

SARDINIA 2025

20th INTERNATIONAL SYMPOSIUM ON WASTE MANAGEMENT,
RESOURCE RECOVERY AND SUSTAINABLE LANDFILLING
13-17 OCTOBER 2025 / FORTE VILLAGE / S.M. DI PULA (IT)

Panel discussion:

Efficiency of waste management policies in Universities

15th October 2025

The role of the *Resources and Waste Working Group* of the *Network of Universities for Sustainable Development* in promoting efficient prevention and management waste policies

Eleonora Perotto - Coordinator Resources & Waste WG (Politecnico di Milano)



Network of Universities for Sustainable Development

NETWORK OF UNIVERSITIES FOR SUSTAINABLE DEVELOPMENT



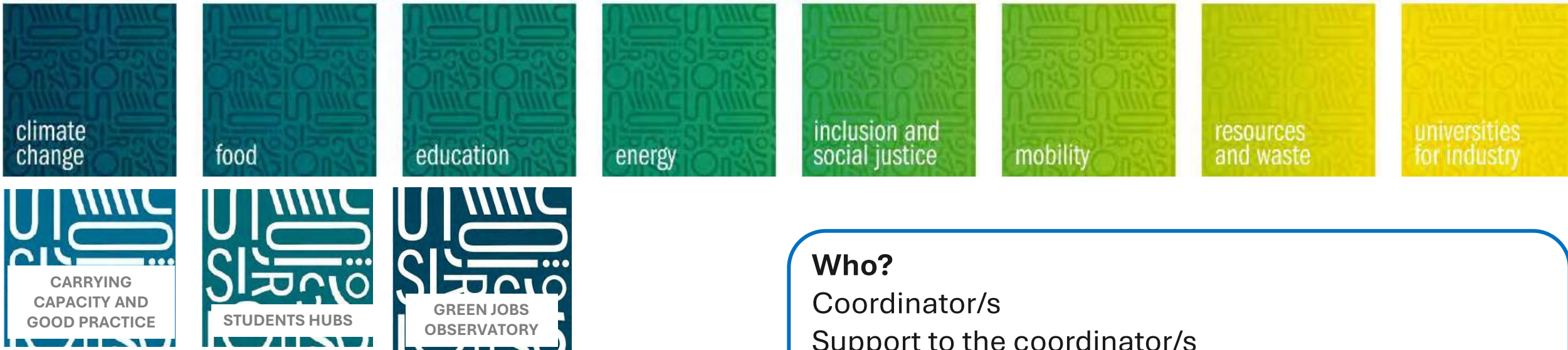
Officially established in 2016 by CRUI *the Italian Conference of Rectors* but working **since 2013** through bottom-up approach.



- Spreading the **culture and good practices of sustainability**
- Increase the **positive impacts of individual members on society**
- **Promote the SDGs** – Sustainable Development Goals and contribute to their achievement
- > Improve the **recognition and increase the value of the Italian experience at an international level**

 First experience of information sharing and coordination among all Italian Universities committed to the topic of environmental sustainability and social responsibility.

WORKING GROUP: COMMUNITIES OF PRATICE



What?

Guidelines (e.g. decarbonization guidelines, etc.)
 Surveys
 Best practices
 Conference and seminars
 Collaboration with associations and public entities

Who?

Coordinator/s
 Support to the coordinator/s
 University representatives (average: 70 universities/WG)

When and where?

Periodic meetings
 Mostly online



WG
Climate
Change



WG
Food



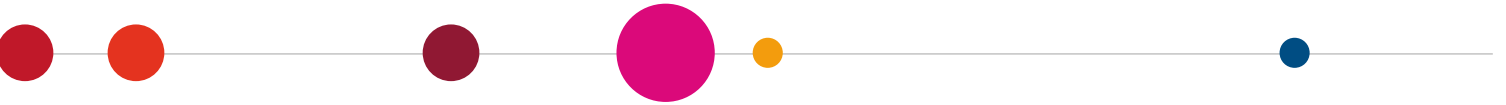
WG
Education



WG
Energy



WG
Inclusion and
Social Justice



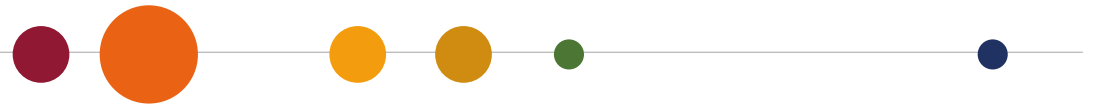
WG
Mobility



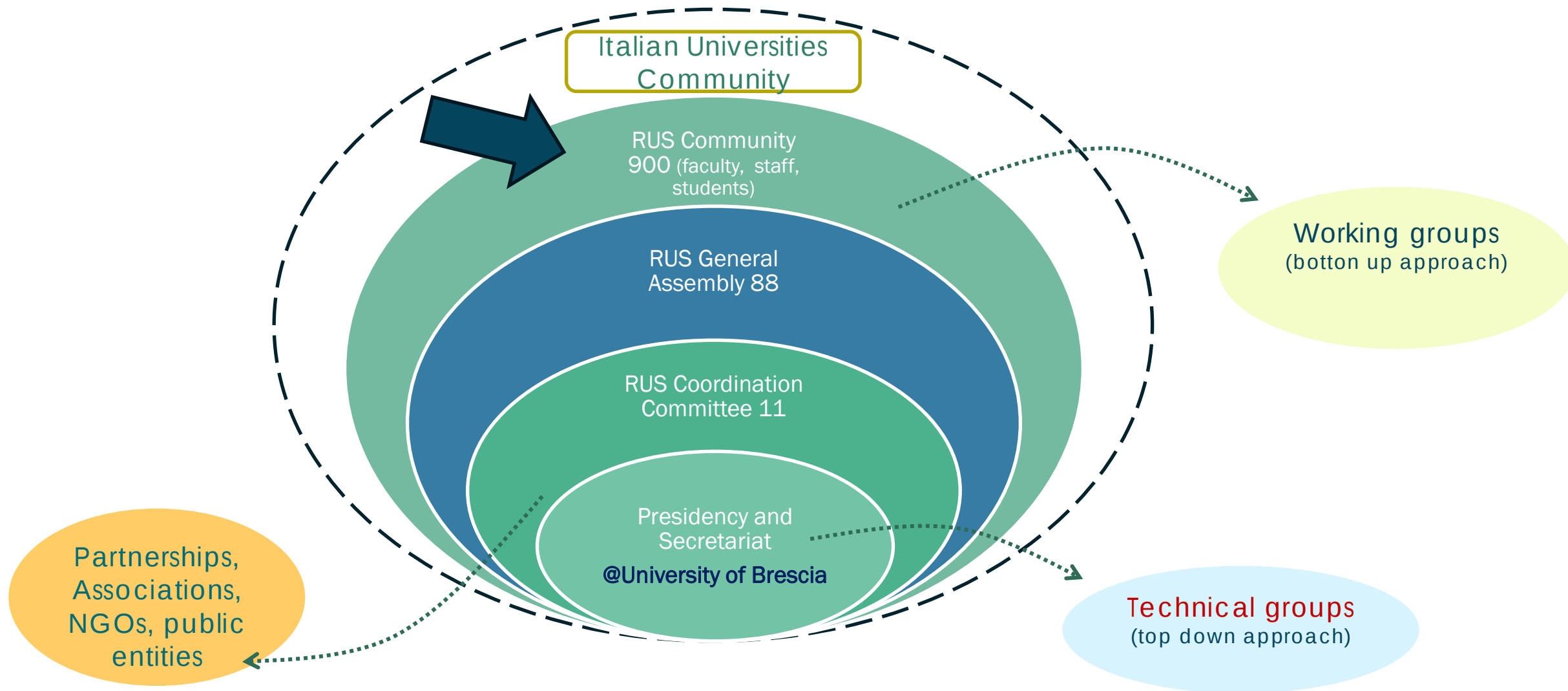
WG
Resources and
Waste



WG
University for
Industry



NETWORK GOVERNANCE SCHEME





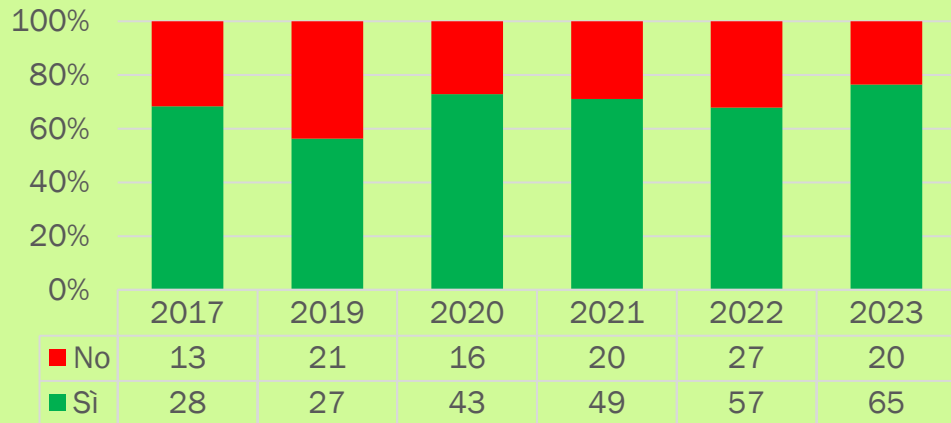
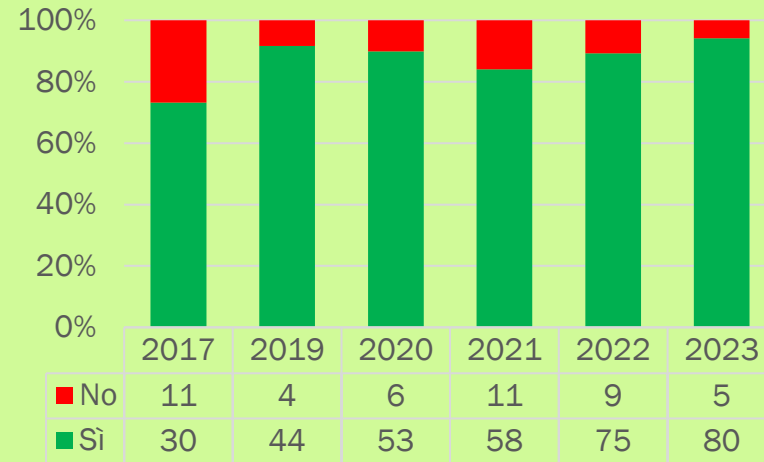
SIGNATURE OF RECTORS' MANIFESTO ON IMPLEMENTING SUSTAINABLE DEVELOPMENT





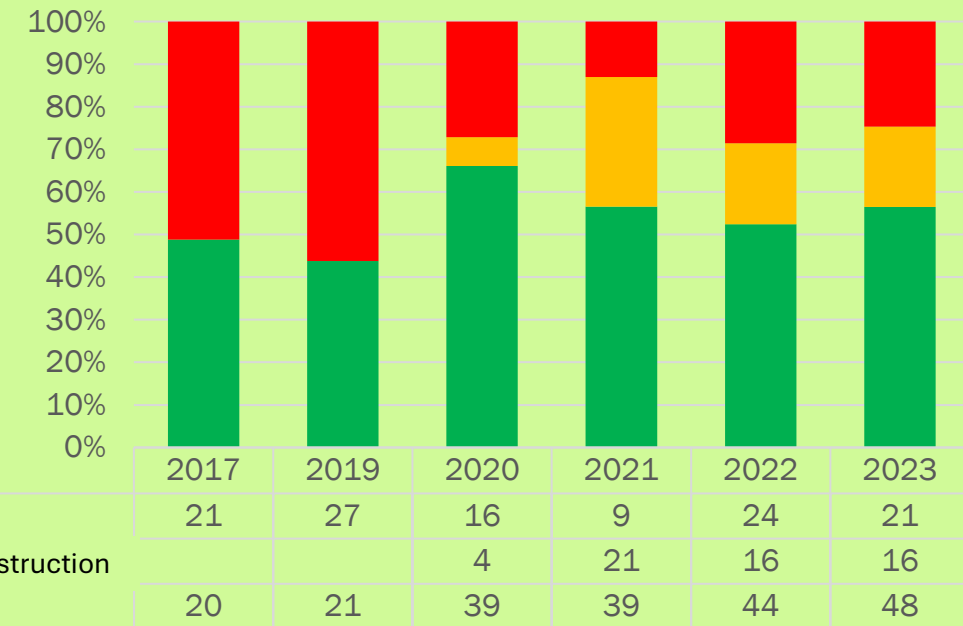
SOME EVIDENCE OF THE RESULTS OBTAINED

Are the principles of sustainable development present in the University's Strategic Plan?



Is there a Rector's Delegate on Sustainability issues?

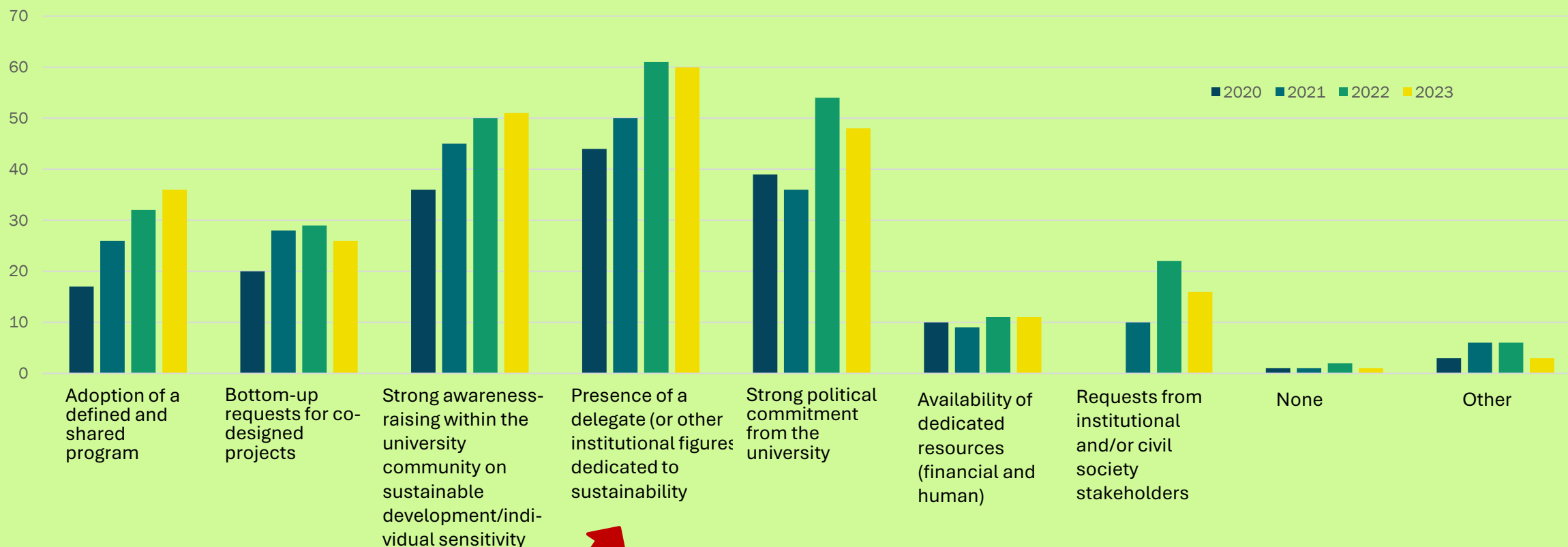
no
Under construction
Sì





SUSTAINABILITY ACTIVITIES ENABLERS

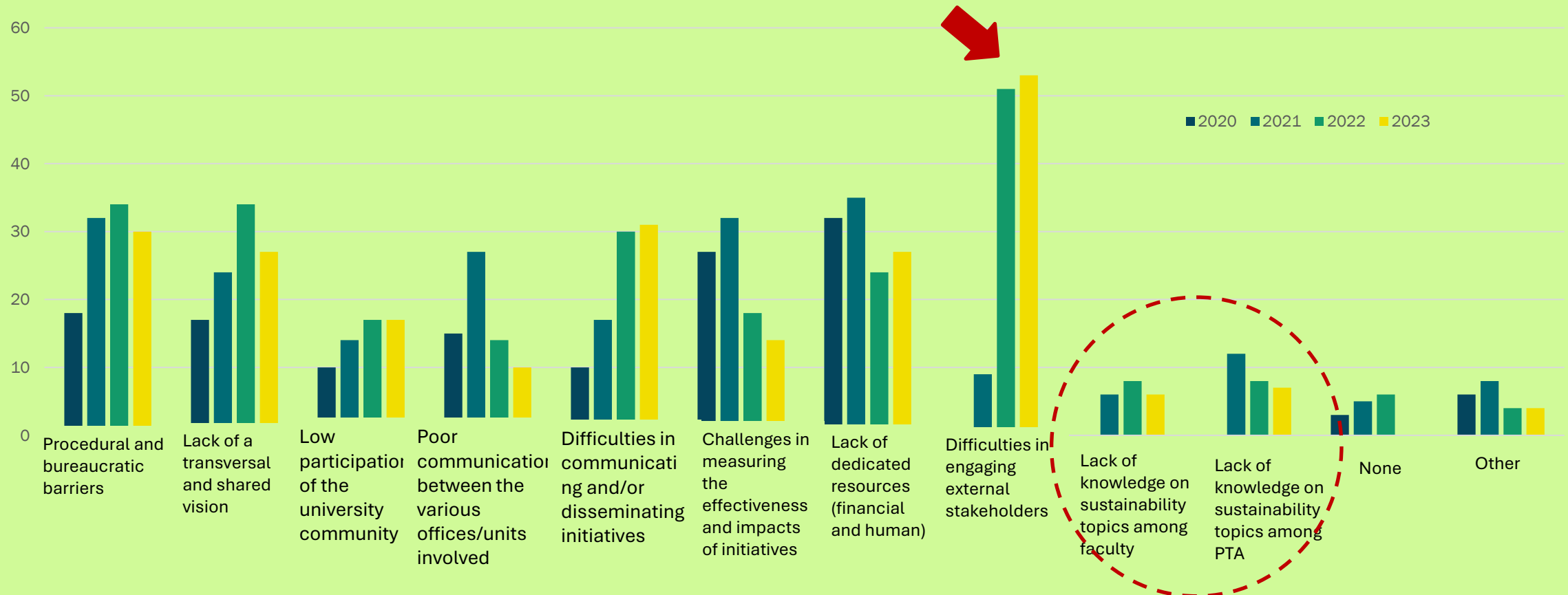
What factors initiated the implementation of actions for sustainable development?





SUSTAINABILITY ACTIVITIES BARRIERS

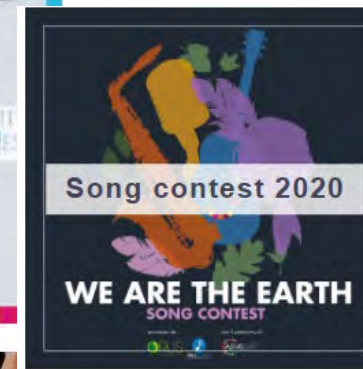
What barriers/obstacles have you encountered in implementing sustainable development actions at your university?



OUTREACH

Target – public audience

Conferences (e.g.): The Rectors Manifesto, Udine 2019, 2024;
Climate Exp0.



