



University of Cagliari

2° Sustainability Report 2023-2024



published by the Green Team
Directorate for Investment, Maintenance, Sustainability

Green
UNICA

Foreword

The University of Cagliari (UniCA) has embedded sustainability among the fundamental pillars of its mission, recognizing that increasingly complex and pressing global challenges are possible only through a holistic and integrated approach. Our university's commitment is reflected in concrete actions that aim to reduce our ecological footprint, improve the quality of life within the community, and contribute positively to the region's and society's development. These are precise actions recounted with pride and satisfaction by UniCA's Green Team in the Second Sustainability Report, which reflects the University's dedication to promoting environmental, social, and economic sustainability, in line with the objectives of the United Nations 2030 Agenda.

In a historical period when negationist tendencies are questioning the importance of sustainability and even attributing to sustainable policies negative economic repercussions capable of limiting the development of our economy, the role of university as an institution is fundamental to reaffirm the importance of knowledge as a driver of innovation, and thus of competitiveness and development within a sustainable and inclusive framework. For all these reasons, since 2016, UniCA has actively participated in the RUS (National Network of Universities for Sustainable Development), established by the CRUI (Conference of Italian University Rectors), to foster collaboration between public and private university institutions committed to environmental sustainability and social responsibility.

UniCA is devoted to demonstrating with its teaching and scientific activities but also in the implementation of the management policies of a complex structure, that sustainability is not just an expense, even if it is necessary to invest to achieve it, or a frill, that must be implemented progressively in every single phase of the procedures. On the other hand, sustainability is a real opportunity for social and economic growth that finds its sap in research and knowledge, creating innovation and well-being. The messages, thanks also to the work of the Green Team, are conveyed not only to the students who rely on UniCA to acquire the necessary cultural tools for their future but also to the territory and its institutions to be a source of inspiration.

The enthusiasm, spirit of initiative, expertise, and dedication of the Green Team have a fundamental role in helping UniCA and the region take a step forward year by year toward well-being, inclusion, and sustainability, which are all of immeasurable value nowadays. The Green Team's work, crucial to inspiring the entire academic community, would be in vain without sharing it. Special recognition goes to all the people at the university who have welcomed the Green Team's stimulus, making it their own, and contributing actively to achieve the sustainability goals defined by the Governance.

The significant results achieved and summarised in the Second Sustainability Report are only the first chapters of a well-begun journey that still requires developing and implementing innovative strategies with the belief that social, economic, and productive innovation necessary for sustainable development can be generated only from culture and research. The medium-term ambition is to accredit Sardinia as a site of nature where supply and demand for innovation are discussed yearly. Innovation cannot be a breakthrough without considering it as a synonym for sustainability and inclusion.

Fabrizio Pilo

Vice-Rector for Territory and Innovation
Delegate for Relations with RUS

2° Sustainability Report 2023-2024

Transforming the University of Cagliari into an increasingly sustainable reality has become the University's Common Objective 2023, which has been realized through multiple activities aimed at giving greater solidity to the complex path towards Sustainability, meant as a value to be integrated in daily practice, and not as a mere superficial statement. In recent years there has been an increasing focus by UniCA on the inclusive management of the environmental and social impacts of its activities, which impact both ecological footprint and social repercussions.

This second sustainability report of the University of Cagliari stems from the need to account for the actions undertaken to promote environmental, social, and economic sustainability in a transparent and structured manner. The present document represents a fundamental tool to demonstrate the University's commitment to improving its performance in line with the objectives of the 2030 Agenda of the United Nations.

Through this report, the University of Cagliari provides an overview of the initiatives carried out to reduce the environmental impact of its activities, increase energy efficiency, promote sustainable mobility, and strengthen welfare inclusion policies for students, technical-administrative staff, and teaching and research staff. Additionally, the document allows us to monitor progress over time and to identify areas where further improvement is possible. The Sustainability Report ensures transparency vis-à-vis the academic community and civil society, highlighting the good practices adopted and stimulating a constructive debate on making the UniCA more sustainable. This functions as a public account for what has been achieved and what has led to a continuous improvement of sustainability, underlining activities carried out and concrete actions. The results are not always visible or pay off immediately, but they certainly make an impact and mark out the path; they make it clear whether efforts have been made in the right direction or whether corrections are needed. They also confirm the good choices and the effectiveness of the actions taken.

*The Green Team
of the University of Cagliari*

WHO WE ARE

Mission and Values of UniCA

The story of the University of Cagliari began on October 31, 1620, when King Philip III of Spain signed the foundation privilege. Today, following four hundred years of history, culture, research, and interaction with the territory and its stakeholders, the University is projected to be a strong and dynamic force in the fabric of the nation's future. To the than 25.000 enrolled students, our university proposes a wide and intense range of academic offerings which include Bachelor's and Master's Degrees, Single-cycles, Ph.D. Programs and Specialization Schools, along with an extensive range of post-graduate courses aimed at continuous skill development: First and Second Level Master's Programs, Advanced Training Courses, and Professional Development Courses. In addition, there are the Welcome Office, the Service for Inclusion and Learning, and ISMOKA (International Mobility Office), which offer short- and long-term mobility programs for EU and extra-EU countries. The University of Cagliari boasts a rich cultural heritage, with its museums and sports activities; all aspects fundamental to guarantee the students who choose to study at UniCa a complete and high-quality experience.

The University of Cagliari adopts the values that historically form the basis for freedom of research, teaching, and other academic activities to foster the excellence and reputation of the institution outlined in its charter. The key principles of governance to formulate a shared strategic perspective are: openness and connection; administrative simplification; transparency; decorum and use of space; quality and continuous improvement; participation and sharing; enhancement; and sustainability. They are perfectly harmonized with the underlying values of the University's strategy, representing the framework within which the planning is articulated and the prerequisite for every activity. One of these key principles is sustainability, embodied in the promotion of policies that enhance and improve the University's contribution to the pursuit of sustainable development goals defined by the UN 2030 Agenda, also through collaboration with other local stakeholders for planning sustainable initiatives of the territory.

Background

The University of Cagliari has a strong territorial presence that reflects both the historical and cultural characteristics of the city and the Region of Sardinia, or the contemporary dynamics related to academic training, economic research, and social development. The city of Cagliari, due to its historical and cultural identity and heritage still deeply rooted in its inhabitants, holds significant attraction for students and researchers from other parts of Italy and all over the world. UniCA has a leading role in preserving and enhancing the culture and history of the island. It is also a driving force in developing scientific and technological knowledge, playing a crucial role as an educational and cultural pole of reference, with a wide range of bachelor's and master's courses, and Ph.D studies in multiple disciplines contributing to the professional and cultural growth of the region. UniCA is an important driver of research and innovation, particularly in fields such as engineering, natural sciences, economics, law, and social sciences.

Organizational structure

The organizational model of the University of Cagliari, as defined by the Statute and other regulatory and organizational acts, facilitates governance over its institutional missions and services. This takes the form of governing bodies such as the Rector's office, the pro-rectors and delegates, the Academic Senate, and the Board of Directors; the managing bodies of the Director General and the Departments. The Departments are responsible for providing teaching, research, and third mission support services as the operational units of general administration, while the faculties undertake the coordination of functions to organize courses of study and of the schools of specialization. They are also responsible for managing the teaching activities and common services. UniCA currently has 15 Departments and 6 Faculties. Finally, the service centers and organizational structures produce, deliver, and manage services and laboratories that support teaching and research activities.



THE UNIVERSITY OF CAGLIARI AND THE CONCEPT OF SUSTAINABILITY

Sustainable development is the most demanding challenge that humanity is facing in handling natural resources and the heritage of ethical and social values for future generations, and it is essential for survival on our planet. The path towards this goal is particularly complex and non-linear. It requires a multi-level and multi-disciplinary commitment that includes everyone. Universities play a fundamental role in this course of action, considering that they have the primary task of preparing the society of tomorrow. The education of new generations and the development of new awareness and knowledge that impact our actions on the planet are the means to achieve this. However, the duties of the universities do not finish only with the education of future citizens, managers, teachers, politicians, decision-makers, and professionals: they are also concerned with the advancement of knowledge, the co-production of innovative collaboration, and supporting institutions, industry, and civil society. Thanks to the synergy between the different players, it is possible to realize actions focused on achieving sustainability goals. This relates to engaging in a transversal process, to be evaluated in the long term, through which environmental protection, community welfare, social and intergenerational equity, and economic development can be pursued in an integrated and systemic manner.

THE UNIVERSITY SYSTEM FOR SUSTAINABLE DEVELOPMENT

The Steering Committee and Green Team

The issue of sustainability at the University of Cagliari acquired a higher standard at the institutional level in 2023, following the adoption of organizational measures, which is fundamental to strengthening the University's commitment to the implementation of environmental, economic, and social sustainability policy. The Rector's Decree (DR) no. 306 of 24.2.2023 establishes the **University System for Sustainable Development**.



