



POLITECNICO
MILANO 1863



STRATEGIC sustainability

PLAN
2023-2025

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→ PREFACE

The first Sustainability Strategy of Politecnico di Milano, the natural continuation of the University's 2023-2025 Strategic Plan, is the expression and completion of a vision that identifies care and commitment to the well-being of people, the environment and, more generally, of our community as a top priority. To the term 'sustainability', now recurrent in the dynamics of economic and social progress, we explicitly associate that of development, which encompasses key concepts such as growth and regeneration.

It is in this sense that our definition of 'sustainable development' does not merely indicate a set of individual, practical, specific activities, but is indicative of a style that guides all our decisions. These choices are capable of generating a positive impact in the short and, above all, in the long term, on the environment and society, on present and future generations. It is a unifying perspective on the three missions of the University: research, teaching and social responsibility.

What we are experiencing is in fact an momentous, all-encompassing change. Sustainable development is gradually emerging as a new reference model, far removed from the ways of thinking that have dominated recent decades such as neo-liberal capitalism and expansive globalisation, which have clearly shown their limits in their inability to address major issues ranging from climate change to social inequalities. This transformation must be supported by a new ethics - the ethics of sustainability - so that intentions are followed by a real change in structure and practice, doctrine and behaviour.

This is why we want to support and guide this transformation in line with our vision to be *'A leading guide. A solid, recognisable and reliable reference point for sustainable development in Italy and Europe This is how Politecnico di Milano intends to distinguish itself in the coming years: by its ability to tackle the main scientific and technological challenges according to an ethical dimension that interprets and declines the very concept of sustainability as a synonym for equity, inclusion and shared growth.'* (2023-2025 STRATEGIC PLAN)

In order to contribute to this transformation we need a strategic perspective that combines long-term goals with short-term actions, which gives a sense of urgency and the absolute necessity for renewal. Therefore, the aim of this document is to mark a change of pace, to show our transformative potential, to draw an unambiguous path of development for the university in which both the Sustainability Strategy and the University Strategic Plan converge.

The Sustainability Strategy is built around six priorities, which emerged during dialogue with our main stakeholders. We list them below: 1. being a more welcoming and inclusive place, ensuring equal opportunities and enhancing

people's uniqueness; 2. Extending the commitment of our scientific research on the key issues of sustainability; 3. Including sustainability as a pervasive element in our educational offer; 4. Guaranteeing equal access and study opportunities; 5. Supporting the growth of society by making our expertise available in a logic of responsibility and reciprocity; 6. Promoting innovation and experimentation in the field of environmental sustainability.

The Strategy offers a twofold interpretation. The first is the internal one, which helps us 'tidy up our home' and be perceived as *leader-by-example*. 'An organisation can find its soul only if it has its own house in order,' write Paul Polman and Andrew Winston in *Net Positive*¹. It is incredibly easy to 'slip' on this point. It will be inevitable. However, we are convinced that we are the first ones to need education: a community of almost 60,000 people, including students and staff, who every year introduces almost 10,000 young professionals to the labour market. The second is external and looks at the broader context. It considers different scales of impact, from the most immediate proximity to global outreach. It is here that we can express an unparalleled potential for ideas, research and innovation, culture and education, social responsibility and scientific diplomacy. The university has all the credentials to be a major agent for change.

Let us end on a positive note. The framework and objectives we have outlined in these pages are the result of extensive considerations and synergetic work. We would like to thank all those, from the faculty to the technical and administrative staff and to the students, who made a valuable contribution to the drafting of this proposal which, in our personal opinion, represents a good balance between ambition and realism. Indeed, we believe that the targets indicated are reasonably and responsibly ambitious. In some cases, we took a bold leap of courage, in others we raised the bar beyond the limit. We are brave enough to try to overcome it and very determined to do so. What is stopping us from leading the way towards sustainable development? Nothing. We think nothing is preventing us to. We derive our strength in all the people of our community, in the skills, creativity and imagination that have belonged to us for one hundred and sixty years. We are innovators by tradition.



**DONATELLA
SCIUTO**
Rector



Alessandro Perego
Vice-Rector for Sustainable Development
and Societal Impact

¹ P. Polman, A. Winston, *Net Positive: How Courageous Companies Thrive by Giving More Than They Take*, Harvard Business School Press, Boston, 2021.



1

THE INTERNAL CONTEXT

Politecnico di Milano
The governance of sustainability
Sustainability rankings
The 2022 Sustainability Report

THE INTERNAL CONTEXT

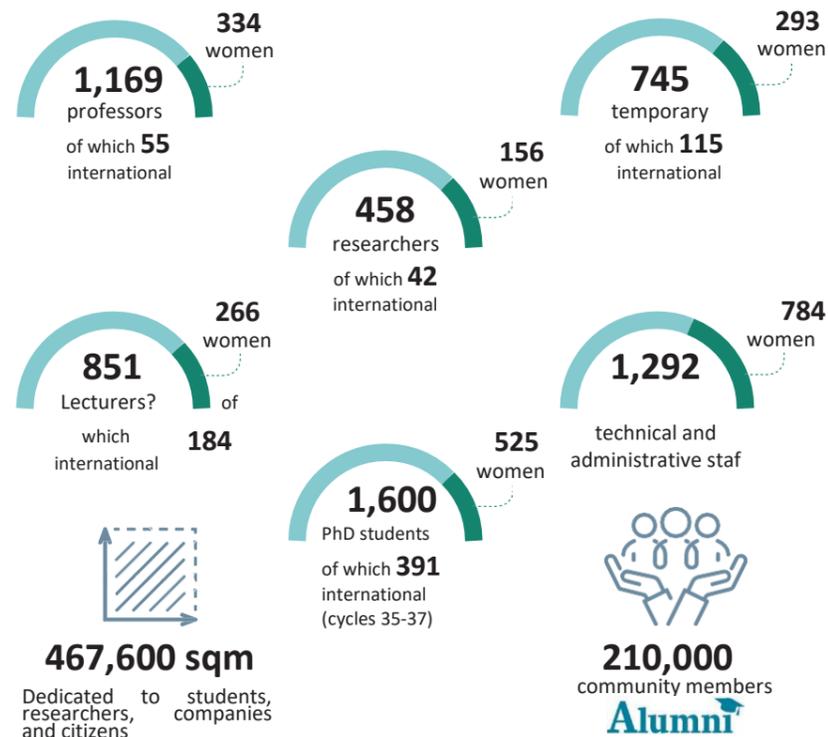
POLITECNICO DI MILANO

Founded in 1863, today Politecnico di Milano is the largest scientific-technological university in Italy. It is a modern university where quality and innovation in both teaching and research are the foundation of a strong and lasting relationship with the socio-productive environment and with the main foreign institutions in the fields of architecture, design and engineering. Based on the strength of its skills and the reputation that accompanies them, the University aims to achieve increasingly impactful results in its three missions (education and training, research, social responsibility), always putting people at the centre of its

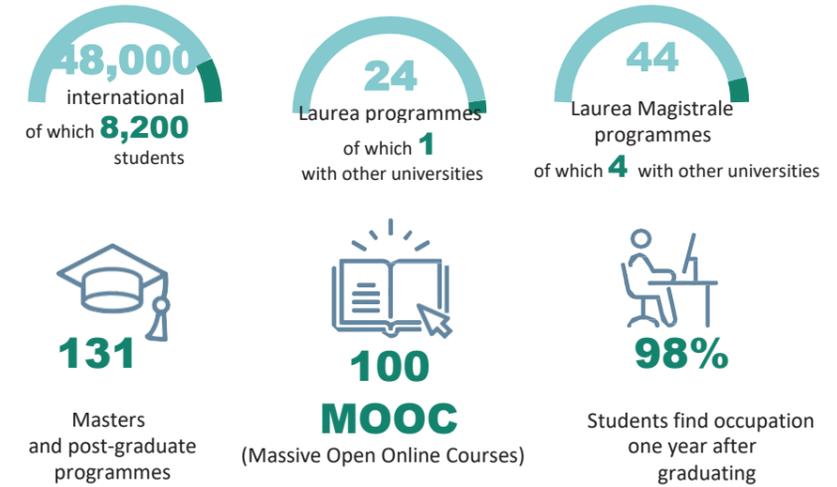
interventions, with a view to sustainable growth.

The University develops its research and teaching activities within 12 Departments and 4 Schools, plus the PhD School, which coordinates the University's PhD programmes. In addition to the two Milan campuses (Leonardo and Bovisa), Politecnico is present in the regions of Lombardy and Emilia Romagna with 4 campuses: Lecco, Piacenza, Cremona, Mantua, plus the Italian-Chinese Campus located in Shanghai and Xi'an. Within the Politecnico ecosystem, numerous consortia active in the fields of postgraduate education and research also work closely with the university, increasingly integrating sustainability issues into their activities.