Target - students

Challenge-based activities: Unisustainathon, Mapathon, Expo 2020.
Contests: song contest, contest for the cover of the RUS report

Target - RUS universities' communities

Annual conferences;
Collection of initiatives for national events;
guidelines for different sustainable campus topics

Modif. Patrizia Lombardi (Polito), 2024



REGIONAL SUB-NETWORKS TODAY

 **RUS** Abruzzo

 **RUS** Campania

 **RUS** Lombardia

 **RUS** Piemonte

 **RUS** Veneto

 **RUS** Puglia

 **RUS** Sicilia

 **RUS** Toscana

 **RUS** Emilia Romagna



MAIN PARTNERS



RUS REPORT



<https://reterus.it/report-di-sostenibilita/>

COMMUNICATION



Website



Youtube



Facebook

Contacts and information

Presidency and Organizing Secretariat 2025-2027

Università degli Studi di Brescia

Prof. Carmine Trecroci



rus@unibs.it – www.reterus.it



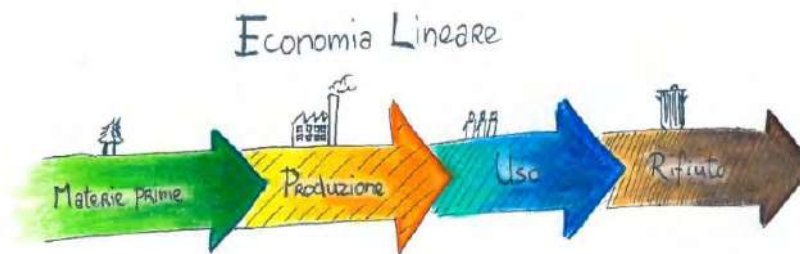
Resources and Waste WG - Network of Universities for Sustainable Development

Resources and Waste WG (1)

Waste WG

(from 2016 to 2019)

Resources and Waste WG



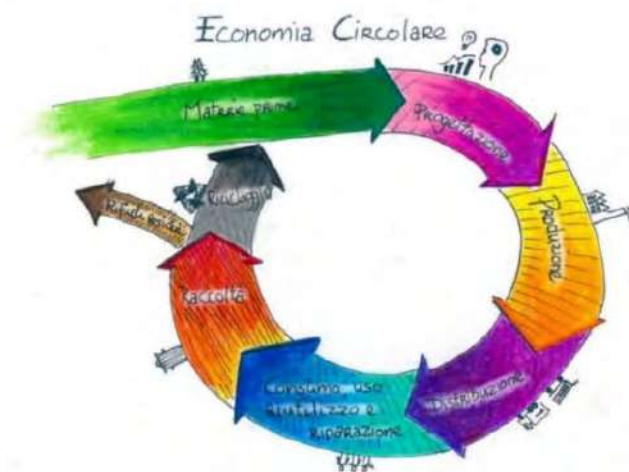
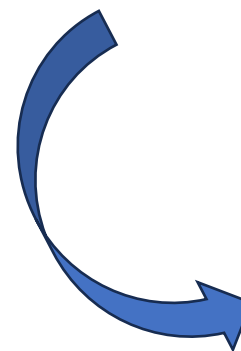
Chris e Giulia, 2019

Universities represented: **73**

Participants: **about 150**

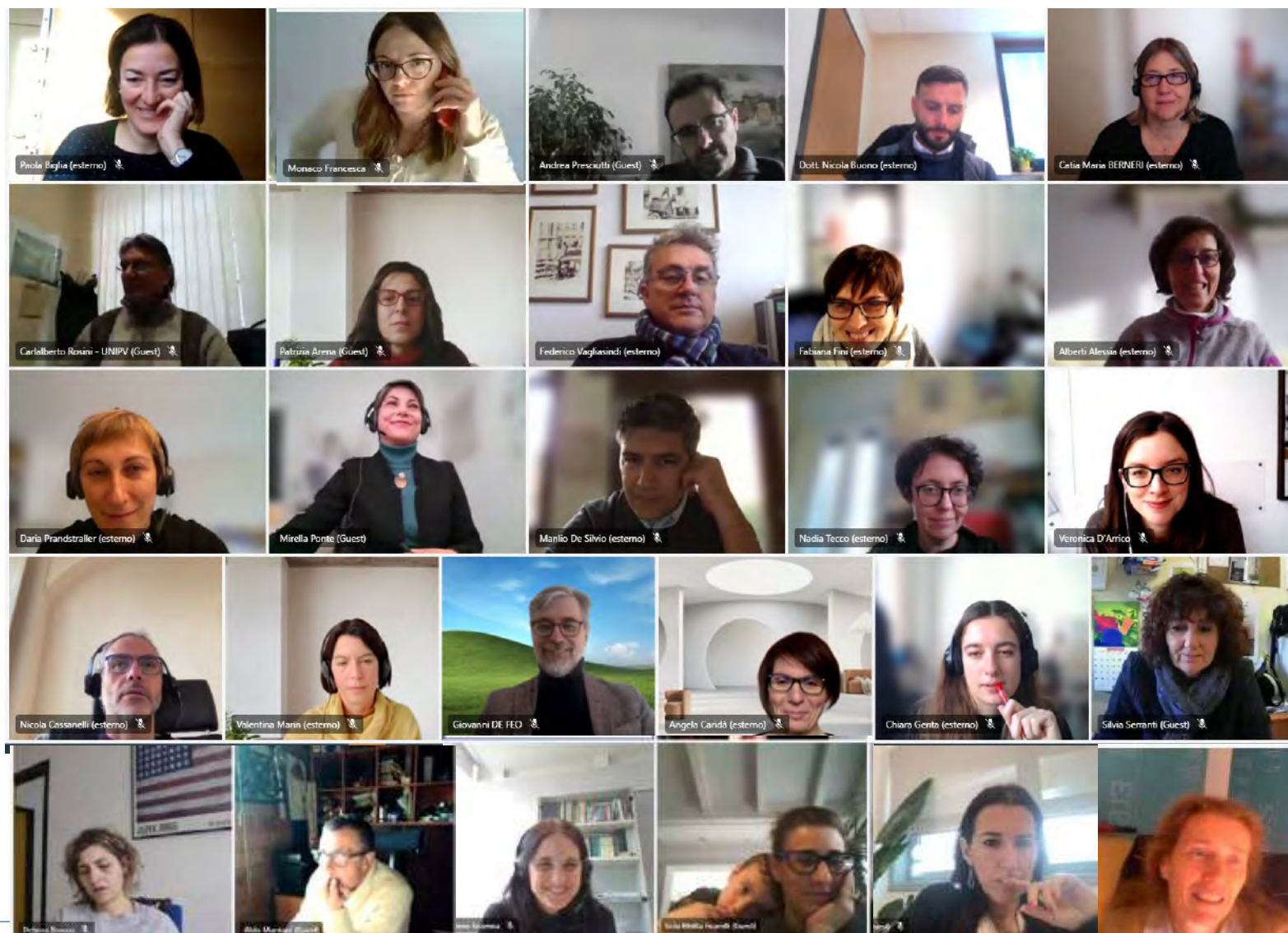
Technical administrative staff: **about 40%;**

Teaching staff: **about 60%**



Chris e Giulia, 2019

Resources and Waste WG (2)



Group of
people who
collaborate to
achieve one or
more goals

Topics of interest and Goals



1) **Management methods** (collection, storage, transportation and disposal), **from a technical-regulatory perspective**, of all types of **waste** produced by universities (circular economy perspective).



2) Promotion of **practices aimed at raising awareness on proper waste management and guiding behaviors towards waste production at the source** → resources management.

Keywords

1. Increase **collaboration** among Italian universities **for waste prevention and management**.
2. Implement processes to **monitor universities' performance in waste management activities within a circular economy perspective**.
3. **Make the WG a group capable of engaging in institutional dialogue** to adapt waste management regulation and **promote the circular economy**.
4. Launch projects aimed at **raising awareness on waste prevention and management issues** from a "**circular economy**" perspective.

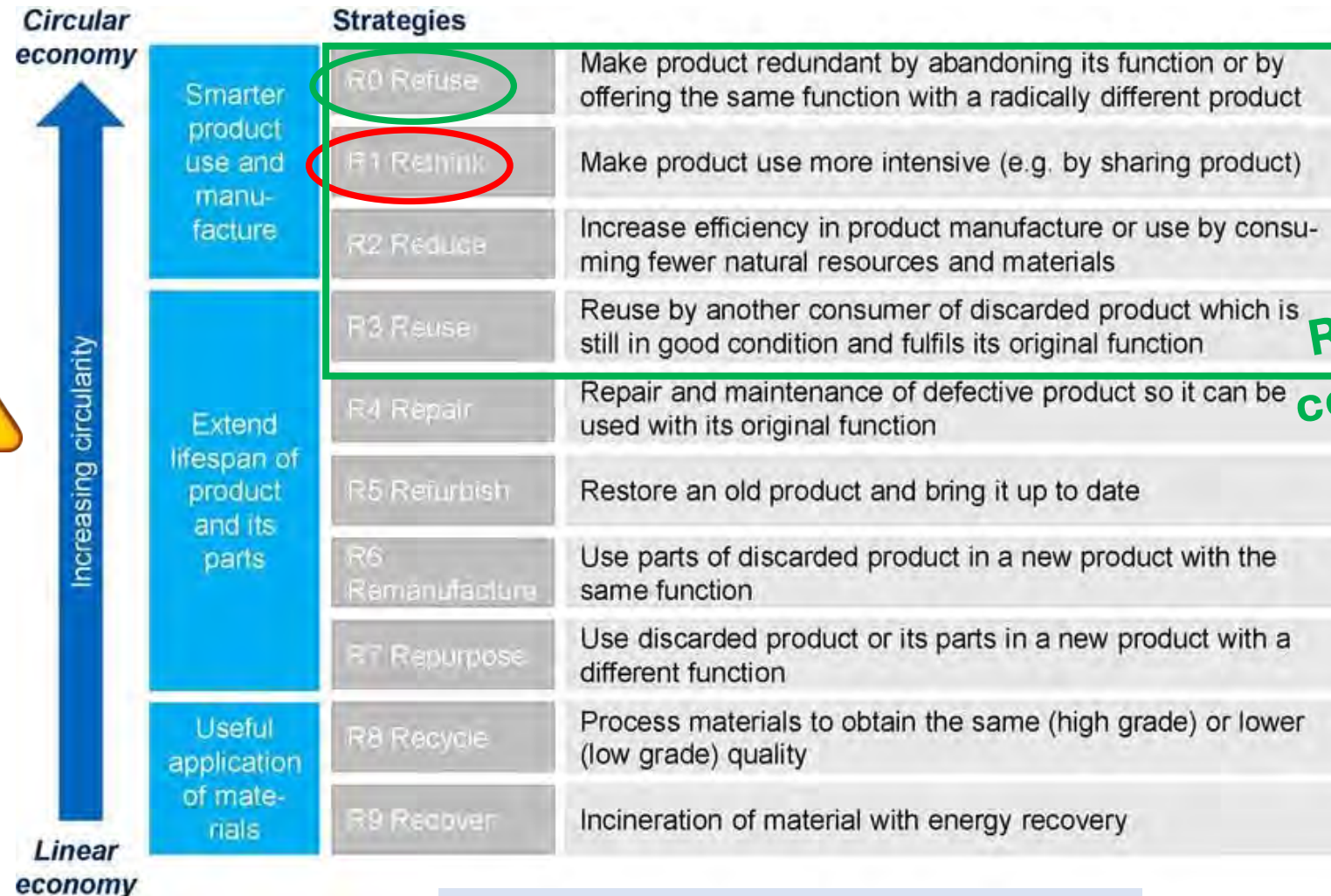
prevention
management
sharing
valorization
circularity

WG activities

➤ **«Institutionals»**

➤ Related to the functioning of the subgroups

Circular economy: the 9R Framework



«Post-material»
Lifestyle

«Stop using
dangerous
substances»

Digitalization



«Intensive» use of
products

«Sharing product»

«Product Service
Systems»

[Kirkherr et al, 2017, adattato da Potting et al. 2017]

Resources and Waste WG (5)

Field of application

Actions can be conducted at different levels:

- 1) direct actions on university offices, external spaces, laboratories, ..;
- 2) actions to be implemented in close collaboration with the university community (students above all);
- 3) actions and synergies to be initiated at the territorial level, in collaboration with local stakeholders;
- 4) actions and synergies to be implemented at the "university system" national level.

Resources and Waste WG (6)

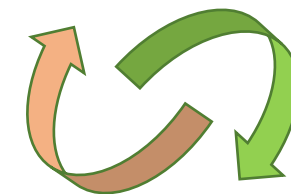
Main activities → Focus on the interaction with territorial stakeholders



....

1. Participation in committees, ministerial, and non-ministerial working groups, ...;
2. Organization of initiatives and events to raise awareness and/or provide training, sharing experiences/best practices and networking on resource and waste management themes from a circular economy perspective;
3. Dialogue with external stakeholders aimed at creating partnerships followed by the launch of projects/experiments/collaborations/...;
4. Sponsorship/participation in initiatives organized by internal and external stakeholders;
5. Drafting of procedures and guidelines;

...



1. Participation in committees, ministerial and non-ministerial working groups, ... (a)

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Example

Participation in the Ministry of the Environment and Energy Security working group for the drafting of the “catering” MEC – Minimum Environmental Criteria (Business launch in 2020; joint coordination between the WG R&W and the Food WG of RUS)

FROM

MINIMUM ENVIRONMENTAL CRITERIA for the awarding of the
**CATERING SERVICE THROUGH THE INSTALLATION OF
VENDING MACHINES AND THEIR MANAGEMENT**

TO

MINIMUM ENVIRONMENTAL CRITERIA for the awarding of the

- **CATERING SERVICE THROUGH THE INSTALLATION OF
VENDING MACHINES AND THEIR MANAGEMENT**

- **CATERING SERVICE**

- **SANDWICH PREPARATION AND DELIVERY SERVICE,
FOR THE SUPPLY, INSTALLATION, AND MANAGEMENT OF
“WATER STATIONS”, AND FOR THE AWARDING OF WORKS TO
ENABLE THE CONSUMPTION OF DRINKING WATER IN
OUTDOOR AND INDOOR AREAS.**

R&W WG and Food WG activities:

- *provided suggestions during meetings;*
- *reviewed draft documents;*
- *submitted comments upon request to the latest version of the document.*

2023



G.U. 2nd December 2023

Decree of 6th November 2023.
*Adoption of minimum environmental
criteria for contracts related to
catering services and distribution of
tap water for drinking purposes.*

[GU.pdf \(mite.gov.it\)](#)



Recognized RUS Role



Balance the different needs of the stakeholders involved

Example

GUIDELINES FOR INDUSTRIAL SYMBIOSIS



Download



Authors

2024



<https://www.campus-sostenibile.polimi.it/gli-standard-tecnici-per-la-simbiosi-industriale/>

1. Participation in committees, ministerial and non-ministerial working groups, ... (c)

25

Example

Participation in the activities of the Interdisciplinary Committee on Waste and Health (CIRS)

SEVERAL MEMBERS OF THE WG R&W INVOLVED (including in coordination roles)

2025?

Task forces:

- A. Dump
- B. Thermal Treatments
- C. Recovery and Recycling
- D. Biomass Management
- E. Special Waste ← 
- F. Health and Environment
- G. Communication ←  coordination
- H. Territories and Waste
- I. Prevention WG ←  coordination

2021: interim report and webinar



Preview of some results at "Ecomed 2023 and 2024" in Catania

<https://www.campus-sostenibile.polimi.it/rifiuti-e-salute-tra-verita-scientifiche-e-fake-news/>

PN: final report is under revision

Example

2. Organization of initiatives and events to raise awareness and/or provide training, sharing experiences/best practices, and networking on resource and waste management themes from a circular economy perspective (a)



<https://ewwr.eu/ita-settimana-europea-per-la-riduzione-dei-rifiuti/>

**EWWR 2022
initiatives**

<https://reterus.it/serr-settimana-europea-per-la-riduzione-dei-rifiuti/>

Circular and sustainable textiles

Packaging

Coordination of university and RUS R&W's initiatives

**Seminars activities and stakeholder engagement
→ in collaboration with external stakeholders**



Involvement of various universities over the years

**EWWR 2023
initiatives**

<https://reterus.it/serr-2023-settimana-europea-per-la-riduzione-dei-rifiuti/>

**EWWR 2024
initiatives**

<https://reterus.it/serr-2024-settimana-europea-per-la-riduzione-dei-rifiuti/>

Food waste





**Quality separate
waste collection**





Littering



Quality separate waste collection

Example

2. Organization of initiatives and events to raise awareness and/or provide training, sharing experiences/best practices, and networking on resource and waste management themes from a circular economy perspective (b)

Organized as a
result of the
subgroups' work

Involvement of
external
stakeholder

Approximately 130
participants



Approximately 330
participants

<https://reterus.it/2023-workshop-cessione-di-beni-mobili/>

<https://reterus.it/2023-la-gestione-del-deposito-temporaneo-rifiuti/>

Example

2. Organization of initiatives and events to raise awareness and/or provide training, sharing experiences/best practices, and networking on resource and waste management themes from a circular economy perspective (c)

Workshop

Organizzato nell'ambito del Gruppo di Lavoro Risorse e Rifiuti della Rete delle Università per lo Sviluppo sostenibile

La raccolta differenziata in ambito universitario: stato dell'arte e opportunità

5 luglio 2023, 14.30-17.30

Svolgimento in modalità ibrida
In presenza presso l'Università degli Studi di Salerno, Sala Stampa "Biagio Agnes"
Rottoraro, Campus di Fisciano (SA), Via Giovanni Paolo II, 132

Programma

REGISTRAZIONE DEI PARTECIPANTI (14.30-15.00)

INDIRIZZI DI SALUTO (15.00 - 15.20)
Cesare Pianese - Delegato del Rettore alle Politiche di Sostenibilità dell'Università degli Studi di Salerno
Patrizia Lombardi - Presidente della RUS - Rete delle Università per lo Sviluppo sostenibile

INTERVENTI (15.20 - 16.30)
Moderatore: Eleonora Perotto (Politecnico di Milano)

- 15.20-15.30 - Eleonora Perotto Coordinatrice GdL Risorse e Rifiuti RUS (Politecnico di Milano)
- 15.30-15.40 - Introduzione all'Indagine 2022
- 15.40-15.50 - Giovanni De Feo (UnISA), Daria Prandstaller (Unibo), Eleonora Perotto (Politecnico di Milano), Alessio Siciliano (Unical), Federico Vagstad (Unict) (Gruppo Questionario 2022)
- 15.50-16.00 - Maria Concetta Dragonetto - Referente per l'Area Piani di Sviluppo RD Campus
- 16.00-16.10 - Franco De Martino - Waste Manager dell'Università degli Studi di Salerno
- 16.10-16.20 - Pasquale Lepore - Ufficio Sostenibilità s.r.l. - La borsa di Lince: Guida per i rifiuti da imballaggio e degli altri rifiuti urbani, nelle università italiane

DISCUSSIONE CON I PARTECIPANTI E CONCLUSIONI (16.30 - 17.30)
Moderatore: Giovanni De Feo, Università degli Studi di Salerno

Con il patrocinio di:

Partecipazione gratuita se in modalità mista (presenziale/ibrida) con iscrizione obbligatoria
<https://forms.office.com/MPWVW2Vn6>
Per informazioni scrivere a: rus@unisa.it

Involvement of CONAI

Approximately 100 participants
29 universities participating
8 external companies

CONAI **RUS** **UNISA**

11 LUGLIO 2024 presso Sala Biagio Agnes, Università degli Studi di Salerno (Campus di Fisciano) **ore 11:00** **SAVE THE DATE**

CONFERENZA STAMPA
di presentazione della Linea Guida per la raccolta differenziata dei rifiuti da imballaggio e degli altri rifiuti urbani, nelle università

BENVENUTO dall'Università degli Studi di Salerno

Cesare Pianese
Delegato del Rettore alle politiche di sostenibilità e delegato RUS UNISA

Soliti

Fabio Costarella
Vice direttore generale CONAI

Patrizia Lombardi
Presidente RUS - Rete delle Università per lo Sviluppo sostenibile (Politecnico di Torino)

Andrea Pirone
Direttore generale di FidiCiclo Sviluppo Ripe

Interventi

Eleonora Perotto
Coordinatrice Gruppo di Lavoro Risorse e Rifiuti (RUS) della RUS (Politecnico di Milano)

Maria Concetta Dragonetto
Area piani di sviluppo R.D. Centro-Sud Italia (CONAI)

Conclusioni

Luca Proietti
Direttore economia, circolare Ministero dell'Ambiente e della Sicurezza Energetica

Moderatore

Giovanni De Feo
Coordinatore Gruppo RD - Cal. R&R
Professore associato sul dipartimento di Ingegneria Industriale (UNISA)

Seguirà light lunch presso la Sala Buffet del Teatro di Salerno

Visita alla Reggia di Caserta, primo bene architettonico patrimonio UNESCO a dotarsi del sistema (ideato da CONAI) per la raccolta differenziata dei rifiuti da imballaggio

Clicka qui per seguire l'evento
<https://conai.com/indietro>

R.S.V.P.
Chiedi il tuo biglietto d'ingresso a: rus@unisa.it

Presentation event of the "Guidelines for the separate collection of packaging waste and other urban waste in Italian universities", at UNISA



<https://reterus.it/2024-presentazione-delle-linee-guida-per-la-raccolta-differenziata-in-ambito-universitario/>

7 NOVEMBRE 2024 | ORE 15:30

CONAI Presenta con la media partnership di: **Ricicla.tv** **AGORA CONAI**

RACCOLTA DIFFERENZIATA: LINEE GUIDA PER UNA GESTIONE PIÙ EFFICIENTE DEI RIFIUTI DI IMBALLAGGIO NELLE UNIVERSITÀ. ALLE MIGLIORI TESI IL PREMIO ENEA-CONAI.

