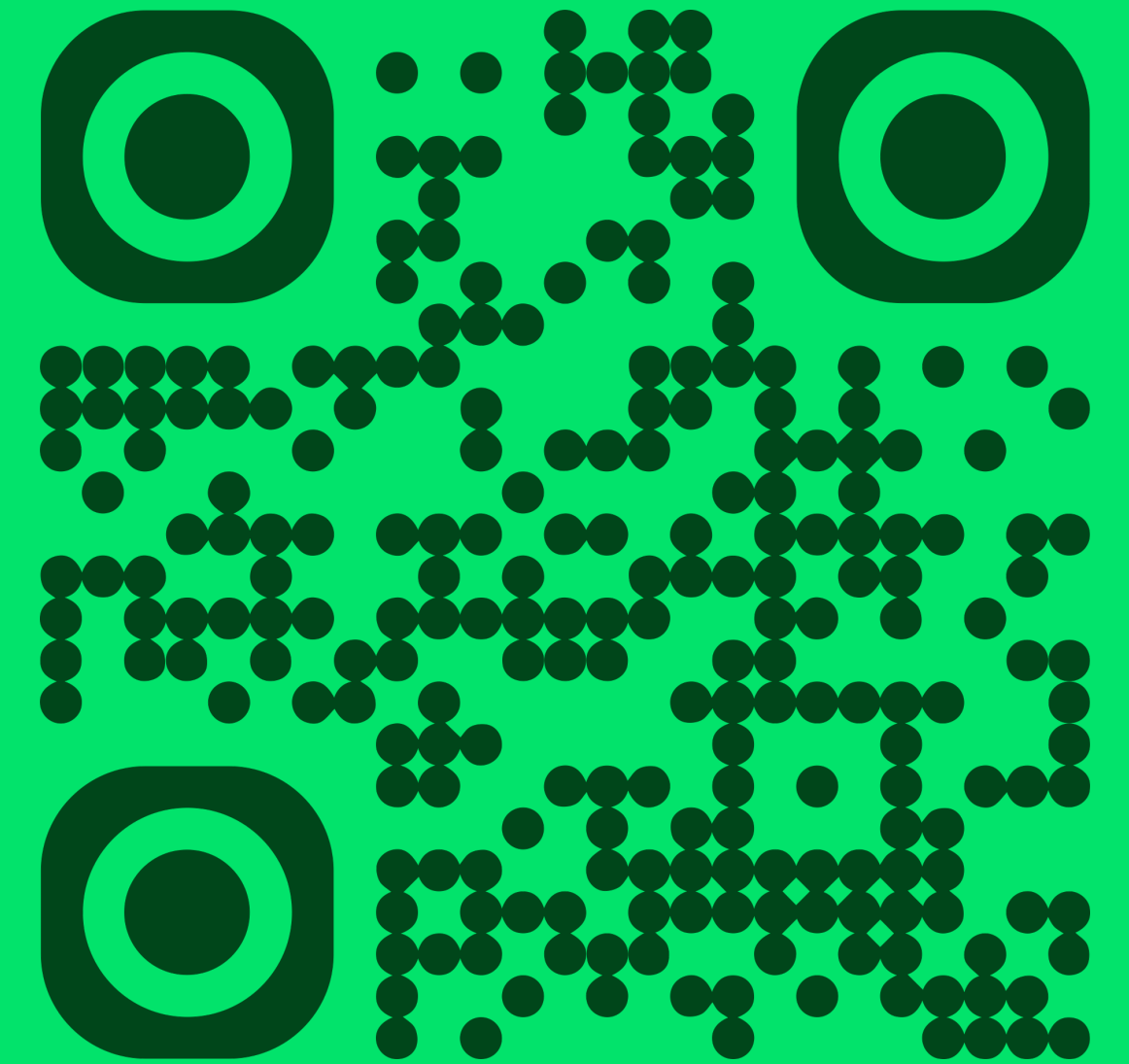# CHOICE project Overview

Mainstream mitigation Pathways for a Climate-Conscious Change in the food chain.

