

# I•HE2025

08 • 10 October 2025

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## Ecological Footprint Assessment as a Pathway to Sustainability in the OpenEU Alliance

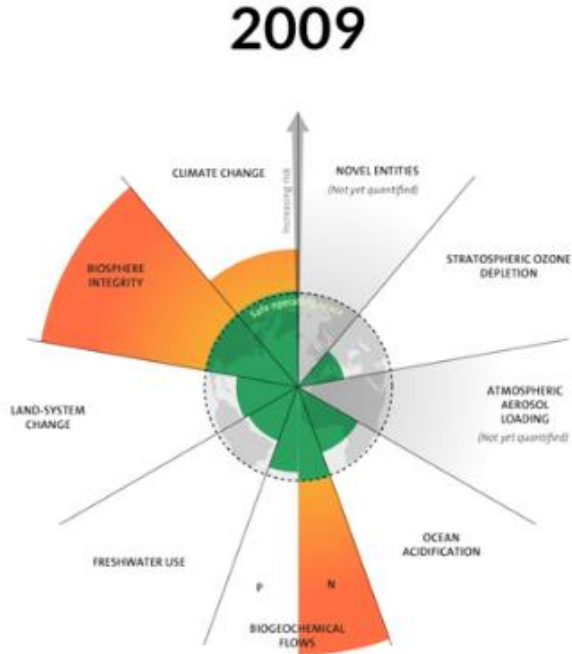
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Casanova