Simona Fontana Direttore Generale CONAI
Fabio Costarella Vice direttore Generale CONAI
Daria Prandstaller Direttrice del Dipartimento Enea di Sostenibilità
Carbon Project Manager Ufficio Innovazione, Ricerca e Sviluppo di Contarina
Giulia Romano Prof. Associata Dipartimento Economia e Management Università di Pisa
Vincenzo Sessa Sindaco di Fisciano

Giovanni De Feo Prof. Associato Dip. Ingegneria Industriale Unisa
Eleonora Perotto Coordinatrice Nazionale Gruppo di Lavoro Risorse e Rifiuti RUS
Pasquale Lepore Direttore di Officina Sostenibile
Erika Mancuso Dipartimento SSPT-ENEA
Tiziana Beltrani Dipartimento SSPT-ENEA

Moderatore: **Monica D'Ambrosio** Direttore Ricicla.tv

Live su www.ricicla.tv

Partnership

<https://reterus.it/2023-workshop-la-raccolta-differenziata-in-ambito-universitario-stato-dell-arte-e-opportunita/>

<https://www.campus-sostenibile.polimi.it/ecomondo-2024-alla-fiera-di-rimini-dal-5-all8-novembre/>
<https://ricicla.tv/video/75114?a=1>





7th November 2024

Participation of the R&W WG (coordinator and members) in a CONAI-organized event as part of the activities covered by the partnership→ **further dissemination of the RD Guidelines in the university context.**



- The RUS and the R&W WG for the promotion of RD and the drafting of the Guidelines.
- UniSA and UniPI experiences



<https://www.campus-sostenibile.polimi.it/ecomondo-2024-alla-fiera-di-rimini-dal-5-all8-novembre/>

<https://ricicla.tv/video/75114?a=1>

7 NOVEMBRE 2024 | ORE 15:30

 CONAI
CONSORZIO NAZIONALE IMBALLAGGI

Presenta con la media partnership di:  Ricicla.tv
L'informazione ecosostenibile

 AGORA
CONAI

RACCOLTA DIFFERENZIATA: LINEE GUIDA PER UNA GESTIONE PIÙ EFFICIENTE DEI RIFIUTI DI IMBALLAGGIO NELLE UNIVERSITÀ. ALLE MIGLIORI TESI IL PREMIO ENEA-CONAI.

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Pasquale Lepore Direttore di Officine Sostenibili
Erika Mancuso Dipartimento SSPT-ENEA
Tiziana Beltrani Dipartimento SSPT-ENEA

Moderata: **Monica D'Ambrosio** Direttore Ricicla.tv

Live su www.ricicla.tv



2. Organization of initiatives and events to raise awareness and/or provide training, sharing experiences/best practices, and networking on resource and waste management themes from a circular economy perspective (d)

33

RUS UNIVERSITIES-ONLY TRAINING



Corso di formazione organizzato nell'ambito del Gruppo di Lavoro Risorse e Rifiuti della Rete delle Università per lo Sviluppo sostenibile

**"Il RENTRI in ambito universitario:
gestione degli aspetti normativi, tecnici e operativi"**

17 maggio 2024, ore 9.30-16.30

**Involvement of professionals
Approximately 630
participants
46 participating
universities**

**4th NOVEMBER - ONLINE MEETING:
"UNIVERSITIES AND THE ENTRY INTO FORCE
OF RENTRI"** Coordinator: UNIBO

PURPOSE: discussion (and mutual assistance) on how each university is dealing with the entry into force of RENTRI (Registro Elettronico Nazionale per la Tracciabilità dei Rifiuti- National Electronic Register for Waste Traceability)



SERIES OF MEETINGS

Coordinated by
**UNIBO and
UNIBS**

**TELEGRAM GROUP
«R&W working group»**

**Quick discussions on
technical/legal issues**

- Launched in 2023, relaunched in 2024
- Current composition: 14 members

<https://reterus.it/2024-il-rentri-in-ambito-universitario-gestione-degli-aspetti-normativi-tecnici-e-operativi/>

Example

3. Conversation with external stakeholders aimed at creating partnerships followed by the launch of projects/experiments/collaborations/...;

5. Drafting of procedures and guidelines

Private non-profit consortium

It deals with the recovery, recycling and valorization of packaging materials made of steel, aluminum, paper, wood, plastic, bioplastic, and glass.



PARTNERSHIP

Partnership goals:

- implementation of actions aimed at promoting proper separate collection practices for packaging waste generated within universities, also promoting innovative approaches to secondary raw material management;
- potential training activities linked to recycling and economy circular;
- development of guidelines for separate waste collection in the university context.



LG RD Project
launch
Workshop
5th July 2023

<https://reterus.it/2023-workshop-la-raccolta-differenziata-in-ambito-universitario-stato-dell-arte-e-opportunita/>



LG RD Publication
and Event
11th July 2024

<https://reterus.it/2024-presentazione-delle-linee-guida-per-la-raccolta-differenziata-in-ambito-universitario/>



Event at
ECOMONDO
7th November 2024



<https://reterus.it/>



4. Sponsorship/participation in initiatives/events/training courses representing the R&W WG (a)

Example

24th November 2023

Collaboration of the R&W WG with the **AICUN training course** (Italian Association of University Communicators) on the topic “Communicating Sustainability”: teaching activity.



<https://www.aicun.it/comunicare-la-sostenibilita>

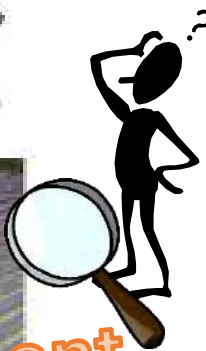
Year 2023

Collaboration of the R&W WG with a **training course with the DSV company**.

(R&W WG represented by G. De Feo – UNISA)



<https://www.dsv.com/it-it/informazioni-su-dsv/stampa/news/it/2023/02/online-sustainability-training>



Focus on prevention - Resources management

Example

4. Sponsorship/participation in initiatives/events/training courses representing the R&W WG (a)

9th December 2024 – MASE Conference

Participation of the R&W WG in the conference “**The impact of the new European legislation on ecodesign and 'Green Claims' on voluntary certifications EMAS, Ecolabel, and Made Green in Italy certifications**”, held at Palazzo degli Affari in Florence.

Organized by the **Ministry of the Environment and Energy Security** in collaboration with the **Ecolabel and Ecoaudit**

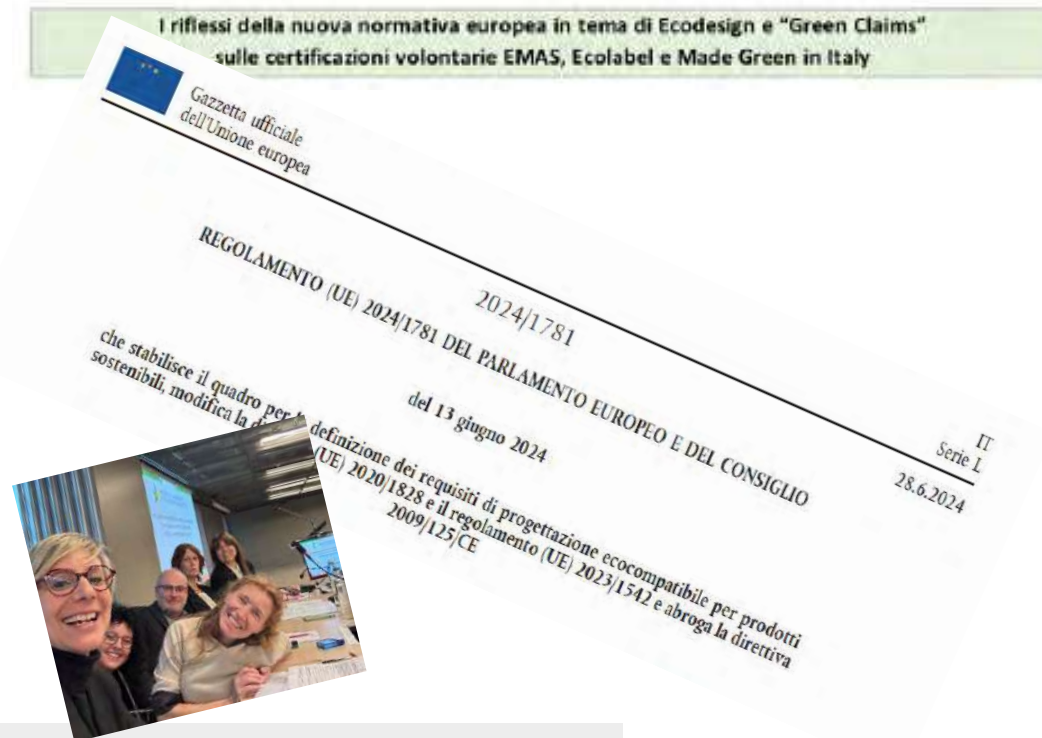
Tavola Rotonda – Il contributo della Ricerca all'Ecodesign e alla riduzione dell'impronta ambientale dei prodotti

Presiede la coordinatrice del GdL Risorse e rifiuti della Rete delle Università per lo sviluppo sostenibile, Eleonora Perotto, Politecnico di Milano

- CNR - Istituto sull'inquinamento atmosferico (IIA), Cristina Peretti
- ENEA – Sezione Supporto Tecnico Strategico del Dipartimento Sostenibilità, circolarità e adattamento al cambiamento climatico dei Sistemi Produttivi e Territoriali, Daniela Claps
- Politecnico di Torino – Dipartimento di Architettura e Design, Silvia Barbero
- Politecnico di Milano – Dipartimento di Ingegneria Gestionale, Sergio Terzi
- Università Iuav di Venezia – Dipartimento di Culture del Progetto, Laura Badalucco



Convegno
9 dicembre 2024, ore 9.30 – 17.00
Firenze,
Palazzo degli Affari
Piazza Adua, 1



<https://www.campus-sostenibile.polimi.it/certificazioni-emas-ecolabel-e-made-green-in-italy-convegno-a-firenze-il-9-12-2024/>

Example

4. Sponsorship/participation in initiatives/events/training courses representing the R&W WG (b)

37

29th September 2023 – event

University for SDGs
GIOVANI E FUTURO: VERSO UNO SVILUPPO SOSTENIBILE



University-industry-institution
forum

TAVOLO 4 - Moda sostenibile: proposte di modelli produttivi virtuosi

Il tavolo si occuperà dell'importanza del consumo sostenibile e di come nell'ambito della moda il singolo possa avere un notevole impatto positivo attraverso scelte più sostenibili e più etiche.



POLITECNICO
MILANO 1863

GIORGIO ARMANI



<https://www.universityforsdgs.it/milano2023>



Report

https://www.universityforsdgs.it/_files/ugd/826e6e_f104e4f21ad047a3b943200283f8377b.pdf

Example

4. Sponsorship/participation in initiatives/events/training courses representing the R&W WG (c)

PN:

University
for SDGs

«Public hearing» at the
National Council for
Economy and Labour

Villa Lubin

6th December 2023

Guarda l'audizione >



<https://www.universityforsdgs.it/copia-di-palermo-2023>

CEWMS – CIRCULAR ECONOMY OF WASTE, MATERIALS AND SUSTAINABILITY

Example



INAUGURATED ON 7th OCTOBER 2021
THE R&W WG ALSO PARTICIPATED

Circular economy → a new way of interpreting not only the economic and the waste management systems, but also the relationships between institutions, the research sector, business, services, and civil society.

Center Goal → to create a synergistic network between the various stakeholders by leveraging not only the results achievable through **advanced research, but also the **ability to promote sustainable cultural models** through training.**



<https://www.dicea.unipd.it/cewms>

**What about the role of the
WG R&W concerning
university initiatives for the
efficient management of
resources and waste?**



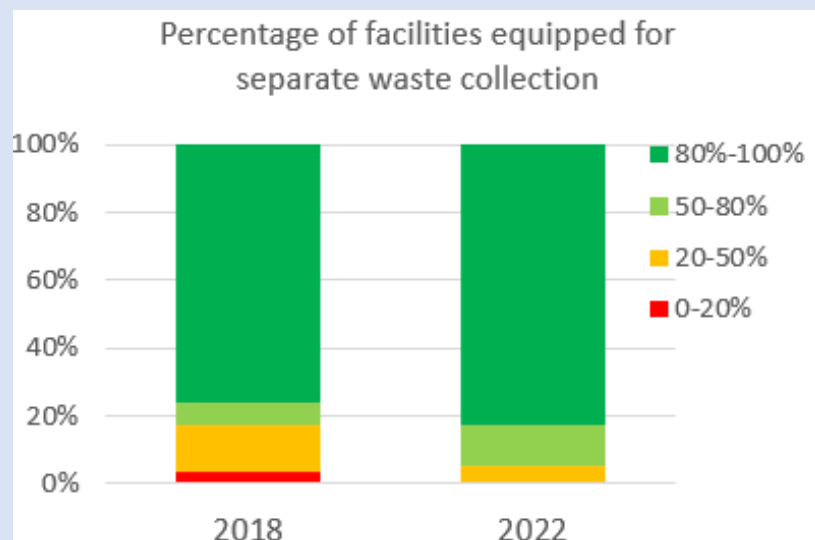
Separate waste collection

In 2022, all universities were at least partially recycling waste, with a significant increase in the number of facilities equipped with recycling facilities compared to 2018.

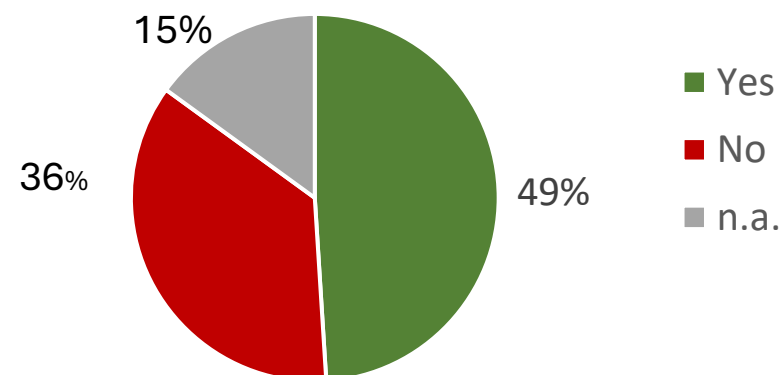
Nearly half of the universities also set specific targets for improving recycling performance in 2022.



Quality



Improvement % in separate waste collection – University target



Data processing: Elena Sezenna, POLIMI

«2022 Resources and waste questionnaire» (b)

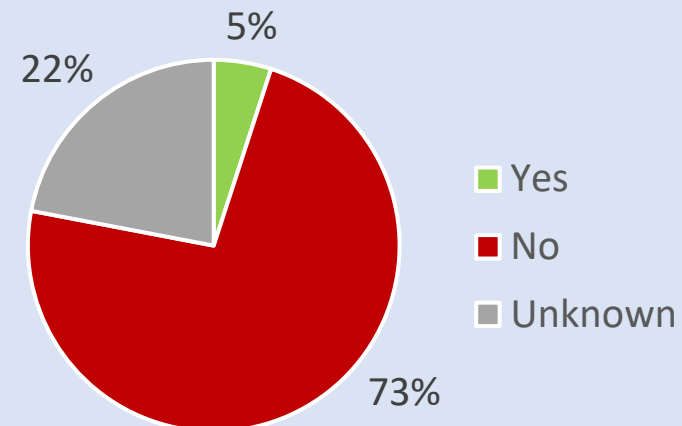
FOCUS Separate waste collection

Fractions with the greatest collection difficulties (max 3 per University)



Data processing: Elena Sezenna, POLIMI

Product characterizations



Only 2 universities report conducting annual waste composition analyses on at least some fractions (WEEE, toner and batteries).

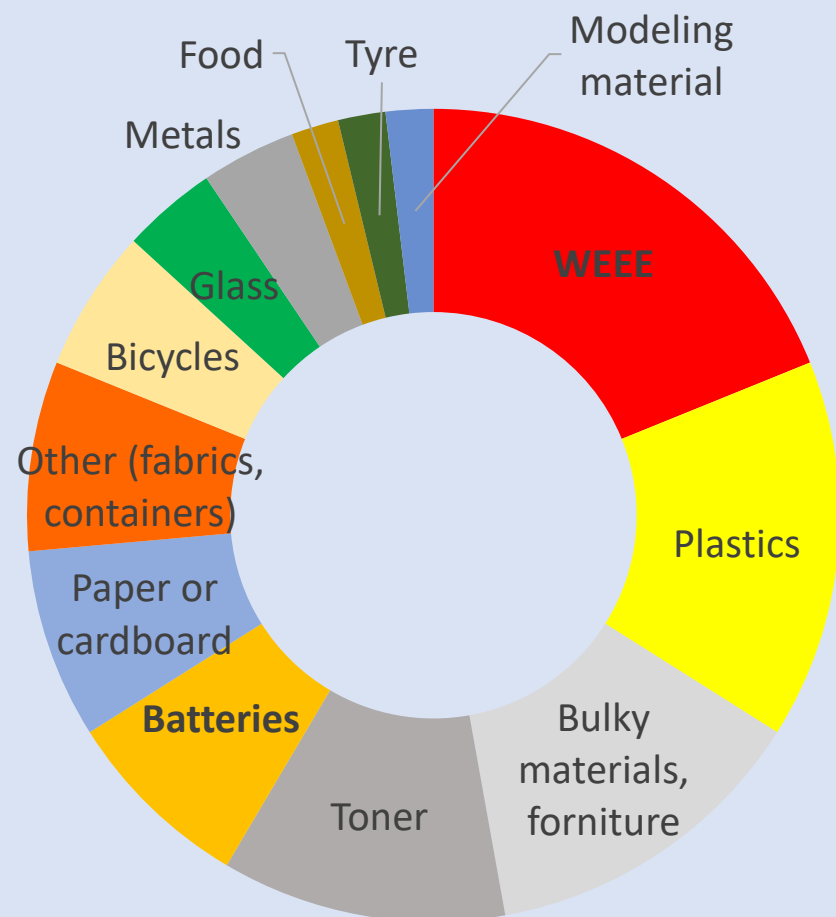
42% of the universities that carry out separate WEEE collection identify this fraction as one of the 3 for which they perceive the greatest collection challenges.

«2022 Resources and Waste Questionnaire» (c)

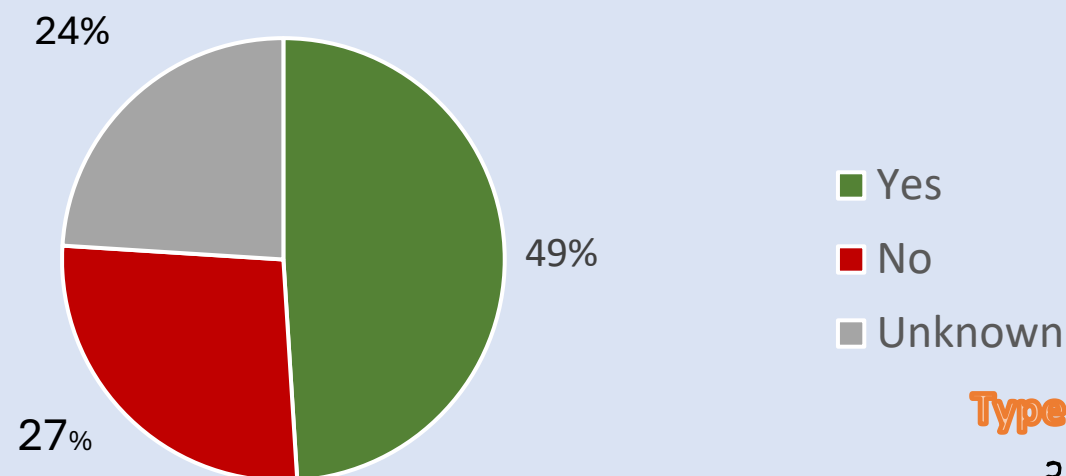
To improve the separate waste collection → Circular economy projects



Fractions subject to circular economy projects



Collaborations with external partners on circular economy



■ Yes
■ No
■ Unknown

Type?



