UNIPD and the Agenda 2030: from the Sustainability Commitments Charter to actions

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Vice rector for Sustainability

Communication and Marketing Area ACOM – Public Engagement Office
Una comunità di oltre 80.000 persone in una città di 209.802 abitanti*

72.179 studentesse e studenti**

2.695 specializzandi e specializzandi **

2.551 docenti, ricercatrici e ricercatori**

2.527 personale tecnico e amministrativo, tecnologi e dirigenti**

1.678 dottorandi e dottorandi***

931 assegniste e assegnisti di ricerca**

165 edifici e sedi

+577.807 mq

Sedi del Campus
Padova
In this context, Unipd launched in 2018 the "UniPadova Sostenibile" project.

The Sustainability Commitments Charter 2018-2022 defined the University's sustainability commitments by correlating scientific-technological innovation and management methods, objectives and measures to be implemented. The new Sustainability Commitments Charter 2023-2027 is organized in 6 lines of action (related to resources, environment and energy, mobility and transportation, well-being and equal opportunities, inclusion and social justice, education and training fields) and cross-cutting fields.
"The University of Padua promotes the development of a culture based on universal values such as human rights, peace, environmental protection and international solidarity" (art. 1.2 of the Statute).

https://www.sostenibile.unipd.it/en/
Objectives and impacts

- Increasing UNIPD impact on sustainability issues
- Reduce inequalities and promote well-being
- Reducing the environmental impacts of UNIPD and promote green transition
- Enhance, engage, and innovate
Sustainability in university strategies

Areas and cross-cutting fields, Sustainability Commitment Charter 2023-2027

Areas and strategic objectives, Strategic Plan, 2023-2027
The University has chosen to manage resources responsibly, discouraging waste and promoting reduced consumption.

This includes the following actions:

- promote the principles of Green Public Procurement;
- promote the principles of circular economy;
- encourage waste sorting in the University facilities;
- reduced/zero consumption of single-use plastics;
- reduce paper and toner consumption;
- recycle and reuse products and their components.
Resources: some projects and actions

aims to promote the development of a market of products and services with reduced environmental impact. In 2022, 49% of our 81 m€ procurements are ‘green’.

2 active memoranda of understanding with:

- Municipality of Padua, the CCIAA of Padua, and the Coordination of Italian Local Agenda 21
- Regione Veneto and the Universities of Veneto, Unioncamere del Veneto and ARPAV.

https://www.regione.veneto.it/web/gpp/protocollo-regione-del-veneto
In addition to the application of the Minimum Environmental Criteria (CAM) in the purchase of goods and services, the University introduces further measures to stimulate the market to propose new solutions, even for product categories in which specific CAM are not yet provided.

**UNIPD encourages GPP: it’s an opportunity!**

This commitment led to the 2021 Compraverde Veneto prize for the renovation tender of the Student House Fusinato.

"The call for bids deals with a multiplicity of sustainability aspects in the building industry, enhances certifications and environmental comfort environment, incentivizes to introduce aspects that are better compared to the CAM of Construction - DM 11 October 2017, which is a particularly complex product category in its application".

*Ufficio Gare, Irene Bertazzo - Ufficio Sviluppo Edilizio, Stefano Marzaro*
Commitment to circular economy:

Furnishing new central government offices with zero impact: **200 new work positions created with still functional but disused furniture.**

Production and use of **reusable materials in communication activities** (signage, posters, gadgets for events ...) and use of **FSC certified paper or innovative cellulosic material** combined with waste from the food industry or leather.

**Dematerialization** of administrative procedures (including the management of business travels procedures) and **print management.**
The UniPD Plastic Free project

3 steps:

1. installation of 69 water dispensers connected to the urban water network in the university buildings;
2. **18,000 water bottles distributed** to new enrolled students (2019-2020 academic year);
3. replacement of plastic material in the vending machines (cups, scoops, bottles) with more environmentally friendly alternatives: **estimated savings of 1,850,000 pieces per year.**
Waste management

Waste sorting
Unipd has introduced bins for waste sorting in all departments in 2016.

Unipd has signed a memorandum of understanding with the Padua Municipality and the AcegasApsAmga group for the monitoring and management of urban waste and for implementing door to door waste collection at university buildings.

Ufficio Ambiente e Sicurezza – Barbara Melloni, Katia Zambon
Waste management

Special waste
Thanks to a complex organizational system that includes 30 temporary storage sites, 55 delegates and 950 trained employees, Unipd is able to recover about 95% of the special waste it produces every year.