Choice

Mainstream mitigation pathways for a climate-conscious change in the food chain

At a glance

CHOICE in numbers

- **5 M€**

  EU Funding

- **16 Organizations**

  Partners

- **5 Global Hubs**

  Pilot Campaigns

- **36 Months**

  Duration

- **8 Countries**
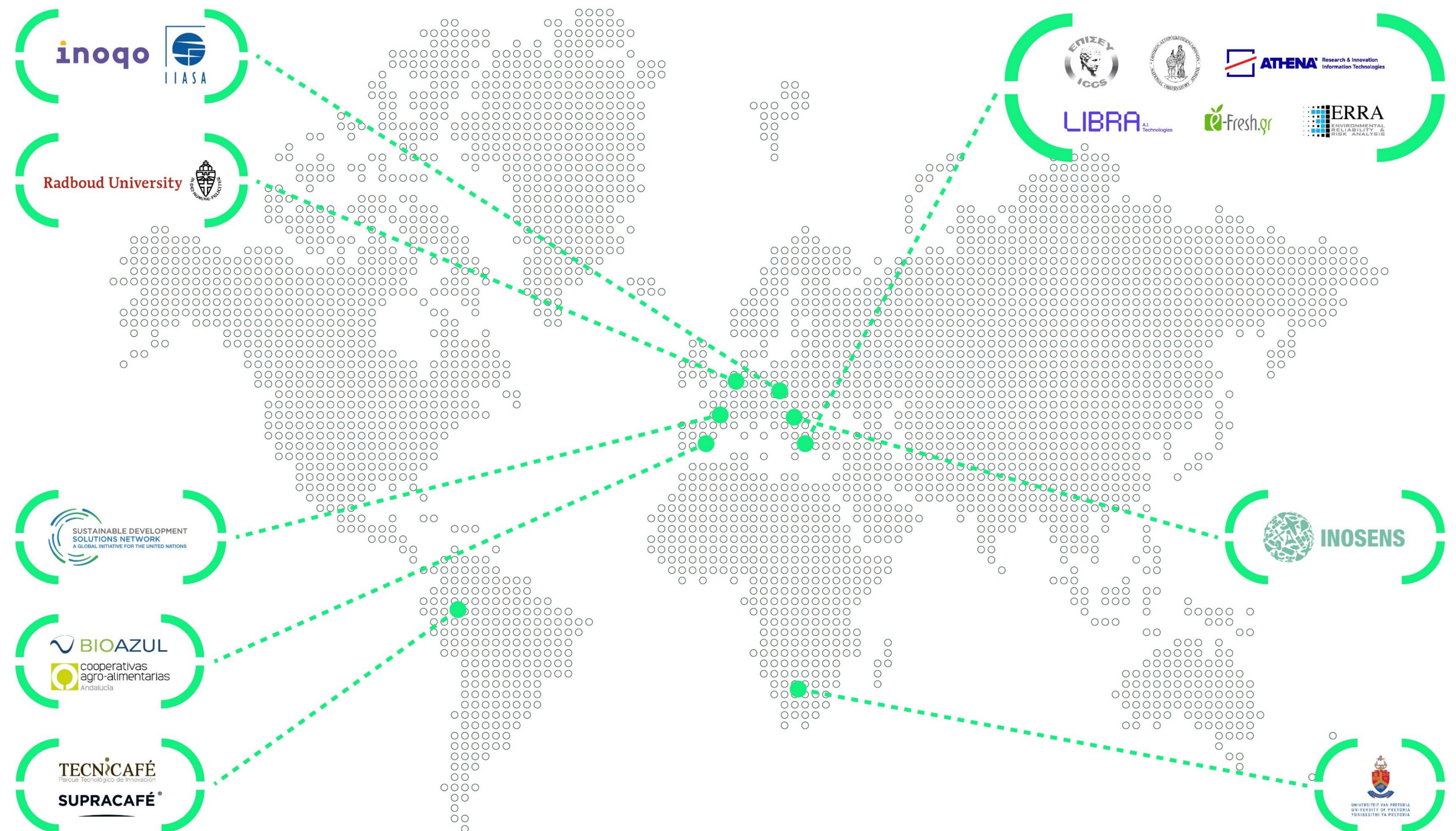
  Global Scale

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Meet our partners

Consortium

Project Coordinator: ICCS

- **1 NGO:** SDSN

- **6 SMEs:** Inoqo, LIBRA, INO, e-Fresh, Bio, CAAND

- **2 Academic Institutions:** RU, UP

- **5 Research institutes:** ICCS, ATHENA, ERRA, IIASA, NOA

- **2 Cooperatives & Producers Associations**: SUP, Tecni

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Mainstream mitigation pathways
for a climate-conscious change
in the food chain

01

The Challenge

"The planet must achieve zero emissions by 2050 to avoid dire climatic consequences."

