

Sustainable investments and procurement at UIC Barcelona

1) Sustainable investments at UIC Barcelona

The University integrates environmental and efficiency criteria into its investments in infrastructure, technology and services.

• Investments in renewable energy and energy efficiency

- Installation of renewable energy on university-owned campuses

UIC Barcelona prioritises investments that generate clean energy and reduce its carbon footprint.

Examples include:

Installation of solar panels across all university-owned buildings on the Barcelona campus:

- 2023: 293 photovoltaic modules installed in the Alfa and Beta building (C/ Immaculada)
- 2024: New installations in the Gamma and Delta buildings (C/ Terré)

Total energy production 2024–25: 196,763 kWh generated through solar energy

- Investment in 100% renewable electricity supply

In April 2024, UIC Barcelona changed its energy provider to Atlas Energy, which supplies 100% renewable electricity derived from clean biomass, solar, wind and hydropower.

- On the Sant Cugat campus (in a rented building), the University works with the Hospital Universitari General de Catalunya, which currently supplies 43% renewable energy and has invested in its own solar installation (1,254 panels, saving 12–14%).

- Continuous energy diagnostics and optimisation

- Periodic review and auditing of energy consumption.
- Analysis of contracted capacities to avoid oversizing
- Installation and upgrading of efficient heating and cooling systems
- Advanced intelligent climate-control systems at Terré, including automatic start/stop

• Investments in energy-efficient technologies and equipment

- Complete replacement of lighting systems
 - Barcelona campus: 100% LED lighting
 - Sant Cugat campus: 95% LED lighting
- Installation of motion sensors in bathrooms and the car park, dusk sensors outdoors and automated control in common areas

- Renewal of climate-control systems
 - 28 VRV (variable refrigerant volume) units with high efficiency and automatic regulation

- **Investments in water-saving and sustainable water management**

UIC Barcelona has invested in infrastructure that reduces water consumption across both campuses:

- 167 low-flush toilets (6/3 litres)
- ECO taps that release only cold water, reducing consumption by 40–80%
- Timed taps and taps with aerators (saving up to 50%)
- 2024–25 renewal: 74 new low-consumption taps installed at Sant Cugat
- Average proportion of water-efficient devices installed across the University: 93 %
- Irrigation and water control boxes to prevent leaks

- **Investments in sustainable waste management**

UIC Barcelona has invested in systems and partnerships with authorised waste operators:

- Selective management of non-hazardous and special waste on both campuses
- Electronic waste (WEEE) managed by ACS Recycling, a specialised provider
- Biological waste by PreZero and anatomical waste by Funeraria Truyols
- Installation of selective collection points and optimisation of waste collection routes

- **Investments in sustainable mobility**

- UIC Barcelona operates one fully electric vehicle for internal use. A charging point has been installed in the Barcelona campus car park (C/ Iradier).

- **Investments in responsible digital technology**

The University continuously renews its IT equipment through providers such as HP, selected on the basis of environmental criteria.

UIC Barcelona has invested in 1,600–1,700 HP computers that offer:

- Hibernation and advanced energy-saving modes
- Compliance with environmental standards
- Reduced water and energy consumption
- Safer, environmentally responsible products
- Return and recycling programmes
- Environmental requirements applied to the supplier's entire value chain
- Responsible end-of-life management options (HP recycling)
- A general energy-efficiency management system installed on all computers

2) Sustainable procurement strategy at UIC Barcelona

How the University incorporates environmental criteria into the purchase of goods, services and materials.

- **Green purchasing in contracts and supplies**

The University integrates sustainability criteria into a wide range of contracts:

- Contracts with environmental criteria
 - Construction contracts requiring sustainable materials and waste reduction
 - Electricity supply prioritising 100% renewable providers where possible (Atlas Energy)
 - Reprographics services:
 - recycled paper
 - black-and-white printing by default
 - standby and centralised shutdown systems
- Office supplies and stationery
 - Purchase of recycled paper, folders and sustainable diaries
 - Reduction of physical printing, with preference given to digital formats

- **Procurement of efficient and sustainable equipment**

- Low-consumption devices
 - LED equipment, ECO taps, aerators, VRV systems
- Environmental criteria for purchasing HP computers (recycling, energy efficiency, emissions reduction)