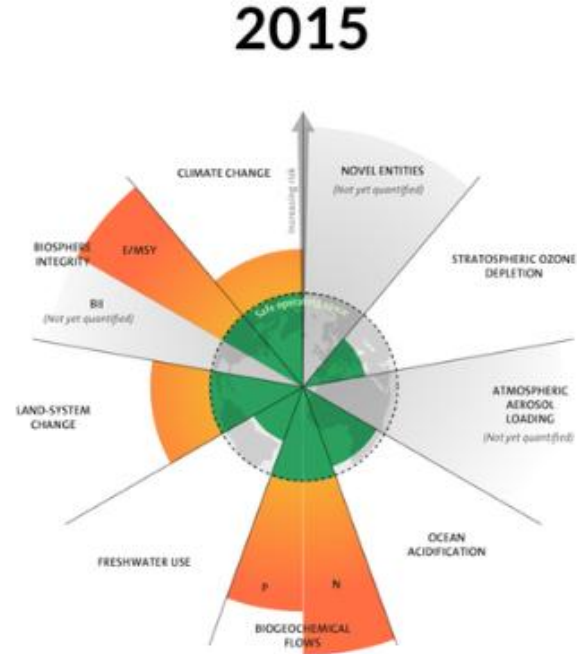
Universidade Aberta, Portugal

# Introduction

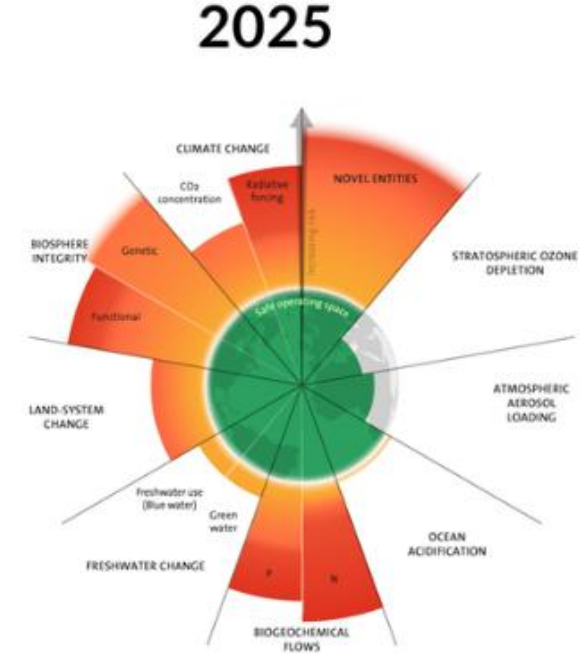
## Planetary Boundaries



7 boundaries assessed,  
3 crossed



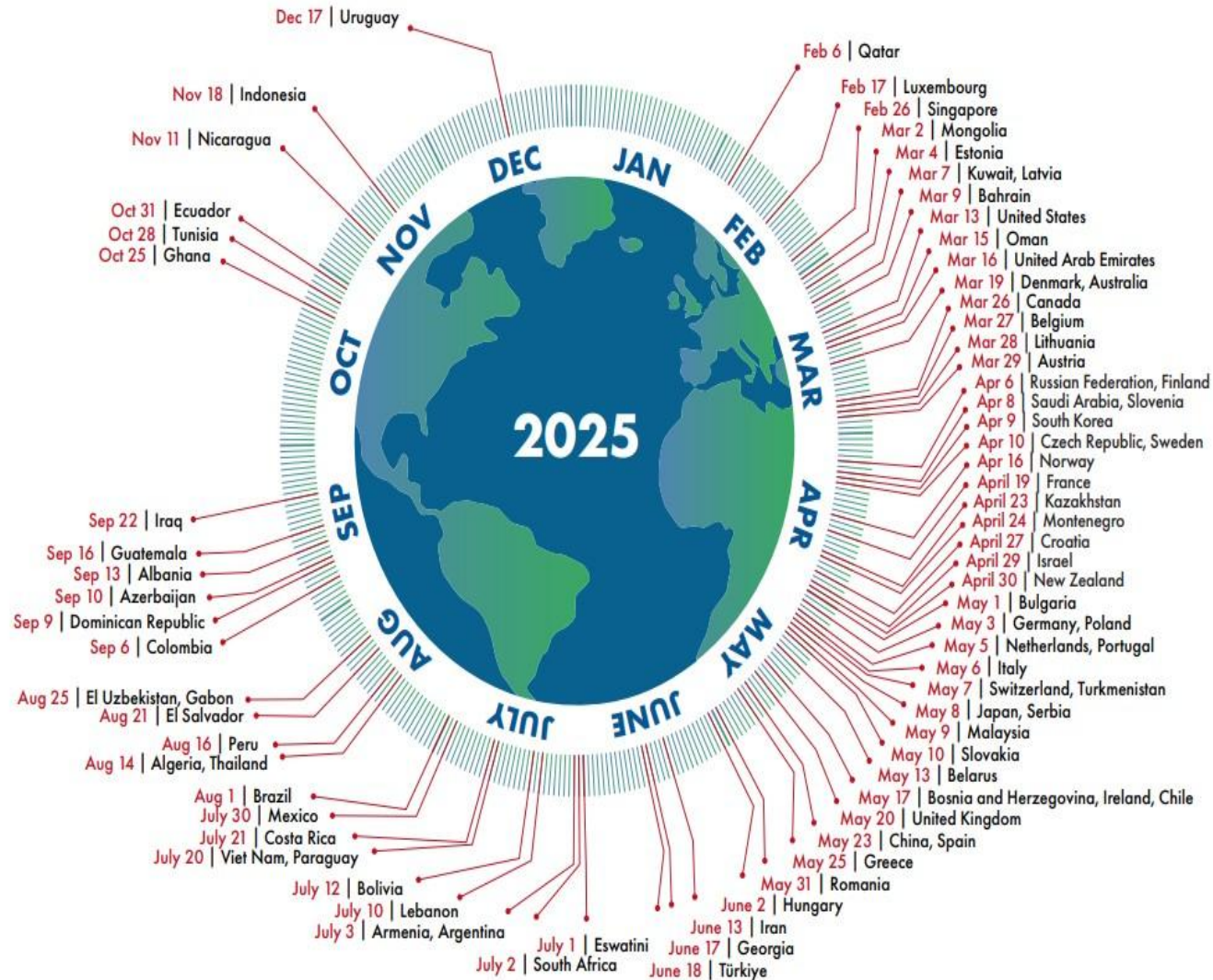
7 boundaries assessed,  
4 crossed



9 boundaries assessed,  
7 crossed

# Country Overshoot Days 2025

When Earth Overshoot Day would land if all the people around the world lived like...



For more information, visit:

<https://overshootday.org/newsroom/country-overshoot-days/>

Source: National Footprint and Biocapacity Accounts, preliminary 2025 Edition  
York University, FoDaFo, Global Footprint Network, data.footprintnetwork.org



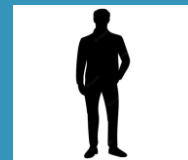
# Ecological Footprint

Each Country has its own Ecological Footprint

# Ecological Footprint

Each Institution has its own  
Ecological Footprint

Rethinking  
Higher Education  
Institutions' Impact



Citizens



Institutions



Cities



Countries



Planet

# Ecological Footprint

## Gaps

for Higher Education Institutions (HEIs)

- The Ecological Footprint method is used across sectors, but its use in **HEIs** is still limited.
- A lack of **standardised methodologies** for comparison between institutions.

## Challenges

for Distance Teaching HEIs

Absence of a conventional **physical campus**



**Indirect impacts**, especially from students studying



**Adapted tools** that reflect the decentralised nature of these HEIs

# Environmental Footprint Calculators

Consumer Footprint Calculator



Global Footprint Network Ecological Footprint Calculator



WWF Ecological Footprint Calculator



GISEAD Ecological Footprint



Wuppertal Sustainability Calculator (WSI)