This initiative takes as its starting point the UniCA Strategic Plan Objective “AT.2 Increasing the University's commitment to sustainable development (UN 2030 Agenda)”, which is made explicit in the Common Objective of the “**Sustainability Plan**”, where the University aims to strengthen its commitment to environmental sustainability through a set of coordinated actions aimed at transforming the University itself into an increasingly sustainable reality, in line with the UN 2030 Agenda Goals and the European Green Deal placing the achievement of sustainability-relevant results at the center of organizational actions of public authorities”. The measures provided by our institution envisage the creation of two bodies: a political-managerial **Steering Committee** chaired by the Rector and a Technical-Operational Management Group providing strategic inputs; and the so-called **Green Team** which reports directly to the Rector's office. The Green Team is composed of highly specialized figures from within the University in order to effectively and efficiently influence the management and monitoring of sustainability indicators. The Green Team has developed a series of actions to increase sustainability through the implementation of initiatives, trainings, and campaigns to raise the awareness of students, academics, staff members, and other users on “Green” issues. The focus of the Green Team is to monitor and control energy use, level of sustainability, and waste reuse of the system through identifying key performance indicators (KPIs); and implementing an experimental project to measure energy consumption.



DR n. 306 del 24.2.2023, istituisce il Sistema di Ateneo per lo Sviluppo Sostenibile
www.unica.it/it/ateneo/sostenibilita
magazine.unica.it/argomento/sostenibilita/

Public engagement of the UniCA Green Team

National Conference on Sustainability

The national conference entitled *"Universities Towards Sustainability: the Experience of University Networks for Sustainable Development (RUS) and the Commitment of the University of Cagliari"* was held on October 6, 2023.

On that occasion, various initiatives were carried out to raise awareness spreading knowledge on 'green' issues through the distribution of a handbook (*Vademecum*) on energy saving, the publication of documents and posters on the importance of green spaces in universities, the circular economy and waste containment, the positioning of the University of Cagliari in the international Green Metric ranking, the Network of Sustainable Universities (RUS) and the activities of working groups of the University of Cagliari with the participation of scientific and technical representatives. The event was in line with the set of actions designed to raise awareness not only among the university community but, given its public character at a national level, also involving citizens and political institutions, whose representatives participated in the meeting at the regional and national levels.



www.youtube.com/watch?v=bL27NYvrdwI
www.unica.it/it/ateneo/sostenibilita/sostenibilita-sociale/premi-e-iniziative
youtu.be/kxLWurnRZh4

Participation in Sharper Night 2023 and 2024

The Sharper Night (Researchers' Night) is a public event open to the entire university community and the citizens. On the occasion, the University Green Team set up an exhibition space illustrating ongoing activities at the University of Cagliari about sustainability management, and environmental and social impacts. The new University System for Sustainable Development and Green Team of the University of Cagliari were presented to the audience during Sharper Edition 2023.



While the 2024 edition illustrated the numerous projects, both carried out and in progress, related to sustainability, in particular concerning the presentation of the Handbook on energy saving on campuses, the initiatives in the field of limiting waste production through the REUSE and RECYCLING of disused materials with a second life, UniCA's sustainability in the international context through its participation in the GREEN METRIC ranking, the activities of the Working Groups of the RUS, the Network of Sustainable Universities of which UniCA is a member, and the launch of major projects in the energy field, such as the smart campus at the Cittadella Universitaria Monserrato. The "New Road and Barrier Abatement Project at the Campus Monserrato" was an important milestone in the ambit of sustainable mobility and

removal of architectural barriers.



www.sharper-night.it/evento/unica-green-team-compie-un-anno/

www.unica.it/sites/default/files/2024-09/240923_PROGRAMMA_2024_web_def.pdf

Participation in the Welcome Days 2023

During the Welcome Days on October 12-13, 2023, the Green Team set up several posters in all faculties to illustrate the activities carried out by UniCA towards more efficient sustainability of the institution. These posters communicated to newly enrolled students the importance of adopting sustainable behaviors to safeguard the environment, health, and wealth. To show UniCA's commitment to this field, the message was conveyed through a particularly expressive graphic language. The posters highlighted the Handbook on energy saving; the FONTANELLE Project illustrating the maps of drinking water access points to eliminate plastic bottles and reduce climate-changing emissions; the initiatives aimed to limit waste through REUSE and RECYCLING of disused materials; the level of UniCA's sustainability in the international context through participation in the GREEN METRIC ranking.



youtu.be/kWnfAyADv_M

Participation in the Orientation Days 2024

The University Campus in Monserrato has hosted the Orientation Days from February 26-28, 2024. On that occasion, the Green Team organized a series of seminars to disseminate knowledge on Sustainable Development themes among last year's high school students in Sardinia. Those seminars were held by UniCa representatives. The topics covered the following aspects: Energy Transition, Agenda 2030 and the 17 SDGs of Sustainable Development, Sustainable Mobility on the University Campus in Monserrato: bike lanes and removal of architectural barriers, the possible contributions of Economic-Managerial Engineering to design industrial policies supporting sustainable and circular innovation, sustainability and digitization of industry for transition 5.0, UniCa waste management: production reduction and circular economy.



UNIVERSITÀ DEGLI STUDI DI CAGLIARI

GO 2024

GIORNATE DELL'ORIENTAMENTO
27/28/29 FEBBRAIO 2024

RUS - Rete delle Università Sostenibili

PROGRAMMA MARTEDÌ 27 FEBBRAIO

Orario	Presentazione	Aula
12.30-13.00	UniCa per l'efficienza e la transizione energetica	Blocco F, aula 201

PROGRAMMA MERCOLEDÌ 28 FEBBRAIO

Orario	Presentazione	Aula
10.00-13.00	Agenda 2030 e i 17 SDGs dello Sviluppo sostenibile	Blocco F, aula 201
11.00-11.30	La mobilità sostenibile nel Campus universitario di Monserrato: il progetto piste ciclabili e l'abbattimento delle barriere architettoniche	Blocco F, aula 201
12.30-13.00	I possibili contributi dell'Ingegneria Economico-Gestionale all'ideazione di politiche industriali di supporto all'innovazione sostenibile e circolare	Blocco F, aula 201

PROGRAMMA GIOVEDÌ 29 FEBBRAIO

Orario	Presentazione	Aula
11.00-11.30	Sostenibilità e digitalizzazione dell'Industria per la Transizione 5.0	Blocco F, aula 201
11.30-12.00	La gestione dei rifiuti di UniCa: riduzione della produzione ed economia circolare	Blocco F, aula 201



www.unica.it/it/didattica/orientarsi/eventi-di-orientamento/giornate-orientamento

Training activities

Specific initiatives aimed at training UniCa's administrative staff on sustainable development and the UN 2030 Agenda have been adopted through the DIRPOP training sector. This unit has coordinated and managed all the phases using Syllabus, an online platform for public administrations and governmental bodies, which offers training modules for progressive levels dedicated to the Sustainable Transition of Public Administration. The staff have been accredited in the platform and invited to take the first thematic training module by Dec. 31, 2023. Another training opportunity coordinated by the Green Team was the Seminar on Minimum Environmental Criteria (CAM) and Public Procurement, organized by the RUS - Capacity Building and Best Practice on October 23, 2023. UniCa staff interested in these issues attended the event.



www.youtube.com/watch?v=2eovCgXwm1k

magazine.unica.it/progetti-unica-finalisti-al-premio-forum-pa-2024/

www.forumpachallenge.it/premio_pa_colori/il-sustainability-plan-delluniversita-degli-studi-di-cagliari-e-il-progetto-pilota-di-energy-saving-nel-palazzo-del-rettorato/

ENERGY AND CLIMATE CHANGE

A major project related to energy efficiency began in 2024 concerning the realization of the Smart Campus, establishing the construction site in September 2024 with the first lot at the Cittadella in Monserrato. Executing this project, characterized by a high level of innovation and sustainability, UniCA proposes to transform the University Campus in Monserrato and the Engineering Pole into two smart grids, acting simultaneously and synergistically on all levels: production, consumption, and storage through trigeneration. The goal is to ensure the self-production of electricity, minimizing the withdrawal from the national power grid. Energy production using the cogeneration system ensures the complementarity of production sources and guarantees continuity and efficiency on the Campus grid. The approach is to direct the use of distributed generation and storage for the instantaneous satisfaction of energy demand for electricity, heat, and mobility components. Implementing the smart grid in the Cittadella of Monserrato will reduce emissions of the current consumption levels by 56% and the final cost of energy supply by approximately 40%. A similar but smaller-scale project is planned for the Engineering Campus. High-efficiency photovoltaic systems have already been installed on the building blocks I and L at the Monserrato Campus and on the shelters for recharging electric vehicles.



“Smart” Buildings on the University campuses

The “Smart Campus” Project included realizing a micro-grid and installing charging stations for electric cars monitored by an advanced BMS system. Operating the micro-grid, the innovation is in the monitoring

No.	Name	Place	automation		safety				energy		water		indoor environment				lighting				Building Area (m ²)
			B1	B2	S1	S2	S3	S4	E1	E2	A1	A2	I1	I2	I3	I4	L1	L2	L3	L4	
	University of Cagliari Blocco A Campus Cittadella Universitaria	Monerrato (CAGLIARI – Italy)	x		x	x	x				x		x				x	x		x	17,631
	Blocco F (Progetto “Berlin”) Campus Cittadella Universitaria	Monerrato (CAGLIARI – Italy)	x	x									x	x			x	x	x	x	9,273
	Blocco G (smart grid) Campus Cittadella Universitaria	Monerrato (CAGLIARI – Italy)	x	x									x	x			x	x	x	x	13,731
	Blocco H (smart grid) Campus Cittadella Universitaria	Monerrato (CAGLIARI – Italy)	x	x									x	x			x	x	x	x	11,820
	University of Cagliari Others	Campus CAGLIARI and Monerrato (Italy)																			247,108
	Total																				52,455

system and logic control: the system enables integrated management, not only a mere integration. The management platform, an open and interoperable system, allows integration into the micro-grid of the building blocks G-H and those built subsequently. The control unit provides, on different time scales, the set points of consumption and production taking into account forecast data (e.g. weather and temperature, season, people expected in presence, laboratory activities, maintenance activities, etc.), measurement data from specific sensors and IoT devices, energy production data and purchase costs for market interaction. Based on AI apps, the system processes forecast consumption/production plans (day ahead, hour ahead) and optimizes instant production/consumption profiles in real-time to find the minimum of the optimization feature that considers the environmental impact, the cost of energy supply, and the quality of the electricity supply.