- **Outsourced services with environmental criteria**

- Cleaning services
 - The contracted company, Lunet Facility Services, demonstrates a strong environmental commitment:
 - Low-emission vehicle fleet
 - Training in recycling and sustainability
 - Use of cleaning products with certified environmental technical sheet
 - Reduced materials consumption and waste generation

- **Procurement for gardening and outdoor spaces**

- Implementation of drip irrigation to reduce water use
- Use of low-impact plant species and maintenance practices

- **Procurement related to mobility**

- Purchase of a zero-emission vehicle for campus logistics
- Installation of electric charging infrastructure (hardware and electrical systems)

- **UIC Barcelona promotes procurement from sustainable suppliers for the Architecture Vertical Workshop:**

For the Architecture Vertical Workshop, companies donate wood, cardboard and sustainable fabrics, with priority given to environmentally conscious businesses.

Conclusions

• Sustainable investments = structural and technological improvements

- Solar panels, 100% renewable electricity, energy efficiency and advanced climate control
- Water-saving infrastructure (93% efficient devices)
- Waste and WEEE management systems
- Efficient IT renewal and electric mobility

• Sustainable procurement = environmentally responsible purchasing and contracting

- Green purchasing: recycled paper, construction materials, supplies and reprographics
- Selection of sustainable providers (Atlas Energy, Lunet)
- Sustainable teaching materials
- IT equipment selected according to the supplier's environmental policy

3) Appendix: examples and evidence

Energy

Solar panels

UIC Barcelona remains firmly committed to sustainability and energy saving in the fight against climate change. With this objective in mind, in July and August 2023, 293 photovoltaic modules were installed on the roofs of the Alfa and Beta buildings on the Barcelona campus on Carrer de la Immaculada by specialists from Electrofluxe.

In July and August 2024, solar panels were installed on the roofs of the Gamma and Delta buildings on Carrer de Terré, on the Barcelona campus.

In 2023, the Hospital Universitari General de Catalunya commissioned a solar energy installation for self-consumption on the roofs of the centre. With the aim of reducing greenhouse gas emissions and increasing efficiency to combat climate change, a photovoltaic system comprising 1,254 panels was installed. This system is designed exclusively for self-consumption, with no sale of surplus energy. Depending on weather conditions, the installation can result in electricity savings of between 12% and 14% per month. Solar energy production for the 2024–25 academic year totalled 196,763 kWh.

Energy suppliers

At the Barcelona campus, as the buildings are university-owned, UIC Barcelona was able to contract new energy suppliers. In April 2024, the University switched to Atlas Energy, which supplies 100% renewable electricity from clean biomass, solar, wind and hydropower.

On the Sant Cugat campus, located in rented buildings, the energy supply is determined by the Hospital Universitari General de Catalunya. Currently, 43% of energy supplied by Gas Natural comes from renewable sources.

Energy audits are carried out on the buildings: monitoring of consumption

- Analysis and review of the contracted power for the various supplies
- Improvements have been made to the technology of the air conditioning systems (heating and cooling)
- Use of energy-efficient appliances:

Efficient use of electric appliances

On the Sant Cugat campus, LED bulbs account for 95% of all lighting installations.

Lighting on the Barcelona campus is 100% LED bulbs, with motion sensors in the car park and toilets, which account for 5.2% and 1.40%, respectively, of the total floor area of the Iradier and Terré buildings. On Passeig de la Fontana, situated between the Alfa and Beta buildings on the same campus, there are also twilight sensors that switch on depending on the level of natural light. All of these are fully energy efficient.

Furthermore, the Barcelona campus has 28 air conditioning units with VRV technology, distributed proportionally between the buildings on Carrer de Iradier and Carrer de Terré. It is important to mention that 100% of the air conditioning units in the buildings on Carrer de Terré also have a control module that allows the units to be switched on and off automatically.

As for the energy-efficient devices on the Sant Cugat campus, there are 1,826 LED bulbs installed (95%), motion-sensor lighting in the faculty toilets (1.85%), automatic doors, timers installed in the electrical panels and management software for the maintenance of SCADA equipment.

Finally, it should be noted that the University has 1,600 computers (both desktop and ProBook laptops) up to the HP G11 model, equipped with hibernation and energy-saving functions to comply with current cybersecurity regulations.

Water

There is a sustainability action plan for water, which includes water-saving measures in buildings equipped with toilets and laboratories.