Data processing: Elena Sezenna, POLIMI

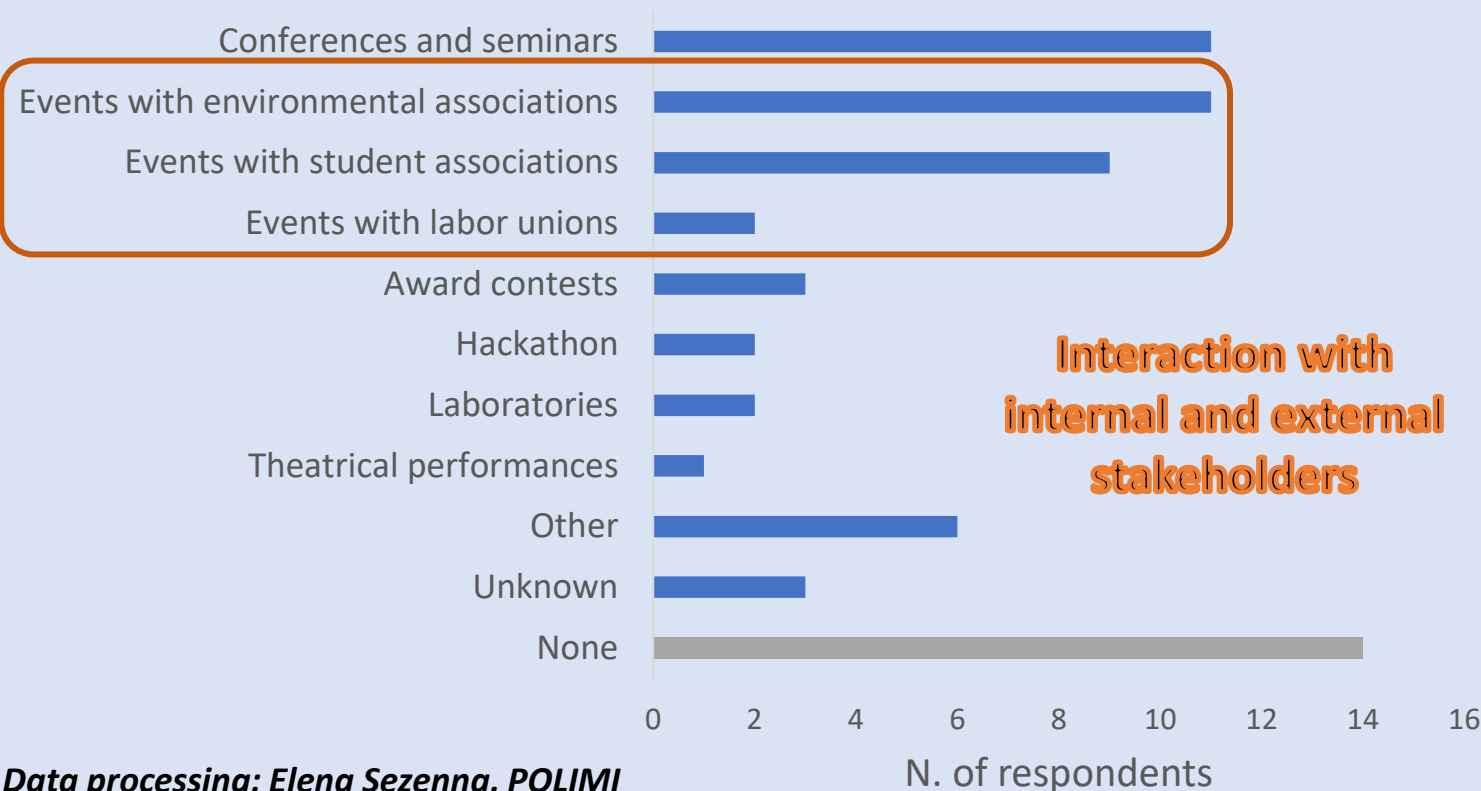
«2022 Resources and waste questionnaire» (d)



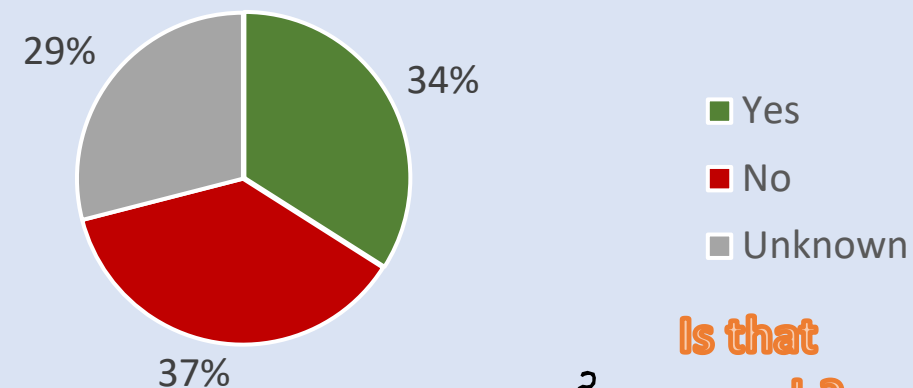
Awareness and engagement



Raising awareness and engagement initiatives for separate waste collection



Student groups active in separate waste collection



Is that enough?

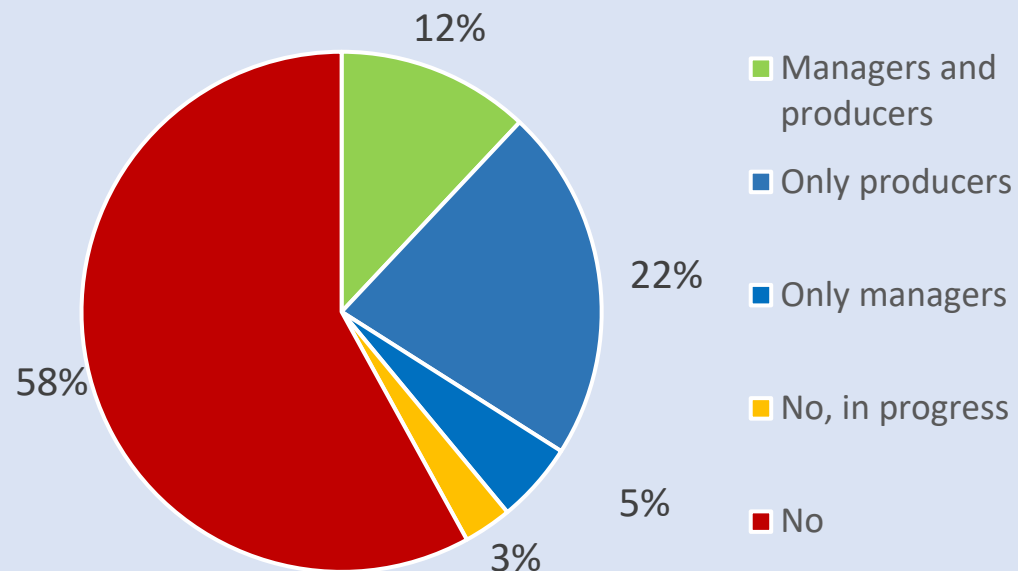


Data processing: Elena Sezenna, POLIMI

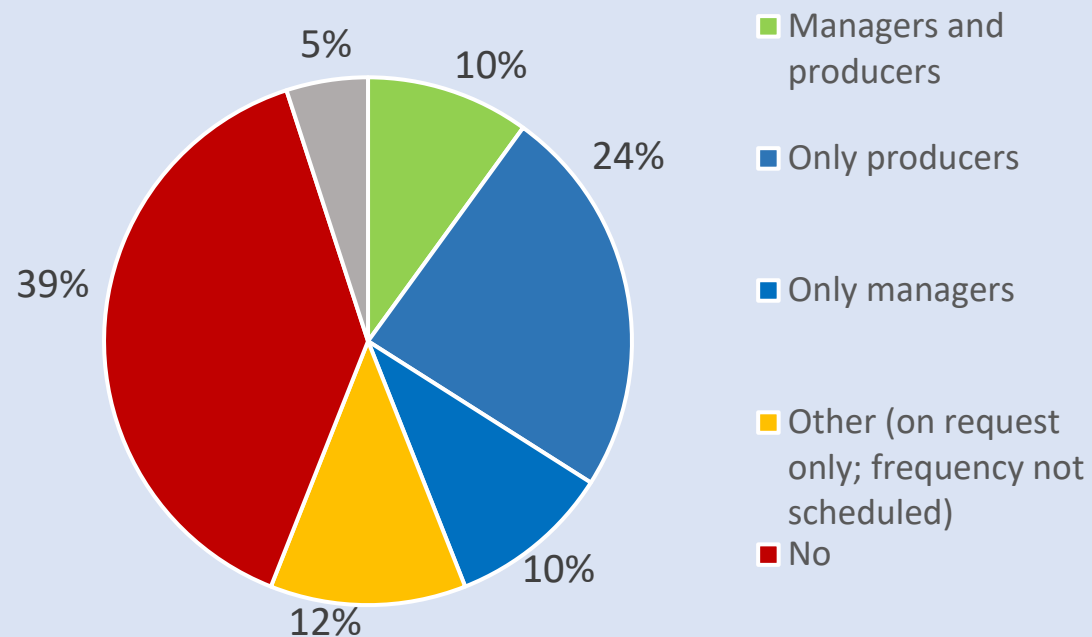
«2022 Resources and waste questionnaire» (e)

45

Training for staff involved in the production and/or management of special waste in the past 12 months



Periodic training for staff involved in the production and/or management of special waste



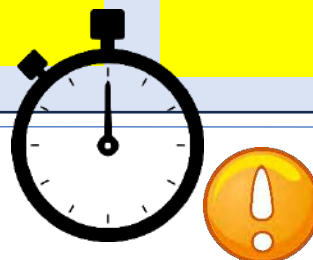
The number of training hours ranges from 2 to 22 hours.

Between 2-4 hours → 58% of cases

Between 8-12 hours → 33% of cases

Periodic training is generally conducted every six months or annually (in some cases, a course is offered up to... once every 7 years)

Data processing: Elena Sezenna, POLIMI





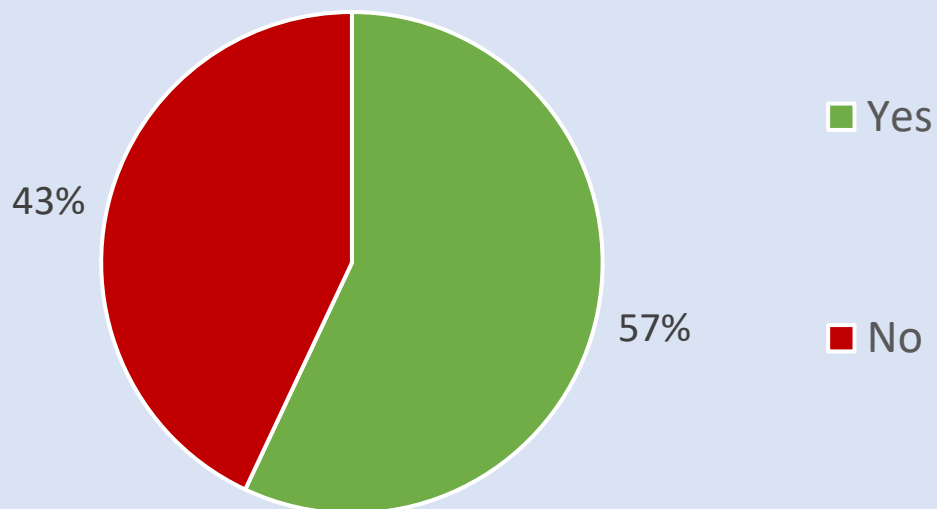
«2022 Resources and waste questionnaire» (f)

*Never
Forget*

**Separate waste collection...
but not only...**

**Waste prevention is essential!
Raising awareness and reuse are very important!**

Raising awareness on waste prevention



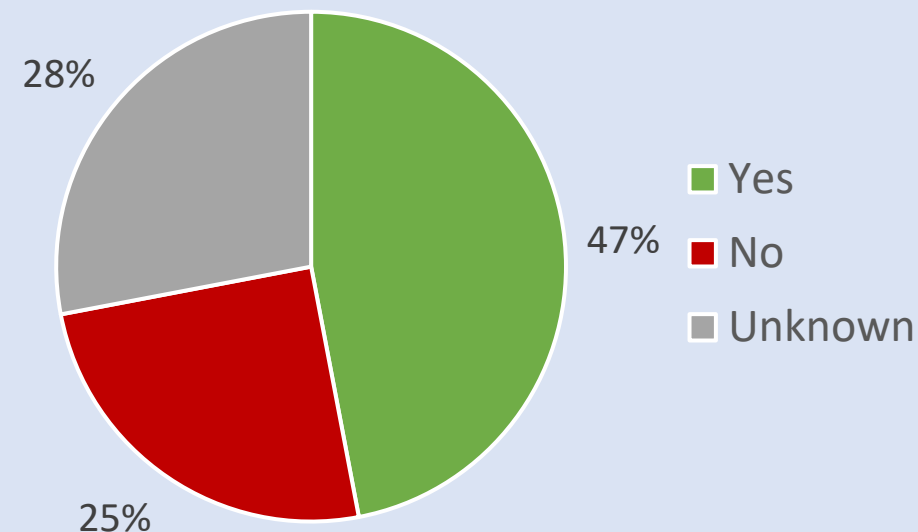
■ Yes

■ No



**Behavioral
change!**

Waste prevention projects



■ Yes

■ No

■ Unknown

Data processing: Elena Sezenna, POLIMI



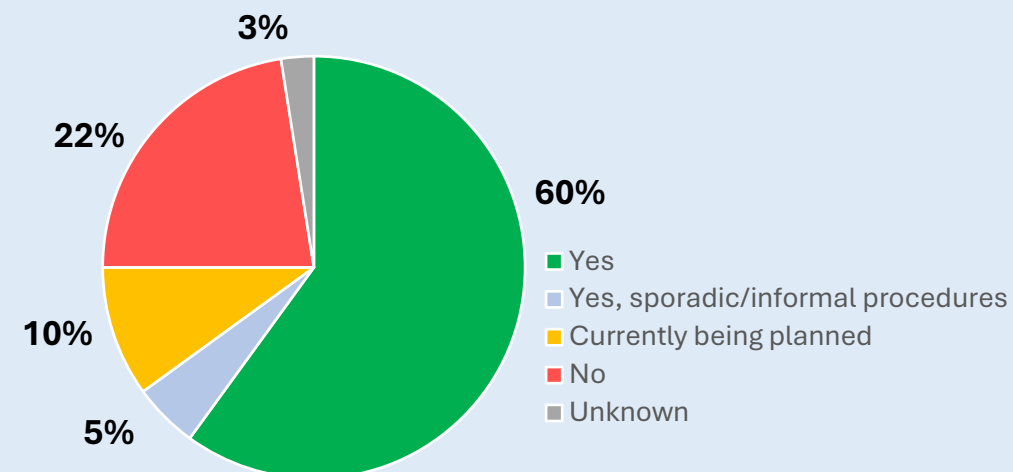
«2022 Resources and waste questionnaire» (g)

Waste prevention

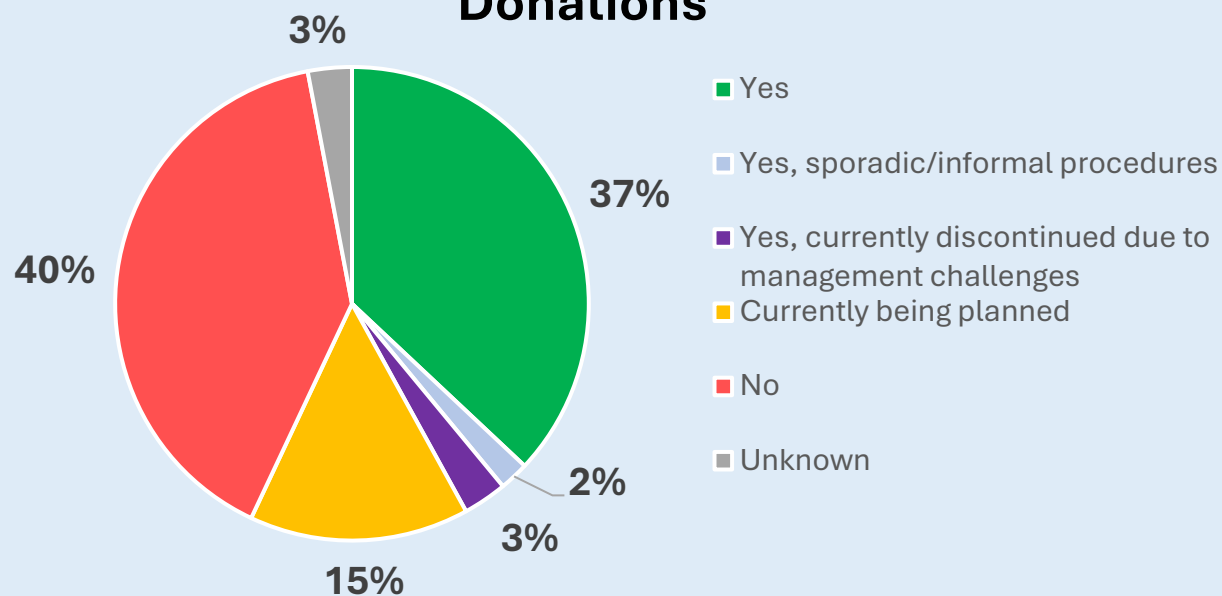
Regarding **internal reuse**:

- approximately **65% of universities in 2022 reported experiences in this sense** (even if sporadic);
- 10% said they are currently reflecting and planning on the topic.

Internal reuse of goods



Donations



Regarding **donation** experiences, even the occasional ones, are lower (**less than 40% of the universities**).

15% of universities are currently evaluating and planning initiatives for the donations of goods.