(IPCC) Special Report on 1.5 degrees Celsius (°C)

Challenge – Climate Urgency

The food system's carbon footprint

1 bn Employees

>1.15 trillion € revenue on an annual basis

Food and **Agriculture**

world's largest industries

TOTAL FOOD SYSTEM

1/3

of total anthropogenic GHG emission

LIVESTOCK SECTOR

18%

of all greenhouse gas (GHG)

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Our Vision

Contribute to 1,5°C Climate Goal

CHOICE aspires to accelerate climate action by **mainstreaming Integrated Assessment Models** (IAMs), embedding them into the lifestyle choices and decision-making process of **consumers**, **producers** and **actors** of the **Food**, **Agriculture** and **Land Use** sectors.

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Integrated Assessment Models (IAMs)

Invaluable instrument for climate policies evaluation and enhancement

- Offering a quantitative description of key processes and interactions in human and earth systems.

- Modelling climate stabilization pathways and support policy makers in taking better informed decisions, by assessing the mitigation potential across sectors and technologies.
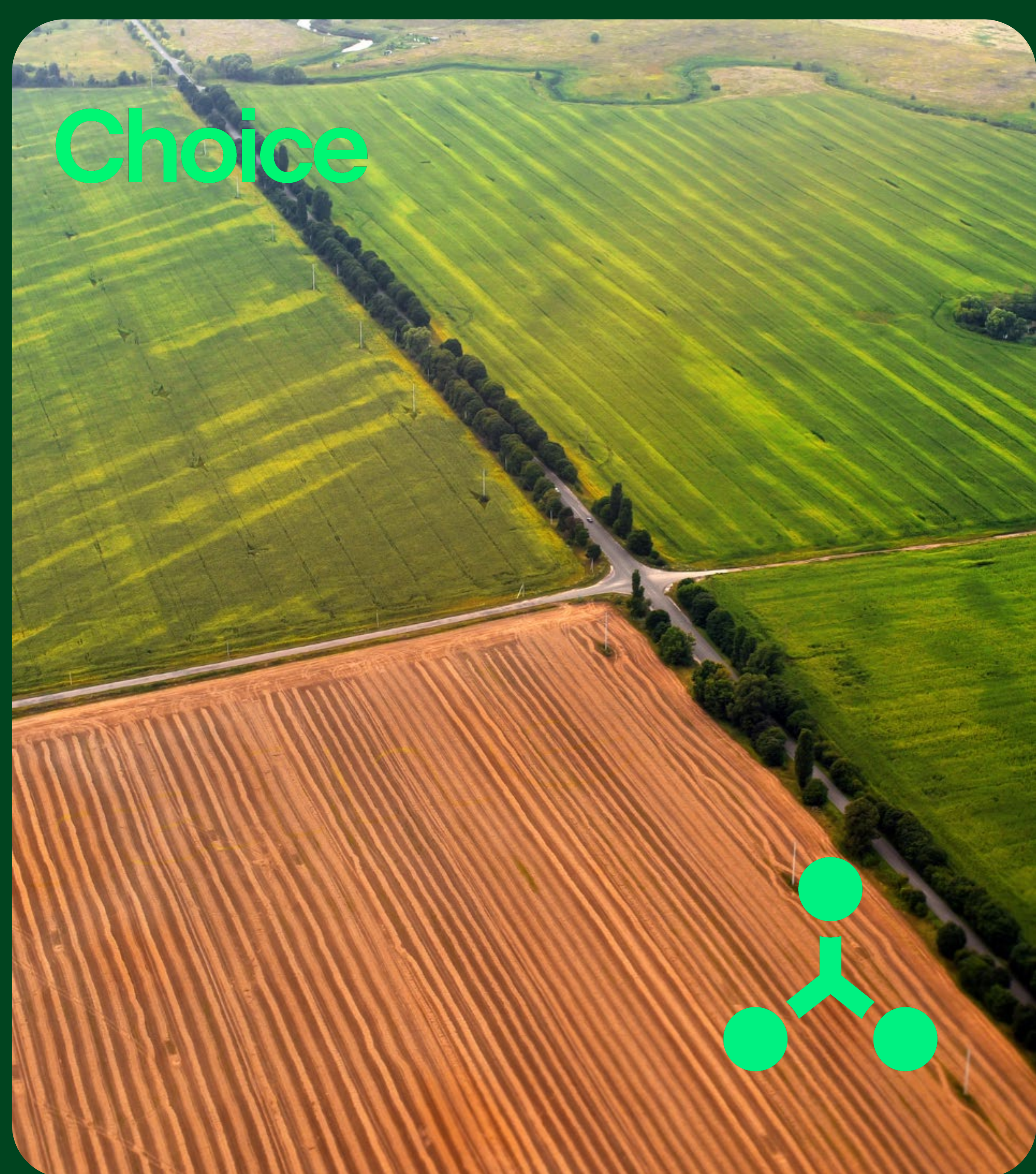
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Integrated Assessment Models (IAMs)

What are the Challenges?

