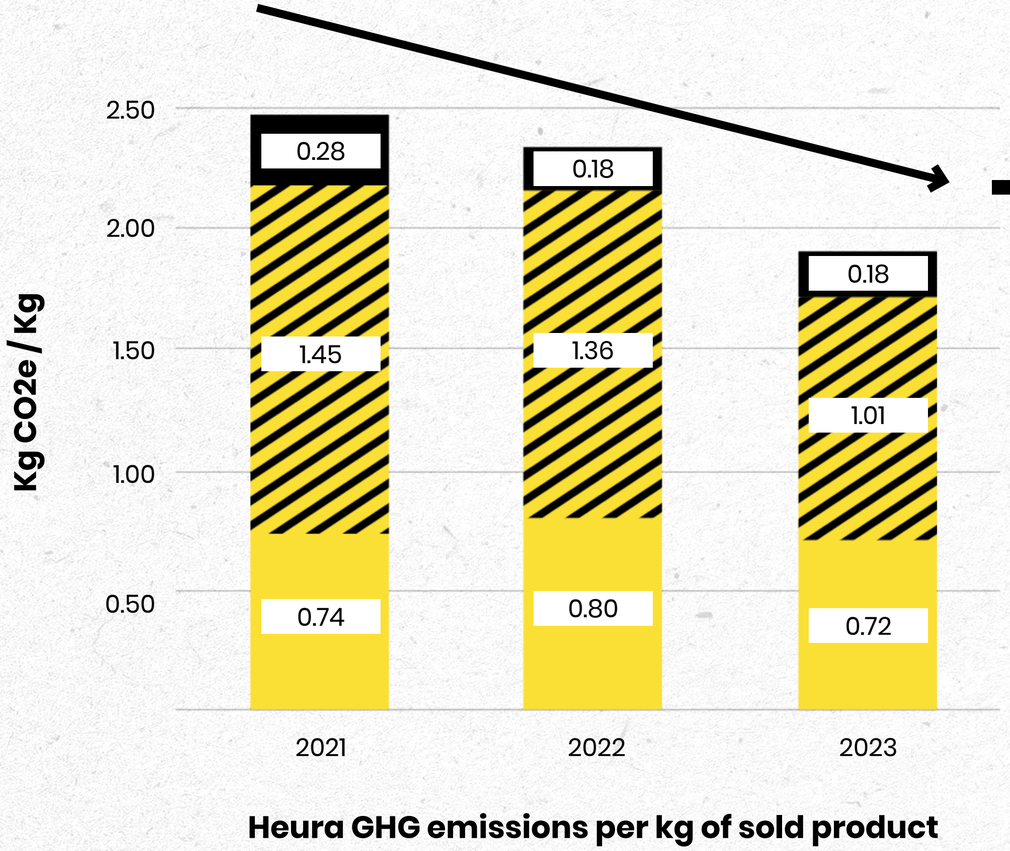
Heura® SCOPE 3



We take full responsibility for our environmental impact by **measuring our footprint across the entire value chain.** Our commitment extends beyond our direct operations to include all product-related emissions, including those generated during disposal.

Unlike many companies, we model our emissions across the entire lifecycle of our products. This comprehensive approach, though not yet a standard practice, underscores our commitment to sustainability. By meticulously considering every detail, we not only enhance our environmental stewardship but also foster innovation in minimizing our products' environmental footprint at every stage of their lifecycle.

-23% DECRESE CO2E/KG FROM 2021 TO 2023



Heura GHG emissions per kg of sold product

-23%

2021: 2.47 kg CO2e/Kg
2023: 1.90 kg CO2e/Kg

23% decrease YoY in our overall corporate climate footprint while growing our sales by 104.5%.

Is this enough? No, it isn't. We always aim to improve. That's why we have numerous initiatives outlined in the 'Decarbonisation Plan' section (pg 15).