UniCA's Carbon Footprint

The University's carbon footprint has been calculated using the computation basis given on www.carbonfootprint.com, and is the sum of Scope 1 and 2 (annual electricity consumption and mobility data).



UniCA and M'illumino di Meno (I light up less) - RAI Radio2

The University of Cagliari joined the project “M'illumino di meno” (*I light up less*), the National Day for Energy Saving and Sustainable Lifestyles, established by Law no. 34/2022, organized every year by Caterpillar and Rai Radio2 with the intent to disseminate and promote among the population a culture centered around of sustainable environmentalism and of conserving resources.

In 2023, one of the initiatives presented by UniCA was the

“illuminated menu” in the canteen at the Monserrato Campus, offering sustainable meat-free dishes to raise awareness of a more sustainable lifestyle. For the occasion, special information material was prepared and displayed to illustrate a lower impact on the environment in terms of climate-changing emissions and waste production, showing also the benefits of well-being because of a diet with less

meat without giving up the quality of taste. Another action involved the Faculty of Engineering inviting everyone to leave their cars at home and reach the faculty buildings by walking, bicycle, public transport, or sharing mobility, or any other way of sustainable transportation.



Università degli Studi di Cagliari - Il Menù "Illuminato"

In concomitanza con l'evento "M'illumino di Meno" il servizio ristorazione funzionante presso la Cittadella Universitaria di Monserrato servirà un menù sostenibile a base di pietanze senza carne per sensibilizzare a stili di vita più sostenibili. Verranno esposti materiali divulgativi per illustrare il minor impatto sull'ambiente in termini di emissioni climateranti e di produzione di rifiuti, e il benessere derivante da un'alimentazione che riduca il ricorso alla carne senza rinunciare al gusto.

Università degli Studi di Cagliari - M'illumino di Meno 2023 in Facoltà

Giovedì 16 febbraio 2023 invitiamo tutti coloro che a vario titolo frequentano gli spazi della Facoltà di Ingegneria e Architettura, studenti, docenti, personale tecnico-amministrativo, assegnisti, borsisti, collaboratori, etc., a rinunciare all'utilizzo dell'auto e a recarsi in Facoltà a piedi, in bicicletta, utilizzando i mezzi pubblici, la mobilità condivisa o comunque altre modalità di trasporto più sostenibili.

Università degli Studi di Cagliari - In Facoltà senza auto

Venerdì 16 febbraio, la Facoltà di Ingegneria e Architettura dell'Università degli Studi di Cagliari ha invitato tutti coloro che frequentano gli spazi della Facoltà a rinunciare all'utilizzo dell'auto e a recarvisi con modalità di trasporto sostenibile (a piedi, in bicicletta, con i mezzi pubblici o mobilità condivisa). La compilazione anonima di un modulo ha consentito di indicare la distanza percorsa e il mezzo utilizzato, così da

Università degli Studi di Cagliari - Spegniamo il Rettorato per monitorare i consumi energetici

Venerdì 16 febbraio il Palazzo del Rettorato è rimasto spento, come tutti i venerdì dallo scorso giugno. Il personale ha potuto lavorare in smart working o recandosi presso altre sedi dell'Università, in modo da consentire il completamento del monitoraggio già avviato e di effettuare un paragone del consumo energetico del periodo considerato con i dati dell'anno

On the other hand, for the occasion of the 2024 edition, for monitoring energy consumption, two proposals were presented: "At the faculty without cars" and "Let's turn off the Rectorate, however, we are working!". These two initiatives were also featured on RAI Radio2 during the Caterpillar program.



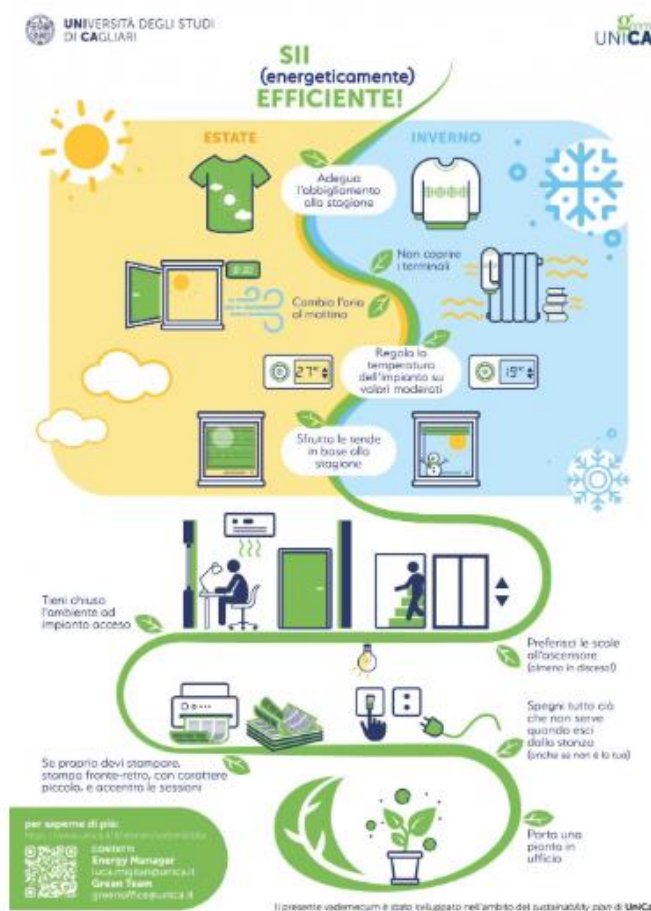
reterus.it/m-illumino-di-meno-2023/
reterus.it/m-illumino-di-meno-2024/

The Handbook for efficient energy use and energy saving

UniCA has decided to carry out an outreach program promoting the efficient use of energy within the university buildings and facilities, not only by implementing energy efficiency measures but also by good practices shared by the university community. To this end, the energy manager and the Green Team have prepared a handbook for energy-saving strategies marked by effective communication and an immediate visual and mnemonic impact, facilitating an immediate approach. The handbook recommends virtuous behavior to the entire community by conveying direct language in which everyone is a protagonist on the path to responsible use of resources.

The handbook has been produced completely in line with the “GREEN PAPER Sustainable Energy Management” prepared by the Energy Working Group of the RUS - Network of Universities for Sustainable Development.

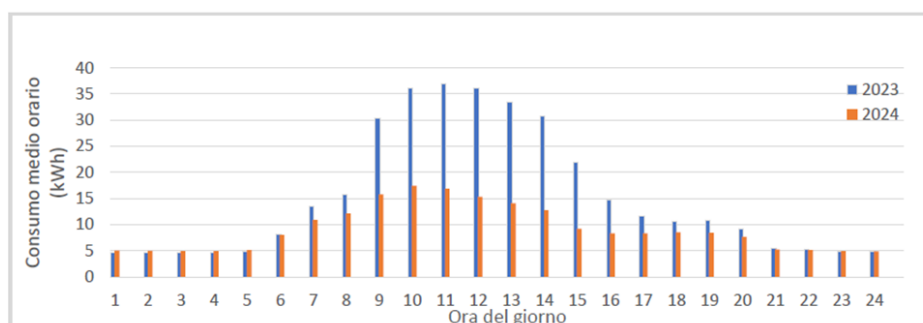
In addition to its distribution, awareness of energy saving was also raised by posting stickers on lift doors at the Rector's Office and network printers in the numerous corridors and floors.



www.unica.it/sites/default/files/2024-12/240424_Vademecum_digitale.pdf
www.unica.it/it/ateneo/sostenibilita/sostenibilita-ambientale/energia

The experimental project to evaluate energy savings related to the smart working implementation on a single day

The experimental project, conducted at the Rectorate building, aims to reduce the University's energy consumption, thanks also to the cooperative and voluntary involvement of UniCA staff, through remote working for all concentrated on one day (Fridays) rather than distributed over multiple days. As an alternative to smart working, the staff of the Rectorate had the opportunity to work from co-working stations set up in other university buildings. By adopting remote working on Fridays, most of the electrical utilities could remain switched off. Essential ICT and document flow management functions, which constituted the ceiling of fixed power consumption, were unaffected by this initiative. The trial started in June 2023 and is still ongoing. In the first quarter of 2023, on Fridays, the total energy consumption was 25 MWh. In the same period in 2024, the consumption was 20 MWh, with a **saving of 5 MWh** over the four months, corresponding to a **20% drop in total Friday energy use**. A detailed analysis of Fridays' hourly energy consumption in the Rectorate buildings shows that the reduction in power utilization refers almost entirely to daytime (working) hours, equalizing day and night baseload.