- Traditionally focus on the **supply-side mitigation measures** paying less attention to **demand-side** and **food system representation**, due to the inherent **complexity** and **actor heterogeneity**.

- **Follow a top-down approach**, quantifying the target shift to take place in the society, to achieve specific carbon footprint reduction. Don't take into consideration **populations' characteristics** and geographic disparities.

- Used only by **researchers** and **policy makers**

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Mainstream mitigation pathways for a climate-conscious change in the food chain

02

Choice Approach

Objectives

Drive substantial behavioral and lifestyle changes to facilitate demand-side climate mitigation in the food chain
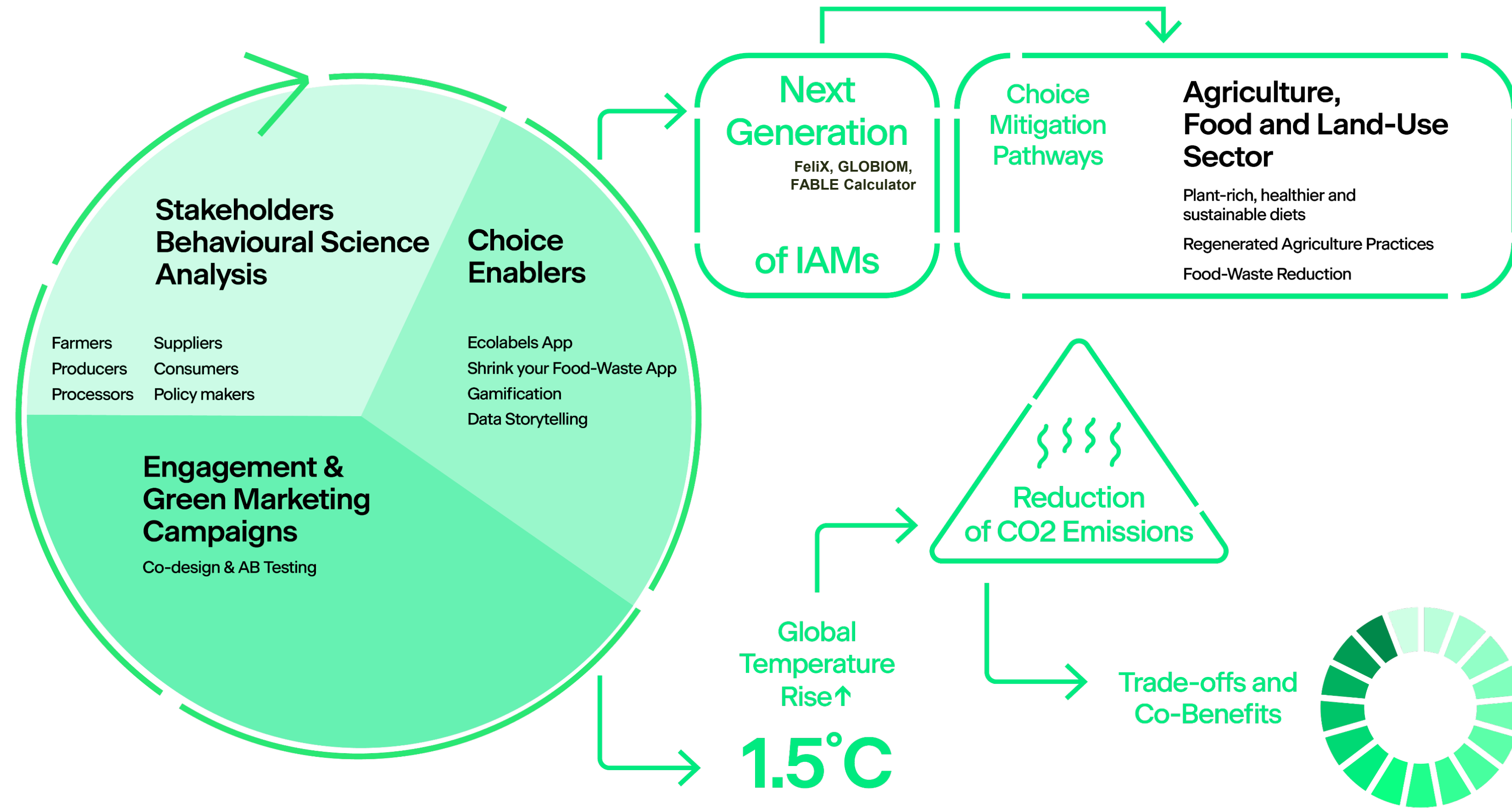
01. Creating a new generation of climate change-aware citizens, communities and industry actors

by mainstreaming IAMs' outputs and embedding them into established applications and services of food consumption, production and supply chain.