<table>
<thead>
<tr>
<th>Waste</th>
<th>Quantity (per year) (t)</th>
<th>Recovered quantity (t)</th>
<th>Waste destiny</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sanitary waste</td>
<td>97</td>
<td>96</td>
<td>TermovalORIZATION</td>
</tr>
<tr>
<td>Chemical waste</td>
<td>106</td>
<td>92</td>
<td>TermovalORIZATION + Recovery</td>
</tr>
<tr>
<td>Animal origin by-product</td>
<td>58,7</td>
<td>58,7</td>
<td>TermovalORIZATION + Compost + Biogas</td>
</tr>
<tr>
<td>Elettrical-electronic waste RAEE</td>
<td>42</td>
<td>32</td>
<td>Recycle</td>
</tr>
<tr>
<td>Paper and cardboard</td>
<td>53,1</td>
<td>53,1</td>
<td>Recycle</td>
</tr>
<tr>
<td>Ferrous waste</td>
<td>42,2</td>
<td>42,2</td>
<td>Recycle</td>
</tr>
<tr>
<td>TOTAL</td>
<td>399</td>
<td>374</td>
<td></td>
</tr>
</tbody>
</table>
La stima di risparmio energetico cumulativo delle misure di contenimento dei consumi energetici è pari al 14,2% dei consumi energetici attuali.
Performance monitoring and control:

- energy audit of more than 130 buildings;
- energy certifications, such as BREEAM in-Use, for significant buildings such as Palazzo Bo;
- monitoring of energy consumption;
- monitoring of the utility bills;
- dissemination of building energy performance reports to department directors and technical managers.
The University uses for all its buildings (about 180) only electricity from renewable sources. Thanks to this choice, it has reduced CO$_2$ emissions from electricity consumption by 73%.

In addition, the University currently has in place:

- five photovoltaic systems,
- two solar thermal systems,
- a district heating plant powered by biomass and CHP power plant,
- a geothermal plant.
UNIPD implements energy efficiency measures on its buildings:

- energy efficiency interventions on the building shell: insulation of walls and roofs, replacement of windows, use of natural sunscreens;
- upgrading of heating and cooling plants: replacement of old-generation boilers in the university facilities with latest-generation condensing boilers and replacement of low-performance refrigeration units with high-GWP refrigerants with high-performance, low environmental impact heat pumps;
- gradual replacement of lighting systems with LED technology;
- installation of sensors to monitor environmental parameters (temperature and humidity) in the various UNIPD buildings.
Sustainable buildings

The University is engaged in several important interventions of redevelopment of areas and buildings located in the heart of the city of Padua through a sustainable design, which ensures high quality levels and minimal environmental impact. These interventions include the Campagnola Teaching Complex project, opening in October 2023.
In 2021 the University of Padua won the "A Plaque for Efficiency" prize, awarded by GSE, Gestore dei Servizi Energetici, for the renovation project – first university in Italy to won the prize.

In 2019, the "Beato Pellegrino" campus, the **first gas-free building** at the University of Padua, was inaugurated. It makes use of geothermal and solar energy. Its emissions are 40% than those of a similar building (for dimensions and age).

Ufficio Sviluppo Edilizio, Area Edilizia e Sicurezza – Stefano Marzaro & staff
**Piano energetico**

Aule Via Bassi: ottimizzazione della gestione degli impianti di climatizzazione, termici e frigoriferi, e delle Centrali di Trattamento Aria (CTA), e installazione di sistemi di controllo e termoregolazione delle CTA basato sulle condizioni ambientali (temperatura, umidità e concentrazione di CO₂ – miglioramento IEQ).

**Contratto Relamping LED**

Gara **1.000.000 €** espletata nel corso del 2023

**Contratto Fotovoltaico**

Gara **2.500.000 €** espletata nel corso del 2023
Since 2018, the University has been calculating its Carbon Footprint. Among the first in Italy, it certifies its emissions according to the ISO 14064-1:2018 standard.

In 2022, there was a **26% reduction in the carbon footprint compared to the 2018 baseline** and **-73% reduction in emissions due to energy consumption.**

The following table shows the emissions for various activities for the years 2018, 2021, and 2022:

<table>
<thead>
<tr>
<th>Attività</th>
<th>2018</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissioni GHG [tonCO₂ eq]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pendolarismo di studenti</td>
<td>39.521</td>
<td>40.484</td>
<td>40.821</td>
</tr>
<tr>
<td>Consumi energetici di Ateneo</td>
<td>33.873</td>
<td>10.038</td>
<td>9.053</td>
</tr>
<tr>
<td>Pendolarismo di dipendenti</td>
<td>9.702</td>
<td>8.182</td>
<td>8.516</td>
</tr>
<tr>
<td>Missioni di dipendenti</td>
<td>1.142</td>
<td>1.040</td>
<td>3.339</td>
</tr>
<tr>
<td>Mobilità internazionale di studenti</td>
<td>1.733</td>
<td>1.013</td>
<td>1.487</td>
</tr>
<tr>
<td>Smaltimento dei rifiuti</td>
<td>324</td>
<td>550</td>
<td>514</td>
</tr>
<tr>
<td>Emissioni fuggitive di gas refrigeranti</td>
<td>337</td>
<td>396</td>
<td>330</td>
</tr>
<tr>
<td><strong>TOTALE</strong></td>
<td>86.632</td>
<td>61.703</td>
<td>64.060</td>
</tr>
</tbody>
</table>
Management and enhancement of green spaces

UNITreePD project
Quantitative and qualitative mapping of plant heritage and assessment of the ecosystem services provided. The project, based on new technologies of geographic information (WebGIS and smartphone survey), has involved students for a participatory mapping.