Individuals, organizations, cities

**University Footprint Calculator (For HEIs)**

<https://www.eusteps.eu/resources/university-footprint-calculator/>



# University Footprint Calculator



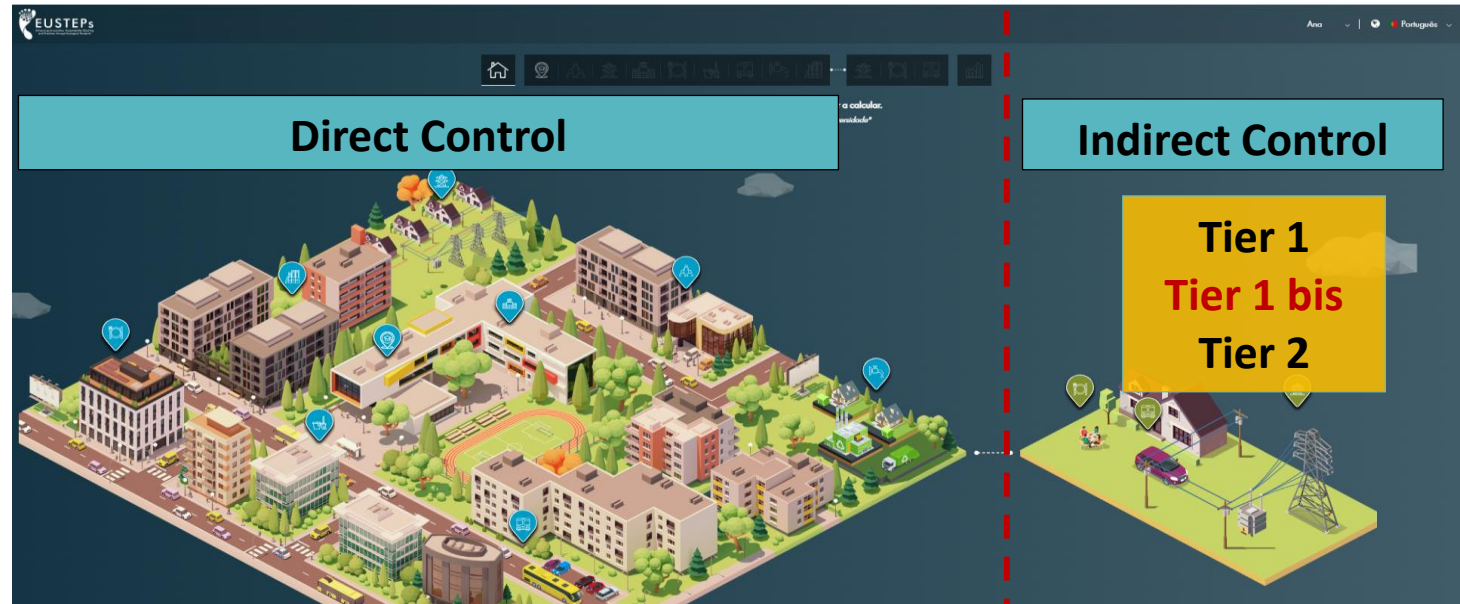
## Partners

- Aristotle University of Thessaloniki, GR
- Universidade de Aveiro, PT
- Universidade Aberta, PT
- Universidade de Siena, IT
- Global Footprint Network, USA

Funded by ERASMUS + (KA2 project)

150 HEIs in 30 countries have already used

Online & free!



General Information	Staff Labour	Energy Use	Energy @home
Buildings and recreational areas	Food	Cleaning Service	Food @home
Mobility	Water use and wastewater	Materials and Equipments	Mobility (from home to university)

# OpenEU

The Open European University

More digital  
more innovative  
more diverse  
more flexible  
more learner-centred  
more sustainable  
more long-lasting