02. Improving the accuracy and policy-relevance of well recognized Integrated Assessment Models,

by introducing and improving their representation of actor heterogeneity and behavioural aspects.

03. Demonstrating how small - medium scale mitigation actions in local level, may be upscaled globally,

considering different socio-economic profiles, distributional and equity effects.

In mission of

04. Improving IAMs' acceptance to non-expert groups,

using innovative ways to engage them in the whole process chain. This will also foster the CHOICE's open science approach and the capacity building activities among different research teams.

05. Exploring and quantifying trade-offs from the adoption of its proposed actions,

including biodiversity, health, food security, towards the achievement of UN Sustainable Development Goals (SDGs).

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CHOICE Solutions

Uniting Disciplines for Climate Stabilization

Stakeholders Behavioural Science Analysis

Farmers   Suppliers
Producers   Consumers
Processors   Policy makers

Choice Enablers

Ecolabels App
Shrink your Food-Waste App
Gamification
Data Storytelling

Engagement & Green Marketing Campaigns

Co-design & AB Testing

Next Generation

FeliX, GLOBIOM, FABLE Calculator

of IAMs

Choice Mitigation Pathways

Agriculture, Food and Land-Use Sector

Plant-rich, healthier and sustainable diets

Regenerated Agriculture Practices

Food-Waste Reduction

Reduction of CO2 Emissions

Global Temperature Rise↑

1.5˚C

Trade-offs and Co-Benefits

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CHOICE Innovation potential

Five pillars of Innovation

Digital Tools and Engagement
(Data storytelling, gamification, RCTs etc.)

03 .... **Rethinking Integrated Assessment Models** (IAMS)

02

01

Addressing **Urgent Climate Change** Needs

04 .... **Bottom Up approach analysis** of individuals consumers / actors in food supply chain- behavioral change

05 .... **Resilience - Sustainability**

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CHOICE IAMs

Develop and assess food system pathways for climate mitigation effectiveness and SDG alignment

FELIX Model

- **Focus:** Socio-economic and environmental impacts of food consumption and production.

- **Objective:** To understand how changes in consumer behavior and dietary patterns can influence climate change mitigation.

- **Key Feature:** Combines economic and environmental data to simulate the effects of different policy scenarios on food systems and sustainability outcomes.

GLOBIOM Model

- **Focus:** Global agricultural production, **land use**, and food security.

- **Objective:** Assess the trade-offs between food production, environmental sustainability, and economic development.

- **Key Feature:** Utilizes spatially explicit data to model agricultural production systems, forestry, and bioenergy crops, evaluating their impact on land use and GHG emissions.

FABLE Calculator

- **Focus:** Sustainable land use and food systems.

- **Objective:** To analyze pathways for sustainable food production, biodiversity, and greenhouse gas emissions.

- **Key Feature:** Integrates land use data and food demand projections to model the impact of different agricultural practices and policies.

CHOICE online Interactive Simulation Environment

Improving transparency, scenario representation and stakeholders engagement in IAMs