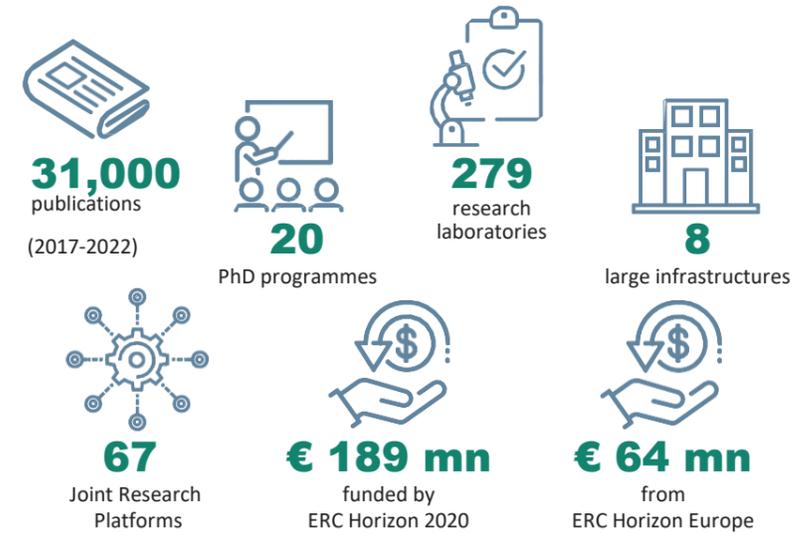
PEOPLE



EDUCATION AND TRAINING



RESEARCH

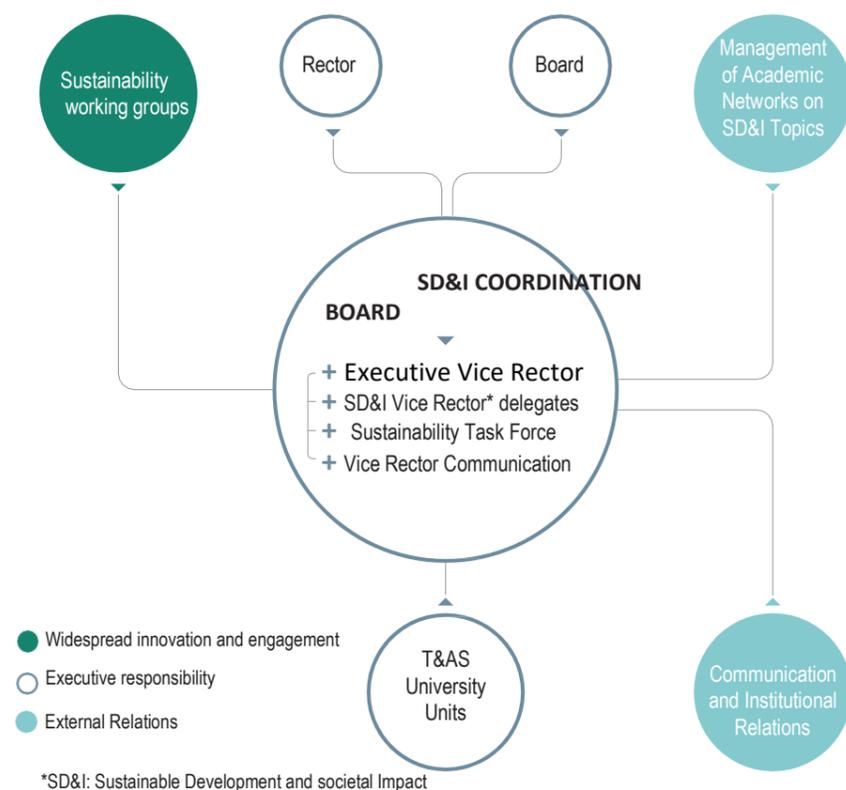


SOCIAL RESPONSIBILITY



THE GOVERNANCE OF SUSTAINABILITY

The identification of priorities and the orientation of investments on strategic sustainability issues for the university require a steering committee to define the vision of the programme and ensure action consistency. A 'Sustainable Development and societal Impact' Coordination Board was therefore set up, bringing together the Vice-Rector for Sustainable Development and Societal Impact, the Rector's Delegates for the various areas of sustainable development and the University Sustainability Task Force, the coordination unit for all activities in the area of Sustainable Development and societal Impact. Executive responsibility is then delegated to the University facilities (Central Administration, Departments and Campuses).



Sustainability Working Groups are dedicated to fostering ideas and innovation on sustainability issues and involve representatives of all souls of the Politecnico community in working groups engaged in specific topics (see the overview of active Working Groups). The aim of this open model is to encourage participation and inclusion and to create places of exchange that, on the one hand, enable the collection of ideas and good practices already tried out locally, and, on the other, encourage the widespread dissemination of initiatives. Politecnico intends to continue developing the Sustainability Working Groups project by involving all members of its community more and more actively and identifying, year by year, the most relevant sustainability issues that can be addressed with a participative and shared approach.



The External Relations area is dedicated to the coordination of the University's participation in national and international academic networks dedicated to sustainable development; it also aims to coordinate the University's communication on sustainability and relations with institutions and the territory in the area of social responsibility.

In the wide chronological span starting from their respective foundations, the Politecnico di Milano Campuses (Lecco, Piacenza, Cremona, Mantua) have developed specific activities in the field of education in architecture, design and engineering, as well as research laboratories capable of stimulating the planning approach of the entrepreneurial fabric of the territory, as well as a lively and consolidated programme of initiatives related to 'public engagement'. These campuses can act as 'experimental laboratories' within which a series of 'pilot' initiatives may be organised, the content of which will be defined by the most strategic topics for the single territory.

SUSTAINABILITY RANKINGS

As part of its strategy to improve the university's performance and reputation in terms of sustainability, Politecnico di Milano participates in the main international university rankings on sustainable development. The goal is to create a process that, starting from the exploitation of past experience, aims at developing the necessary skills for comprehensive reporting of actions in the field of sustainability and at highlighting possible areas for improvement in policies supporting sustainable development. The rankings are also an important opportunity for comparison with other universities committed to sustainable development issues in a national and international context.

In 2023, Politecnico di Milano ranked 91st in the global THE Impact Rankings, improving on the previous year's result and achieving top positions on specific SDGs (16th in SDG9, 28th in SDG10, 37th in SDG8). Furthermore, Politecnico di Milano entered in the 2022 edition of the GreenMetric World University Rankings, reaching its 13th consecutive candidature and ranking 85th out of 1,050 participating universities.

In the coming three-year period (2023-2025), Politecnico aims to maintain its commitment to actively participate in the THE Impact, QS Sustainability and UI GreenMetric rankings, constantly evaluating its own performance and setting targets for its own improvement.

THE 2022 SUSTAINABILITY REPORT

In 2023 Politecnico di Milano published the 2022 Sustainability Report, which provides an overall view of the current commitment to sustainable development in its broadest sense, and represents the starting point for outlining the University's commitments in the three-year period 2023-2025 as described in this Sustainability Strategy.

The Report is based on five strategic guidelines: People (synonymous with inclusion and community well-being), Responsible Education, Ethical Research focused on global challenges, Social Responsibility, Environmental Sustainability. Each guideline is then broken down into subject areas and individual sustainability topics, in which actions and results achieved are presented, supported by numerical data and performance indicators (as documented in the attached tables).

PEOPLE		
AREA	TOPIC	ACTIONS AND RESULTS FOR 2022
Well-being in study and work	University Welfare	100% of staff have welfare services available at the University's expense € 394,600 allocated for the Welfare Portal for technical and administrative staff, up 50% vs. 2021
	Community life and agreements	52 active agreements in 2022, +29 compared to 2021 11,211 employees and students benefitted from these agreements in 2022
	Psychological well-being	1,528 students and PhD students joined the PoliPsi service 949 registrations for individual support offers 736 registrations to group support offers 12 PoliPsi employees
	Sports	8,629 people registered in December 2022 +46% users participating in sports in 2022 compared to 2021 52 Dual Career athletes
	Smart working	65% of T&AS with smart working authorisation in 2022 +645 authorisations compared to 2021
	Spaces for study and innovative teaching	3,772 places for individual study on the Milan campuses 7 classrooms upgraded for innovative teaching, totalling 253 places
Inclusion and equal opportunities	Gender Equality	€ 256.000 total investment for Girls@Polimi scholarships disbursed in 2022 90 female students involved in female empowerment programmes
	Multiculturalism	3,362 international students involved in the Buddy project 11,271 international students registered at Welcome Week: +75% vs. 2021
	LGBTQIA+ support	Programme of events and awareness-raising activities
	Accessibility - more inclusive working environments and tools for people with disabilities or SLDs	1,173 students with disabilities or SLDs in the A.Y. 2022.23 entrusted to the Multichance Poli Team 1,198 customised entrance tests in the A.Y. 2022-23
	Support for parenting	5 approved crèche facilities (+3 compared to 2021) € 390.000 post-maternity research grants in the last 5 years
Training and professional growth	Staff training	16,000 hours of training provided for teaching staff and technical and administrative staff +15% budget allocated for training compared to 2019
	Talent development actions for the growth and career development of young researchers	32 training courses for young researchers in 2020-2022 99 researchers involved in the Talent Development programme in 2022