The detailed mapping carried out as part of the UniTreePD project has made it possible to quantify and plan the maintenance and enhancement of the University's green spaces.
The University promotes sustainable mobility also by collaborating with local institutions and transport companies.

The following actions fall within this scope:

- mapping of commuting habits of employees and students;
- the promotion of cycling and means of transport with a lower environmental impact;
- the implementation of measures to promote sustainable means of transport for employees, students and students, including agreements for the use of bicycles and electric scooters and discounts on the use of public transport.
In 2019, the University promoted, and co-funded with the Municipality of Padova, a **night-bus on demand**. This initiative won the Legambiente award for mobility and was the starting point for the launch and development of the QuiBus service, *which was born from the collaboration* between the University, the Municipality of Padova and the transport company Busitalia Veneto and is aimed both at students of the University but also at those who live in Padua.
The University promotes the use of sustainable means of transportation among its community through:

- the organization of periodic **marking campaigns for bicycles and scooters** in collaboration with the Municipality;
- **facilitations for local public transport** for staff;
- **conventions** for the use of sharing services of electric scooters at a discounted price for the entire university community.
An agreement with **two bus companies** establishes that all Unipd staff and students have discounts voucher to travel. They are two road transport companies that offers many daily connections in Italy and abroad as well. Thanks to the agreements you can request **1 discount code per month**.
2023 Unipd Project:

Electric Cars and Charging Stations

From 2023 all Central Administration cars are hybrid (4 vehicles). In addition, the installation of charging stations for electric cars and the simultaneous replacement of all cars in Departments and centers with electric vehicles has been initiated.
Well-being and equal opportunities

The University community can benefit from an active network of services, activities, institutions and people working on the prevention of discrimination, on gender equality, equal opportunities, inclusion, health and wellness. The wellbeing university network offers advice in case of need, and organizes initiatives and activities aimed at promoting healthy and wellness-oriented lifestyles.
The University promotes and supports the sports activities of students through programs such as the dual career student-athletes programme, opportunities for participation in university sports events at a national and international level, and interdisciplinary sports teams.

In 2022, the University officially presented its sitting volleyball team. Unipd is the first University to have a team for this paralympic discipline.

Since 2017, the University organizes EduChef, a sustainable food education course aimed at students enrolled in the first year of I and II level degree courses, who live on their own and independently manage their daily diet. The course aims at promoting well-being oriented and responsible consumption habits. In 2023 the University offered two new courses to students: “Yoga and wellness at the University” and “Le Soft Skills prendono corpo. Tra rugby e arte le competenze trasversali per affrontare il lavoro e il quotidiano”, aimed to develop soft and transversal skills through sports metaphor and art.
Well-being and sports for staff and community

To promote staff wellbeing, the University has established a *corporate wellness service* with personalized consultations on health and life-style, as well as organizing courses in:

- Yoga
- Tai Chi Chuan
- Qi Gong (Tao Yoga)
- Postural gymnastics.

The first edition of Educhef for staff was also organized in 2021. In 2023, a new course on Voice management aimed at professors was launched.

There are many initiatives aimed at the entire community, including participation in the **Padua Marathon**.

*Ufficio Public Engagement, ACOM – Rosa Nardelli, Alessandra Armenti, Federica Beniero*
Long among the University's strategic lines, the promotion of equal opportunities is at the heart of numerous actions and tools, including:

- the adoption of the *Gender Equality Report* (2017) and subsequently the *Gender Equality Plan* (GEP);
- promotion of a language attentive to differences, thanks to specific Guidelines;
- **training courses for staff**;
- creation of a nursery for employees’ kids.
Since 2017, the University has published the Gender equality report, a document that analyzes the trends and dynamics that characterize women's and men's access to and participation in academic life and monitors the impacts of policies and actions.

In February 2022, the University of Padua approved the 2022-2024 Gender Equality Plan, a policy document that is part of the University's commitment to promoting equal opportunities and gender equality.