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Pilot Campaigns

Act locally, Impact Globally

Plant-based, sustainable diets

Sustainable farming practices

Reduce food waste

Producer — Retailer — Consumer

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Pilot Enablers

BEHAVIOURAL MODELS

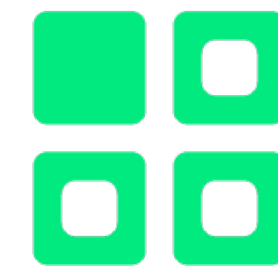**INTEGRATED ASSESMENT MODELS**
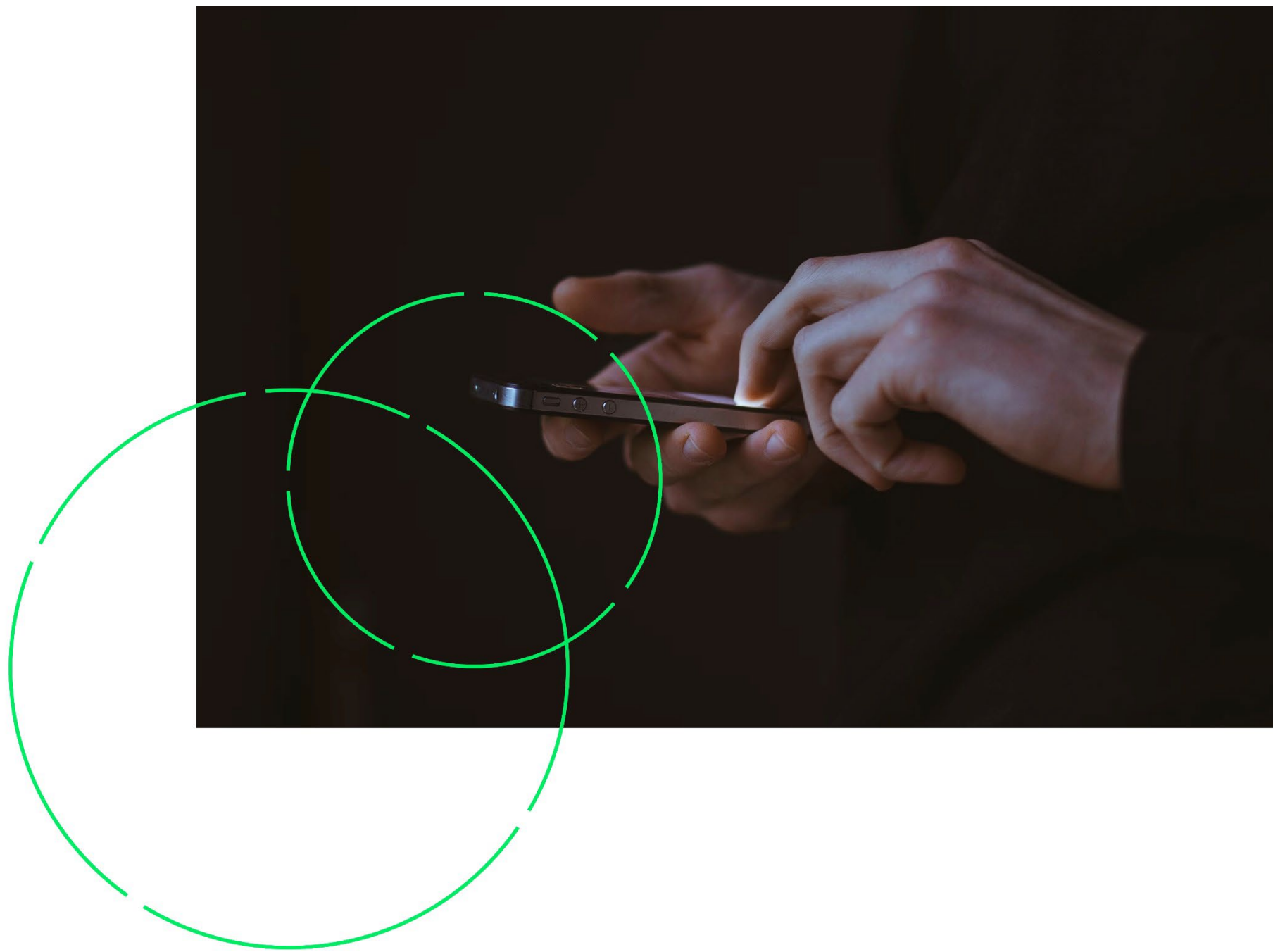
IMMERSIVE TOOLS

RANDOMISED CONTROL TRIALS

Choice

CHOICE immersive tools

Facilitate engagement and "green marketing" campaigns.

01. PERSONAL LIFESTYLE APP

Tracks grocery purchases, providing feedback on CO_2 emissions and sustainability, encouraging sustainable shopping habits.

02. SHRINK YOUR FOOD WASTE APP

Tracks food expiry dates, offers preservation tips, and educates users on minimizing household food waste.

03. DATA STORYTELLING EXPLORATION

Transforms raw data into engaging narratives, combining visual and emotional elements to drive impactful climate communication and food related behavior change.

04. GAMIFICATION

Integrates immersive gameplay and narrative elements to educate and inspire climate-friendly behaviors and actions.

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Mainstream mitigation pathways
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03

Pilot Campaigns

Austria

Adopting more healthy and sustainable food consumption lifestyle choices.

STAKEHOLDERS: >**1000 consumers** and active users of the a leading **e-commerce retailer in Austria**, representing diverse food consumption habits.

MOTIVATION: Addressing the global rise in meat and animal product consumption, emphasizing the need for sustainable food choices to achieve climate goals.