Source: Sustainability Report 2022

EDUCATION		
AREA	TOPIC	ACTIONS AND RESULTS FOR 2022
Curricular teaching	Sustainable Development topics	38% of the courses taught at Politecnico di Milano are directly relevant to the SDGs
	Polimi Ambassador	3,705 students involved in Ambassador programmes in 2022, increasing by about 45% vs. 2021 4 Schools involved in 2022 for Polimi Ambassador in Green Technologies and Smart Infrastructure
Cross-curricular teaching	Passion in Action	4,995 students participated in the Passion in Action programme in 2022 2.729 digital badges delivered as recognition of activities
	Language courses	4,500 students enrolled in language courses, divided into 213 classes, up 10% vs. 2021 2,213 international students have followed the Italian OFA (additional educational obligation) course
	META Education: Social Sciences and Humanities for Science and Technology	21 META courses delivered in the A.Y. 2022-23 >1,500 students enrolled in META courses in the A.Y. 2022-23
Lifelong learning	Post-graduate education and sustainable development	191 postgraduate education programmes 11 SDGs to which the continuous education provided by Politecnico directly contributes
	Polimi Open Knowledge	100 total MOOC courses available on POK, +16 compared to 2021 of which 3 with a specific focus on sustainability 21,941 new users registered on the POK portal in 2022 41,136 new enrolments for MOOC courses in 2022
Diritto allo studio (Right to education)	Scholarships and financial support	7,076 students for which funds are allocated for DSU scholarships in the A.Y. 2022-23 >9 million allocated by Politecnico on own funds for scholarships
	University residence halls	1,699 places in the 7 university residence halls of Politecnico di Milano, of which 991 DSU places
Academic guidance	STEM and talent attraction	2,272 high school students participated in orientation meetings 41 orientation courses designed for high school students 15,809 students registered for open days organised by Politecnico
	Career Service	21,444 job and internship advertisements on the Career Service portal 367 partnerships with companies in 2022 >10,000 participants in Career Service events
Student Associations	Associations And Sustainability	28 active student associations in 2022, 8 of which carry out activities related to sustainable development 38 projects in the field of sustainable development € 67,000 disbursed to associations active in the field of sustainable development

Source: Sustainability Report 2022

RESEARCH		
AREA	TOPIC	ACTIONS AND RESULTS FOR 2022
Responsible and ethical research	The Code of Ethics and Conduct and the Research Ethics Committee	Code of Ethics Dissemination Events
	Meta: social sciences and humanities for science and technology	4 research projects funded in 2022 12 conferences and seminars open to the public in 2022
	The research system and funding	25 NRRP initiatives 120 Horizon Europe projects won (2021-2022) 1,500 companies with which Politecnico does research each year
	Multidisciplinary research	~20 interdisciplinary PhD scholarships awarded annually 6 new JRP contracts signed in 2022, with a total value of € 50 mn
Sustainable development in research	PhD theses	16 SDGs addressed in the 293 PhD theses in 2022
	Research projects financed by competitive calls	>80 research projects have a link to 15 of the 17 SDGs € 17 mn in funding received for SDG-related projects
	NRRP projects	2 Politecnico Hub in NRRP projects 10 participations in NRRP projects as Spoke Leader € 230 mn in funding received
	Research outcomes Publications	1,886 SDG-related publications registered in Scopus
	Laboratories: infrastructure to support sustainability research	94 laboratories divided between large infrastructure, interdepartmental and instrumental laboratories

Source: Sustainability Report 2022

SOCIAL RESPONSIBILITY		
AREA	TOPIC	ACTIONS AND RESULTS FOR 2022
Technological Transfer and Support for Entrepreneurship	Patents	84 patents filed in 2022 32 inventions developed by contract or assignment in 2022
	Spin-offs	€ 3.9 mn financed to support technology development projects +8 spin-off companies accredited in 2022, for a total of 82 active spin-off companies
	PoliHub and Start up	122 start-ups incubated and accelerated by PoliHub in 2022 € 30 mn raised by start-ups incubated and accelerated by PoliHub in 2022
Relations with the local community and its institutions	Polisocial Award	€ 500,000 for the funding of 5 research projects in 2022 9 editions of the competition since 2012
	Off campus	+2 new Off Campus spaces: Casa Circondariale San Vittore and Cascina Nosedo 50 external stakeholders including public institutions, foundations, companies, other universities and local stakeholders
Academic networks and cooperation	Development Cooperation	1 First-level master provided in cooperation for 35 young professors from 21 African universities in 2022 >€ 1 mn of external funding for institutional training projects Masters and Erasmus+
	University networks for sustainability	5 university networks for sustainability to which Politecnico adheres 17 Polimi representatives among teaching staff and technical and administrative staff in the RUS Working Groups 8 Working Groups on RUS social and environmental impact issues, 2 of which are coordinated by Politecnico
Cultural and scientific dissemination activities	Sustainability-related events	9,000 participants in events organised by Politecnico that include sustainability topics 18 events organised for the 2022 edition of the Festival of Sustainable Development
	Exhibitions, archives and museums open to the public to share and enhance heritage	11,350 visitors to the Made in Polimi Museum in 2022

Source: Sustainability Report 2022

ENVIRONMENTAL SUSTAINABILITY		
AREA	TOPIC	ACTIONS AND RESULTS FOR 2022
Energy and climate action	Renewable energy and consumption reduction	2 new refrigeration units -10% electricity consumption in winter months compared to the previous winter season
	Greenhouse gas emissions	3% reduction in emissions per capita in 2022 compared to baseline year 2015
Sustainable mobility	Sustainable Mobility Action Plan (PSCL) and mobility surveys	68% of students exclusively use soft mobility or public transport for home-university trips
	Sustainable mobility infrastructure and awareness initiatives	38 electric vehicle charging stations installed in 2022 1 new bicycle parking station at the Bovisa – Durando campus (Milan)
Circular economy	Resource management and waste disposal	-15% special waste generated compared to 2020 55% of stored furniture was intended for reuse
	Sustainability in procurement	14 MEC applicable and applied in University procurement 17/100 average score given to sustainability criteria in tenders containing awarding MEC

Source: Sustainability Report 2022



2

AMBITION AND PRIORITIES

Politecnico di Milano's ambition on sustainability
Priorities of the Strategy

→ **POLITECNICO DI MILANO'S AMBITIONS ON SUSTAINABILITY**

MISSION

A leading guide.

A solid, recognisable and reliable reference point for sustainable development in Italy and Europe. This is how Politecnico di Milano wants to distinguish itself in the coming years: by its ability to tackle the main scientific and technological challenges, through an increasingly inclusive and equal opportunities-oriented culture, according to an ethical dimension that interprets and declines the very concept of sustainability as a synonym for equity, inclusion and shared growth.

It is in the interplay between scientific rigour and creativity that our University aims to establish itself as an international community of people united in their uniqueness. An attractive community for students and researchers from all over the world; dedicated to contributing significantly to social and cultural development, against any form of discrimination.

VISION

The vision that shapes our future starts from the European Union's six core values: human dignity, freedom, democracy, equality, rule of law, respect for human rights. These are accompanied by the objectives of the New European Bauhaus initiative, whose central focus is identified with the value of beauty, understood not only as a stand-alone aesthetic quality but as a measure of the protection of ecosystems, of the harmonious relationship between places and people, between economic growth and the use of resources. Politecnico di Milano is a European university through and through, in its roots and ambitions.

According to this perspective, student education remains central to the University's strategic lines. In this direction, we will continue to experiment and apply innovative teaching models, characterised by hybrid and multidisciplinary forms, interactive processes, far from classroom-taught lectures and classroom teaching alone, in a cosmopolitan environment open to international exchange and attentive to sustainable development issues.

Scientific research, which has always been an integral part and driving force of Politecnico, will open up new opportunities with a focus on the stable recruitment of young researchers, also thanks to collaboration with European networks to consolidate our objectives. We will also expand our commitment to key sustainability issues while involving all areas of research to ensure constant technological, social and environmental innovation.

It will therefore be crucial to rethink physical space to make our places of study, research and exchange more flexible, sustainable (from an environmental and energy point of view), welcoming (to promote well-being and safety), accessible and liveable. We will endeavour to support growth and innovation in society as a whole, also through the Politecnico skills, with a view to strengthening relations with the city, the territory and its institutions and with particular attention to the nonprofit sector.

COMMITMENT TO SUSTAINABLE DEVELOPMENT

Politecnico di Milano firmly embraces the principles underlying sustainable development, of which the 2023-2025 Sustainability Strategy is intended to be a clear affirmation. In the fullest and deepest sense of the word, sustainability means 'caring for, supporting and fostering' the integral development of the individual and the society, as well as the environment, hence the University's strong focus on the well-being of the entire Politecnico community. Sustainable Development is an expression of increased awareness and maturity. It is a sign of a unifying perspective on the three missions of the University: education and training, research, social responsibility. It offers opportunities for shared growth within an international community: from inclusion to diversity, from improving quality of life to participatory involvement in University activities.

Politecnico di Milano interprets the focus on sustainability as a central element of its way of carrying out research and teaching and of promoting social responsibility and innovation. Actions aimed at improving the quality of anthropogenic and natural ecosystems, as well as those related to reducing inequalities and promoting social inclusion and co-existence at different scales, are not merely collateral activities with respect to the University's mission.