Data processing: Elena Sezenna, POLIMI

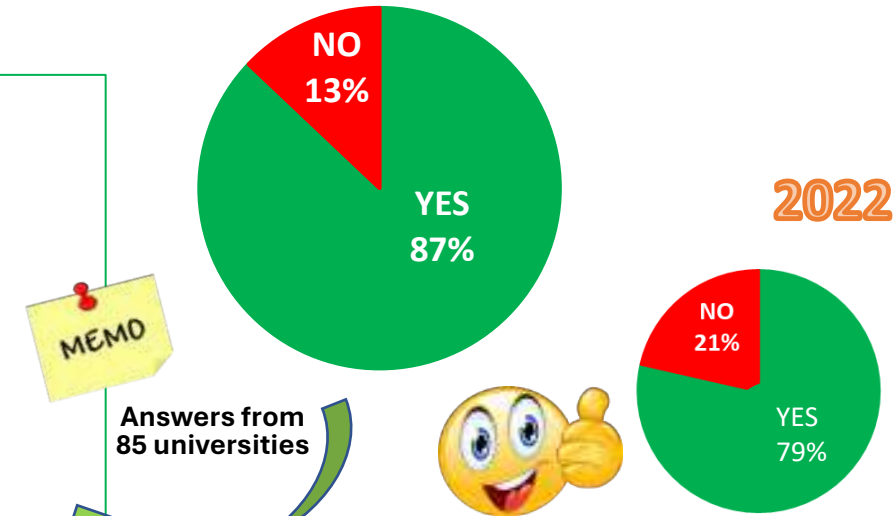
RUS Mapping 2023



PN: 2023 RUS MAPPING – R&W WG (a)

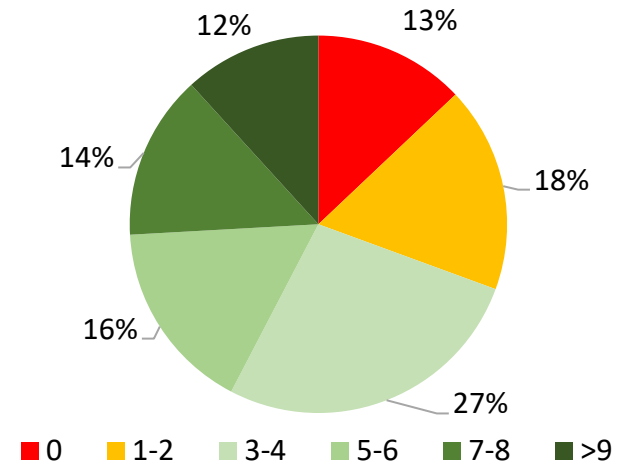
If **YES**, these actions are aimed at (more than one answer possible):

1. internally reusing goods/assets
2. transferring goods (excluding EEE) free of charge to other Universities/Public institutions/Associations...
3. transferring EEE free of charge to other Universities/Public institutions/Associations...
4. raising awareness and informing the university community about waste prevention
5. raising awareness and informing the public about waste prevention
6. promoting and/or organizing the exchange of goods within the university community
7. promoting and/or organizing initiatives for the exchange of goods with and/or between citizens
8. promoting innovative projects for the collection of specific types of materials and/or objects, including reusable ones
9. organizing initiatives to extend the useful life of goods for the university community only
10. organizing initiatives to extend the useful life of goods, also open to the public
11. rewarding virtuous behaviors of the community aimed at reducing resource consumption
12. promoting the shared use of objects and products (sharing)
13. reducing single-use product when alternatives are available
14. stipulating contracts/agreements/conventions and/or protocols for bars and/or canteens to reduce waste production
15. preparing tenders/specifications with requirements specifically aimed at preventing packaging waste
16. preparing tenders/specifications with requirements specifically aimed at counteracting food waste
17. promoting research activities concerning changes to production processes, goods production, and consumption models from a waste prevention perspective
18. other



Answers from 85 universities

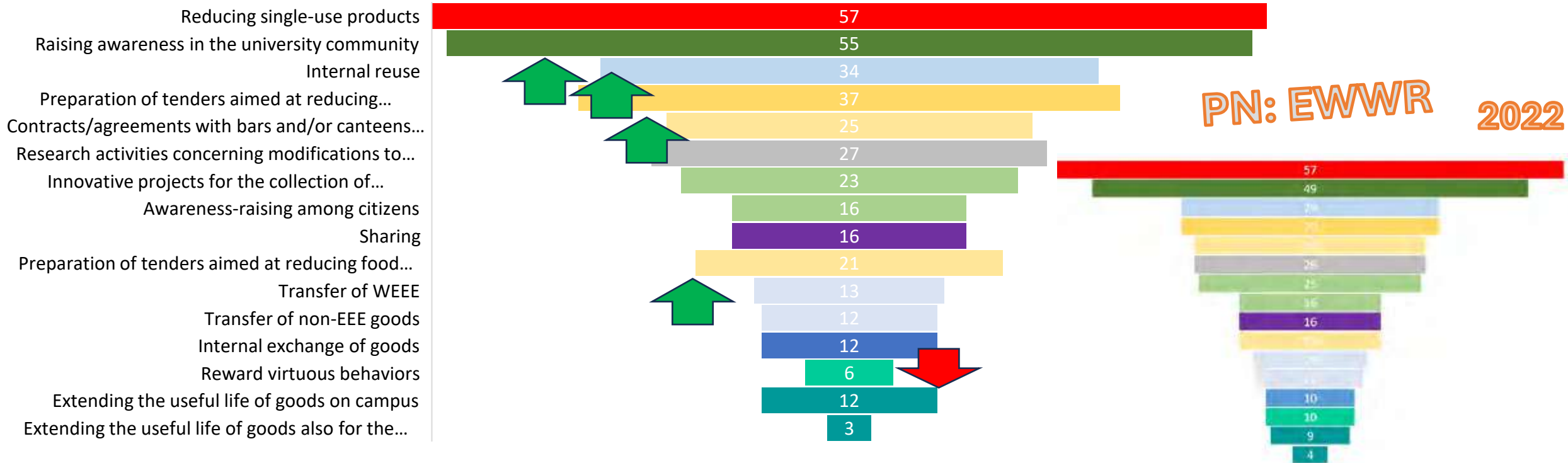
Number of actions per university



PN: 2023 RUS MAPPING – R&W WG (b)

PN: SUP Directive

Type of action (number of universities implementing it) - 2023



Data processing: Elena Sezenna, POLIMI

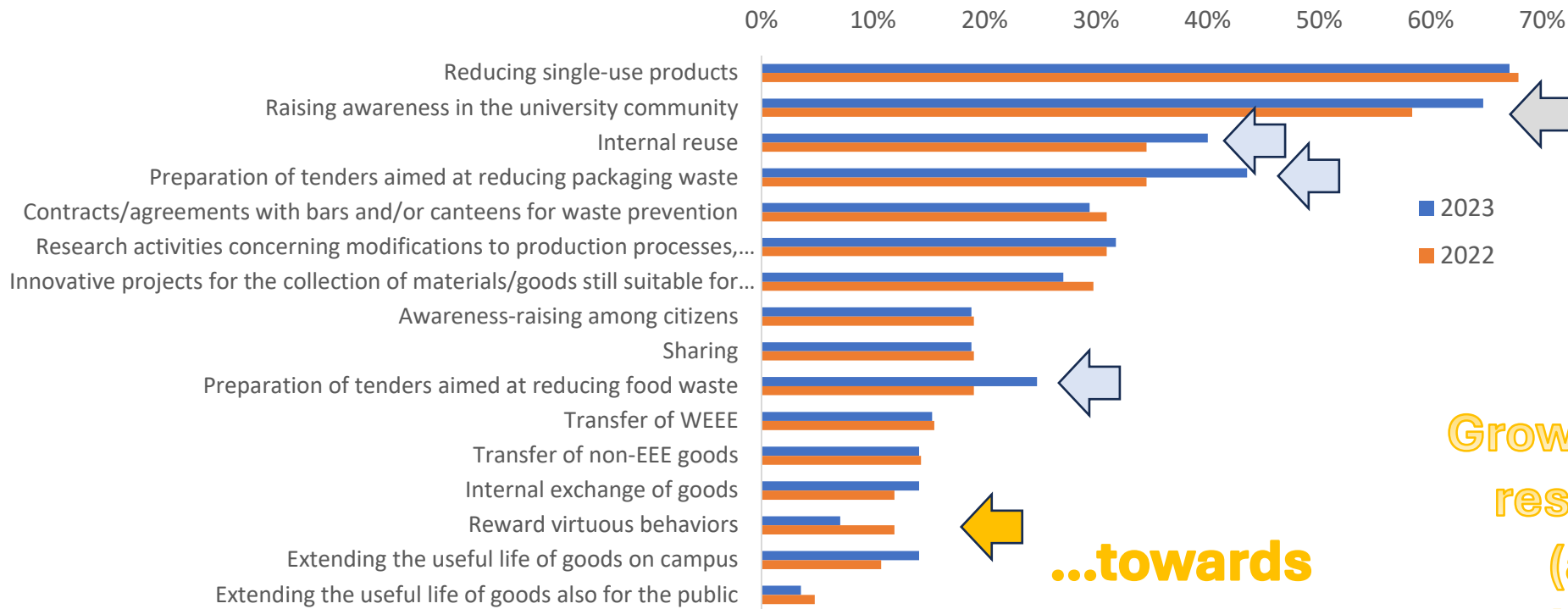
Most frequent actions: reducing single-use products and raising awareness; followed by issuing of tenders to prevent packaging waste and to encourage internal reuse.

Less frequent actions: initiatives to extend the useful life of goods (especially citizenship), donations/exchange of goods and rewarding virtuous behavior.

There is a total absence of citizen-involving actions regarding the exchange of goods.

PN: 2023 RUS MAPPING – R&W WG (c)

Type of action (percentage of universities carrying it out among those undertaking waste prevention measures)



**Initiatives aimed at
“behavioral change”
are growing
(Universities as
agents of change)**

**Growing attention towards
resource management
(already owned by
University or to be
purchased – tenders)!**

**...towards
“normality”**

Data processing: Elena Sezenna, POLIMI



What about the role of the WG R&W concerning university initiatives for the efficient management of resources and waste?



Call for Best Practice -- September 2025

«Mini survey» on Separate Waste Collection -- October 2025

SUMMARY OF CALL BP RESULTS (1)

All universities that are part of the R&W WG were involved. About **20% responded to the call.**

14 universities proposed one or more initiatives (25 forms) for the efficient management of resources and waste to be implemented within their institution.

These initiatives involved students and academic staff and, in some cases, included collaboration with external partners.

Universities that have submitted initiatives:

Politecnico di Milano

Politecnico di Torino

Università di Bologna (Alma Mater Studiorum)

Università Bocconi

Università di Roma 1 (Sapienza)

Università di Cagliari

Università di Firenze

Università di Genova

Università di Padova

Università di Pavia

Università di Pisa

Università di Salerno

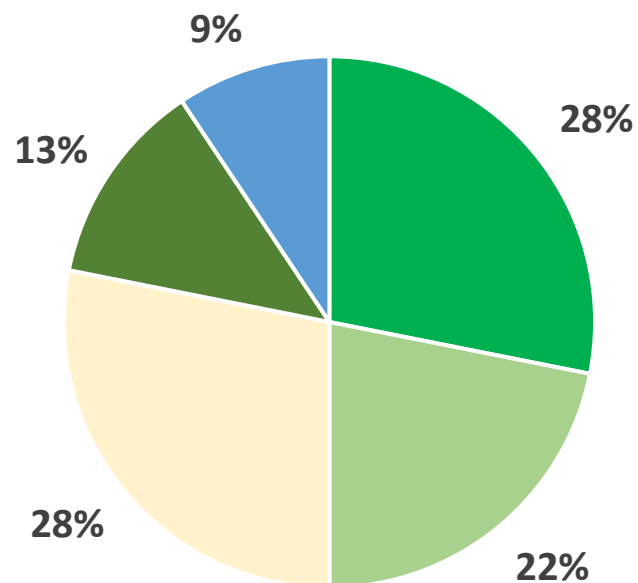
Università di Siena

Università di Venezia (Ca' Foscari)

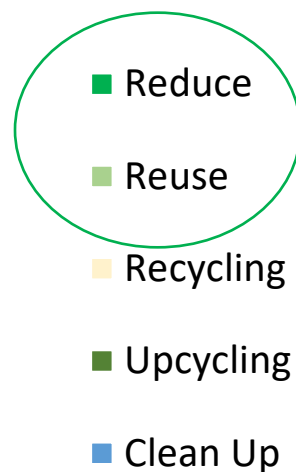
SUMMARY OF CALL BP RESULTS (2)



Categories of initiatives



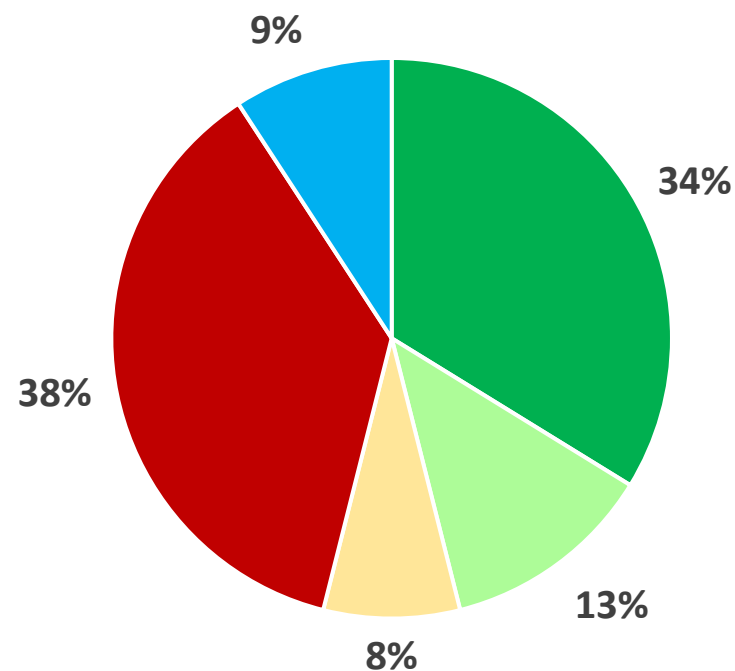
Prevention



Provisional data



Areas of initiatives



Resources



UNIVERSITY INITIATIVES FOR THE EFFICIENT MANAGEMENT OF RESOURCES AND WASTE

Sapienza – Università di Roma (1 of 3)



SAPIENZA
UNIVERSITÀ DI ROMA

Category of initiative: **reduce**

Title of initiative: Sostieni la tesi, sostieni l'ambiente (Support the thesis, support the environment)

Scope: To encourage voluntary behavioral change

Launched on: Annually on Earth Day and during graduation sessions

Type of student involvement: University students, especially during graduation sessions

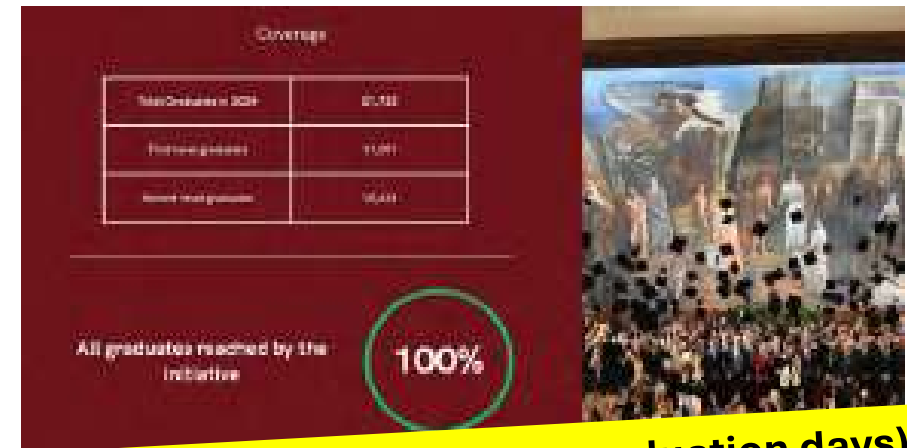
External Partners: None

Communication methods: Social media, university website, newsletter, RadioSapienza, and posters

Short description:

“Sostieni la tesi, sostieni l’ambiente” (“Support the thesis, support the environment”) is a university initiative to **prevent microplastic pollution during graduation ceremonies** by encouraging students to avoid using balloons, plastic confetti, and streamers.

It promotes the "Reduce" principle and is a key part of the university's environmental policy.



Single-use plastic waste (focus on graduation days)
Awareness – engagement campaign and guidelines

Link to the initiative: [laurearsi-senza-inquinare](https://www.sapienza.it/it/laurearsi-senza-inquinare)

UNIVERSITY INITIATIVES FOR THE EFFICIENT MANAGEMENT OF RESOURCES AND WASTE

Category of initiative: **reduce**

Sapienza – Università di Roma (2 of 3)



SAPIENZA
UNIVERSITÀ DI ROMA

Title of initiative: No Food Waste!

Scope: To reduce food waste

Launched on: European Week for Waste Reduction (EWWR) 2024

Type of student involvement: Direct participation through a seminar, on-site promotion at campus eateries, and a **plogging event**

External Partners: Companies that manage bar services and university residences

Communication methods: Social media, university website, newsletter, RadioSapienza and posters

Short description:

"No Food Waste!" won the first prize in the Public Administration category at the EWWR 2024. It tackled food waste by **allowing students to purchase discounted daily food surpluses from campus cafés.**

The campaign also included educational events, such as a seminar on recycling and a "**plogging day**," combining fitness with litter collection.



**Food waste
Nudging initiatives**

Link to the initiative: [no_food_waste!](#)

UNIVERSITY INITIATIVES FOR THE EFFICIENT MANAGEMENT OF RESOURCES AND WASTE

Alma Mater Studiorum – Università di Bologna



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

Title of initiative: Food saving

Scope: To prevent food waste

Launched on: January 2025

Type of student involvement: Students are the main customers (100% at Engineerings venues; about 50% at Vet and Agriculture venues)

External Partners: Cafeterias service provider

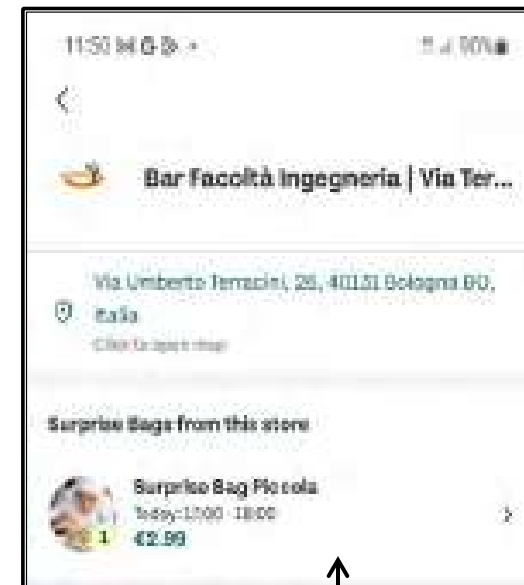
Communication methods: Online by «Too good to go» app

Short description:

In order to **minimize food waste**, in the tender for cafeterias services, proposals were awarded to **donate leftover food** at the end of the day and offer **last-minute discounted sales**.

Link to the initiative: <https://www.unibo.it/en/study/life-at-university-and-in-the-city/where-to-eat-canteens-and-catering-services>

Category of initiative: **reduce**



**Food waste
Nudging initiatives**

UNIVERSITY INITIATIVES FOR THE EFFICIENT MANAGEMENT OF RESOURCES AND WASTE

Università di Pavia (1 of 4)



UNIVERSITÀ DI PAVIA
Office for Sustainable Actions

Title of initiative: #ACCENDILACONSAPEVOLEZZA (#IGNITEAWARENESS)

Scope: Awareness-raising activities on energy saving, **waste reduction**, and **sustainable lifestyles**

Launched on: 16th February 2025 (national day). Local events held on 21st February 2025

Type of student involvement: Active participation in cultural and sustainability events, contribution to **clothing exchange and engagement in community building through music and shared experiences**

External Partners: Collegio F.lli Cairoli, CRAL Ateneo Pavia, Derivacustica

Communication methods: Social media, university website, posters, flyers, and local press

Short description:

The University of Pavia – Office for Sustainable Actions took part in the **national campaign «M'illumino di meno»** to promote energy saving and sustainable lifestyles. On 21st February, several events were held: a guided tour on the theme of energy at the Museum of Electrical Technology, a **Swap Party for exchanging clothes in good condition** and a Jam Session by candlelight. All activities highlighted the importance of reducing waste, embracing sustainable fashion and sharing moments of awareness together.



**Responsible consumption
Awareness – engagement campaign
Swap initiatives**

Link to the initiative:

https://osa.unipv.it/wp-content/uploads/2025/02/Locandine-Museo-SwapParty-JamSession_Milluminodimeno25.pdf

UNIVERSITY INITIATIVES FOR THE EFFICIENT MANAGEMENT OF RESOURCES AND WASTE

Università di Pavia (2 of 4)



UNIVERSITÀ DI PAVIA
Office for Sustainable Actions

cral
ateneo
PAVIA
— APS —



Title of initiative: Let's Swap Party

Scope: To promote sustainable fashion

Launched on: 30th May 2025

Type of student involvement: Active participation by bringing up to 10 garments/accessories, exchanging or donating them, and engaging in awareness on sustainable lifestyles

External Partners: Collegio F.lli Cairoli, CRAL Ateneo Pavia

Communication methods: Social media, university website, posters, flyers, and local press

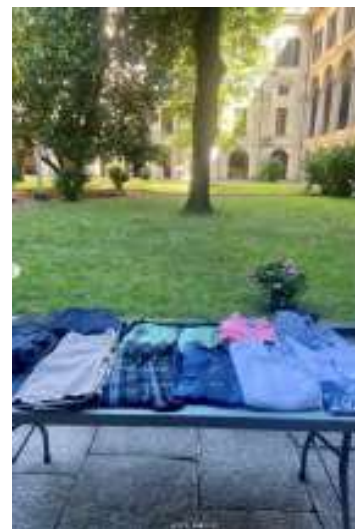
Short description:

The initiative aimed to promote sustainable fashion, reduce waste, and encourage responsible consumption through the **exchange of clothes and accessories in good condition**. The event also fostered social interaction and **community engagement**.