Consumo medio orario del venerdì (1° quadrimestre dell'anno). Situazione ante (2023) e post (2024) introduzione di smart working concentrato. Rettorato. Fonte dei dati: E-distribuzione



This Energy Saving project, considering its relevance and innovativeness, was selected as one of the finalists for the "Sustainable PA (Public Administration)" award within the PA Forum 2024.

FORUM PA 2024
«PA A COLORI 2024»

GRUPPO DI LAVORO

Il Green Team di UniCA

- Ing. Antonella Sanna – Dirigente – Direz. Investimenti, Manutenzioni, Sostenibilità
- Dr.ssa Daniela Zedda – Coordinatrice Gestione Amministrativa e Sostenibilità – Direz. Investimenti, Manutenzioni, Sostenibilità
- Ing. Luca Migliari – Ricercatore Fac. Ingegneria e Architettura – Energy Manager UniCA – Referente GdL Energia RUS
- Ing. Marcello Figus – Funzionario Direz. Investimenti, Manutenzioni, Sostenibilità – Mobility Manager UniCA – Referente GdL Mobilità RUS
- Dr.ssa Barbara Tuveri e Dr.ssa Martina Piredda – Funzionarie Responsabili gestione rifiuti Urbani e Pericolosi UniCA – Referenti GdL Rifiuti e Risorse RUS
- Ing. Michela Cuccu – Funzionaria Direz. Ambiente, Sicurezza a Audit – RSPP UniCA

<https://www.unica.it/it/ateneo/sostenibilita>

#forumpa2024





www.unica.it/it/ateneo/sostenibilita/sostenibilita-sociale/premi-e-iniziative
www.forumpachallenge.it/premio_pa_colori/il-sustainability-plan-delluniversita-degli-studi-di-cagliari-e-il-progetto-pilota-di-energy-saving-nel-palazzo-del-rettorato/

ENVIRONMENT AND INFRASTRUCTURE - University Campuses

The green areas of UniCA

The management of green areas and gardens includes the preservation and enforcement of spontaneously growing plants within the university campuses. UniCA is involved in numerous actions to conserve natural vegetation, extend green areas, and contribute significantly to the urban reforestation of the city of Cagliari. The planting of various species follows the principles of sustainability in terms of natural resources, with particular attention to water consumption. In addition, special care is given to autochthonous and wild species, limiting the planting of alien species.

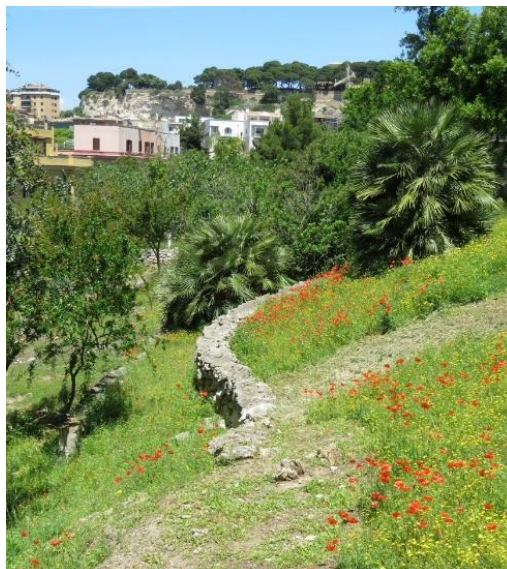
It is worth mentioning the practice of tree planting, which is becoming more widespread at university events. This habit helps to extend green surfaces and was performed on several occasions, such as at the 2023 and 2024 editions of **Career Day**, when, in the framework of the **project “UniCa Green”**, two new green areas

were



inaugurated, thanks to the fees paid by the companies participating in the event. The total surface of UniCA properties covered by forest vegetation is 60.000 m², while the planted vegetation covers 90.000 m². The ongoing “Park of Connections” project started in 2021 and aimed to create more public green areas (the ‘connections’) within the Monserrato Campus accessible to students, employees, and citizens, mirroring the growing focus on implementing the green.

Beyond the aesthetic aspect, the park also plays an important role in mitigating the impact of built-up areas, increasing drainage surfaces, and improving overall climatic conditions by reducing the urban heat island (UHI) effect. Another fact of increased sustainability at the Monserrato Campus concerns the enlargement of draining surfaces through the construction of permeable paving and low-maintenance green areas, which allow rainwater to infiltrate into the ground, refilling the groundwater rather than flowing rapidly into sewer systems, thus reducing the risk of flooding.





www.unica.it/it/ateneo/sostenibilita/sostenibilita-ambientale/cambiamenti-climatici/la-consistenza-e-la-gestione

Biodiversity protection

The Germplasm Bank of Sardinia is a reality at the highest scientific level. It is set in the Botanical Garden of the University (IT) serving as center of a dense network of international collaborations, having obtained almost 7.4 million euros of funding for 65 projects carried out with partners from 26 countries, including 293 scientific articles, 258 of which are in leading international journals, signed



by over 230 different authors and in 19 published volumes. The initiative of biodiversity protection has also seen the construction of two specialized laboratories, two rooms for germplasm preparation and one for refrigeration, constituting the bank itself, as well as a small greenhouse with thermo-heated benches for their proliferation and the study of the

materials.



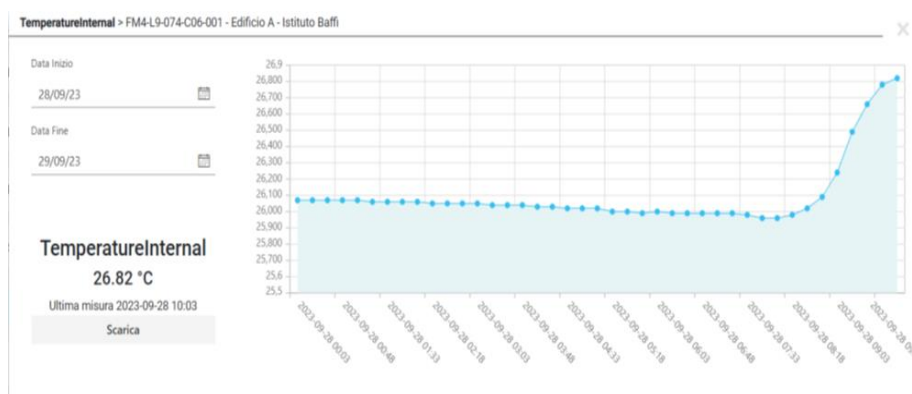
web.unica.it/unica/page/it/la_banca_del_germoplasma_compie_25_anni

Infrastructure: IoT for Campus Sustainability Monitoring

UniCA has equipped numerous premises (classrooms and offices) with systems based on IoT (Internet of Things) technologies for real-time monitoring of environmental parameters, such as room air quality and temperature, as well as power consumption. The detected data enables instant recognition of inefficiencies or failures, facilitating the most timely and targeted interventions. To monitor air quality and temperature inside the classrooms and university offices, detection probes based on narrowband IoT technology have been installed. The data from the probes is collected in a special ICT platform and is accessible for control via



smartphones. Similarly, indoor temperature data is monitored too. Currently, 37 air quality detection probes have been installed inside the classrooms and offices, listed with the code and the exact location of each probe. It is planned to install sensors in all the classrooms. Each device has a stand-alone function as its main feature, being equipped with connectivity through a dedicated SIM (narrowband).



Infrastructure: an inclusive campus accessible to all

UniCA has invested in the inclusiveness of services and facilities within the campuses, which include easier access to lifting platforms for disabled people. In addition, the university has adopted a specific **Plan for monitoring and eliminating architectural barriers**. Thanks to it, interventions in the facilities are constantly monitored, allowing a better use of the spaces



and accessibility on the campuses by students and staff with reduced mobility and/or disabilities. The tutors of the SIA (Service for Inclusion and Learning) collect reports on existing barriers and interact with the staff in faculties and departments to identify alternative solutions for teaching activities. The SIA staff also collaborates with the Directorate of Investment, Maintenance, and Sustainability (DIMS) to monitor the architectural barriers and plan their removal. There is currently an ongoing project to eliminate the barriers in the Monserrato Campus. The intervention consists of pavement resurfacing with LOGES paths for the visually impaired, the creation of bike lanes, the adaptation of road signs, and the removal of barriers for persons with reduced mobility, both in sidewalks and at public transport stops.



WASTES

Waste management and the circular economy

In waste management, the university has a high international ranking, is committed to implementing separate waste collection and recycling. For this purpose, the guidelines of “**UniCA fa la Differenza**” (UniCA makes the difference) have been illustrated in a simple informative handbook, posted in all facilities to raise awareness for proper waste disposal.

UniCA is devoted to the issue of waste and the circular economy, confirmed through the virtuous initiatives adopted in recent years with increasing decisiveness. To reduce waste production, the **reuse** and recycling of goods taken out of the waste cycle to be reused within the university facilities, or externally through free transfers, is increasingly resorted to.