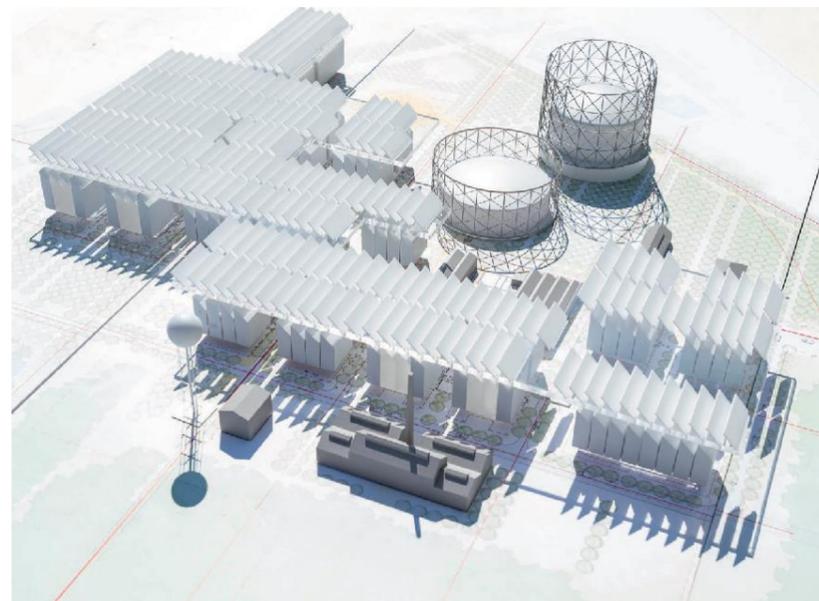
In producing research of excellence, in delivering accessible and quality education, in caring for territories and contexts, and in promoting the dissemination of research results in society, Politecnico aims to contribute to the construction of a fairer and more sustainable future.

In teaching, sustainability means educating our students to critically address major global challenges and local needs, safeguarding equal access and study opportunities for all, with concrete tools, models and adequate services that ensure full accessibility and promote the right to education. In this context, sustainability is to be regarded as a constituent element of the educational offer, a topic to be integrated into the study programmes by means of preparatory and transversal content and also programmes aimed at the development of specific skills.

In research, a sustainable approach requires an understanding and proper evaluation of the ethical implications typical of scientific progress and technological development and the extension of disciplinary perspectives to humanities knowledge, also through collaboration with the best national and international research organisations and public institutions. This means guaranteeing independent, high-quality research with a focus on talent development and on the careers of young researchers. Moreover, it means further increasing the commitment of scientific research on key sustainability issues, confirming and reinforcing our position as a leader in technological, social and environmental innovation and at the same time making the sustainability perspective pervasive in all research areas.

In terms of social responsibility, a sustainable proposal recognises and consolidates actions and interventions in response to the needs of the city, the local area, the country and the international community. It supports the growth and innovation of society by providing Politecnico expertise, with a view to strengthening relations for the autonomous growth of territories by working in a multi-stakeholder logic both to collaborate with nonprofit entities on local issues and to inform decision-makers on global issues. Our ambition is to consolidate a sustainable social innovation model, applicable in Italy and worldwide, with clear and measurable impact objectives.

It is in this direction that we drafted the 2023-2025 Sustainability Strategy, to orient actions and to measure and validate the results and effectiveness of the decisions made.



→ **PRIORITIES OF THE PLAN**

In order to define the lines of action of the 2023-2025 Strategic Sustainability Plan, six priorities were identified within the institutional missions of the University: Inclusion and Equal Opportunities, Sustainable Research, Sustainability in Teaching, Right to Education, Innovation and Social Responsibility, Environment.

As elements of the overall strategy, each priority is broken down into objectives to be achieved and concrete measures to be implemented in the 2023-2025 period. Specific indicators are associated with each objective to effectively monitor the actions' success and to present progress in a transparent way.

INCLUSION AND EQUAL OPPORTUNITIES

To be an increasingly welcoming and inclusive place, ensuring equal opportunities and enhancing the uniqueness of individuals through specific actions aimed at deconstructing stereotypes and combat all forms of discrimination, with a strong focus on the physical and psychological well-being of the entire Politecnico community.

SUSTAINABLE RESEARCH

To extend scientific research efforts on key sustainability issues, to consolidate and reinforce our position as a leader in technological, social and environmental innovation, while embedding the sustainability perspective across all research areas.

SUSTAINABILITY IN TEACHING

To embed sustainability as a key element in our educational offer, developing both cross-disciplinary and preparatory teaching content in all study programmes as well as new programmes aimed at developing specialized skills.

DIRITTO ALLO STUDIO - RIGHT TO EDUCATION

To ensure equity of access and study opportunities by promoting an integrated system of support, such as scholarships, affordable housing, full accessibility to spaces and teaching, study guidance and curriculum customization.

INNOVATION AND SOCIAL RESPONSIBILITY

To support the societal growth by providing our expertise with responsibility and reciprocity, in a multi-stakeholder perspective to collaborate with nonprofit entities on local issues and to inform institutional decision makers on global issues.

ENVIRONMENT

To act as promoters of innovation and experimentation in the field of environmental sustainability, committing to energy transition, reducing greenhouse gas emissions and energy consumption, while promoting sustainable mobility and circular economy practices.



3

GOALS AND ACTIONS

Inclusion and equal opportunities
Sustainable research
Sustainability in teaching
Right to education
Innovation and social responsibility
Environment



GOALS

Listening to needs with climate surveys



TARGET

40% overall response rate (faculty, staff, students)



ACTIONS

- **Involvement** - Administration of climate surveys to the entire community (Laurea Triennale and Laurea Magistrale students, PhD students, teaching staff, technical and administrative staff) by 2024
- **Criticality analysis** - Identification, from climate surveys, of critical elements with regard to the Diversity & Inclusion (D&I) dimension in order to design dedicated training content

Inclusive training

50% of teachers and 100% of technical and administrative managers trained

- **Inclusive leadership courses** - Development of prototype training courses on inclusion issues and in particular inclusive leadership and interpersonal skills for teaching staff and technical and administrative staff
- **Reverse mentoring** - Experimentation with innovative teaching experiences on D&I issues involving students also in the role of teachers

Research on inclusive technologies

A 'portfolio' of projects dealing with technologies for inclusion

Annual selection and awarding of a flagship project

- **Technology mapping** - Census of existing research activities in the field of inclusion and inclusive technologies
- **Communication** - Communication actions to strengthen visibility, including towards partner companies and the not-for-profit sector

Strengthening inclusion

Increase in international students from non-privileged backgrounds

- **Support programmes for international students** - Development of new tools to support the right to education
- **Revision of regulations** - Revision of University regulations to ensure greater inclusiveness (e.g. extension of 'alias identities' to faculty and staff)

→ INCLUSION AND EQUAL OPPORTUNITIES



GENDER BALANCE

STRATEGIC ORIENTATION

Women are often associated with social and work contexts far removed from the fields of science and technology; this under-representation has significant socio-economic impacts in Italy, Europe and globally. Politecnico di Milano wants to contribute to mitigating these prejudices and to promote orientation actions for STEM courses and careers that also contribute to promoting gender balance.

In the 2023-25 period we will:

- train the community on unconscious biases
- strengthen STEM orientation activities and communication of the social impact of technologies
- develop teaching and research activities related to SDG5 (Gender Equality)
- promote instruments to improve gender balance





GOALS

Education and training on unconscious biases



TARGET

50% of faculty and staff trained in the three-year period



ACTIONS

- **Courses** - Development of training course prototypes on unconscious biases for all teaching staff and technical and administrative staff
- **Extension of offer** - Expansion of courses to asynchronous online fruition and extension to the student community

Academic counseling and scholarships for female students

+20% *Girls@Polimi* scholarships

- **Academic guidance** - Development of communication tools for research and STEM programmes that highlight their social impacts; strengthening of orientation programmes and scholarships for female students
- **“Women's engineering” narratives** - Strengthening the presence of young female researchers in schools to narrate Politecnico and engineering to women and increase in the exposure of female experts in media relations

Strengthening the gender dimension in teaching and research

Increase in teaching and research projects with focus on SDG5

- **Mapping teaching and research** - Census of existing teaching and research activities on gender equality and equal opportunities and support of new initiatives
- **Communication** - Communication actions to strengthen visibility, including towards partner companies and the nonprofit sector

Gender balance in our community

40% women representation

- in new entries of researchers
- in university governance bodies

30% gender-balanced courses

- **Gender Equality Plan** - Drafting of the new *Gender Equality Plan* for the 2024-2026 period so that it is organic and structural to the gender dimension presented in the Sustainability Strategy
- **Mentorship programmes** - Launch of female mentorship programmes for female PhD students and researchers, with mentors chosen from within the University and from the alumni community

→ INCLUSION AND EQUAL OPPORTUNITIES



PSYCHOLOGICAL WELL-BEING

STRATEGIC ORIENTATION

Politecnico di Milano is committed to ensuring a study and work environment that enhances the psychological and physical well-being of all members of its community as an integral part of its educational and social mission. The centrality of this commitment lies in the will to ensure equal opportunities and promote inclusion.

In the 2023-25 period we will:

- strengthen and expand the psychological and psychotherapeutic service to students
- start training technical and administrative staff and teaching staff
- introduce experience-based workshops for the whole community





GOALS

Psychological and psychotherapeutic support service



TARGET

100% access to the service within 1 month since the request



ACTIONS

- **Analysis and taking charge** - Periodic evaluation of the questionnaires filled in by the students when requesting support and identification by the staff of the most suitable programme in terms of urgency and type
- **Communication – Communication** actions to increase the impact of well-being initiatives

Community training

500 people involved in the three-year period

- **Staff training** - Offer of courses on relational, emotional and self-awareness aspects for teaching staff, technical and administrative staff, and temporary research fellows
- **Experience-based workshops and seminars for students** - Introduction of experience-based workshops and seminars/roundtables for students on relational, emotional and self-awareness aspects
- **Art workshops** - Creation of art workshops for the University community to promote psychological well-being through performing events

Monitoring of results

Administration of a climate survey to all students

- **Monitoring** - Evaluation of the climate survey and analysis of needs
- **Reporting and satisfaction questionnaires** - Upgrade of the existing platform

→ INCLUSION AND EQUAL OPPORTUNITIES



SPORT

STRATEGIC ORIENTATION

Politecnico di Milano promotes sports as a tool for people's well-being, development and improvement, both on an individual and a social level. To this end, it encourages its community members to participate in sporting activities and organises sporting events in the local community.