Link to the initiative:

<https://www.unipv.news/eventi/swap-party-al-collegio-flli-cairoli-uneco-festa-di-stile-e-condizione>

Category of initiative: **reduce** and **reuse**



**Responsible consumption
Swap initiatives**

UNIVERSITY INITIATIVES FOR THE EFFICIENT MANAGEMENT OF RESOURCES AND WASTE

Università di Firenze (1 of 2)



UNIVERSITÀ
DEGLI STUDI
FIRENZE

Title of initiative: Rigenejeans. New life for your old jeans

Scope: To promote the **reuse of jeans**

Launched on: UniFi Green Week 2025

Type of student involvement: All the students, included PhD students, and citizens

External Partners: Rifò

Communication methods: Workshop

Short description:

Niccolò Cipriani, founder of **Rifò**, presented the project that has been active for years now in the Florence and Prato area. It was also an opportunity for the participants to **bring old jeans or other clothing items you no longer wear**, so they can be properly introduced into a **reuse supply chain**. In particular, it was possible to bring garments with the following compositions:

Jeans: at least 95% cotton;

Wool sweaters: at least 95% wool;

Cashmere sweaters: at least 95% cashmere.

Category of initiative: **reduce** and **reuse**



Link to the initiative: <https://www.unifisostenibile.unifi.it/vp-217-unifi-green-week.html>

UNIVERSITY INITIATIVES FOR THE EFFICIENT MANAGEMENT OF RESOURCES AND WASTE

Università di Genova (1 of 2)



Università
di Genova

Title: European Week for Waste Reduction

Scope: To raise awareness about Waste Reduction

Launched on: Annually since 2022

Type of student involvement: In collaboration with Unigeco (University Student Union)

External Partners: Aliseo (regional body for the right to education) and Ricibo (city network for surplus recovery)

Communication methods: University website, social, and email

Short description:

On the occasion of European Waste Reduction Week (EWWR), the University of Genoa organized events such as: a **Swap Party** where students could **exchange used clothes**, a **workshop on textile reuse**, an **awareness campaign against food waste** in university canteens and on social media, a **Repair Café**, and **themed events** focused on the repair of small appliances.

Link to the initiative: <https://unigesostenibile.unige.it/SERR22>.
<https://unigesostenibile.unige.it/SERR2024>.
https://unigesostenibile.unige.it/repai_re_caf%C3%A8

Category of initiative: **reduce** and **reuse**



Responsible consumption
Swap initiatives

UNIVERSITY INITIATIVES FOR THE EFFICIENT MANAGEMENT OF RESOURCES AND WASTE

Politecnico di Milano (1 of 3)



Title of initiative: Share&Reuse point

Scope: To prevent waste production through the sharing and reuse of materials at the prototype, exhibition and fashion laboratories

Launched on: 2023

Type of student involvement: Students of Design

External Partners: None

Communication methods: Signs in spaces and instructions provided during compulsory safety courses

Short description:

The Share & Reuse project is aimed at design students and **provides material collection points** on the Durando-Bovisa Campus.

The initiative allows students to **share materials from installations, prints and prototypes**, promoting their reuse in new projects with a focus on **eco-design** and improved accessibility for students.

Category of initiative: **reduce** and **reuse**



Responsible consumption
Share points for different materials
Targeted communication

[Link to the initiative: 10 comportamenti sostenibili - polimi](#)

UNIVERSITY INITIATIVES FOR THE EFFICIENT MANAGEMENT OF RESOURCES AND WASTE

Politecnico di Milano (2 of 3)



Title of initiative: Used Eyeglasses Collection

Scope: Collection of used eyeglasses across the whole university community

Launched on: 6th October 2025 (World Sight Day 2025), unti 10 October

Type of student involvement: Students are involved to donate used glasses

External Partners: Lions Eyeglass Recycling Centre

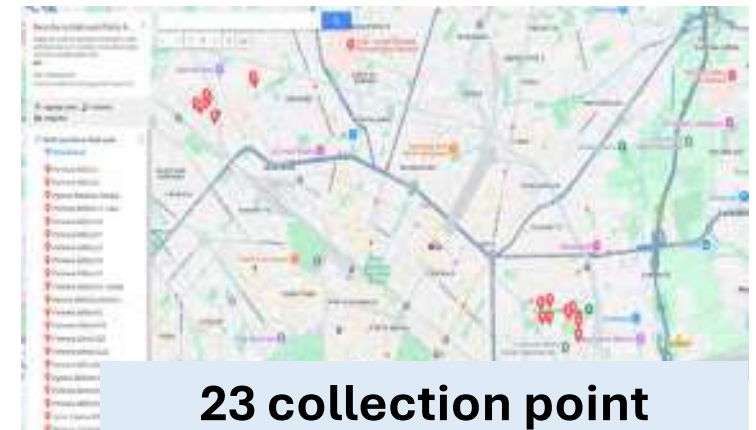
Communication methods: Newsletter, news in Polimi Website and PolimiApp, social media (TBC) direct communication to Departments and Administrative Areas for faculty and staff involvement, and posters in the collection points

Short description:

Organized on the occasion of World Sight Day 2025, the initiative involved the whole university community in the **collection of used eyeglasses**. Collection points were set up in multiple university buildings and the collection lasted a week. **The collected glasses will be sent to the Lions Eyeglass Recycling Centre, that will donate them free of charge to economically disadvantaged people** in Italy and abroad.

The initiative combines social solidarity with environmental sustainability by extending the life of eyeglasses that are no longer used by their owners.

Category of initiative: **reuse**



23 collection point
290 eyeglasses collected

Responsible consumption
Collection points and targeted communication

Link to the initiative:

<https://www.google.com/maps/d/u/0/edit?mid=1pIlijNKM1zkHtlhmi19CO5Bx6hil7Hg&usp=sharing>

UNIVERSITY INITIATIVES FOR THE EFFICIENT MANAGEMENT OF RESOURCES AND WASTE

Università di Cagliari (1 of 2)



UNIVERSITÀ DEGLI STUDI
DI CAGLIARI

Title of initiative: «Unica fa la differenza» (UniCA makes the difference)

Scope: To prevent waste production and educate people about the reuse of goods

Launched on: 2023-2024

Type of student involvement: Awareness raising through outreach materials and meetings with students

External Partners: None

Communication methods: Social media, UniCA magazine, UniCARadio, and broadcasting on university campuses

Short description:

«Unica fa la differenza» have been illustrated in a **simple informative handbook**, posted in all facilities to **raise** awareness for proper waste disposal. There was an increasingly **frequent reuse and recycling of goods**, such as demolition materials, WEEE, and bulky items, which are removed from the waste cycle to be reused within university facilities, or externally through free transfers.

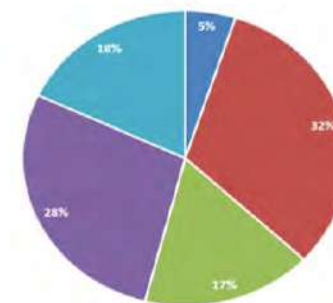
Thanks to these good practices, **UniCA's production of special waste has decreased** from 81.523 kg in 2022 to 54,436 kg in 2023, with a saving of 27.087 kg of items given a second life.

Link to the initiative: <https://www.unica.it/it/ateneo/sostenibilita/sostenibilita-ambientale/gestione-dei-rifiuti-ed-economia-circolare>

Category of initiative: **reuse** and **recycling**



Composizione merceologica rifiuti urbani UNICA



**Municipal waste
Guidelines for collection improvement**

UNIVERSITY INITIATIVES FOR THE EFFICIENT MANAGEMENT OF RESOURCES AND WASTE

Università di Genova (2 of 2)



Category of initiative: **recycling**

Title: UniGe Guidelines for Waste Management

Scope: To correct procedure for Waste Management

Launched on: 2024

Type of student involvement: All students

External Partners: RUS and CONAI

Communication methods: University website, intranet, and email

Short description:

Following the amendment of Legislative Decree No. 152 by Legislative Decree No. 116/2020 (RENTRI), the University of Genoa has adopted **new internal waste management regulations** and operative guidelines focused on **special waste management**. These will be supported by specific staff training. The documents also include **guidelines for correct separate waste collection**, based on the experience gained through the collaboration in drafting the RUS and **CONAI Guidelines**.

Link to the initiative: <https://intranet.unige.it/sicurezza/gestione-rifiuti>
<https://unigesostenibile.unige.it/2024-presentazione-linee-guida-raccolta-differenziata-universita>



CONAI
RUS
risorse
e rifiuti

LINEE GUIDA

per la raccolta differenziata, dei rifiuti da imballaggio
e degli altri rifiuti urbani, nelle Università

Approvato con D.R. n. 2628 del 10/12/2023
 Pubblicazione in albo istituzionale di Ateneo il 20/12/2023, in vigore dal 04/01/2024
 A cura dell'Area di Ateneo - Servizio sorveglianza didattica e valutazione dei rischi



Università
di Genova

Regolamento in materia di organizzazione della gestione dei rifiuti in Ateneo

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Art. 1 - Oggetto e ambito di applicazione	1
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Università
di Genova

Tabella b. Correlazione tra le nuove caratteristiche di pericolo dei rifiuti (HP) e i codici di pericolo delle sostanze (H)

Codice HP	Significato	Frase H di riferimento	Concentrazione	Etichetta CLP	Etichetta ADR
HP1	Esplodente	H200 H201 H202 H203 H204 H240 H251			
HP2	Combustibile	H220 H221 H222			

**Municipal and special waste
Guidelines for collection improvement**

RUS
risorse
e rifiuti

UNIVERSITY INITIATIVES FOR THE EFFICIENT MANAGEMENT OF RESOURCES AND WASTE

Università di Pisa



Title of initiative: «n0w – Nearly 0 Waste»

Scope: To prevent waste generation, and promote separate waste collection

Launched on: 2023

Type of student involvement: Informative and **awareness campaigns**, conscious use of new vending machine and waste bins, **participation in gaming and informative activities**

External Partners: National Packaging Consortium (CONAI), Contarina S.p.A., Municipality of Pisa

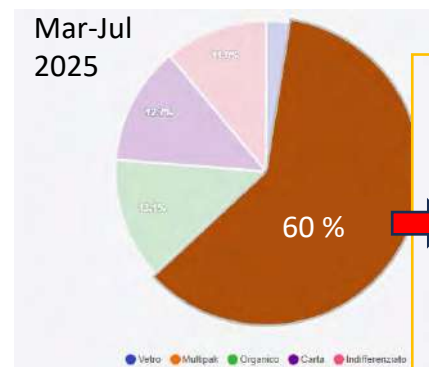
Communication methods: Informative panels, awareness campaigns, training activities, and prize contests

Short description:

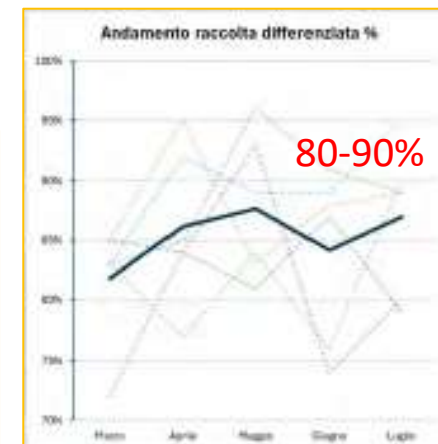
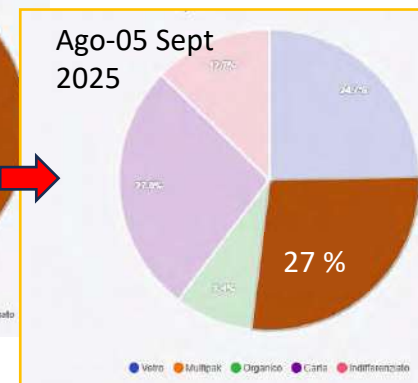
The Nearly Zero Waste (n0w) project aimed to **drastically reduce waste production** at the university and improve separate waste collection by actively engaging the entire university community.

Key actions included: **removal of plastic water bottles** from vending machines, **installation of free water fountains**, **elimination of disposable tableware** at conferences and events, and use of dedicated **software to map waste generation** and monitor separate collection rates.

Category of initiative: **reduce** and **recycling**



Plastic and
cans Waste
Generation



Link to the initiative: [n0w \[Nearly Zero Waste\] - la campagna - CoSA - Unipi Sostenibile](#)

**Municipal waste
Awareness – engagement campaign for
collection improvement**

UNIVERSITY INITIATIVES FOR THE EFFICIENT MANAGEMENT OF RESOURCES AND WASTE

Università di Padova



Title of initiative: Separate waste collection

Scope: To optimize the waste management system within the academic environment

Launched on: April 2025

Type of student involvement: The entire university community

External Partners: None

Communication methods: Social media, university website, posters

Short description:

The project involves the **installation of approximately 1,000 "waste collection points"**, comprising a total of 5,000 waste containers for: organic waste, residual (non-recyclable) waste, plastic, paper, and glass. **The containers are made of recycled cardboard**, with a cover made of recycled polypropylene (PP), and are certified in accordance with the Minimum Environmental Criteria (CAM). In the interior areas of university buildings **5 waste containers were installed and individual waste bins from all offices were removed**. An in-depth study will be conducted to identify the most suitable locations and the specific needs of different outdoor zones. External waste collection points will then be installed. **Specific signage has been placed near the waste containers** to assist the university community in properly sorting waste.

Category of initiative: **recycling**



GUIDELINES FOR THE MANAGEMENT OF
SEPARATE WASTE COLLECTION
AT THE UNIVERSITY OF PADUA

INDEX

INTRODUCTION	3
THE MANAGEMENT OF SPECIAL WASTE AT THE UNIVERSITY	5
SEPARATE WASTE COLLECTION	8
GENERAL GUIDELINES	8
UNI 11886: COLOR CODING	8
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**Municipal waste
Revamping of bins
Guidelines for
collection improvement**

Link to the initiative: <https://www.sostenibile.unipd.it/en/separate-waste-collection-at-the-university-of-padua>

UNIVERSITY INITIATIVES FOR THE EFFICIENT MANAGEMENT OF RESOURCES AND WASTE

Università di Salerno



Title of initiative: Cambiamenti (Changes)

Scope: To adapt to UNI 11686:2017 Waste Visual Elements

Launched on: 2021 (2024)

Type of student involvement: Initially trained, then acting as trainers

External Partners: CONAI, Fisciano Sviluppo

Communication methods: Direct communication and social media

Short description:

The new Waste Sorting Plan has been launched in compliance with UNI 11686:2017 Waste Visual Elements, coordinated by CONAI.

The campaign's message **"Changes"** highlights the **introduction of updated rules and visual elements for proper waste separation**, with a strong focus on color coding to make sorting clearer and more intuitive. The initiative follows the RUS-CONAI guidelines on waste separation, first developed and presented at the University of Salerno. In the campaign video, students are featured in the **interactive quiz "Accetti o Rifiuti?" ("Accept or Reject?")**, designed to raise awareness of correct waste-sorting practices and prevent the most common mistakes.

Link to the initiative: https://www.youtube.com/watch?v=AXVxoT39_BU&t=72s

Category of initiative: **recycling**



**Municipal waste
Awareness – engagement campaign and guidelines
for collection improvement**

UNIVERSITY INITIATIVES FOR THE EFFICIENT MANAGEMENT OF RESOURCES AND WASTE

Sapienza – Università di Roma (3 of 3)



SAPIENZA
UNIVERSITÀ DI ROMA

Category of initiative: **recycling**

Title of initiative: Set-up of an improved system for the separate collection of waste at the Faculty of Civil and Industrial Engineering

Scope: To improve the collection system to achieve a target of 80% source-separated waste

Launched on: 2024

Type of student involvement: Participation in the information campaign

External Partners: PROTEA SpA

Communication methods: Digital green book and organization of an information day

Short description:

Following an **in-situ analysis of the quantity and quality of value-added waste streams** (e.g. paper, plastics, metals, organics), two problems were identified: an ancient building near the Colosseum with limited available spaces and an old collection system jeopardized and inefficient.

The initiative identified **measures to reduce the amount of waste** (e.g. from sanitary paper towels) and designed and implemented separate waste collection and the communication strategy.



**Municipal waste
Re-design of separate waste collection
Guidelines for collection improvement**

Link to the initiative: [Separate Collection at the Faculty of Civil&Industrial Eng](#)

UNIVERSITY INITIATIVES FOR THE EFFICIENT MANAGEMENT OF RESOURCES AND WASTE

Università Bocconi



Università
Bocconi
MILANO

Title of initiative: Sustainability & Waste Recycling Project

Scope: To improve the efficiency of the Campus Waste Management and to **reduce non-recyclable waste**

Launched on: Pilot phase January-February 2023. Consolidation phase January-November 2024

Type of student involvement: Active participation of the Sustainability Committee (students, professors, and staff), associations and ambassadors

External Partners: AMSA (monitoring and analysis), ReLearn Srl (NANDO technology and interactive tablets), and the cleaning company (training)

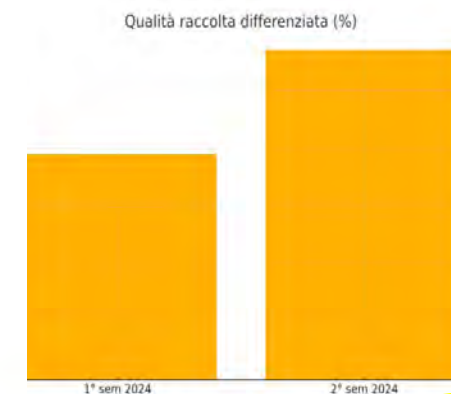
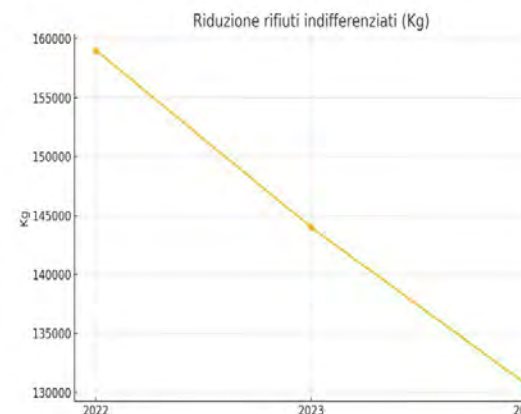
Communication methods: Social media, university website, internal newsletter, events, new waste signage, and ReCircle Bench

Short description:

The project introduced a **major reorganization of waste management on Campus** through the removal of more than 1,000 single bins (unsuitable for waste separation) from offices; the **increase in the number of recycling areas** (from 120 to 136), along with their standardization, optimization, and strategic placement; the **introduction of waste analytics technology** (NANDO.quiz, 3,210 interactions recorded between January-April 2025); the implementation of a gamification system for students using interactive tablets and the **development of information campaigns through the University's communication channels**, including targeted strategies addressing the most common errors in waste disposal. The initiative achieved a **reduction of general waste** from 76.6% (2022) to 59.4% (2024), an **improvement in waste quality** from 39% (1st semester 2024) to 57% (2nd semester 2024), and an **estimated saving of 991 kg CO₂e** in 2024.

Link to the initiative: <https://www.unibocconi.it/en/news/bocconi-green-award-its-smart-waste-project>

Category of initiative: **recycling**



Municipal waste
Re-design of separate waste collection with smart bins
Awareness – engagement campaign for collection improvement

UNIVERSITY INITIATIVES FOR THE EFFICIENT MANAGEMENT OF RESOURCES AND WASTE

Università di Cagliari (2 di 2)



UNIVERSITÀ DEGLI STUDI
DI CAGLIARI

Category of initiative: **recycling**

Title of project: Use of advanced sensors to measure municipal waste production (MSW)

Scope: To test innovative sensors and estimate per capita MSW production

Launched on: 2023-2024

Type of student involvement: M.Sc. students of Environmental Engineering for Sustainable Development

External Partners: ADGENERA Innovation and Technology

Communication methods: Internal meetings

Short description:

The **use of innovative sensors for container fill level** allowed to monitor the production of various municipal waste fractions. The trial lasted six months and involved 80 users, including academic, technical, and administrative staff, as well as students. Data processing estimated a **total annual per capita waste production of approximately 22.5 kg**. Of this total, plastics accounted for 5%, paper and cardboard for 32%, glass and cans for 17%, organic waste for 28%, and residual dry waste for 18%. These data resulted in a **separate waste collection rate of 82%**.



green
UNICA



**Municipal waste
Smart bins to measure waste**

Link to the initiative: <https://www.unica.it/it/ateneo/sostenibilita/sostenibilita-ambientale/gestione-dei-rifiuti-ed-economia-circolare>

RUS
risorse
e rifiuti

UNIVERSITY INITIATIVES FOR THE EFFICIENT MANAGEMENT OF RESOURCES AND WASTE

Università di Siena



UNIVERSITÀ
DI SIENA
1240

Category of initiative: **recycling**

Title of initiative: Recycling of used lab glass containers (bottles, flasks, etc.)