These practices, which have already been adopted on a voluntary and experimental basis in some departmental structures, in particular in the Faculty of Engineering and Architecture and some laboratories, have made it possible not only to contain the quantity of special waste produced, but also to consequently reduce the CO² emissions associated with transport for disposal, thanks to a related saving for the

UNIVERSITÀ DEGLI STUDI
DI CAGLIARI

UNICA

UNICA FA LA DIFFERENZA



«Tutte le cose meritano una seconda possibilità...»
Il recupero virtuoso di materiali di scarto e il riuso interno in UniCa

In Giappone, quando un oggetto in ceramica si rompe, lo si ripara con l'oro poiché si è convinti che un "vaso rotto possa divenire ancora più bello di quanto già non lo fosse in origine". Tale tecnica di riparazione prende denominata Kintsugi, consiste nell'incollare i frammenti dell'oggetto rotto con una lacca gialla rossastra naturale e nella spolverare le crepe. Il manufatto è striato d'oro, percorso da linee che lo rendono nuovo, diverso e bellissimo.

UniCa negli ultimi anni ha avviato una nuova politica più sostenibile legata al recupero di alcuni materiali da demolizione, RAEE e incentivando il RIUSO interno, soprattutto di arredi, compresi quelli ad uso scientifico.

Recupero di materiali da demolizione e riuso interno di arredi

La produzione di rifiuti speciali di UniCa risulta diminuita, passando da un totale di 81.523 kg nel 2022 a 54.436 kg nel 2023, da ricondurre soprattutto ad attività di recupero di materiali da demolizione, di RAEE e dall'incentivazione al RIUSO interno di beni ingombranti, in particolare gli arredi, considerando anche quelli ad uso scientifico.

Arredi scientifici provenienti dallo sgombero di locali dell'ex locali del dipartimento di Scienze Mediche Sanità Pubblica e utilizzati per l'allestimento di laboratori al DICAAR (laboratorio Girasoli, termochimica, Elettrochimica e Prove Materiali)

Recupero materiale da demolizione
Sfridi di lavorazione e lastre di plexiglass

Recupero RAEE
Strumentazione scientifica recuperata, aggiustata e in uso

Reattori per studi in ambito ambientale

Prima di buttare un materiale perché da te ritenuto inutile, pensa se può servire per un fine diverso, se può essere trasformato o riutilizzato

Il team che ha realizzato i lavori di riuso del materiale da demolizione descritti è composto dal personale tecnico dell'Ufficio e del DICAAR. Il recupero e trasferimento di arredi da via Porcellè è stato possibile grazie all'impegno del personale TA dei Dipartimenti di Scienze e Sanità Pubblica e del DICAAR, del personale delle Direzioni (DirSEC e DAAP)

university also in terms of waste tax. These virtuous behaviours represent **good practices** that can be duplicated at institutional levels and are an **example of circular economy** through the initiative of waste reuse or recycling of items destined for disposal because being unused (RAEE, furniture), but are retrievable by other university structures.

This activity of retrieval and reuse significantly reduces the quantities destined for disposal, saving on related costs, as well as increasing the sustainability of the University of Cagliari. 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.

How much waste do we produce? The Level Sensor Project

The University of Cagliari, within the framework of the RUS Working Group on Waste, has long been involved in identifying useful **metrics** to highlight the performance of universities in sustainable solid waste and wastewater management. Concerning municipal solid waste management, one of the most important, but at the same time most difficult to define, is the indicator regarding **the measurement of the amount of municipal waste produced**. UniCA has launched an initiative **using experimental sensors for the fill level** of the containers utilized for the separate collection of the various fractions, based on multi-sensor (presence of several optical sensors) and multi-area technology (each optical sensor can take measurements in several areas).

The sensors mentioned, thanks to integrated advanced algorithms, combine the different detections, allowing an accurate measurement of the fill level. The collected data is transmitted at predefined time intervals via wi-fi and stored in the cloud for processing. As a result of this monitoring system, it is possible to collect waste in the

containers and have them emptied, on call, by the municipality's waste service, only when the containers are full. This results in a reduction in heavy vehicle traffic, fuel consumption, and emissions of CO² and other air pollutants, as well as in the costs of the collection service.

Based on the study initiated with the project, an annual per capita amount of municipal waste produced was estimated at 22.4 kg.



QUANTI RIFIUTI PRODUCIAMO?

Il progetto pilota per misurare quantitativi di rifiuti urbani differenziati prodotti dall'Università di Cagliari

Responsabile scientifico: Prof. Aldo Muntoni - DICAAR

Il Progetto prevede l'uso sperimentale di sensori che misurano il livello di riempimento dei contenitori utilizzati per la raccolta differenziata.



TECNOLOGIA MULTI-AREA E MULTI-SENSORE

Ogni sensore ottico è in grado di effettuare rilevazioni in più aree ed è possibile la presenza di più sensori ottici che, grazie ad avanzati algoritmi integrati, combinano le diverse rilevazioni



MISURAZIONE ACCURATA DEL LIVELLO DI RIEMPIMENTO

I dati rilevati vengono trasmessi periodicamente via wi-fi e archiviati su cloud per le elaborazioni del caso, consentendo una rilevazione puntuale dei quantitativi di rifiuti prodotti da UniCa



OTTIMIZZAZIONE DEL SISTEMA DI RACCOLTA

Grazie a questo sistema diventa possibile raccogliere i rifiuti non su frequenze fisse ma 'a chiamata', quando i contenitori sono pieni. Così vengono ridotti:

- il traffico dei mezzi pesanti
- i consumi di carburante
- le emissioni di CO₂ e altri inquinanti atmosferici
- i costi del servizio di raccolta

RIFIUTI URBANI PRODOTTI DA UNICA

INCIDENZA CLASSI MERCEOLOGICHE



RIDUCI



RIUSA



RICICLA

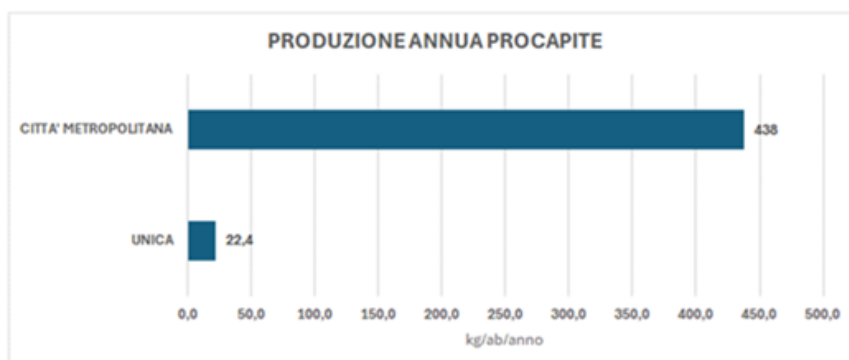
Si ringrazia il CREA UniCa, che ha finanziato l'acquisto dei sensori e dei contenitori, la Soc. ADAMBI Green Innovation che produce i sensori, il Gruppo di Lavoro Rifiuti e Rifiuti della RUS di UniCa, il personale tecnico referente della gestione dei rifiuti del DICAAR e della Facoltà di Ingegneria, la DIRSEC con la ditta PFE Spa di supporto al servizio di pulizia di UniCa

scopri la sostenibilità in UNICA



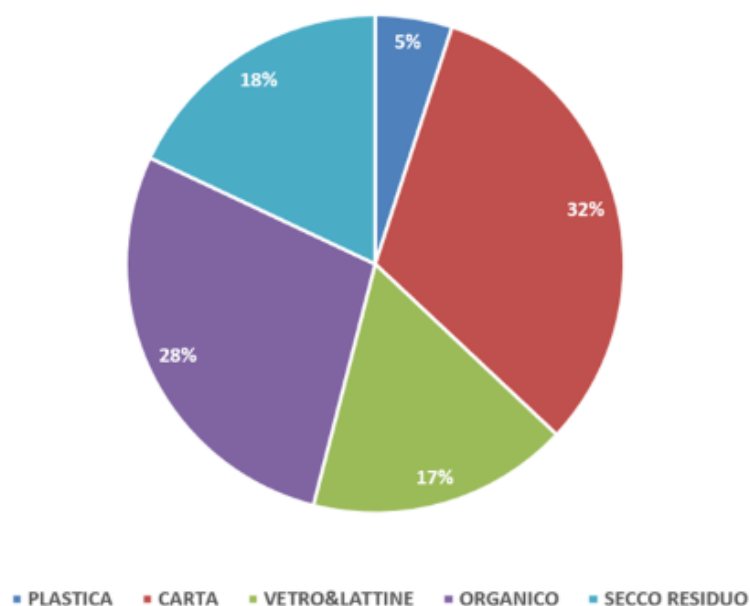
RIFIUTI URBANI PRODOTTI DA UNICA

Stima quantità prodotta per utente UNICA



Stima dei quantitativi di rifiuti urbani prodotti da UniCA e loro composizione

Composizione merceologica rifiuti urbani UNICA



[Gestione dei rifiuti ed economia circolare | Università degli Studi di Cagliari
www.unica.it/it/ateneo/sostenibilita/sostenibilita-ambientale/gestione-dei-rifiuti-ed-economia-circolare/quanti](http://www.unica.it/it/ateneo/sostenibilita/sostenibilita-ambientale/gestione-dei-rifiuti-ed-economia-circolare/quanti)

Reducing plastic use

UniCA has long been engaged in numerous activities and initiatives related to plastic reduction.