In the 2023-25 period we will:

- involve an increasing number of students and employees through the provision of courses, tournaments and *team building* activities
- promote sports as a tool for local engagement and social recovery
- give evidence of teaching and research activities in the field of sports





GOALS

Involvement of the internal community and support for excellent students

Sports as a tool of public engagement and social responsibility

Integration and visibility of teaching and research on sport



TARGET

+50% involved students and employees
+50% *dual career* scholarships

+25% external participants in University-sponsored events
5 initiatives/year of social responsibility

Implementation of a 'Sport' platform



ACTIONS

- **Events and tournaments** - Organisation of in-house and international initiatives
- **Infrastructure** - Upgrading of existing infrastructure (Parco dei Gasometri in Bovisa, Gymnasium in Cremona, new *Fit Centre* at Campus Leonardo)
- **Sports played** - Expansion of individual and collective sports through the involvement of *dual career* ambassadors
- **Team building** - Organisation of team building activities

- **Events** - Increasing the impact of sports on the territory by organising major sporting events open to citizens, as well as socially responsible initiatives with minors, people with disabilities and under-represented groups
- **Communication** - Communication actions to enhance visibility to citizens and young people

- **Hub** - Creation of a platform that connects and enhances the University's teaching and research activities on sports-related topics

→ INCLUSION AND EQUAL OPPORTUNITIES



PEOPLE GROWTH AND WELFARE

STRATEGIC ORIENTATION

Politecnico di Milano aims to take care of the people who work in the University, enhancing talents, bringing forth ambitions and capabilities, strengthening professional skills, supporting needs and vulnerabilities. This can be realized through a cohesive set of measures that place the individual at the centre and aims to make the University the shared home of all its members.

In the 2023-25 period we will:

- expand the services offered in the area of *welfare* by broadening the target group of those involved, with a special focus on vulnerable groups
- invest in new training courses to enhance staff skills in all priority areas
- foster our community's contribution to the nonprofit sector in connection with the *Polimi4nonprofit* initiative





OBJECTIVES



TARGET



ACTIONS

Enhancement of the welfare system

8,000 registrations to the service

- **Parenting** - Activation of services to support parenting in the working and studying community based on the needs of the various age groups of children
- **Assistance** - Activation of support services that help staff members in supporting parents and family members with disabilities or in need of assistance
- **Work-life balance** - Implementation of initiatives and services to ensure a proper work-life balance
- **Prevention and promotion of healthy lifestyles** - Strengthening of existing services in synergy with the sports service and promotion of new dedicated initiatives

Staff training

75% of staff trained with new skills over the three-year period

- **Training of teaching staff** - Formalisation of a training plan in the areas of teaching, research, *soft skills*, with a focus on sustainability issues
- **Training of technical and administrative staff** - Increase in customised training plans for staff key roles and focus on the development of sustainability and inclusion issues

Contribution to the nonprofit sector

10% of staff involved

- **Participation Guidelines** - Definition of opportunities for teaching and technical and administrative staff to contribute to the nonprofit sector activities with their time and skills according to their preferences

→ SUSTAINABLE RESEARCH



SUSTAINABLE DEVELOPMENT IN RESEARCH TOPICS

STRATEGIC ORIENTATION

Politecnico di Milano believes that the focus on sustainable development should be as pervasive as possible, in this favoured by an interdisciplinary approach in facing the challenges of scientific progress and technological development. Key enabling factors are the training and awareness-raising of researchers, incentive tools for the generation of synergies between researchers of all disciplines and the availability of large university laboratories and *living labs* located throughout the territory.

In the 2023-25 period we will:

- foster interdisciplinary research on sustainability with PhD scholarships on SDG topics
- engage in the development of living labs and state-of-the-art infrastructure for research on sustainable development and social innovation
- give value to and strengthen the sustainability content in the products of our research activities
- showcase our research results on sustainability within our campuses





GOALS



TARGET



ACTIONS

Interdisciplinary research

60 funded PhD scholarships on SDG topics over the three-year period

- **SDG Scholarships** - Funding of interdisciplinary PhD scholarships for fundamental research with SDG focus

Living labs development

5 funded projects for the development of *living labs* in the three-year period

- **EU Missions** - Fostering participation in EU Missions calls (Horizon Europe) for the development of SDG-related *living labs* and development of internal funding instruments for excellent proposals even if not funded by the EU
- **Polisocial Award** - Orientation of the *Polisocial Award* (the funding programme for high-social-impact research of Politecnico di Milano) to *living lab* development projects

Creation of new 'large infrastructures'

3 new laboratories on sustainability topics

- **Large laboratories** - Funding and setting up of new laboratory facilities to support high-tech research on the fundamental challenges of sustainability

Research products for sustainable development

Focus on SDGs in 40% of scientific publications

10 innovative technologies applied on our campuses

- **Publications** - Analysis of sustainability content in publications and training and awareness-raising activities for research staff
- **Innovative technologies** - Identification of technological products and services on sustainability developed by the University's research to apply and showcase on campuses

→ SUSTAINABLE RESEARCH



ETHICAL AND RESPONSIBLE RESEARCH

STRATEGIC ORIENTATION

Politecnico di Milano aims to strengthen the skills needed to address the challenges of ethics in science and technology and those related to the broader implications of scientific progress, technological development and innovative design. Furthermore, the university intends to continue developing an open-science and open-access, ethical and responsible approach to scientific research, identifying suitable communication tools to enhance the impact of research.

In the 2023-25 period we will:

- develop training activities and support the development of skills on the ethical and social aspects of scientific and technological research
- promote the principles of open access, open data, open source and citizen science
- support and enhance the research of PhD students with specific attention to the preparation of supervisors





GOALS



TARGET



ACTIONS

Competences on ethics and philosophy of science

A 'researcher' on ethical and social issues in each department

- **Enhancement of resources** - Inclusion of a resource in each department of the University to develop interdisciplinary research on the ethical and social impacts of scientific and technological innovation

Training of researchers on research ethics and impact

150 researchers trained over the three-year period

- **Research impact assessment** - Design and delivery of training activities on research impact analysis and self-assessment, with a focus on young researchers
- **Training on dual use** - Design and delivery of training activities for all research staff on the topic of dual use of technologies

Open Science policy

Drafting of University guidelines on open science

- **Open science model of research management** - Development of University policies and guidelines and a dedicated website to support the sharing of data, methods and outcomes in an open science logic in accordance with the European networks (EOSC)
- **Citizen science** - Development of research activities involving citizens in *Off Campus* spaces and living labs

Support for PhD students

200 professors and researchers trained as PhD supervisors in the three-year period

- **Supervisors training programme** - Design and delivery of training activities for an improved supervision of PhD students, specifically dedicated to new researchers and usable by all teaching staff

→ SUSTAINABILITY IN TEACHING



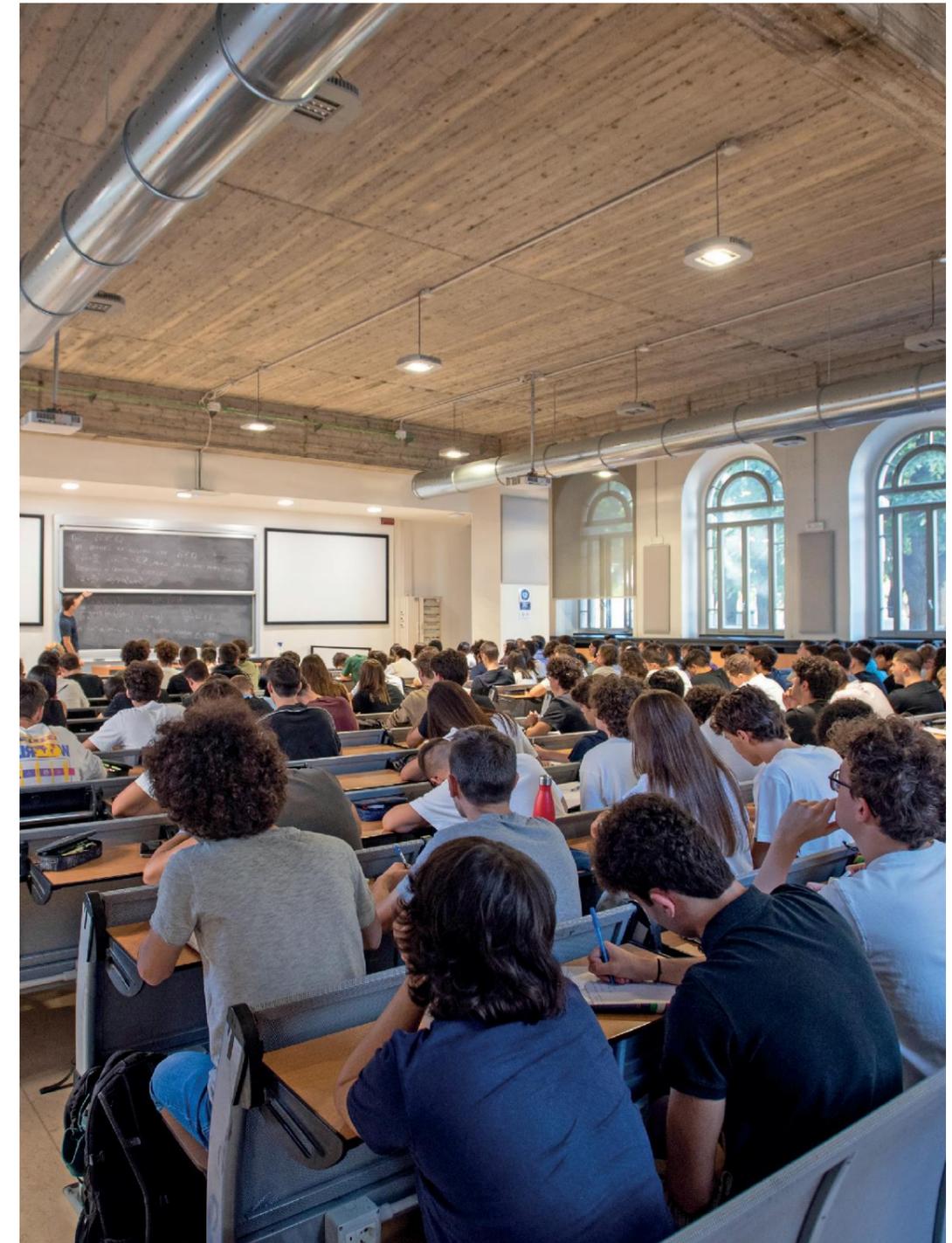
SUSTAINABILITY IN EDUCATIONAL CURRICULUM