COMPONENTS: Assessing food impact with **Product Environmental Footprint** (PEF) **framework**, retailers providing eco data and using **social engagement for green marketing.**

ENABLERS: Personal lifestyle app, data storytelling, RCT framework, CHOICE IAM models (FELIX, GLOBIOM) and behavioral models.

OUTCOMES: increase in sustainable consumption adoption and a **15-20% reduction** in participants' **CO_2 footprint** for >12 months.

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Spain

Adopting sustainable farming practices for olives and livestock sector.

STAKEHOLDERS: Collaboration with **291,000 farmers** and **659 agriculture cooperatives** to evaluate **sustainable practices** in **olive and livestock farming.**

MOTIVATION: Addressing **Spain's growing food-related carbon footprint**, particularly **in olive and livestock production.**

COMPONENTS: Implementing **sustainable farming practices** such as rotational grazing, regenerative agriculture, and bio-fertilizers, utilizing **CHOICE IAM models** and **digital engagement campaigns**.

ENABLERS: CHOICE IAM models (FABLE, GLOBIOM), behavioral models, data storytelling, and RCT (A/B testing) framework.

OUTCOMES: **Increase farmer adoption of sustainable practices**, **engage local actors** in various scenarios and organize **impactful campaigns** for ecological sustainability.

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Greece

Promoting sustainable grocery shopping choices in an online retail store

STAKEHOLDERS: Engaging **200,000** e-Fresh online supermarket **users** to promote **sustainable grocery shopping.**

MOTIVATION: Addressing barriers like price concerns and knowledge gaps to **encourage sustainable food choices** and raise climate awareness.

COMPONENTS: Implementing a **digital Carbon Footprint traffic-light concept** for food items, offering climate impact data and personalized sustainability paths.

ENABLERS: Utilizing Carbon Footprint labels, data storytelling visuals, RCT framework, CHOICE IAM models, and behavioral strategies.

OUTCOMES: active campaign participation, 10% increase in sustainable product adoption, lower CF scores and increased sales of sustainable products.

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Colombia

Motivating local women coffee producers to adopt sustainable production practices and reduce vulnerabilities in their communities and ecosystem.

STAKEHOLDERS: > **450 women coffee producers** from **10 municipalities** in Colombia, members of the Association of Women Coffee Growers of Cauca (AMUCC).

MOTIVATION: Colombia is a major global coffee producer and **women's role is crucial.** However, **traditional production practices** and vulnerabilities **hinder sustainability.**

COMPONENTS: Female coffee producers explore **sustainable practices** and participate in engagement campaigns and workshops **showcasing CHOICE IAM modeling results.**

ENABLERS: CHOICE IAM models (FABLE, GLOBIOM), behavioral models, data storytelling visuals & narratives, RCT (A/B Testing) framework.

OUTCOMES: **Increased adoption of sustainable practices** by farmers, **active engagement of >200 women** and **farmers** for at least for12 months and organization of campaigns.

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South Africa

Adoption of healthier, sustainable diets and reduction of food waste

STAKEHOLDERS: Engage diverse groups (university students, industry, academia and public authorities) to explore the **impact of sustainable diets and waste reduction.**

MOTIVATION: South Africa faces **diet diversity challenges**, from **limited meat consumption** in some groups to **food security issues**, prompting the need for sustainable choices.

COMPONENTS: Diverse youth groups will use the **"Shrink your Food Waste" app and gamified challenges** to adopt healthier, eco-friendly food choices, stakeholder workshops organisation to understand emissions, biodiversity, and health impacts on selected scenarios.

ENABLERS: "Shrink your Food Waste" app, data storytelling visuals, RCT (A/B Testing) framework, and CHOICE IAM models

OUTCOMES: **10-20% increase** in **youth adopting healthier choices**, engage **>1000 active app users** in reducing their consumption footprint by 15%, involve local decision-makers in exploring sustainable consumption habits.

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Interested to learn more?