The pan-European open university

# Context



OpenEU

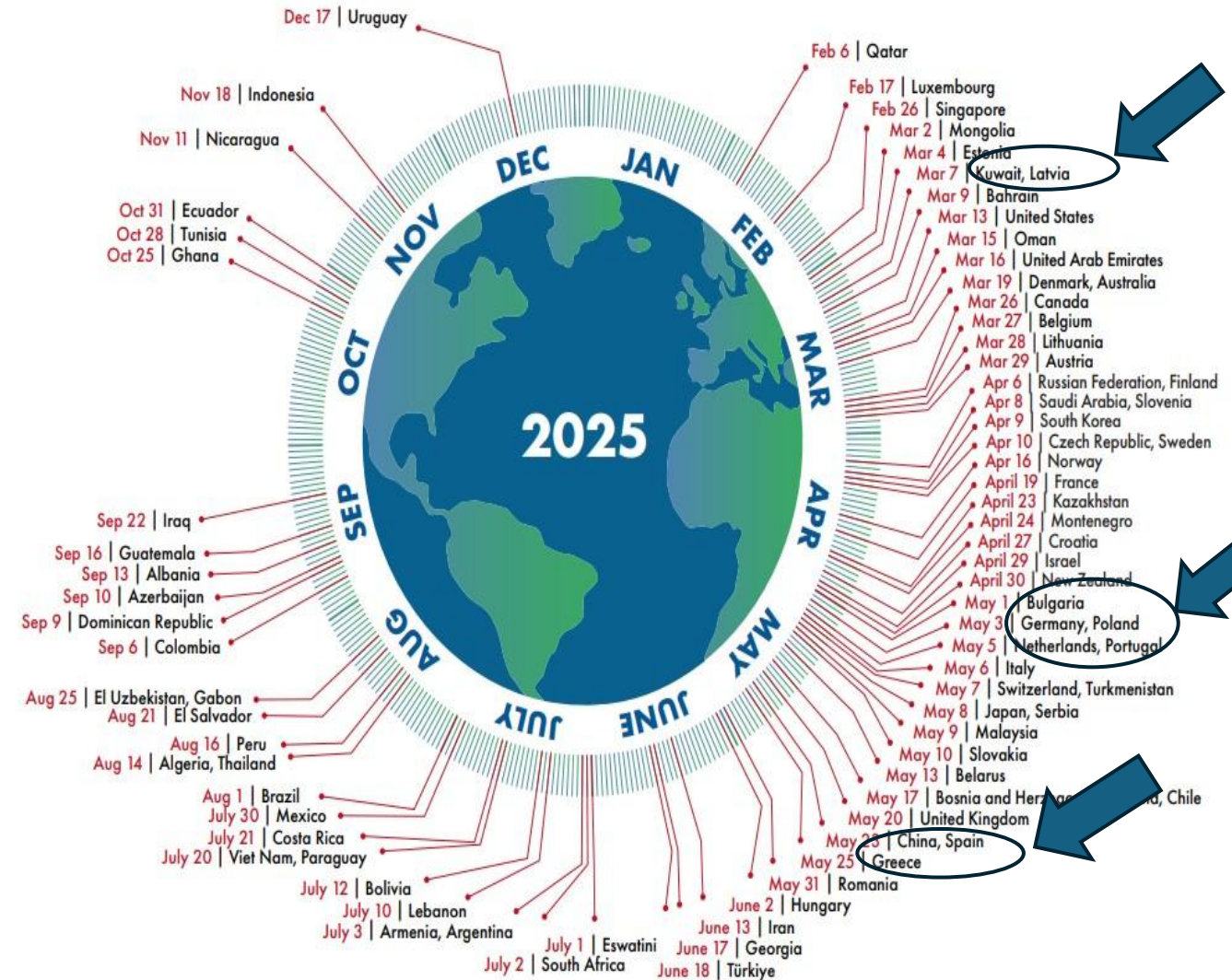
The Open European University

Recognising the growing need to address climate change and resource exhaustion,

OpenEU is dedicated to advancing sustainability within the European higher education sector.

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# Context

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OpenEU Alliance objectives include:  
The reduction of the overall ecological footprint by 5%  
by the end of 2028

**OpenEU**

The Open  
European  
University

- ✓ Baseline Establishment;
- ✓ Targeted Reduction;
- ✓ Integrated Recommendations;
- ✓ Promote Sustainable Behaviour.

# Task:

## Reduce the Ecological Footprint (EF) of OpenEU

- Collection of **institutional** and **consumption** data  
**1st year – baseline**

- Calculating the EF with the  




**Compare** the results across categories

**Identify the categories that contribute most to the EF**

**Monitor changes over time**

# Collect data

Task: Reduce the Ecological Footprint (EF) of OpenEU

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## 1. Collect

Available Data

Collection of **institutional** and **consumption** data

**1st year – baseline:**

- **Collaborative approach** involving the 9 OpenEU HEIs:
- **2 introductory meetings**
- **6 hands-on sessions – every 15 days.**

# Collect data

Task: Reduce the Ecological Footprint (EF) of OpenEU

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## 1. Collect

Available Data

Collection of **institutional** and **consumption** data

**1st year – baseline:**

- **Challenge: Gathering the data**
- For each category, several HEIs' departments and services can be involved to collect a **specific data set.**