Scope: To recover resources from special waste programme

Launched on: October 2020

Type of students involvement: Seminars for Lab students

External Partners: SEI Toscana-Waste Management services

Communication methods: Guidelines and seminars

Short description:

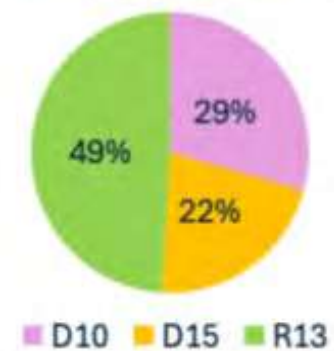
Waste separation is increasingly recognized in academia as essential for sustainable, cost-effective waste management and for promoting circular economy awareness among students.

Since 2020, a project to **improve special waste recycling** has included the **recovery of glass containers from research and teaching labs**.

Specific guidelines were shared with faculty, students, and staff to distinguish recyclable glass from hazardous containers (EER code 15 01 10*), excluded from recycling, and to ensure proper preparation for collection. **Nearly 50% of the special waste produced at the University of Siena is already managed through recycling-oriented disposal routes (R13).** The master project aims to increase this percentage.

Link to the initiative: rwm@unisi.it

FINAL DISPOSAL



Laboratory waste
Guidelines for collection improvement

UNIVERSITY INITIATIVES FOR THE EFFICIENT MANAGEMENT OF RESOURCES AND WASTE

Politecnico di Milano (3 of 3)



Title of initiative: CINGOMMA Project
Scope: To repurpose and **give new life to used bicycle tires and inner tubes** through upcycling
Launched on: 2019
Type of student involvement: The entire university community
External Partners: CINGOMMA/Recrea srl
Communication methods: CSCS social media, CSCS website, newsletter, and posters

Short description:
CINGOMMA exemplifies the circular economy **by converting tires and inner tubes into handcrafted goods (key rings and belts).**
Since 2019, Politecnico di Milano has been collaborating with Cingomma, a brand produced and distributed by **Recrea srl**, an Italian artisanal company that carefully handcrafts high-quality fashion accessories by upcycling used bicycle tires and inner tubes. As part of this project, **6 collection bins have been placed across the two Milan campuses:** 3 at the Leonardo campus and 3 at the Bovisa campus.

Link to the initiative: [Progetto Cingomma - Campus Sostenibile](#)

Category of initiative: **upcycling**



<u>Year</u>	<u>Inner tubes</u>	Tires	Total
2021	124	73	197
2022	140	57	197
2023	255	88	343

Various products (tires)
Sustainable lifestyle



UNIVERSITY INITIATIVES FOR THE EFFICIENT MANAGEMENT OF RESOURCES AND WASTE

Category of initiative: **upcycling**

Politecnico di Torino (1 of 2)



Politecnico
di Torino



Title of initiative: MyPoliTo Re-bag

Scope: To reuse exhibition PVC banners

Launched on: 2023

Type of student involvement: Design school students designed the bags

External Partners: Local artisans

Communication methods: Social media and university website

Short description:

A circular economy initiative that transforms over 250 m² of exhibition PVC banners from PoliTo into **durable bags**. Designed by students and **crafted by local artisans**, the bags were gifted to the PoliTo community in 2023.



Various products (PVC banners)
Sustainable lifestyle

Link to the initiative: <https://www.polito.it/ateneo/campus-sostenibile/ambiti-e-azioni/risorse/economia-circolare>

UNIVERSITY INITIATIVES FOR THE EFFICIENT MANAGEMENT OF RESOURCES AND WASTE

Politecnico di Torino (2 of 2)



Politecnico
di Torino



Title of initiative: Circular design sprint

Scope: To reuse waste materials in a creative way

Launched on: 2025

Type of student involvement: Workshop dedicated to students

External Partners: None

Communication methods: Social media and university website

Short description:

A hands-on workshop where architecture and design master's students **transformed discarded construction materials from the campus into modular outdoor furniture**. The prototypes were built in just 8 hours to furnish a courtyard, to showcase creative reuse and circular design.

Link to the initiative: <https://www.polito.it/ateneo/comunicazione-e-ufficio-stampa/poliflash/circular-design-sprint-la-progettazione-circolare-a>

Category of initiative: **upcycling**



**Various products (discarded materials)
Sustainable lifestyle**

UNIVERSITÀ
DEGLI STUDI
FIRENZE

“Il sughero: storia di un materiale straordinario (**Cork: history of an extraordinary material**)” is a seminar that aimed to provide an understanding from a botanical point of view, of **what type of plant tissue cork is**, and allowed participants to observe its structure through **optical microscopy**. On this occasion, participants were invited to collect cork stoppers, which were later delivered to “**Artimestieri**” to be **upcycled into commonly used objects**. Participants also had the opportunity to visit the **monumental trees of the Botanical Garden of Florence**, including a cork oak (*Quercus suber*) dating back to 1805. At the end of the morning, each participants received a pass for an optional (and free) **afternoon visit** to the Botanical Garden.

<https://www.unifisostenibile.unifi.it/upload/sub/Locandine/Programma%20e%20modalit%C3%A0%20di%20iscrizione.pdf>

Category of initiative: **upcycling**



Programma

10.00
Salut e introduzione
Zsolt Fekete
Dipartimento di Geologia, Università degli Studi di Firenze
Refettorio in ALPS 200 Duccio - 11, Jacopo Fieschi e Refet

10.15
Gianluigi Forti
Corso di Chimica Organica, Università degli Studi di Firenze

10.30
Laboratorio di microscopia
Zsolt Fekete
Dipartimento di Geologia, Università degli Studi di Firenze

11.50
Workshop: il mio scientifico: percorso dalla idea alla tesi
Giorgia Gagliardi
Associazione SAGSI (UNIL ALPS)
Associazione Università Studenti Firenze di Firenze

11.40
Quanto pesano i T: grami di sughero?
Corporale Guido Antonelli

12.30 - 06A



Various products (cork)
Sustainable lifestyle

UNIVERSITY INITIATIVES FOR THE EFFICIENT MANAGEMENT OF RESOURCES AND WASTE

Università di Pavia (3 of 4)



UNIVERSITÀ DI PAVIA
Office for Sustainable Actions

Category of initiative: **clean up**

Title of initiative: Waste Collection for Sustainability

Scope: To **raise environmental awareness** and active contribution to sustainability, as part of the ASviS Sustainable Development Festival and Let's Clean Europe (SERR)

Launched on: 16th May 2025, 3:00 p.m., Central Campus

Type of student involvement: Direct participation in **waste collection**, **community engagement**, and promotion of sustainable behaviors

External Partners: Plastic Free, UDU Pavia

Communication methods: Social media, university website, posters, flyers, and local press

Short description:

The Student Union UDU Pavia and Plastic FREE, under the patronage of the Office for Sustainable Actions (OSA) and the RUS (Italian University Network for Sustainable Development), organized **a waste collection event on 16th May 2025** at 3:00 p.m. at the central campus of the University of Pavia.

The initiative was part of the **ASviS Sustainable Development Festival** and contributed to the **Let's Clean Europe** (European Week for Waste Reduction), reinforcing the collective commitment to environmental sustainability.

The action supported two key UN 2030 Agenda Goals.



**Municipal waste
Awareness – engagement campaign**

Link to the initiative: <https://www.unipv.news/eventi/iniziativa-di-raccolta-rifiuti-un-passo-verso-la-sostenibilita>

UNIVERSITY INITIATIVES FOR THE EFFICIENT MANAGEMENT OF RESOURCES AND WASTE

Università di Pavia (4 of 4)



UNIVERSITÀ DI PAVIA
Office for Sustainable Actions

Title of initiative: Eco-day Plastic Free

Scope: To raise environmental awareness and promote community engagement through sustainable practices, including waste collection, a bicycle repair workshop, meditation, a guided botanical tour and seedball construction.

Launched on: 25th May 2025

Type of student involvement: Active participation in waste collection, workshops, and educational activities, promotion of sustainable mobility, wellbeing and biodiversity

External Partners: Plastic Free, Horti dell'Almo Collegio Borromeo

Communication methods: Social media, university website, posters, flyers, and local press.

Short description:

On 25th May 2025, the Horti of Almo Collegio Borromeo hosted the «Eco-Day Plastic Free», an **event dedicated to sustainability and environmental care**.

Organized by the Office for Sustainable Actions (OSA), Horti, and Plastic Free, the initiative was part of the ASviS 2025 Sustainable Development Festival.

The day began with a **waste collection activity in the park**, where participants were provided with gloves and bags to encourage responsible cleaning.

All collected materials were then brought to the Horti, highlighting the importance of collective commitment to a cleaner and healthier environment.

Category of initiative: **clean up**



**Municipal waste
Awareness – engagement campaign**

Link to the initiative: <https://www.unipv.news/eventi/eco-day-plastic-free-un-festival-nel-festival>

UNIVERSITY INITIATIVES FOR THE EFFICIENT MANAGEMENT OF RESOURCES AND WASTE

Category of initiative: **clean up**

Università di Venezia – ca Foscari



Università
Ca' Foscari
Venezia

Title of initiative: Uni CleanUp Venice

Scope: To clean up plastics and other waste from the areas surrounding the Venice Lagoon

Launched on: Monthly, since March 2022

Type of student involvement: All enrolled students and Ca' Foscari faculty and staff

External Partners: IUAV University, CUS Venezia, Comune di Venezia, Veritas

Communication methods: Social media, university website, and email

Short description:

Uni CleanUp Venice's mission is to protect the local environment by removing plastics and other waste from the lagoon areas. The initiative also aims to raise awareness among participants about the impact of their actions and the importance of adopting sustainable behaviors.



**Municipal waste
Awareness – engagement campaign**

Link to initiative: <https://www.unive.it/pag/44122/?L=0>

«MINI» SURVEY CONCERNING:

- **REMOVAL OF WASTE BINS FROM OFFICES**
- **INTRODUCTION OF ORGANIC WASTE COLLECTION**
- **WASTE PREVENTION AND MANAGEMENT DURING GRADUATION DAYS**

October 2025

Data processing: Elena Sezenna and Melissa Paris, PoliMI

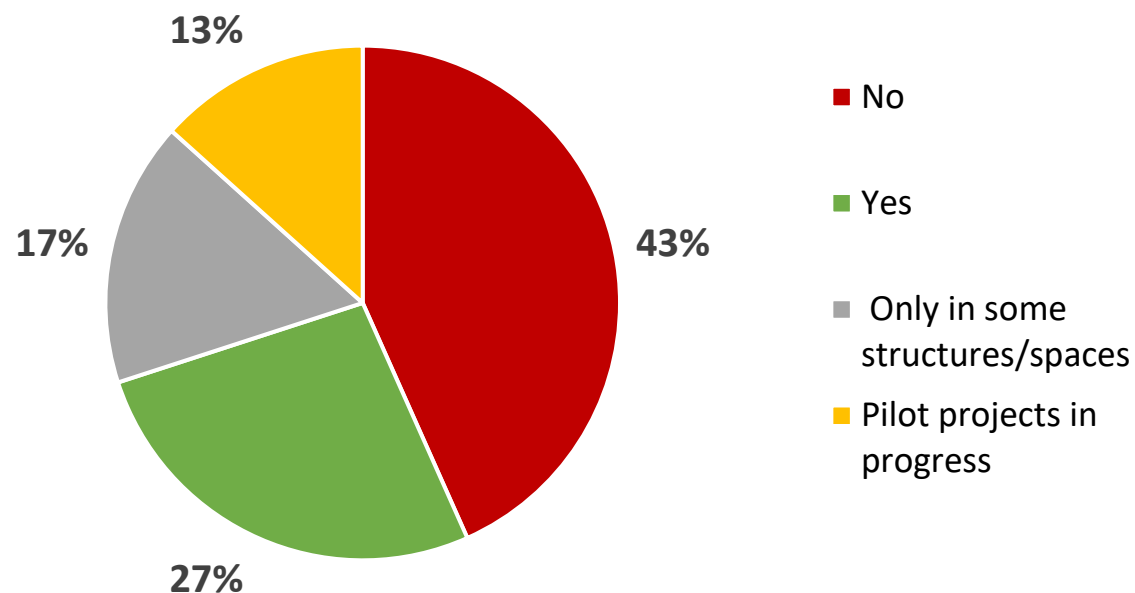
SUMMARY OF MINI SURVEY RESULTS

All universities that are part of the R&W WG were involved. **About 40% responded to the survey.**

Politecnico di Milano
Politecnico di Torino
Università Bocconi
Università dell'Aquila
Università di Cagliari
Università di Camerino
Università Cattaneo – LIUC
LUISS
Università di Ferrara
Università di Firenze
Università di Foggia
Università di Genova
Università di Macerata
Università di Padova
Università di Palermo

Università di Pavia
Università di Parma
Università di Pisa
Università di Roma Uno - Sapienza
Università di Roma Tre
Università di Roma Tor Vergata
Università di Salerno
Università di Siena
Università di Trieste
Università della Tuscia
Università di Udine
Università di Verona
Università Iuav di Venezia
Università di Venezia – Ca Foscari

Have you removed general waste bins from offices?

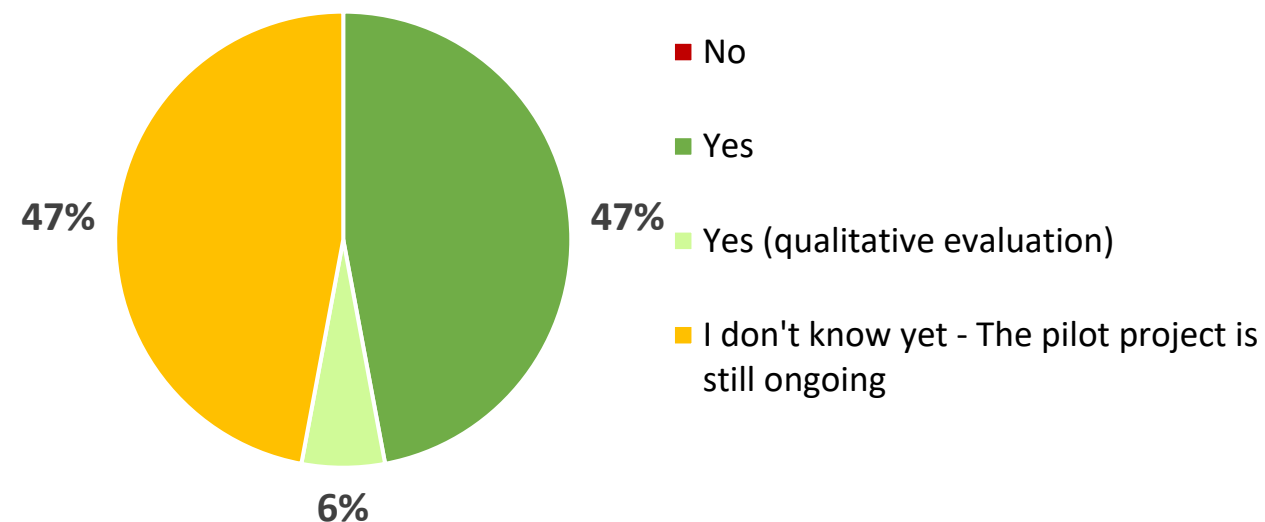


Over 50% of respondents have removed waste bins or are experimenting with their removal

Provisional data



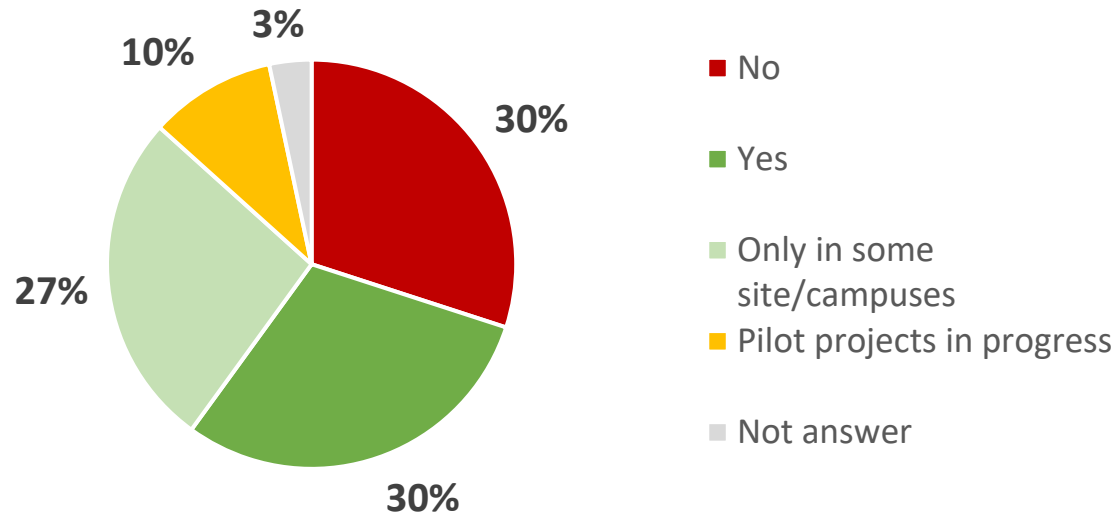
Where the bins were removed, have you noticed any significant improvements in the quality of separate waste collection?



Positive impacts or effects are currently being evaluated

INTRODUCTION OF ORGANIC WASTE COLLECTION (1)

Does your university collect organic waste?

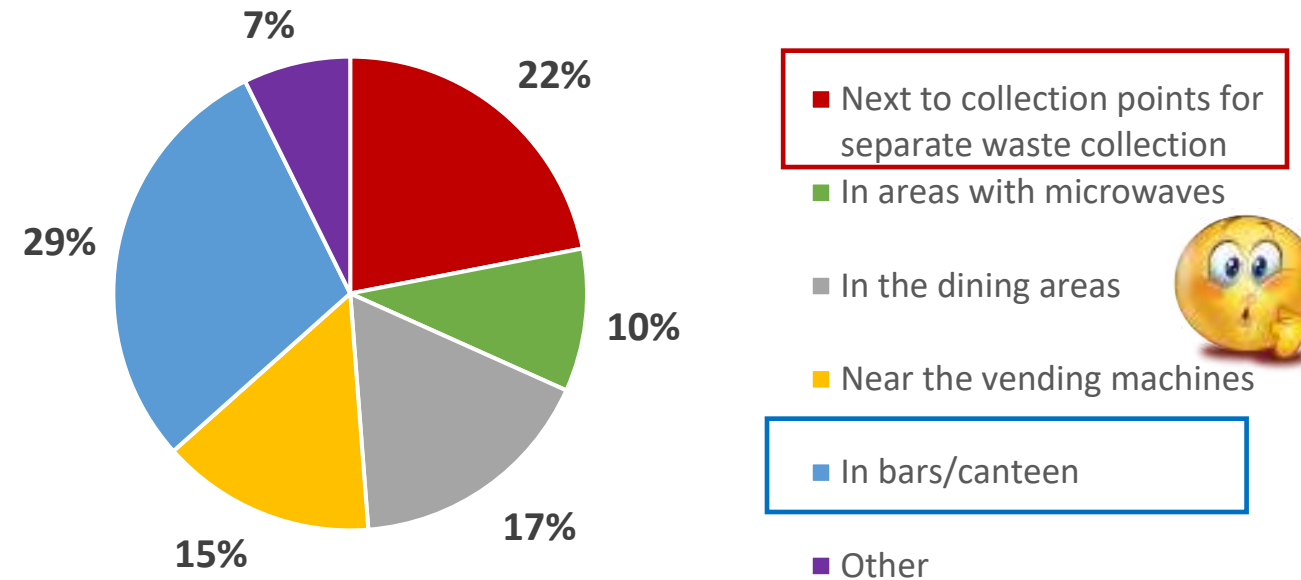


Almost 70% of respondents have introduced organic waste collection

Provisional data

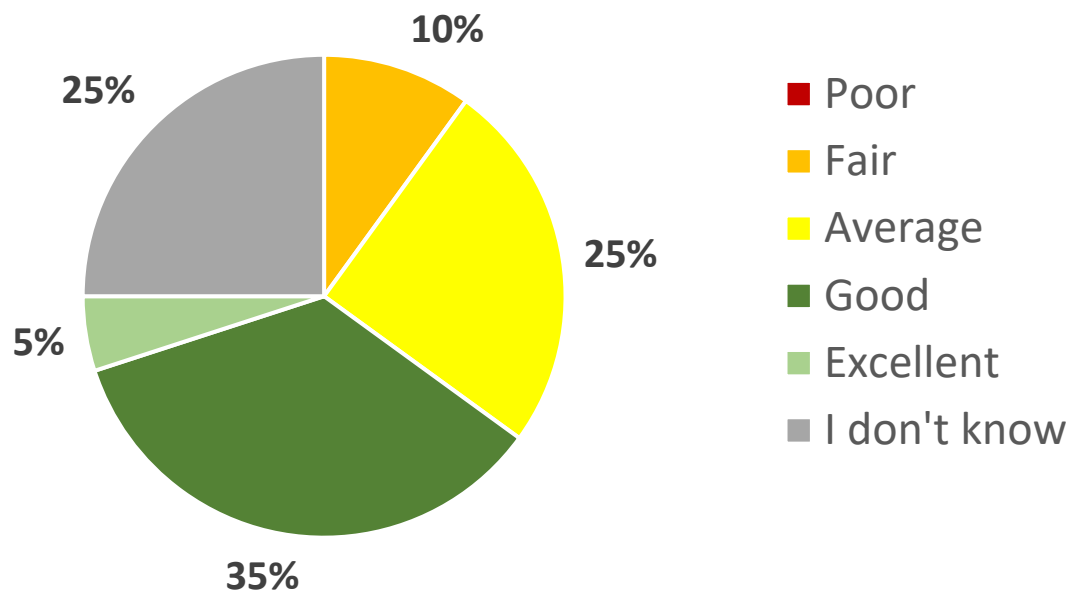


Where have you placed the organic waste bins?