STRATEGIC ORIENTATION

Politecnico di Milano is committed to designing and delivering 28 excellent education and to integrating sustainability as a key element in the educational offer, developing both cross-disciplinary and preparatory teaching content in all study programmes and new specialized programmes aimed at developing specific skills.

In the 2023-25 period we will:

- develop an offer of preparatory extracurricular courses (a 'library' of courses) in order to integrate knowledge and tools useful for considering sustainability aspects in the various subject areas
- enhance the multidisciplinary aspect of sustainable development by designing some cross-curricular courses with a focus on sustainability starting from the experience of the *PoliMI Ambassador* high-level training programmes
- redesign the educational governance system to increasingly improve the quality of educational services offered to students, with a focus on sustainability





GOALS

'Zero' library of courses on sustainability topics for students

Cross-disciplinary programmes related to sustainable development

Sustainable approach to teaching



TARGET

Implementation of the library of courses

Adoption of the library in 100% of study programmes

Development of 2 cross-disciplinary programmes

New model for the governance of educational activities



ACTIONS

- **Design of the library architecture** - Design of the overall offer of contents from the needs arising from the Schools
- **Development of MOOC modules** - Identification of faculty to be involved and implementation of teaching modules in MOOC format (open courses, online fruition)
- **Involvement of Schools and Study Programmes** - Involvement of Politecnico's Schools in the adoption of the library within study programmes, so that each programme has at least one course adopting the library

- **Design of the educational offer** - Design and implementation of cross-curricular programmes with a focus on sustainability
- **Programme promotion** - Definition of an incentive system for Study Programmes to participate in the project

- **Identification of interventions** - Analysis of the current situation regarding teaching management in the University and identification of areas for improvement
- **Innovations in the teaching delivery model** - Proposal of innovative models for optimising available resources to increase the quality of teaching and make it more sustainable

→ SUSTAINABILITY IN TEACHING



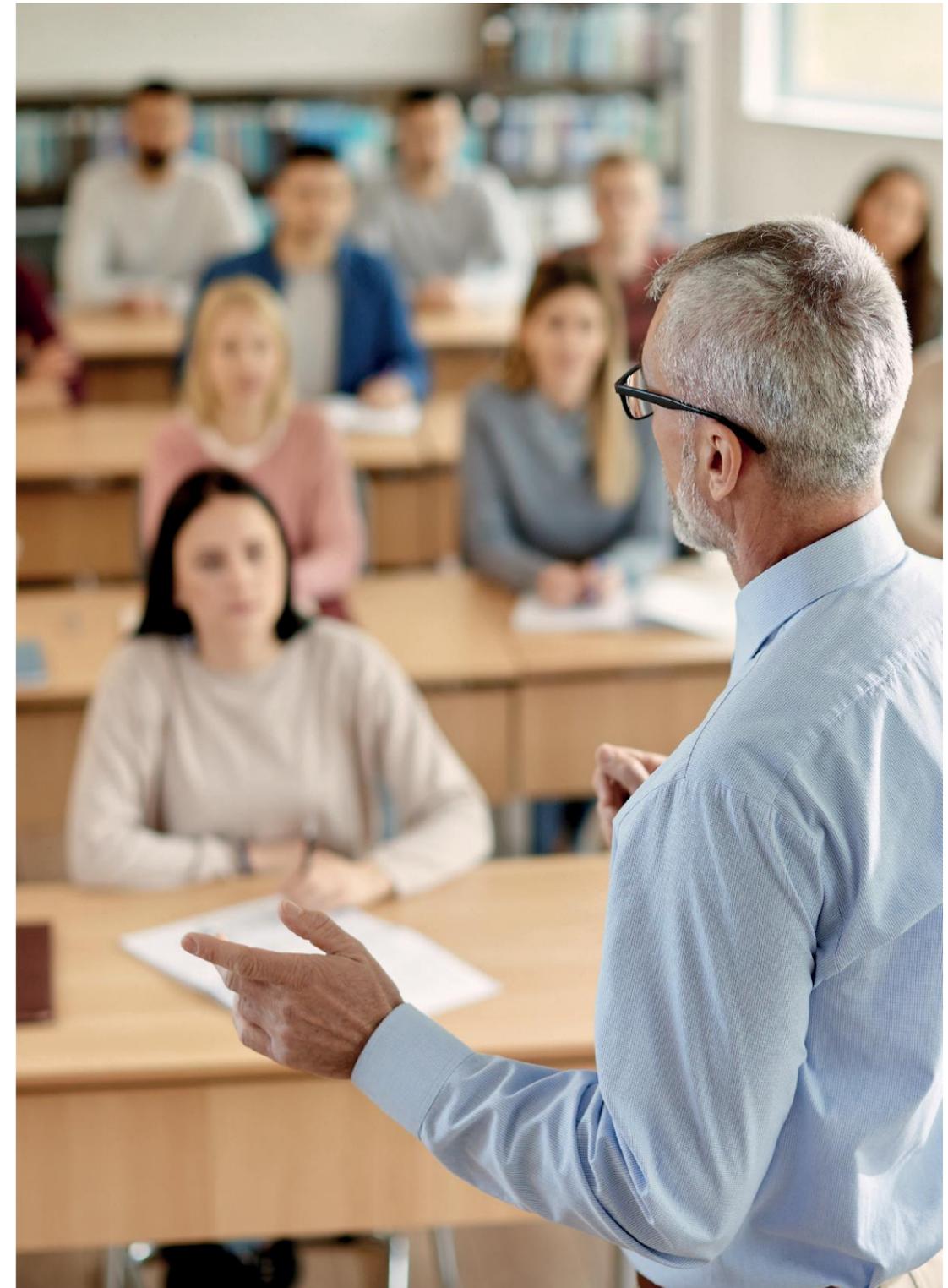
LIFELONG LEARNING

STRATEGIC ORIENTATION

In an increasingly advanced and complex world, it is crucial to integrate the curricular offer of traditional study programmes with an offering of advanced, constantly evolving content for lifelong learning. Politecnico di Milano is committed to developing and evolving this offer to be increasingly suitable to meet the challenges of sustainable development.

In the 2023-25 period we will:

- enhance our continuing education offer, open to all (MOOCs), with a focus on sustainable development issues
- increase the sustainability content in all existing Specializing Masters and develop new Masters specifically focusing on sustainability
- provide postgraduate training programmes with a focus on the nonprofit sector





GOALS

MOOCs and 'micro-credentials'



TARGET

130 MOOCs, of which 20 focused on sustainability



ACTIONS

- **MOOCs** - Design and implementation of the collection
- **'Micro-credentials'** - Design of a postgraduate training programme on specific sustainability-related topics, with delivery of courses and issue of micro-credentials and certificates

Masters on sustainability

2,500 hours dedicated to sustainability in postgraduate Masters

1,000 participants in Masters and courses with a focus on sustainability

- **Enhancement and consolidation of the existing offer** - Redesigning of the educational offer in all Politecnico-credited postgraduate programmes to train responsible sustainability professionals
- **Design of new masters** - Further development of postgraduate courses (Masters and courses) with a prevailing focus on sustainability issues

Postgraduate education for the nonprofit sector

1,500 participants in the courses

1,000 hours of mentoring provided

- **Workshops and project approaches** - Design and implementation of workshops and project approaches within postgraduate Masters, centred on nonprofit sector stakeholders
- **Mentoring in projects** - Pro-bono provision of expertise to support nonprofit sector stakeholders in implementing innovation and continuous improvement projects
- **Assistance to participation** - Increase of partial exemptions between 10-15% for candidates from the nonprofit sector