Event Organisation. The University of Cagliari is keen to organise public events, even big ones, with a low environmental impact. To implement this commitment, the University, under the umbrella of a Framework agreement for integrated low environmental impact supplies and services, entrusts the event organisation service to economic operators capable of complying with the Minimum Environmental Criteria (CAM) dictated for these activities. Special attention is paid to using compostable and recyclable materials, while single-use plastic is avoided. In this regard, **UniCA was awarded the “Compraverde Buygreen 2024 - Bando Verde section”.**



[UniCa premiata al Forum Compraverde Buy green – Unica Magazine](#)



The Project "Fontanelle".

Fountains connected to the city's water network have been installed on all campuses, providing drinking water free of charge. The project is going strong among the university population, using mainly the drinking water supply points and asking for new ones. The initiative has been completed by distributing thousands of steel water bottles to newly enrolled students on the occasion of the Welcome Days 2023-2024. To make the drinking fountains even more suitable, special vertical signage has been installed on campus, which will also be enriched with a visual walking path to guide people to the drinking water supply points. In this way, **UniCA encourages the use of tap water instead of bottled water**, thus reducing the use of plastic packaging, but also the production of climate-changing emissions related to road transport and the water packaging chain.

Plastic Reduction Project in Laboratories.

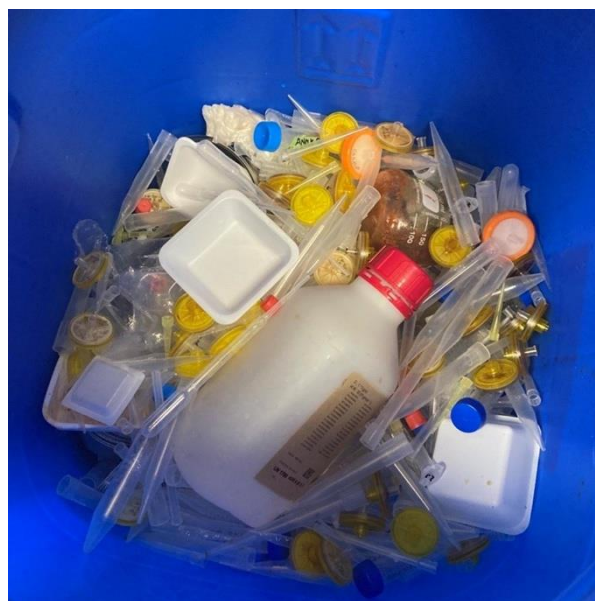
In chemical analysis laboratories related to research and teaching activities, a lot of plastic waste is produced, so some laboratories have taken steps to reduce these materials, which often constitute special waste CER 15 01 10. Disposable plastic pipettes for aspiration have begun to be replaced with classic glass Pasteur pipettes, which can be washed with suitable detergent and in an ultrasonic bath; another expedient is the use of automatic pipettes with reusable tips, designed by the manufacturers themselves, who have thus demonstrated a particular sensitivity towards sustainability. Another example is



stored.

sample storage containers, which are mostly made of plastic; they can

be washed with suitable solvents and reused. The chemist knows the rule "like dissolves like" and will find the right wash that leaves no contaminants that could interfere with what is subsequently put in contact. Moreover, the ultrasonic bath eliminates the risk of contamination. Another expedient is the **reduction of single-use plastic** of the filtration systems, replaced with paper filter (the filter element) inside of two half-mounts, to be screwed together and



Vademecum – Handbook for sustainable celebrations on the campuses.

The university has released an important communication and awareness-raising campaign on the importance of **respecting the environment during graduation celebrations**. The Green Team, in collaboration with the Communication sector, has designed and realized a **handbook (vademecum) on how to celebrate** joyful events such as graduations in an **environmentally compatible and university-friendly manner**. The handbook and the illustrative poster have been widely distributed on the campuses and sent to future graduating students to raise their awareness of the issue and invite friends and relatives attending the graduation sessions to respect these good practices. The dissemination tool provides tips and rules to adopt at graduation celebrations, taking care of the environment and the decorum of university buildings. Graduation is an important and joyous moment. UniCA raises awareness among undergraduates and new graduates to celebrate this milestone in the respect and interest of the people, the environment, health, and the decorum of venues.



www.unica.it/it/ateneo/sostenibilita/sostenibilita-ambientale/acqua-potabile-tutti

www.unica.it/sites/default/files/2023-11/Progetto%20Fontanelle.pdf

www.unica.it/it/ateneo/sostenibilita/sostenibilita-ambientale/gestione-dei-rifiuti-ed-economia-circolare-2

www.unica.it/sites/default/files/2023-11/La%20plastica%20nei%20laboratori%20chimici_SERR%20immag.pdf

<https://www.unica.it/it/ateneo/sostenibilita/sostenibilita-ambientale/gestione-dei-rifiuti-ed-economia-circolare-3>

LaurreSostenibili_Vademecum2024.pdf



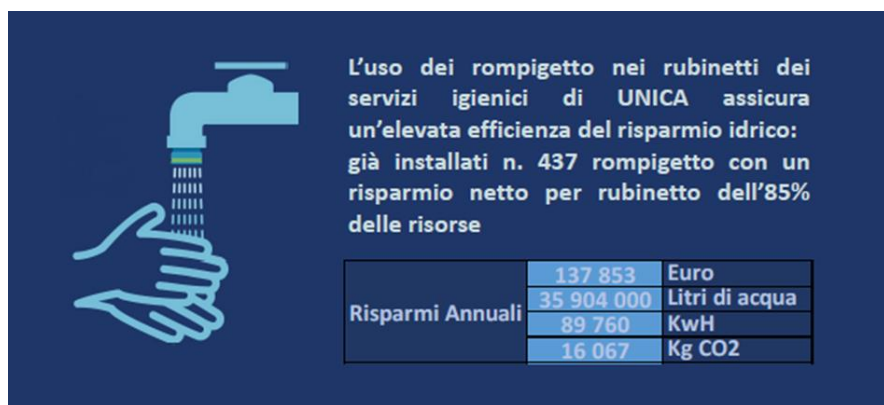
WATER

Mapping the water network.

Water consumption and leakage monitoring activities were implemented on all the university's campuses, and a detailed water network map was produced with particular attention to the location and classification of every sampling point. The first step was a careful examination of all users at the University of Cagliari, first, second, and third levels, to realize the detailed water network map with the supply points of the system operator. The data collected will be useful for the water system evaluation, ensuring the most efficient and on-time management of the resources, and for identifying any anomalies or inefficiencies using IoT devices for monitoring.

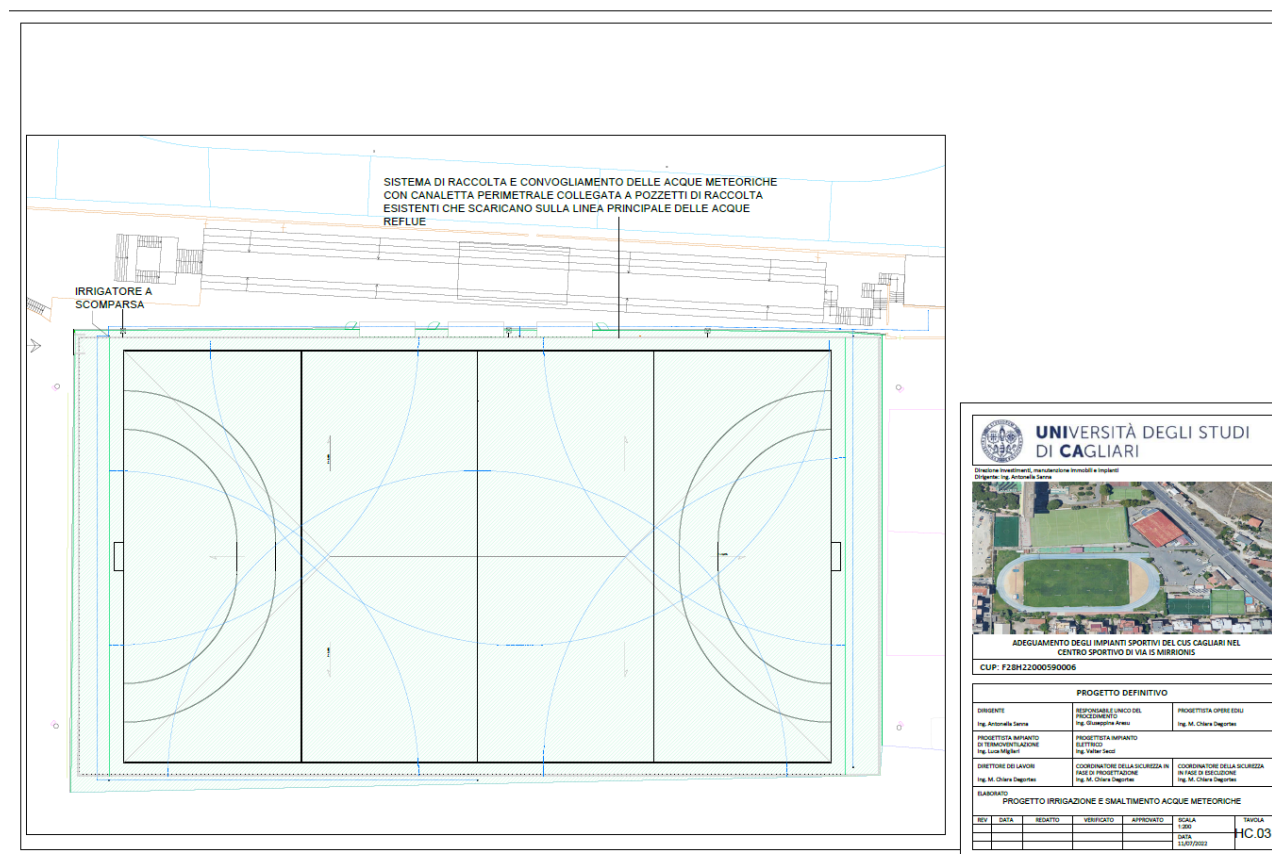
Jet reducers.