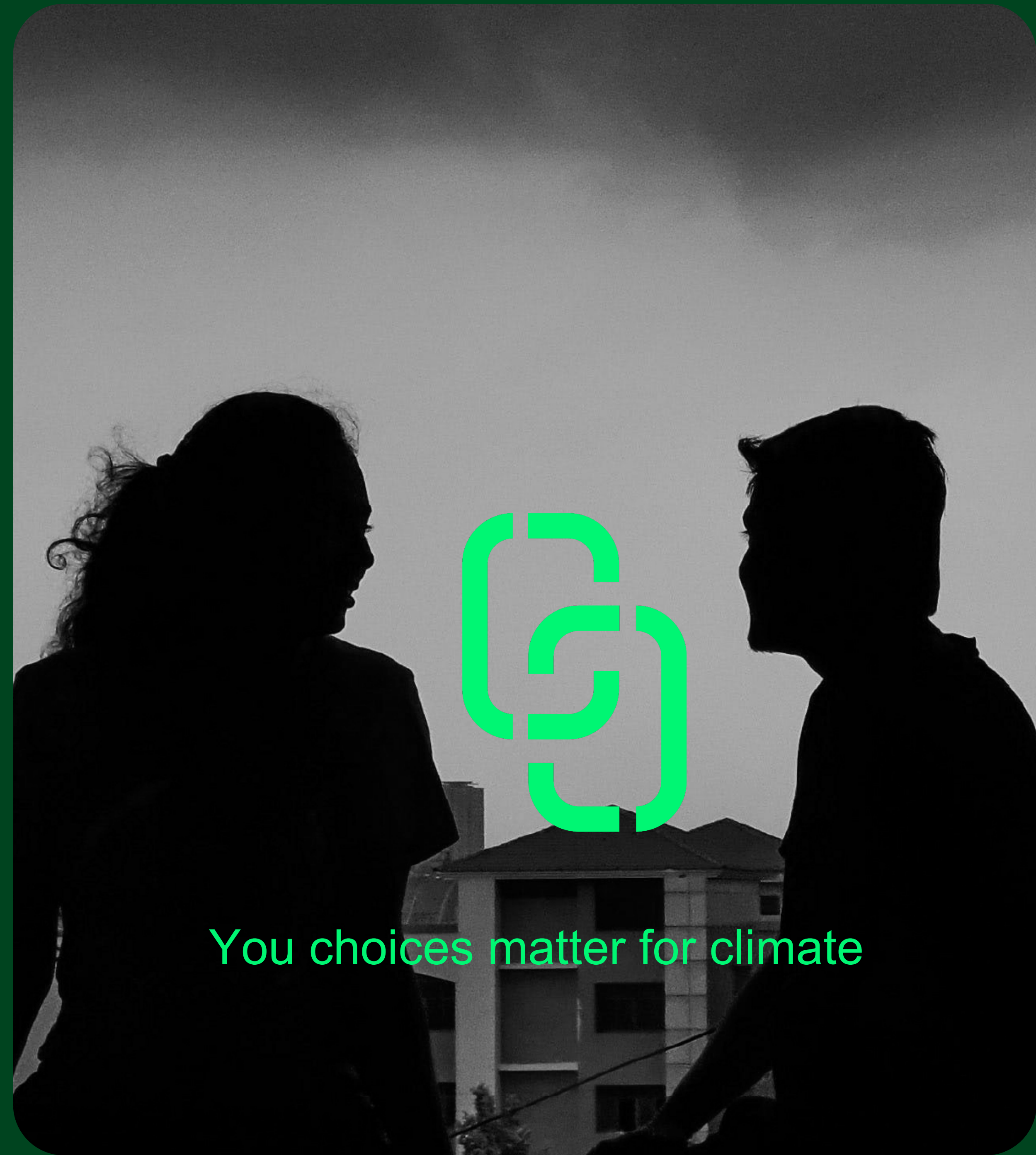**Watch the CHOICE introductory video!**
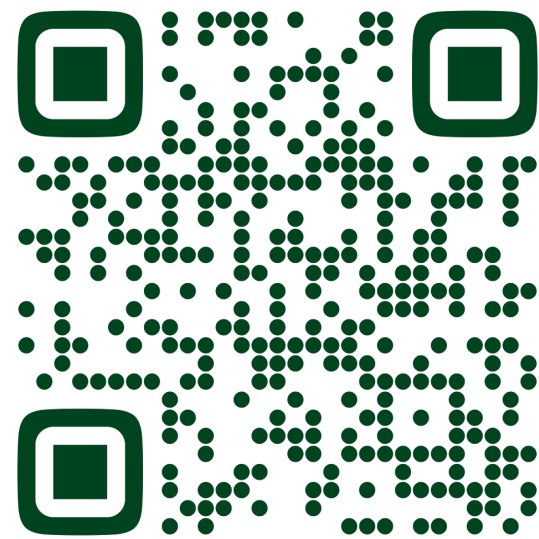

- Visit the CHOICE website

www.climatechoice.eu

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Join our Community!

Follow CHOICE on Social Media

X   in   ▶   ◎

@ClimateChoiceEU

Register to receive news!

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You choices matter for climate

Thank you!

Any questions?

Contact CHOICE
info@climatechoice.eu

Be part of the chain!

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