→ **DIRITTO ALLO STUDIO - RIGHT TO EDUCATION**



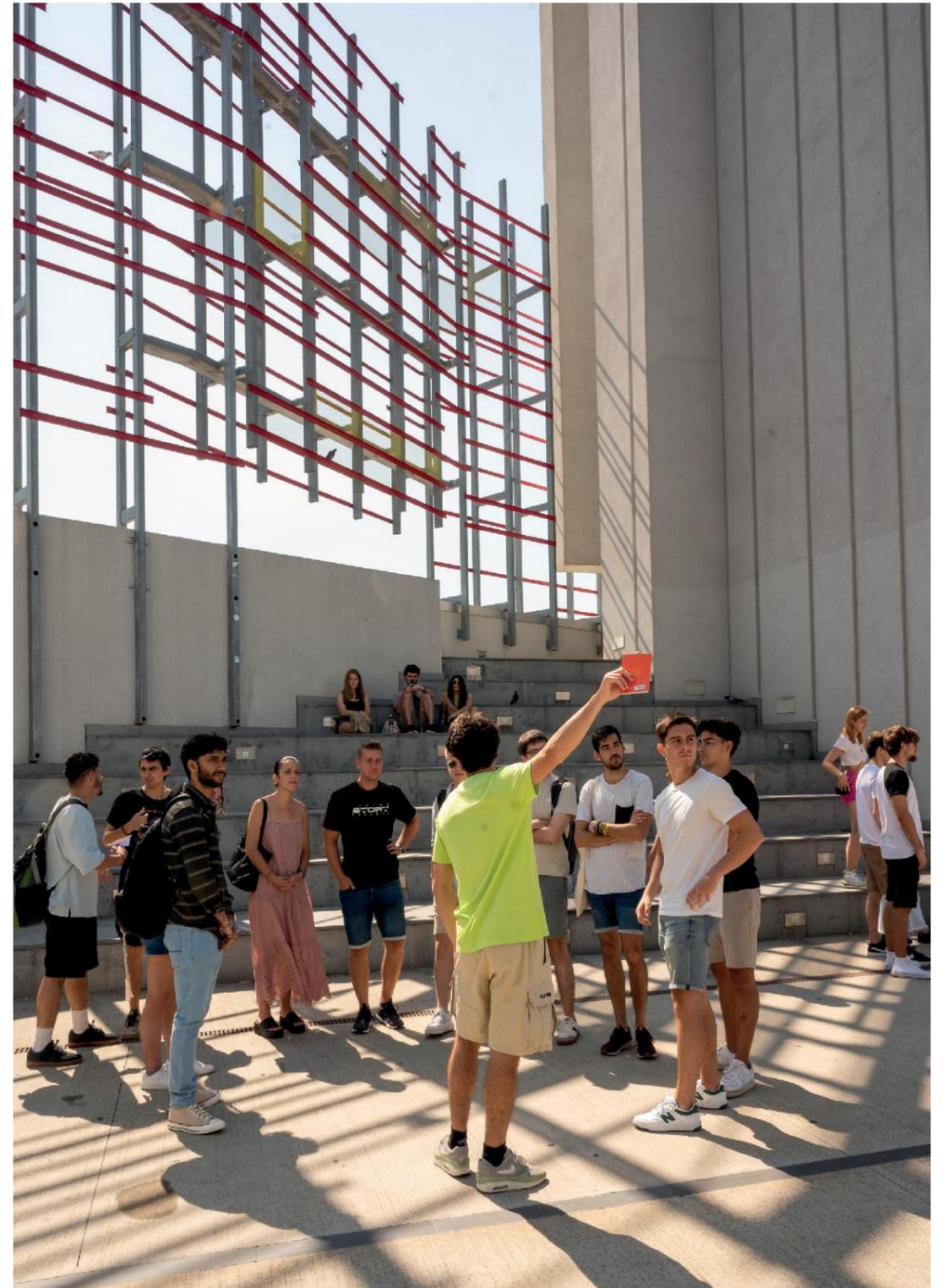
FINANCIAL SUPPORT AND STUDENT MENTORING

STRATEGIC ORIENTATION

Politecnico di Milano is committed to removing financial barriers that hinder access to university education, supporting categories of people that are under-represented in the university population and rewarding merit and dedication in studies.

In the 2023-25 period we will:

- maintain the allocation of 'right to education' DSU scholarships for all eligible students and enhance the scholarship offer to support vulnerabilities and merit
- enhance activities to support students in their academic path
- increase the number of places in the residence halls
- develop the University's offer of paid collaborations for students





GOALS



TARGET



ACTIONS

Scholarships

DSU scholarship allocated to 100% of eligible students

- **DSU budget** - Budget allocation to ensure all eligible students receive a scholarship
- **New scholarships** - Development of new types of scholarships and strengthening of existing programmes to support deserving students in vulnerable economic conditions

Mentoring for study support

<10% first-year drop-out rate

- **Communication and awareness-raising** - Implementation of awareness-raising activities towards students to increase knowledge of study support services available at the University
- **Learning analytics** - Increased use of learning analytics tools to monitor the careers of students who face difficulties and to identify the need for mentoring activities

Residence halls

+50% number of places available, of which 60% dedicated to DSU students

- **Construction works** - Construction of new residence halls to increase the University's accommodation offer, particularly for students in less favourable economic conditions
- **Communication and information** - Creation of an app to enable students to learn about and choose the accommodation that best suits their needs among the different opportunities in the city

Paid student collaborations

+20% total hours vs. previous three-year average

- **Remuneration and number of hours** - Increase in the number of hours for student collaborations and simultaneous increase and diversification of hourly remuneration according to the type of student and type of activity
- **Management model** - Increase in and diversification of the offer also through the involvement of Schools and Departments; increased flexibility in calls for participation

→ **DIRITTO ALLO STUDIO - RIGHT TO EDUCATION**



ACCESSIBILITY OF SPACES AND EDUCATION

STRATEGIC ORIENTATION

Politecnico di Milano is committed to promoting the active participation of all members of its community in academic life, collectively tackling the challenges related to the presence of disabilities or Specific Learning Disorders (SLDs).

In the 2023-25 period we will:

- create accessible and inclusive environments and routes
- provide our students with disabilities and SLDs with customised support based on appropriate technological tools and help them start rewarding careers
- invest in teaching staff awareness and training and promote increasingly inclusive teaching





GOALS

Full accessibility of spaces and teaching

Post-graduation support service

Inclusive education



TARGET

100% students with SLDs and disabilities supported with ad-hoc programmes and full access to facilities

100% students with disabilities employed 1 year after graduation

60% of teaching staff trained in the three-year period



ACTIONS

- **PEBA** - Finalisation and implementation of the Plan for the Removal of Architectural Barriers (PEBA)
- **Barrier removal at the design stage** - Review of regulations for the removal of architectural barriers at the design stage
- **Interconnection Politecnico-City** - Implementation of the MEP (*Maps for Easy Paths*) app for mapping campus accessibility from the outside

- **SME partner enlargement** - to increase adequate inclusion of protected categories
- **Support process** - Review of support actions and monitoring of activities

- **Digital accessibility (SLDs/Disability)** - Creation of courses for all teaching staff on teaching accessibility for people with SLDs and disabilities
- **Inclusive teaching (SLDs/Disability)** - Dedicated training for teaching staff on issues related to inclusive teaching and innovative teaching methods with respect to people with disabilities and SLDs

→ INNOVATION AND SOCIAL RESPONSIBILITY



PROXIMITY INNOVATION

STRATEGIC ORIENTATION

Politecnico di Milano aims to contribute to societal growth in a logic of responsibility and reciprocity through innovative forms of collaboration between the University and the local community, bringing its expertise and innovative content to more vulnerable contexts, activating programmes of co-learning and co-production of knowledge.

In the 2023-25 period we will:

- strengthen the *Off Campus* programme through which the University expresses its commitment and connection to the local community, expanding its educational and cultural offers
- build, around the *Off Campus* initiative, a collaborative platform with local stakeholders in synergy with the *Polimi4nonprofit* project
- Building upon the *Off Campus* experience, develop a 'sustainable model' of social innovation in proximity





GOALS

Enhancing the *Off Campus* system



TARGET

2,500 students involved in *Off Campus* activities over the three-year period

Platform for collaboration with local communities

200 organisations engaged in *Off Campus* over the three-year period

A 'sustainable model' for social innovation in proximity

Strategic plan for 'sustainable' development



ACTIONS

- **Educational activities** - Organisation of educational activities aimed at involving university and high school students in the *Off Campus* spaces
 - **Mentoring and volunteering** - Involvement of students and student associations through collaborative, cultural and voluntary activities
 - **Support for research projects** - Support for faculty in the development of projects and institutional relations in cross-sectoral partnerships from different *Off Campus* spaces
 - **Cultural events** - Planning of events involving multiple *Off Campus* spaces that intercept city events and those promoted by Politecnico (*ArchWeek*, Festival of Sustainable Development...)
-
- **Milan University Network and Higher Education** - Consolidation of collaborations with universities involved in *Off Campus* activities or working contexts
 - **Strengthening of relations and agreements** - Dialoguing with institutions with which collaboration agreements on the project can be activated
-
- **Organisational model** - Strengthening coordination of initiatives and activity planning actions
 - **Economic model** - Identification of funding sources and design of *Polisocial Award* competitions with focus on proximity social innovation
 - **Evaluation and recognition of impact** - Consolidation of an impact evaluation model and identification of forms of recognition and incentives for faculty and students engaged in the activities

→ INNOVATION AND SOCIAL RESPONSIBILITY



COLLABORATION WITH THE NONPROFIT SECTOR

STRATEGIC ORIENTATION

Politecnico di Milano recognises the nonprofit sector's fundamental social and economic role and believes that, for the pursuit of its mission of sustainable development and social innovation, it is essential to build and enhance a structured system of collaboration with the most dynamic stakeholders of the nonprofit sector.