**There is NO one-size-fits-all**

# Calculate the Ecological Footprint (EF)

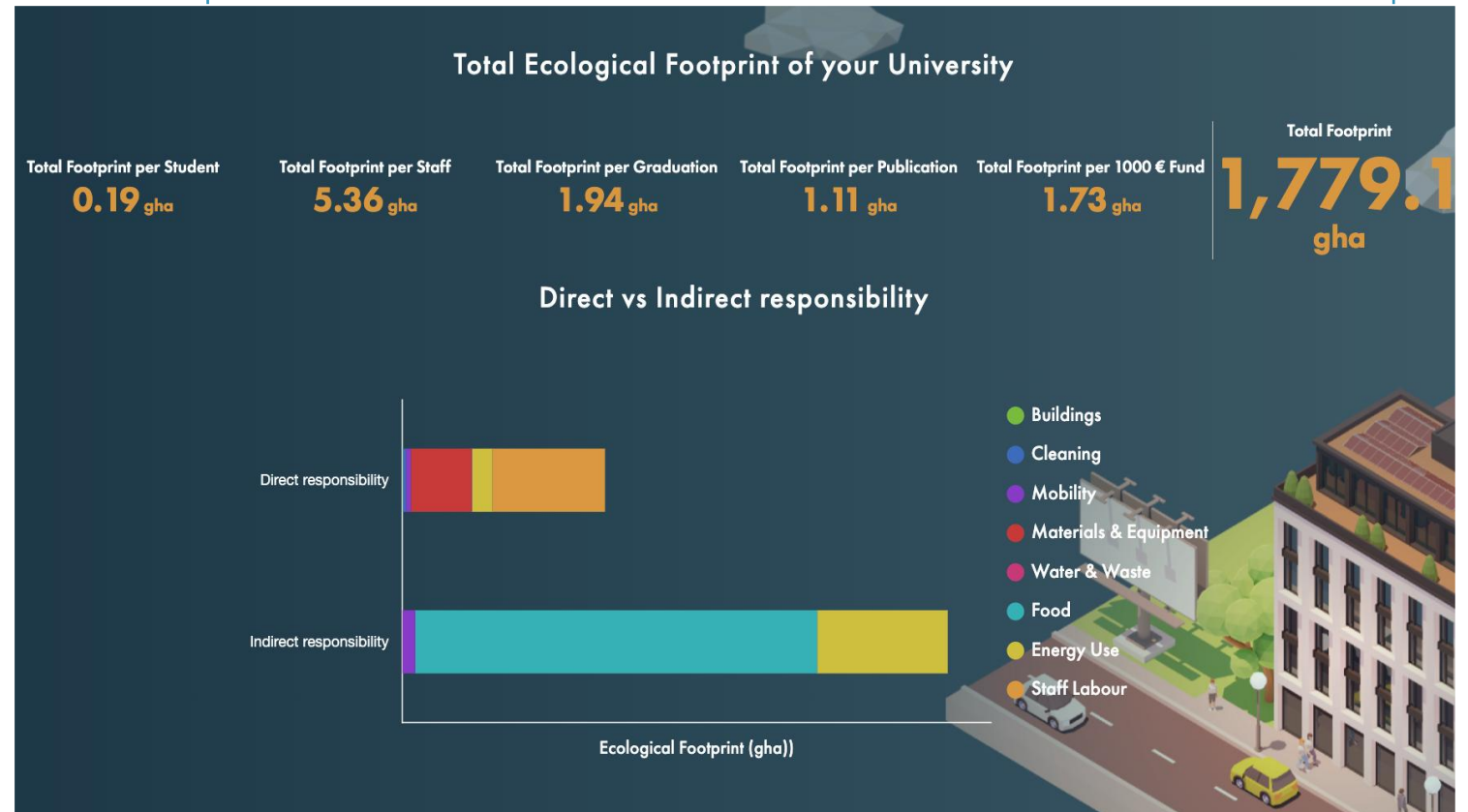
Task: Reduce the EF of OpenEU

Calculating the EF with the



## 2. Enter

Data into the  
Calculator



# Analyse

## Task: Reduce the Ecological Footprint (EF) of OpenEU

### 3. Analyse

Results and  
Track Progress

### General Data.

	Students	Staff	Publications	Graduations
University A	2327	682	366	2786
University B	2847	303	232	456
University C	9335	332	1602	918
University D	32444	3052	454	6958
University E	69982	1134	213	3521
University F	146890	1603	526	10804
University G	150370	2651	1819	8196

# Analyse

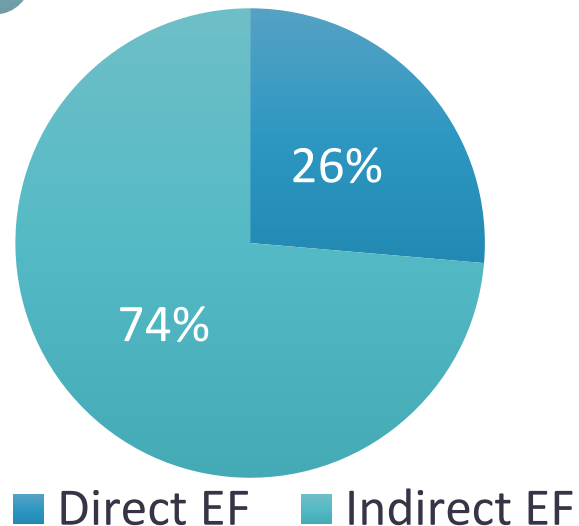
## Task: Reduce the Ecological Footprint (EF) of OpenEU