Tap jet reducers have been installed on all the campuses. Currently, there are 449 hand blowers, and many more are foreseen to be installed. These devices ensure higher efficiency, resulting in a net water saving of 85% per tap.



Collecting and recycling of stormwater.

The ongoing requalification project of sports facilities at CUS (University Sports Centre) foresees a system for collecting stormwater in tanks for reuse in irrigation. The retention tank consists of six storage basins equipped with two launch systems, one for launching into the public water network and another for launching into the water tanks to irrigate the fields.



*Impianti sportivi del CUS Cagliari
sistema di regimentazione delle acque piovane verso le vasche di accumulo per riciclo dell'acqua per uso irriguo*

*CUS Cagliari sports facilities
rainwater collecting system in storage tanks to recycle water for irrigation use*

FOOD AND NUTRITION

Joining Green Food Week.

From February 13-17, 2023, the University of Cagliari joined the event "Green Food Week" promoted by the Food Insider Association at the national level and sponsored by the RUS to raise awareness among the university community (students, staff) on a healthier diet with less impact on the planet. The catering service of the Cittadella Universitaria in Monserrato offered different meat-free menus that customers highly appreciated. During the Green Food Week, those who chose a meal with less environmental impact increased by 40% compared to an average week in the mess hall.

Similarly, from February 5-9, 2024 green menus were proposed for healthier and sustainable eating



habits. Consciously choosing what to eat can reduce one's environmental footprint, but taking action together is even more significant and stimulates a communal sharing of a deep ethical value.



Green Food Week

UniCa ha aderito alla settimana del cibo sostenibile, nata per sensibilizzare i consumatori sul tema di un'alimentazione più sana e rispettosa del pianeta.

QUANTA CO₂
CI VUOLE
PER PRODURRE 1 KG DI...



RIDUCI IL TUO IMPATTO:
PROVA LA GREEN FOOD WEEK IN MENSA

per un'alimentazione sana,
gustosa e sostenibile



www.unica.it/it/ateneo/sostenibilita/sostenibilita-ambientale/cibo-e-alimentazione/green-food-week
web.unica.it/unica/page/it/la-settimana-del-cibo-sostenibile
magazine.unica.it/green-food-week-dal-5-al-9-febbraio-mense-piu-green/
www.unica.it/it/ateneo/sostenibilita/sostenibilita-ambientale/cibo-e-alimentazione

MOBILITY

The University of Cagliari is actively involved in numerous projects on sustainable mobility implemented in the city and the hinterland. In order to increase the safety of pedestrians and vehicles and make the traffic more fluid within the Monserrato University Campus, UniCA has developed a Sustainable Mobility and Accessibility Plan based on two main projects: one is the “Road and Sidewalk Maintenance: Architectural Barrier Abatement”, the other is “Parking in Cittadella”.

Given the large turnout of people because of the University Hospital, both projects are

essential to ensure better access to the Cittadella Universitaria. The “Road and Sidewalk Maintenance: Architectural Barrier Abatement” started in 2024, includes the alignment to the standards on the abatement of architectural barriers, the realization of pedestrian paths in the entire Campus of Monserrato, the resurfacing of sidewalks placing LOGES paths for visual impaired, coplanar bicycle paths, renewal of road signs, the abatement of architectural barriers for people with reduced mobility in sidewalks and public transport stops. In addition, illuminating systems for pedestrian crossings are planned at crosswalks to improve the safety of pedestrians, and a new line of public lighting is planned along the road leading to Block L. The intense light and heavy vehicle traffic on the Campus in Monserrato over time has led to significant deterioration on a large part of it, therefore, extraordinary maintenance is planned on internal roads.

Finally, the project includes the construction of bicycle lanes, in most cases on the existing sidewalks. Thanks to the new road marking through systems alerting drivers about the presence of people at crosswalks within the campus, better and higher safety will be possible.

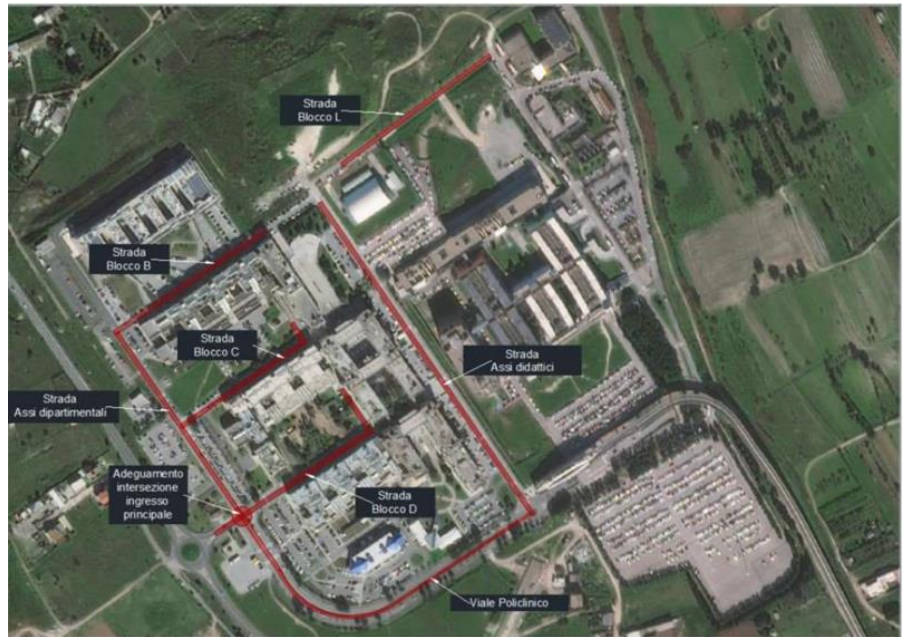


Figura 8.4: Planimetria di Individuazione delle aree di intervento in progetto

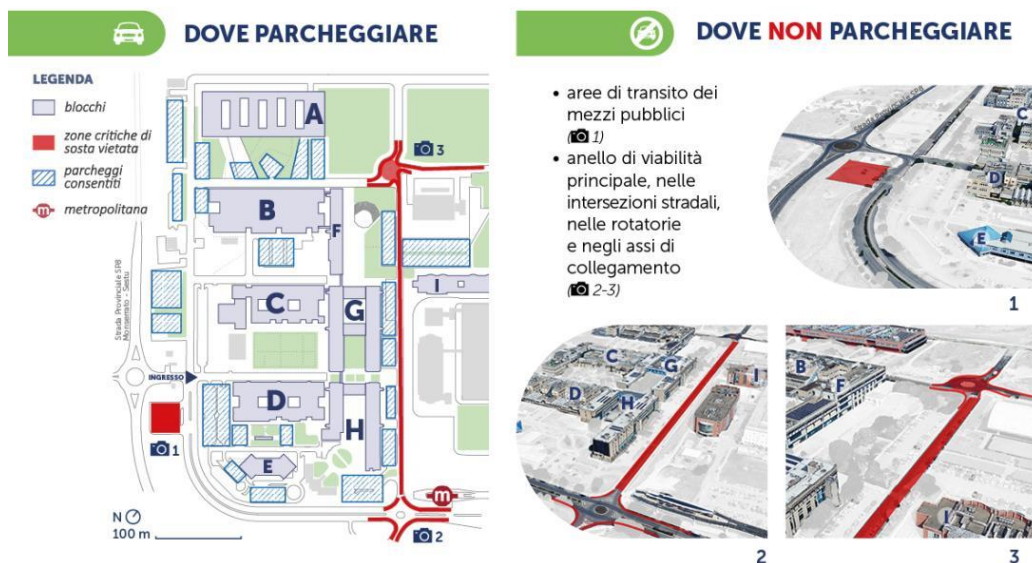


Sensors will be placed and installed, creating a “detection strip” parallel to the zebra crossings, preventing blind spots. The crosswalk warning system will be activated by a push-button or a presence sensor, increasing the lighting from 40% (stand-by) to 100% (intelligent dimming). The safety system activates flashing light fixtures, alerting the driver about the presence of pedestrians.

The project “Parking in the Cittadella” is designed to improve the traffic flow by

identifying and marking parking areas with appropriate road signs, to avoid obstacles to vehicles (especially public buses) and pedestrians, and consequently increase safety by complying with the traffic code. Informative posters have been prepared and set up on the entire Campus to inform students, academics, staff, and visitors of university facilities, highlighting where parking is allowed (in blue) and where it is prohibited (in red).