Ufficio Public Engagement, ACOM – Rosa Nardelli e Laura Organte
Initiatives for the dissemination of a culture of equal opportunities

The University has been promoting numerous initiatives: from the publication of the Guidelines for a language attentive to gender differences to the organization of numerous events and initiatives to raise awareness. It has also launched a general course on Gender, knowledge and social justice curated by the Elena Cornaro University Center.

In December 2023 the University launched the new "Equity and Inclusion" training course to provide the main tools for recognizing and countering the different forms of discrimination that people may encounter inside and outside their academic career.
Initiatives and resources to support equal opportunities

The University supports the work-life balance of the people who live and work within it through facilities and contributions for educational and recreational services, smart and flexible working and other initiatives.

The goal is to promote widespread work well-being, with particular regard to the least protected categories, including young researchers. In this spirit, the "Milla Baldo Ceolin" nursery school was inaugurated in 2021, offering 40 reserved places at a discounted price to University staff.
The University is committed to the dissemination of an inclusive culture, the enhancement of heterogeneity and diversity and the promotion of full participation in academic life to all components of the university community.

It organizes training and information initiatives, participates and promotes networks at national and international level and implements concrete actions to build an increasingly inclusive university environment.
Inclusion for students

Over the years, Unipd has built a system of personalized support for each stage of the university career - from admission tests to entry into the world of work.

The number of students with disabilities and learning disorders who choose the University of Padua for their studies has been steadily increasing for years.

The University is at the forefront in the study and dissemination of increasingly effective solutions for inclusive teaching and for the accessibility of all services, to ensure a satisfactory university career and a quality future for all.

Ufficio Servizi agli Studenti, ADISS – Alessandra Biscaro, Benedetta Zatti
Inclusion for staff

Various initiatives have been launched to promote participation, a sense of belonging and the working wellbeing of staff with disabilities, including:

- practical support aimed at ensuring participation in events, meetings, training courses and other initiatives;
- personalized paths to enhance professional skills;
- periodic monitoring and mapping of needs aimed at planning new services and initiatives.
The international dimension of inclusion

The University of Padua is also committed to the international inclusion of people with the status of asylum seekers and people fleeing from their country.

The projects active in this field are aimed at both students and teachers, researchers, in the belief that higher education and academic life represent an important tool for inclusion.

Global Engagement Office, ARI – Mattia Gusella & staff
Aware that contributing to building a more sustainable future also means creating a shared culture, the University has identified in the Charter of Sustainability Commitments several actions in the area of sustainability education, including:

- the dissemination of knowledge of the 2030 Agenda and the Sustainable Development Goals;
- the promotion among students of courses dedicated to sustainability issues;
- the promotion of an inclusive and territory education.
Starting from the a.y. 2017-2018 the teaching staff can insert in the courses syllabi the Sustainable Development Goals addressed by the teachings.

The survey on the entire educational offer of the University of the teaching activities has shown, with reference to the a.y. 2022-2023 that 58.7% of the teachings address at least one of the 17 Sustainable Development Goals of the Agenda 2030.

+40% compared to a.y. 2018-2019.
Education: actions and projects

School of Agricultural Sciences and Veterinary Medicine
Department of Agronomy, Food, Natural Resources, Animals and Environment
SUSTAINABLE AGRICULTURE

School of Science
Department of Chemical Sciences
SUSTAINABLE CHEMISTRY AND TECHNOLOGIES FOR CIRCULAR ECONOMY

School of Economics and Political Science
Department of Economics and Management
MANAGEMENT FOR SUSTAINABLE FIRMS

School of Human and Social Sciences and Cultural Heritage
Department of Cultural Heritage
TOURISM, CULTURAL HERITAGE, SUSTAINABILITY

School of Science
Department of Geosciences
EARTH AND CLIMATE DYNAMICS
The global challenges of the 2030 Agenda require an innovative and cutting-edge approach to research, based on interdisciplinary teams and on the transversality of the project lines. In this context, the University promotes internal collaborations between the various structures, and external, with national and international realities.

Considerable importance is given to the University Centers that work on broad themes by catalyzing the skills present in the University.

In 2021, for example, the new Center for the Study of Circular Economy - CEWMS, which involves more than 40 professors and researchers, belonging to 11 Departments, was inaugurated. In 2023 a new Center for the Study of the Impacts of Climate Change (CRITICAL) based in Rovigo campus was inaugurated too.
UniPadova Sostenibile is at the center of a system of internal, external, national and international networks built by the university community.
Unipd organizes many events each year that address issues related to the major global challenges of sustainability.

In addition, the University adheres to national and international campaigns and initiatives for communication, involvement and awareness promoted by organizations and entities engaged in sustainability issues.
Since 2022 Unipd is among the top 100 world universities for sustainability

https://www.sostenibile.unipd.it/en/
Learn more

Sustainability Report

Website sostenibilita.unipd.it

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