- C5.- Indirect GHG emissions associated to the product use from the organization
- C4.- Indirect GHG emissions from products used by organization
- C3.- Indirect GHG emissions from transportation

THE LIFE CYCLE ASSESSMENT (LCA) OF HEURA

Reducing meat's environmental impact is central to our mission, and accurately measuring our footprint is crucial to instilling confidence in our products among consumers, customers, and stakeholders.

What is Life Cycle Assessment (LCA)?

Life Cycle Assessment (LCA) is a method for quantifying and comparing environmental impacts of systems and products, which are based on established methodologies and databases.

HEURA LCAS	2,2 Kg CO2e	2,5 Kg CO2e	2,1 Kg CO2e	1,94 Kg CO2e
SAVINGS VS ANALOGUES	-94%	-76%	-80%	-81%

The results show the benefit of switching from meat to Heura, using fewer natural resources over their animal-based counterparts. This shift can drastically reduce the individual environmental footprint.

KEY IMPACT INDICATORS 2023

3,000,000

round-trip flights Madrid - Barcelona for one person

6,699

Olympic swimming pools

1,344,901

animals spared

2,958,403

people fed

IMPACT CALCULATOR:

In 2023, we launched the **Positive Impact Calculator** to quantify the reductions in land usage, water consumption, and greenhouse gas emissions achievable by choosing Heura products over their animal-based counterparts.

To develop our product model, we utilised primary data on ingredient quantities and manufacturing inputs, along with the LCA database provided by Inèdit, which is based on the Agrifootprint and Ecoinvent datasets. This database has undergone thorough verification by DNV to assess our organisational carbon footprint.

Source: Sustainability C02 calculator.

30,000+ KG IN FOOD DONATIONS

The geographic split:
Spain: 30.573,8 kg
France: 482 kg
United Kingdon: 917,1 kg

Some of the partners:

Barcelona, Madrid, Mercamadrid, Las Palmas

And 15+ animal sanctuaries:

NEXT: LET'S MAKE THE "TO DATE" EXPIRE SOON

2025 PLANS TOWARDS A NET-POSITIVE FOOD SYSTEM

HEALTH

DEMOCRATISING PLANT PROTEINS:

We will diversify our product lineup, entering new food categories to make plant-protein nutritious options more accessible to everyone.

Scale our operations by licensing cutting-edge technologies that enhance food production and innovation to third parties.

ENVIRONMENT

UPCYCLING UNUSED INGREDIENTS:

Turning unused resources into nutritious foods, aiming to reduce food waste and deliver plant-protein diversification.

WASTE REDUCTION:

Apply new technologies in order to increase shelf life. This helps to reduce food waste while ensuring the best nutrition profiles and securing the highest food safety standards.

NEW PACK: THE BEST WE KNOW, TO DATE.

2019

2020

2021

In **2019**, we introduced our products in chilled format. By **2020**, we had transitioned to cardboard packaging with a plastic seal for our chilled products, aiming to bolster our sustainability efforts. However, upon consultation with specialists, we realised our packaging was not as sustainable as initially perceived.

To ensure data-driven decision-making, we enlisted a strategic eco-innovation studio to compare our packaging against various materials using reliable and independent data. This assessment from **2020 to 2021** resulted in a **40% reduction in CO2 emissions, a 50% decrease in fossil fuel use, and a 14% reduction in water consumption from packaging**.

Never content to rest, in under three years, we are now unveiling a new format that makes the previous packaging obsolete.

THIS JULY 2024

-30%
LESS MATERIAL PER PACK

BETTER THAN EVER

BOX SIZE REDUCTION
-1.5 cm height
-53 g in weight

BETTER THAN EVER

MORE PRODUCT PER PALLET
+27 kg per pallet

BETTER THAN EVER

LESS MATERIALS
No cardboard sleeve

AS BEFORE

92% RECYCLED PET
100% RECYCLABLE

Heura®

IMPACT REPORT 2023

WHAT'S NEXT:

MAKING THIS REPORT EXPIRE SOON, FOR THE BETTER

EXPIRING DATE: THE DAY AFTER PUBLISHING IT