### 3. Analyse

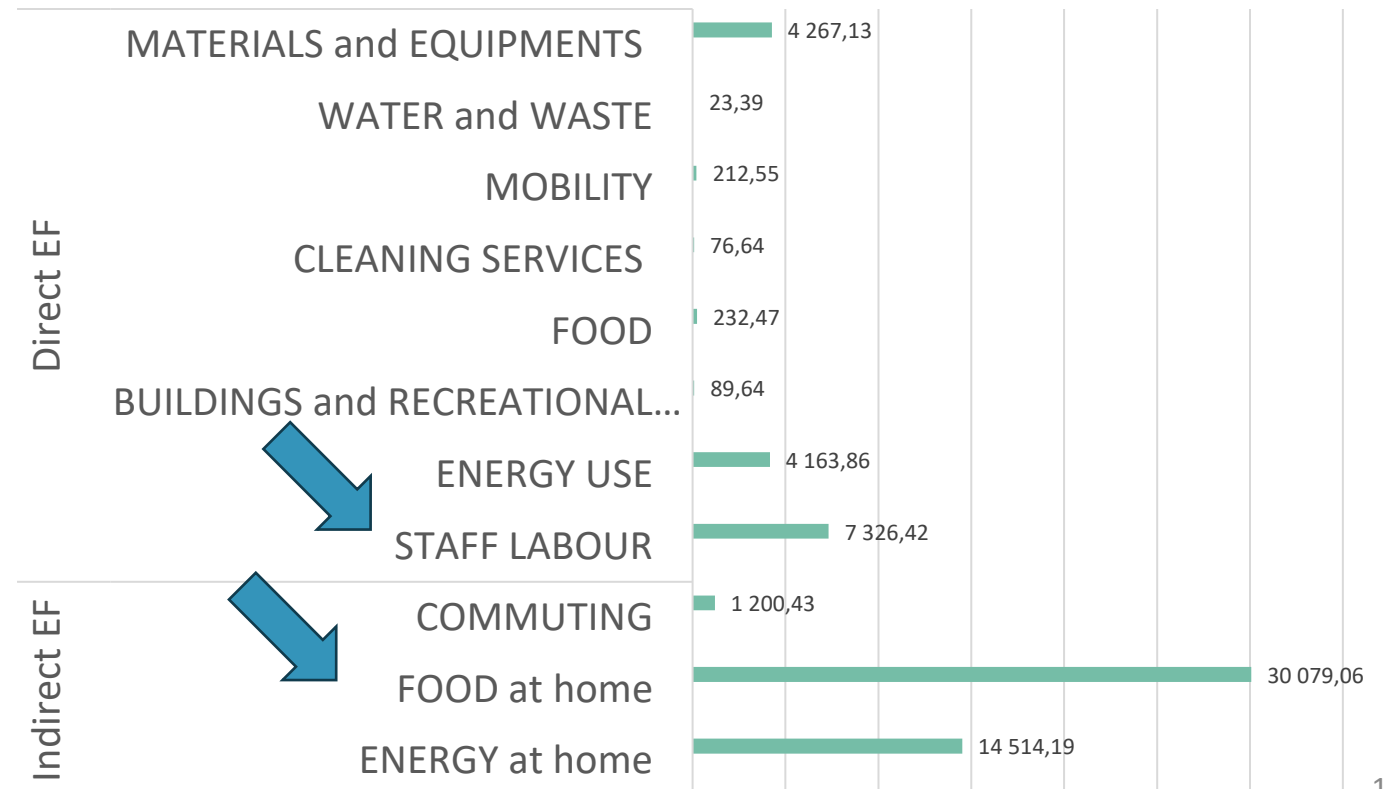
Results and Track Progress

## Ecological Footprint (direct and indirect responsibility)

OpenEU Total EF (gha)



OpenEU EF per category (gha)



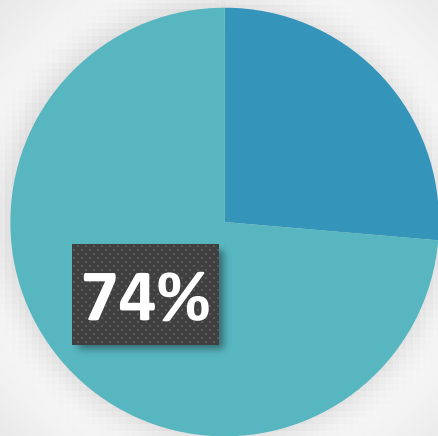
# Analyse

Task: Reduce the Ecological Footprint (EF) of OpenEU

## 3. Analyse

Results and  
Track Progress

OpenEU Total EF (gha)



■ Direct EF ■ Indirect EF

## Ecological Footprint (indirect responsibility)

### MOST CONTRIBUTOR CATEGORY

	Indirect Responsibility
University A	Commuting
University B	Food@home
University C	Food@home
University D	Food@home
University E	Food@home
University F	Food@home
University G	Food@home

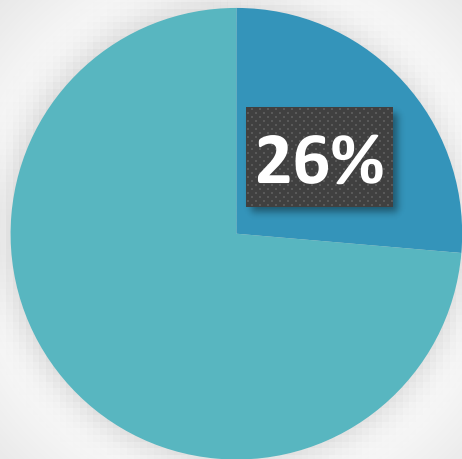
# Analyse

Task: Reduce the Ecological Footprint (EF) of OpenEU

## 3. Analyse

Results and  
Track Progress

OpenEU Total EF (gha)