Organic waste bins are placed mainly in bars or canteens and near waste collection points

How do you consider the quality of the collected waste ?

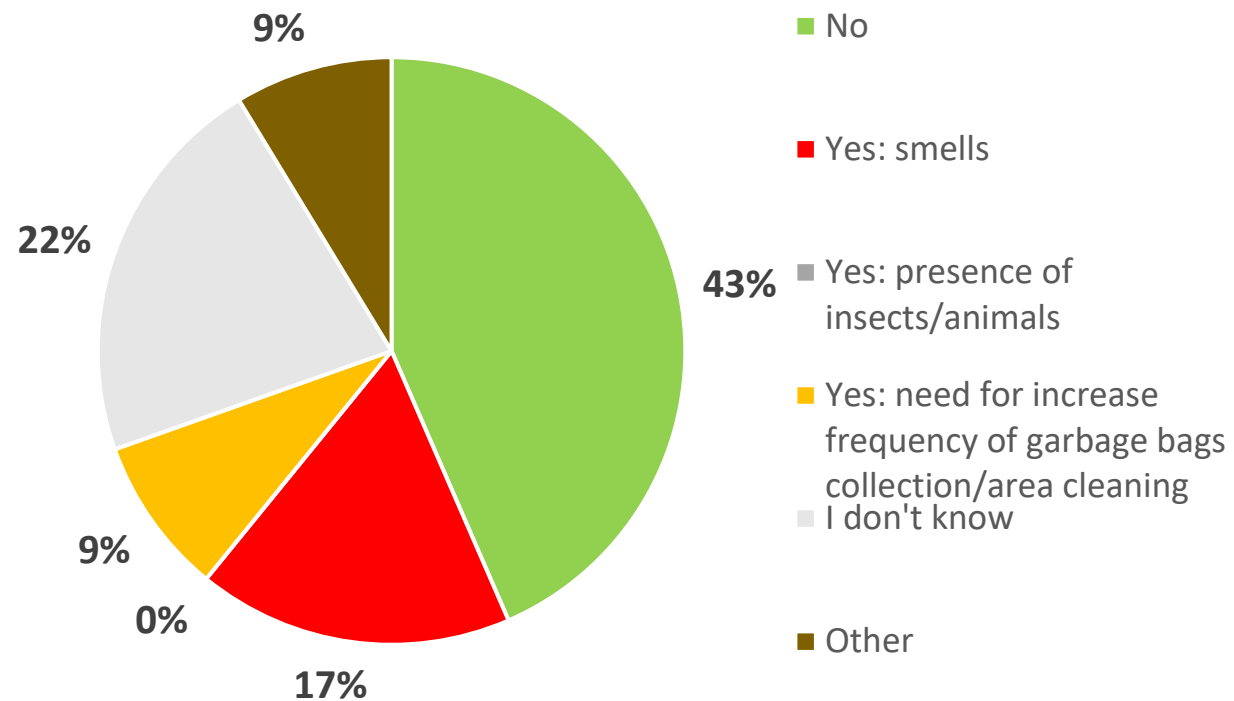


Evaluations related to the quality of the collected organic waste are positive

Provisional data



Have you identified any critical issues with the placement of the bins?

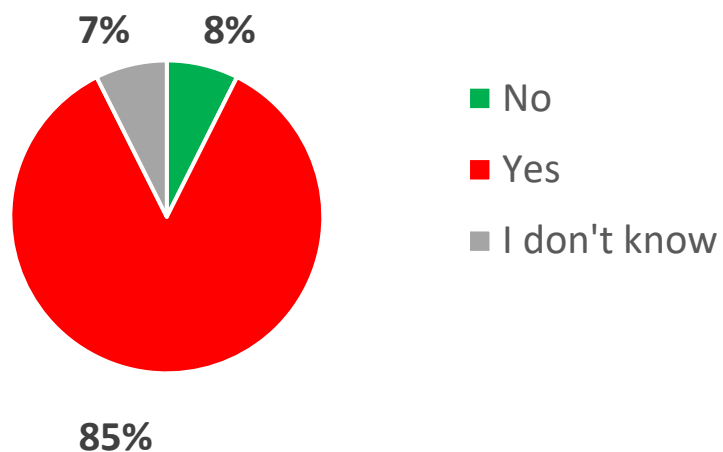


40% of respondents did not report any critical issues.
Significant percentage of «I don't know»: over 20%!

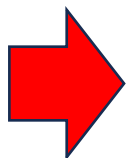
WASTE PREVENTION AND MANAGEMENT DURING GRADUATION DAYS (1)

84

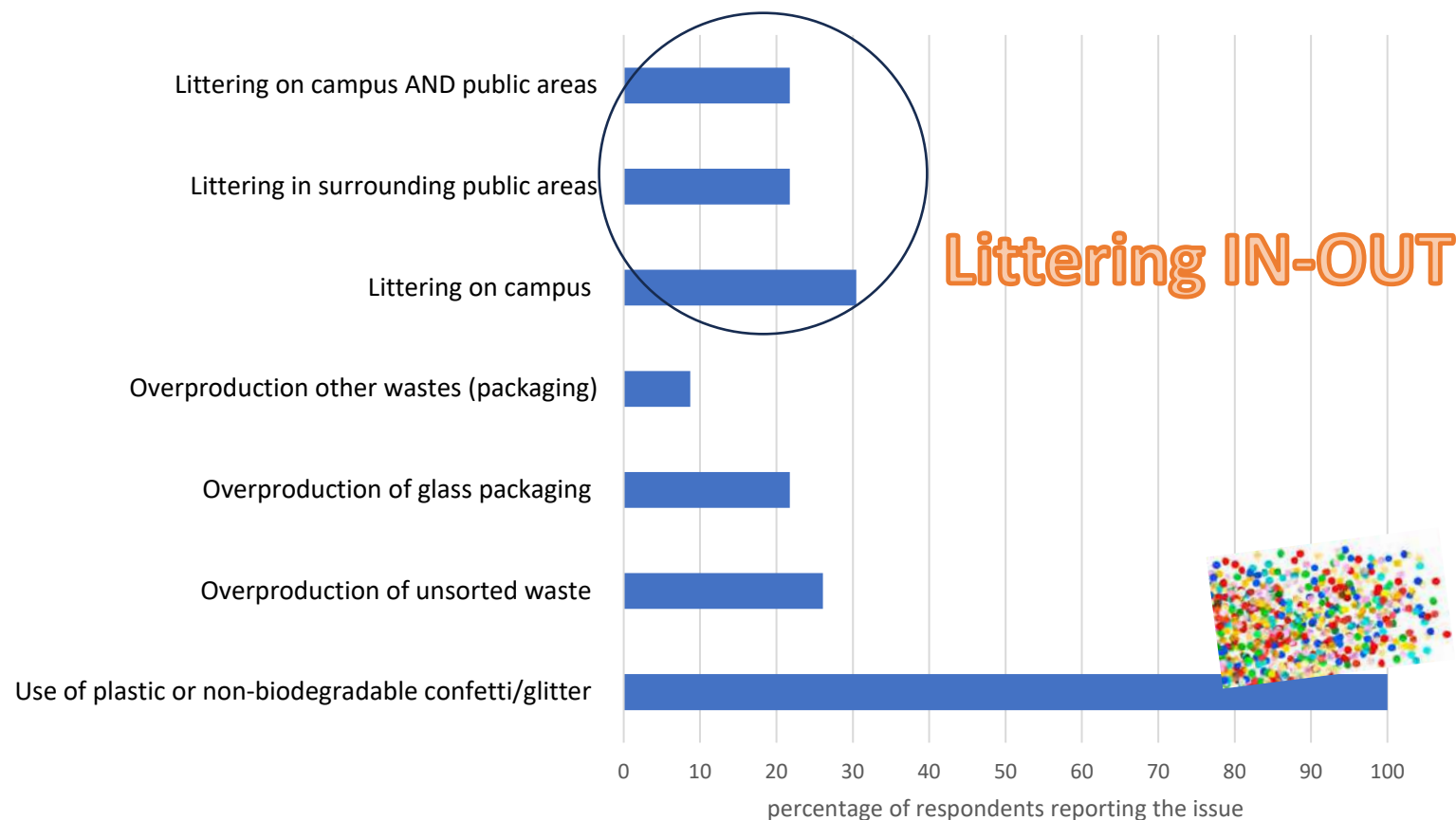
During graduation ceremonies, have you encountered any critical issues related to the circular economy (use of plastic confetti, significant increase in the amount of waste, littering, etc.)?



Provisional data

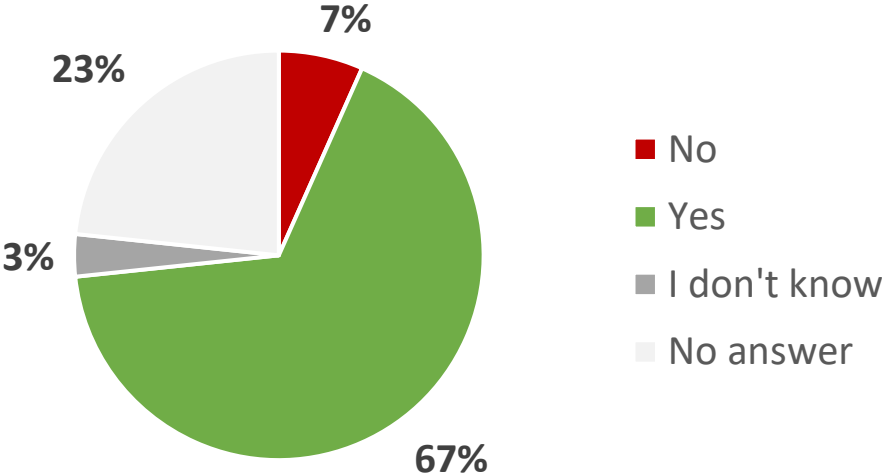


Issues during graduation ceremonies



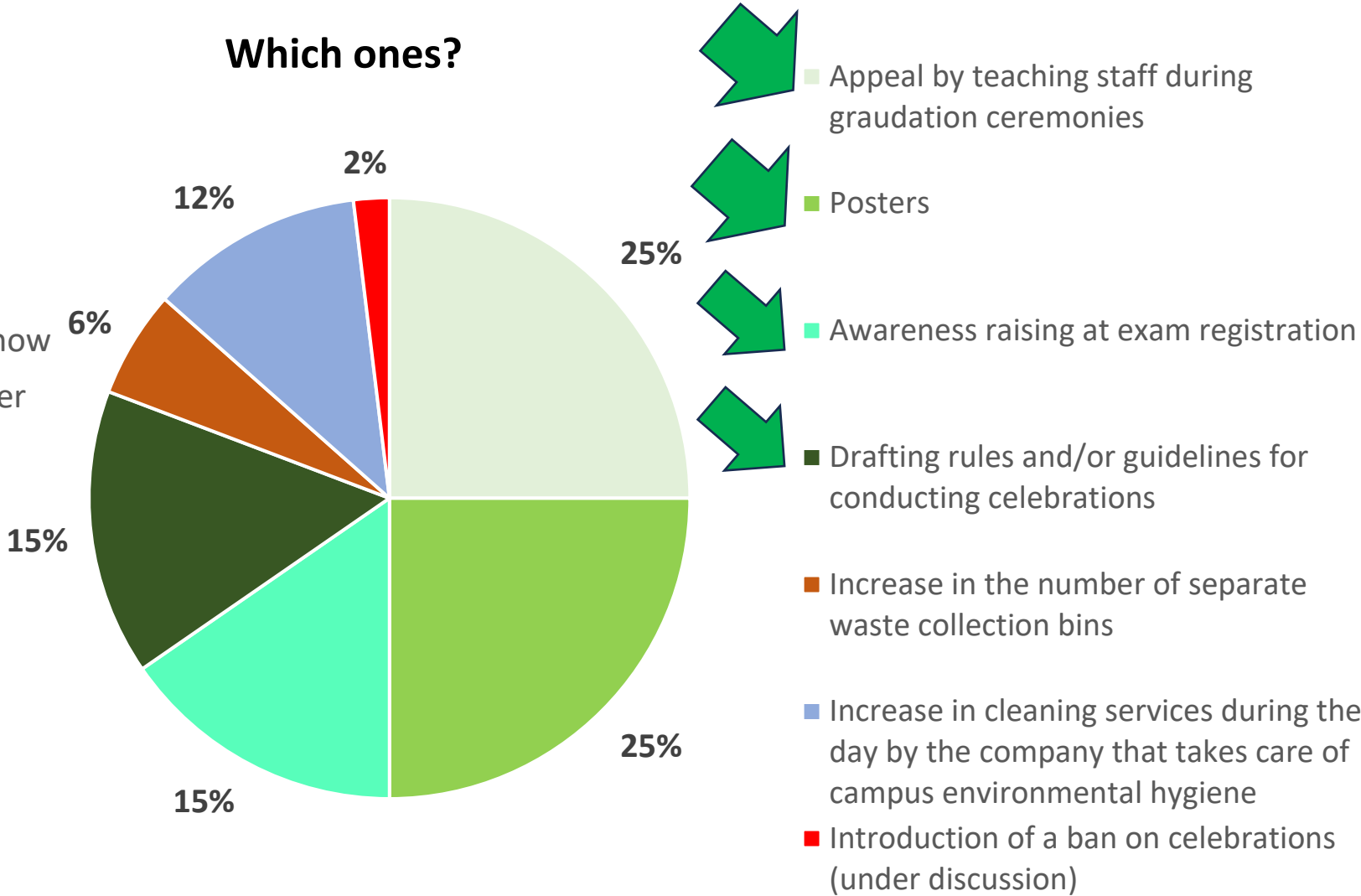
WASTE PREVENTION AND MANAGEMENT DURING GRADUATION DAYS (2)

Have you taken any action?



Almost 70% of universities are trying to react → actions

Which ones?



Provisional data



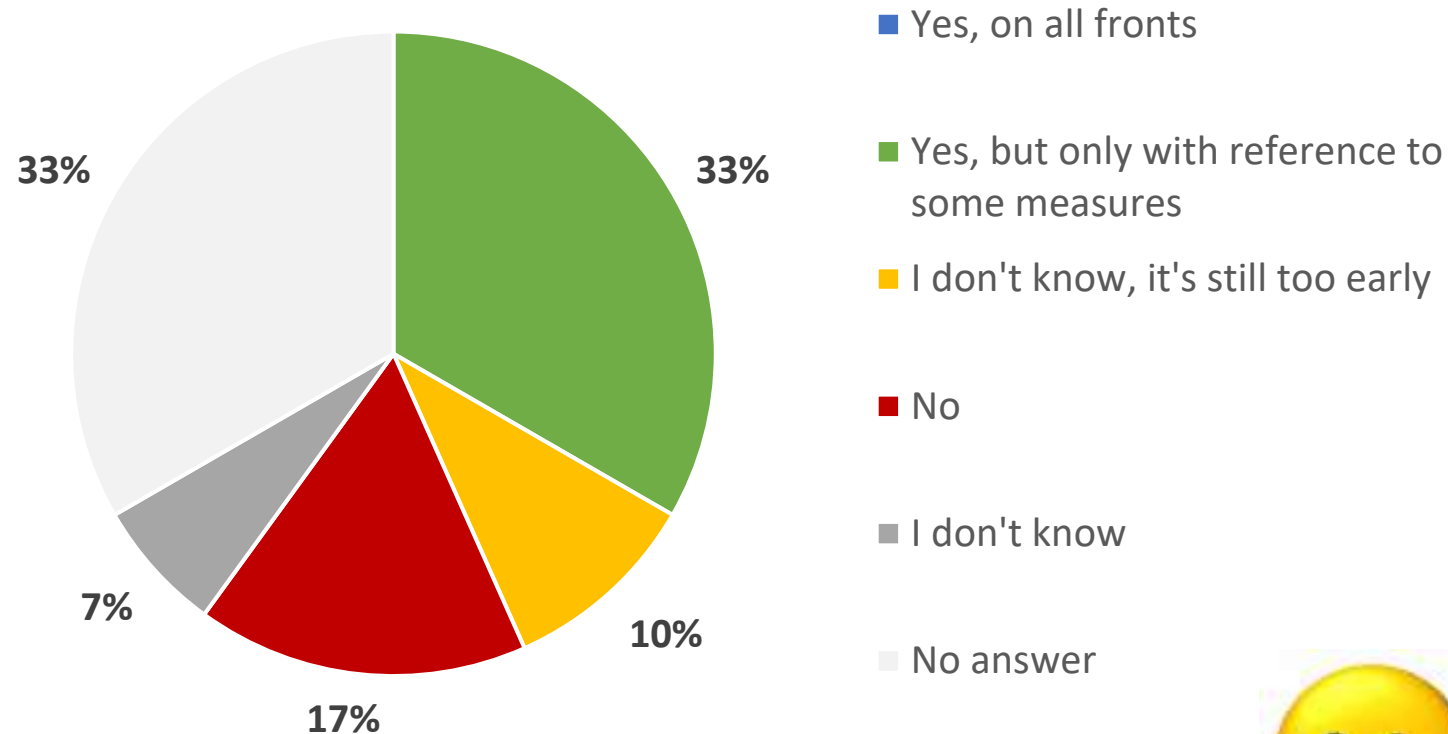
80% of the actions concern prevention





**Do the actions
work?**

Have the actions achieved the intended results?



Provisional data



There is still room for improvement!



OPEN DISCUSSION



THANK YOU FOR YOUR ATTENTION AND PATIENCE!

AND SPECIAL THANKS TO:



***ELENA SEZENNA and MELISSA PARIS
(PoliMI)***



for the support, respectively, in data processing and translation

***MARIA CRISTINA LAVAGNOLO
(UniPD)***



for the opportunity to share RUS experiences



<https://www.youtube.com/watch?v=FLVDZkXBDbc>



<https://www.youtube.com/watch?v=KH-qlwAGQNk>



Contacts and information

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Coordinator



<https://reterus.it/risorse-e-rifiuti/>

***The measure of
intelligence is the
ability to change
when necessary.***

(A. Einstein)