The water-saving measures implemented at the Universitat Internacional de Catalunya (UIC Barcelona) include low-flush toilets, eco-taps, timed taps and taps fitted with aerators.

All toilets installed at the University have a 6/3-litre dual-flush mechanism with manual flush buttons. The economy button allows the flush volume to be reduced to just 3 litres. UIC Barcelona has 167 low-flush toilets.

The bathroom taps, known as ECO taps, feature an internal system that controls and limits both the volume of water released and its temperature. This means no water or energy is wasted on

heating, as only cold water is dispensed. They achieve water and energy savings of between 40% and 80% and reduce CO2 emissions generated by water heaters and boilers. These taps are mainly found on floors P1, P2 and P3 of the Sant Cugat campus. Similarly, timer-controlled taps also have an automatic operation button that helps to save water. This mechanism ensures that the tap closes automatically after a few seconds. Most of the taps installed on the Barcelona campus are fitted with timers. In addition, conventional taps have been replaced by taps with aerators that introduce air into the water flow, reducing the amount of water dispensed whilst maintaining pressure and washing and rinsing performance. They help reduce water consumption by up to 50%.

During the 2024–2025 academic year, a total of 74 new water-saving taps were installed on the Sant Cugat campus.

The overall average of water-saving appliances installed at the Universitat Internacional de Catalunya stands at 93% for the 2024–2025 academic year.

Green purchasing

Sustainability criteria have been incorporated into contracts for:

- Construction
- Electricity supply
- Purchasing recycled paper for office and printed materials

Reprographics services include centralised standby shutdown, recycled paper and default black-and-white printing.

- Gardening services use drip irrigation

UIC Barcelona vehicle fleet:

- Universitat Internacional de Catalunya currently operates one zero-emission electric van used by the academic community. There is an associated charging point in car park on the Barcelona campus on Carrer de Iradier.

Cleaning services

Lunet Facility Services is contracted for the University's cleaning services and is committed to environmental protection. "We are firmly committed to protecting the environment." Among the measures adopted by Lunet Facility Services, the following stand out: "We strive to maintain a fleet of low-emission vehicles, promote initiatives to reduce energy consumption and environmental impact in our offices, encourage the recycling of waste generated, provide resources and training for waste sorting and deliver awareness training to both our teams and our clients."

Some products they use to clean the University:

Sustainable ICT investment and procurement

When purchasing IT equipment, UIC applies environmental and health and safety criteria based on HP's corporate policies, including:

They proactively identify, assess and mitigate health, safety and environmental risks, in order to reduce risks in these areas, prevent workplace injuries and illnesses and promote employees' health and wellbeing.

They set increasingly ambitious objectives for conserving water and energy, reducing waste and emissions, and preventing pollution in their operations.

- They design and manufacture their products to be safe and to minimise their environmental impact.

They offer customers environmentally responsible end-of-life management services for HP products, including return, reuse and recycling programmes.

- They require their suppliers to operate in a socially and environmentally responsible manner.
- An energy-efficiency management system for computers is in place across all university buildings.

The University has 1,700 computers, both desktops and laptops, all equipped with hibernation and energy-saving functions.

Waste

Waste management is carried out by sustainable providers:

- Waste management on the Barcelona campus: General waste is managed through Barcelona City Council or its subcontractor and special waste through an authorised external operator.
- Waste Management on the Sant Cugat campus: General waste is managed through the Hospital and special waste through an authorised external operator (PreZero).
 - Waste WEEE (electronic equipment waste) and WEEE containing hazardous components, differentiated for DSI and OPS. The company who manages this waste is: ACS Recycling.
 - Biological waste. Department of Anatomy.
 - Biological waste: PreZero

Donations of sustainable materials

An example of ongoing initiatives is the donation of sustainable materials for the Architecture Vertical Workshop at UIC Barcelona.

The Architecture Vertical Workshop is an annual competition for students from the second to the fifth year of the Architecture programme. During the first week of the academic year, students work in teams, guided by lecturers, to design and build projects using materials such as cardboard, fabric and wood. The projects are constructed at full scale, allowing students to gain hands-on experience in the role of the builder. Each year, the judging panel selects a theme with a social purpose. All materials used are donated by companies committed to sustainability and the reduction of environmental impact.