PARCHEGGIARE IN CITTADELLA



www.unica.it/it/ateneo/sostenibilita/sostenibilita-ambientale/mobilita-sostenibile/il-progetto-piste-ciclabili-e

GREEN METRIC WORLD UNIVERSITY RANKING

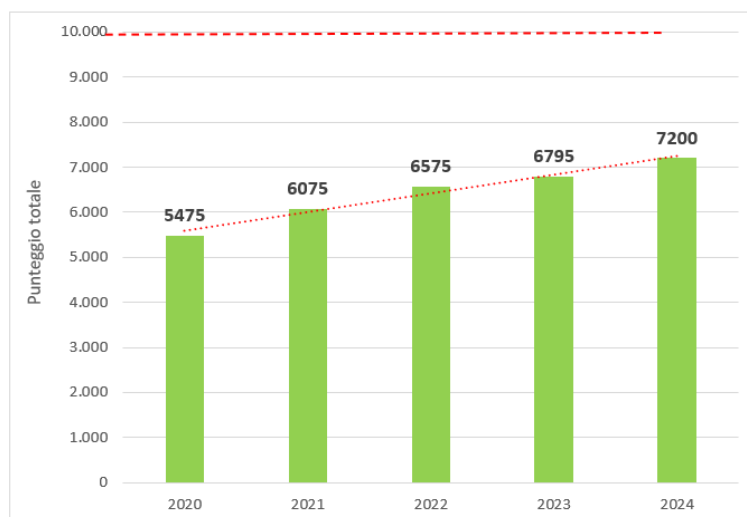
Participation results of UniCA 2023-2024

Since 2020, the University of Cagliari has participated in the Green Metric World University Ranking, which is one of the most important world rankings on universities' sustainability based on specific quantitative and qualitative indicators in the following thematic areas:

1. Environment and Infrastructures (SI);
2. Energy and Climate Change (EC);
3. Waste Management (WS);
4. Water Management (WR);
5. Transport and Mobility (Transportation - TR);
6. Education and Research (ED).

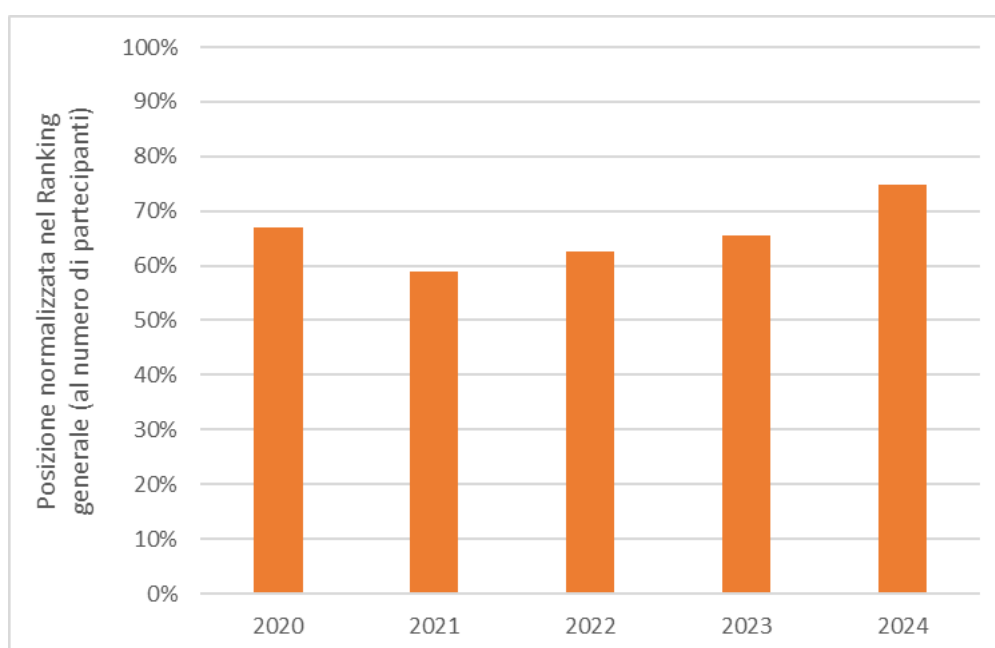
Participating in Green Metric helps to focus on the strengths and weaknesses of UniCA in sustainability issues assessing the effectiveness of policies adopted over time; improve the data acquisition system thanks to an increasingly careful and punctual monitoring and collection activity; compare sustainability indicators with universities from around the world having a view towards continuous enhancement.

anno	posizione nel Ranking generale	n° totale atenei partecipanti
2020	300	911
2021	392	956
2022	392	1050
2023	408	1183
2024	373	1477

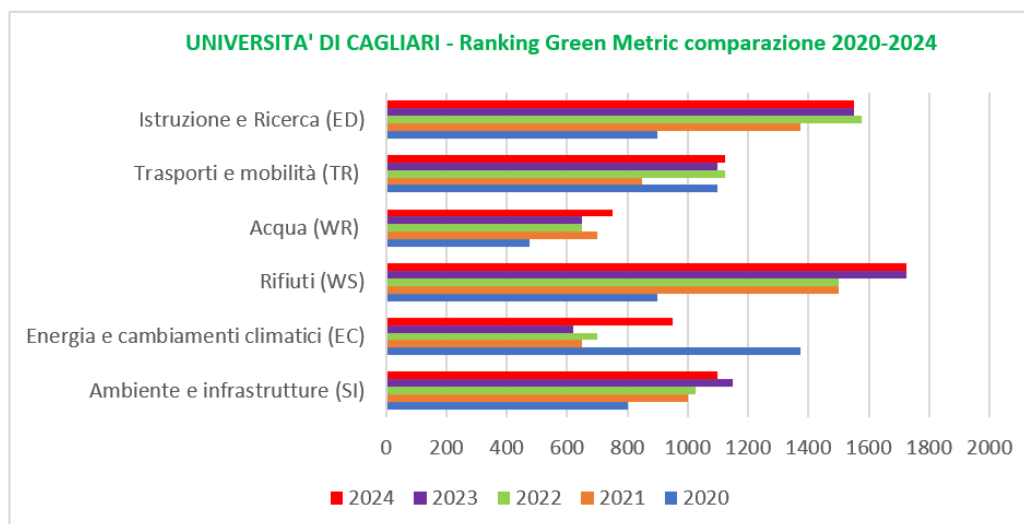


Punteggio riportato da UniCA negli anni - Score reported by UniCA over the years

UniCA's normalized position in the Green Metric ranking over the years concerning the number of participating universities, indicating objective growth of the University of Cagliari. UniCA moves up to the first quartile:



*Posizione normalizzata di UniCA rispetto nel ranking generale
Normalized position of UniCA compared to the overall ranking*

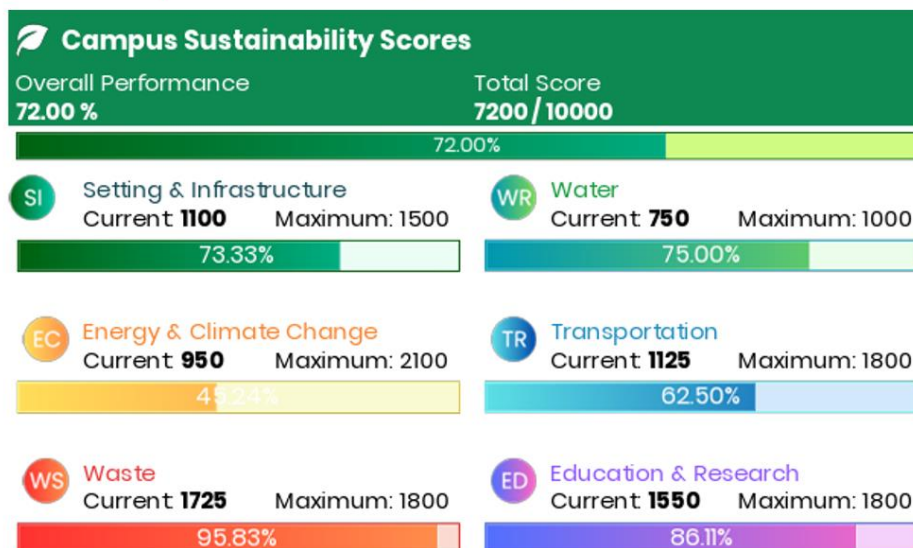


Raffronto negli anni di partecipazione UniCA a Green Metric (2020-2024) sui singoli gruppi di indicatori
Comparison over the years of UniCA participation in Green Metric (2020-2024) on individual indicator groups



Apporto di ciascun gruppo di indicatori al conseguimento del punteggio totale di UniCA (fonte: factfile Green Metric 2024)
Contribution of each indicator group to the UniCA total score (source: Green Metric 2024 factfile)

Punteggio complessivo: **7200 punti su un max 10.000** (nel 2023 6795 punti)



Posizione nel ranking

Contesto mondiale: UniCA è al **373° posto su 1477 atenei** (nel 2023 era al 408° posto su 1183 atenei)



Contesto nazionale: UniCA è al **20° posto su 35 atenei** (nel 2023 era al 21° su 32)

4. RANKING IN ITALY





The Green Team of the Università of Cagliari:

Antonella Sanna

Daniela Zedda

Luca Migliari - Energy manager

Marcello Figus - Mobility manager

Martina Piredda

Barbara Tuveri

Michela Cuccu - Prevention and Protection Service Manager

greenoffice@unica.it

www.unica.it/it/ateneo/sostenibilita