■ Direct EF ■ Indirect EF

## Ecological Footprint (direct responsibility)

### MOST CONTRIBUTOR CATEGORY

	Direct Responsibility
University A	Energy Use
University B	Staff Labour
University C	Staff Labour
University D	Staff Labour
University E	Materials & Equipments
University F	Staff Labour
University G	Staff Labour

# Analyse

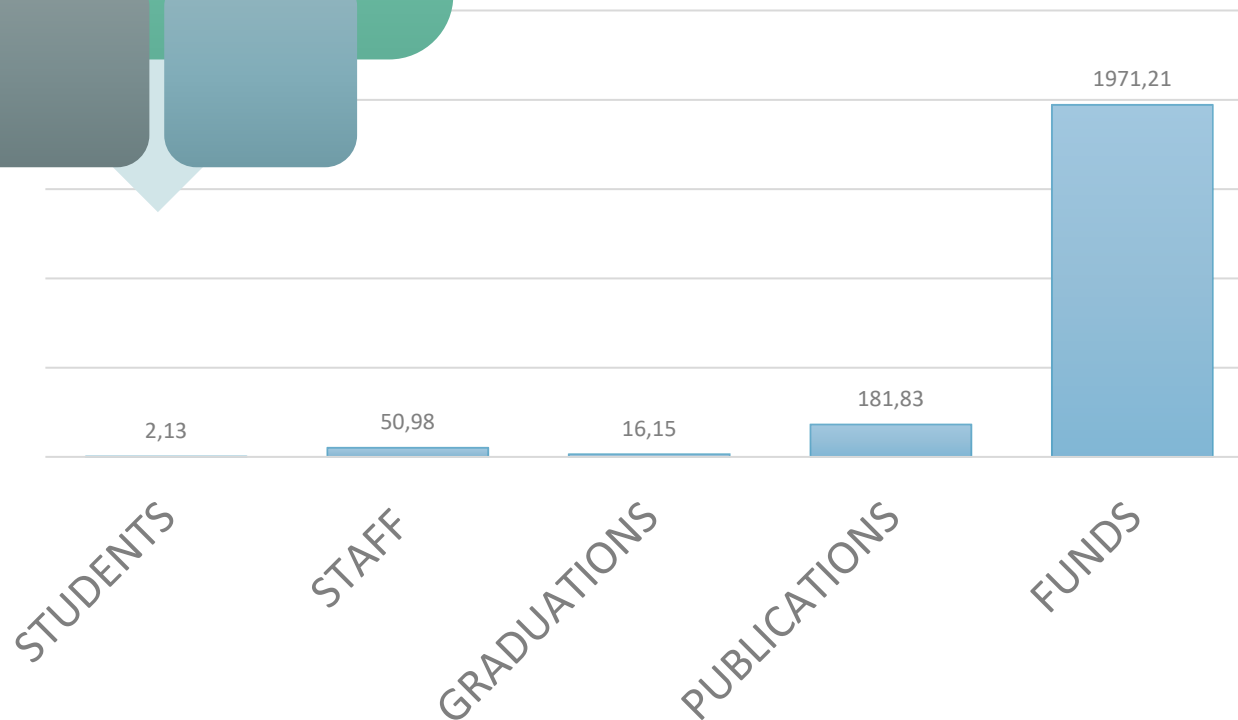
Task: Reduce the Ecological Footprint (EF) of OpenEU

## 3. Analyse

Results and Track Progress

## Ecological Footprint per category

OpenEU EF per category (gha)



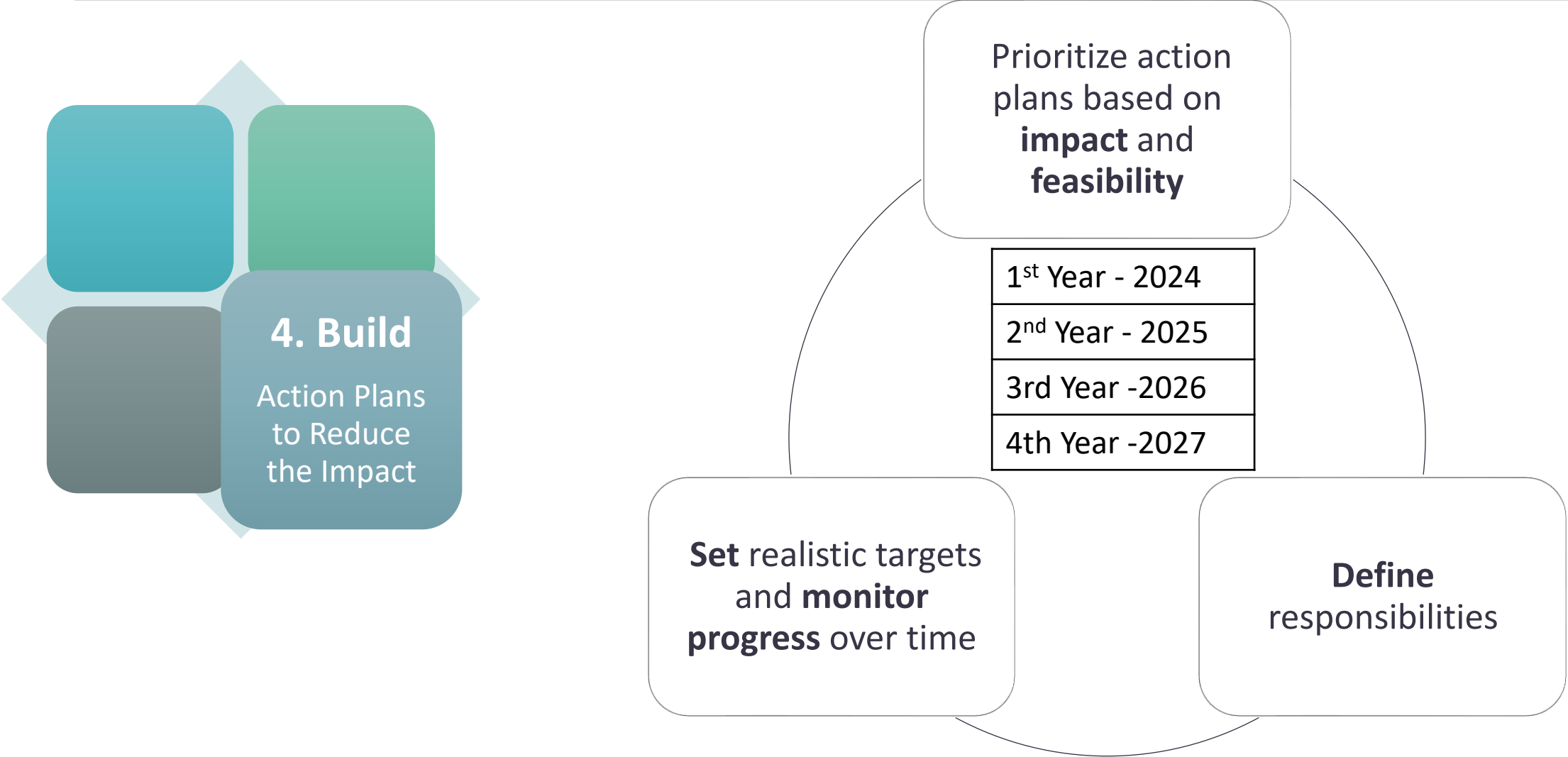
### MOST CONTRIBUTOR CATEGORY

#### Total by

University A	Publications
University B	Publications
University C	Staff
University D	Publications
University E	Publications
University F	Funds
University G	Publications

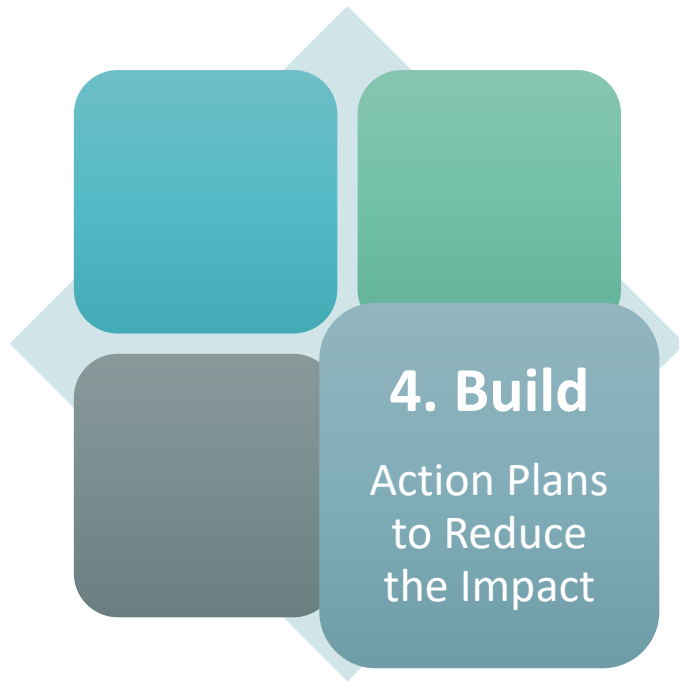
# Build Action Plans

Task: Reduce the Ecological Footprint (EF) of OpenEU



# Build Action Plans

Task: Reduce the Ecological Footprint (EF) of OpenEU



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Use the results of the EF as a target in Activity Plan

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Leverage results to support the University's position in global sustainability rankings

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Integrate the EF reduction programs in national and international collaborative projects



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**Thank you!**

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