In the 2023-25 period we will:

- carry out a mapping process of Politecnico expertise on social innovation related to the SDGs in teaching and research offers
- activate a plan of events and public initiatives to launch a collaboration platform and initiate the engagement process of participants
- develop, in a participative way (co-design), an integrated system of processes and services called Action Platform - Digital Platform P4NP (*Polimi4nonprofit*)

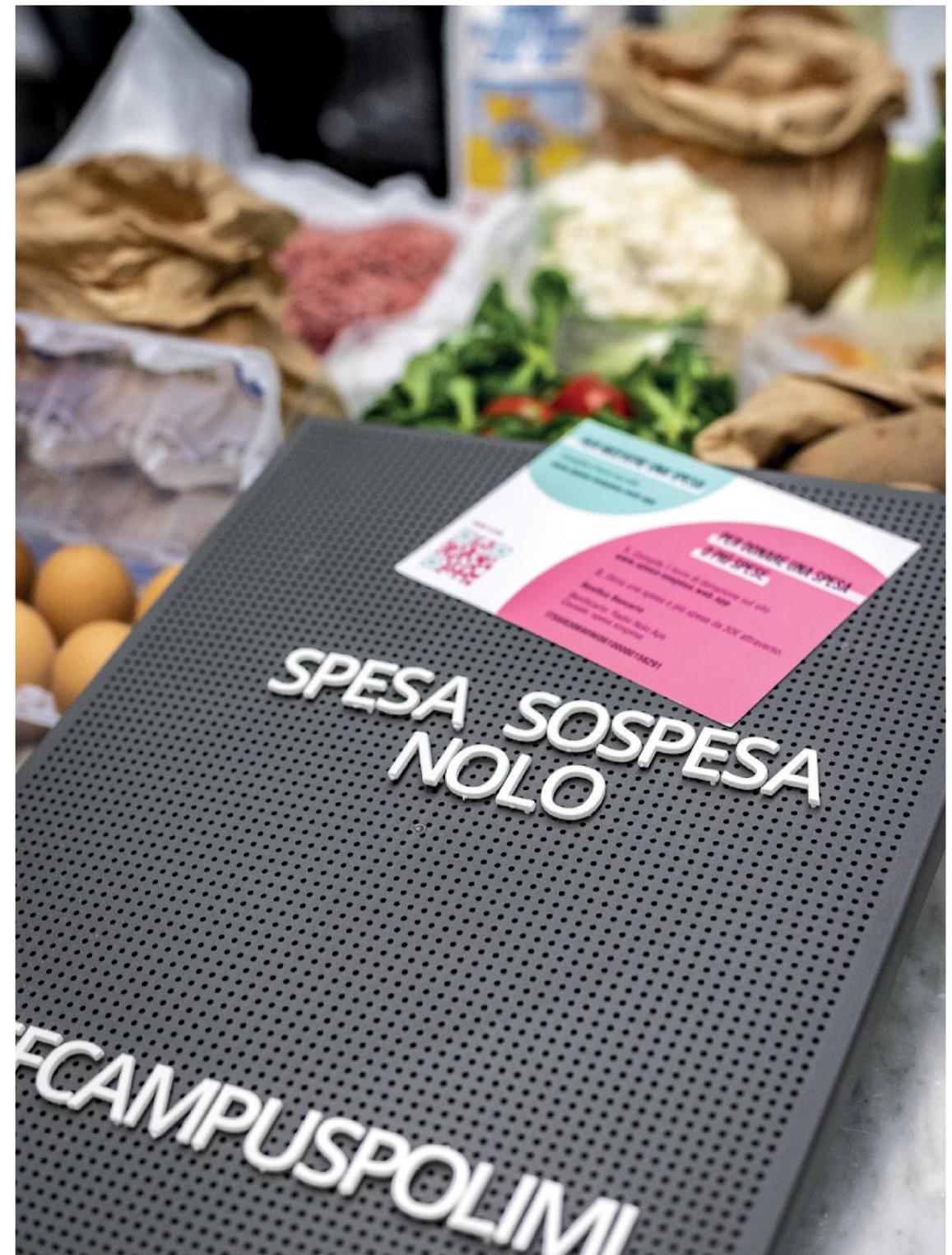


Photo by Fabio Cocchi



GOALS

Mapping the expertise system on social innovation



TARGET

Complete mapping (100%) of activities across the University



ACTIONS

- **Mapping definition** - Definition of the process and tools for mapping competences on social innovation/SDGs against teaching and research offers
- **Connecting Polimi/Service Sector expertise** - Selection of specific stakeholders/skills/experiences that can be linked with the Service Sector

Building the network of partners and participants

50 stakeholders involved in the process of defining challenges and needs

- **Launch of the initiative and public engagement plan** - Launch of initiatives to promote P4NP and connect nonprofit sector organisations with the Politecnico community
- **Promotion and development of collaborations** - Network building activities through co-design of the action plan

Definition and co-design of the Action Platform Polimi4nonprofit

50 stakeholders involved in the development process

- **Definition of the Action Platform** - *Co-design* of mission, management structure, activities, service offer, partnership building criteria and access to service offer
- **Internship programme** - Construction of a matchmaking system for the organisation of internships of Laurea Magistrale students and recent graduates in nonprofit sector organisations

Definition and co-design of the Digital Platform Polimi4nonprofit

Operational implementation with user testing

100 organisations registered on the platform

- **Development of the Digital Platform** - Design and co-design (with the network of partners) of the platform's service offer and of its management and scheduling model
- **Programming of the Digital Platform** - Executive programming of the platform to make resources and services accessible

INNOVATION AND SOCIAL RESPONSIBILITY



SCIENCE DIPLOMACY

STRATEGIC ORIENTATION

Politecnico di Milano aspires to be a leading player in science diplomacy, both in the sense of *science for diplomacy* - science as a strategic axis in international cooperation - and *science in diplomacy* - the University as a driver of informed policies for sustainable development with a global impact.

In the 2023-25 period we will:

- consolidate paradigms for international cooperation in research and institutional capacity building, with specific focus on the African continent
- train young people in the ability to inform 'policies' using the outcomes of scientific research
- actively participate in key networks and think tanks as a means to help bridge the gap between science and policymaking





GOALS

Cooperation and development (responsible research and institutional capacity building)

Collaboration with international organisations

Training in science diplomacy

'Advocacy' networks for scientific diplomacy



TARGET

6 international initiatives in collaboration with other universities in critical areas over the three-year period

6 structured and continuous relations over the three-year period

60% of young researchers and PhD students trained in science diplomacy over the three-year period

Active participation in 3 networks



ACTIONS

- **Funding** - Enhancing the attractiveness of funding for research projects from cooperation agencies, development banks and international organisations
- **Allocation of funds** - Allocation of funds to foster the collaboration of Politecnico researchers in developing areas (focus on North Africa)

- **Relations with the diplomatic front** - Consolidation of relations with the Italian and international diplomatic front
- **International organisations** - Collaboration with international entities in a multi-stakeholder perspective including institutional stakeholders to address major global challenges

- **Training of young researchers** - Implementation of at least one training activity per year on science diplomacy with internal and external, national and international lecturers
- **PhD students** - Activation of a permanent (annual) course in scientific diplomacy in the PhD School

- **Participation in networks/think tanks** - Consolidation of the University's participation in international networks and projects linking research, education and policymaking

→ ENVIRONMENT



ENERGY AND DECARBONISATION

STRATEGIC ORIENTATION

Politecnico di Milano promotes responsible energy policies and solutions that leverage on the most advanced technologies for energy efficiency with the aim of reducing fossil primary energy consumption and greenhouse gas emissions along with it.

In the 2023-25 period we will:

- reduce the University's primary energy consumption, including through the adoption of effective management practices and behavioural change
- ensure that the energy consumed is produced using renewable sources as much as possible
- involve the Politecnico community, citizens and institutional stakeholders in the local community by becoming a catalyst for impact in the path towards decarbonisation





GOALS



TARGET



ACTIONS

Energy efficiency

-30% energy consumption

- **Temperature control** - Improved regulation of heating and cooling systems through the installation of temperature controllers/thermostats
- **Lighting** - Replacement of at least 7,000 luminaires per year with LED systems
- **Behavioural models** - Development of guidelines and awareness-raising initiatives to reduce consumption starting with individual behaviour

Production and use of renewable energy

15% of purchased electricity from guaranteed renewable sources

+5 MW installed PV power

At least 3 RECs activated

- **Photovoltaic power generation** - Installation of photovoltaic systems averaging 1.7 MW per year
- **Renewable Power Purchase Agreement** - Signing of Power Purchase Agreements (PPAs) for the procurement of renewable electricity of at least 10 GWh/year
- **Energy Communities** - Creation of at least three Renewable Energy Communities (RECs) through the involvement of public and private stakeholders
- **Heat pumps** - Replacement of gas-fired generation systems with groundwater heat pump system for Campus La Masa/Lambruschini

Reduction of greenhouse gas emissions

-25% by 2025 vs 2015

-50% by 2030 vs 2015

Net zero by 2040

All the actions on energy issues (consumption reduction and energy transition), mobility and sustainable building gathered within the Strategy contribute to this objective

→ ENVIRONMENT



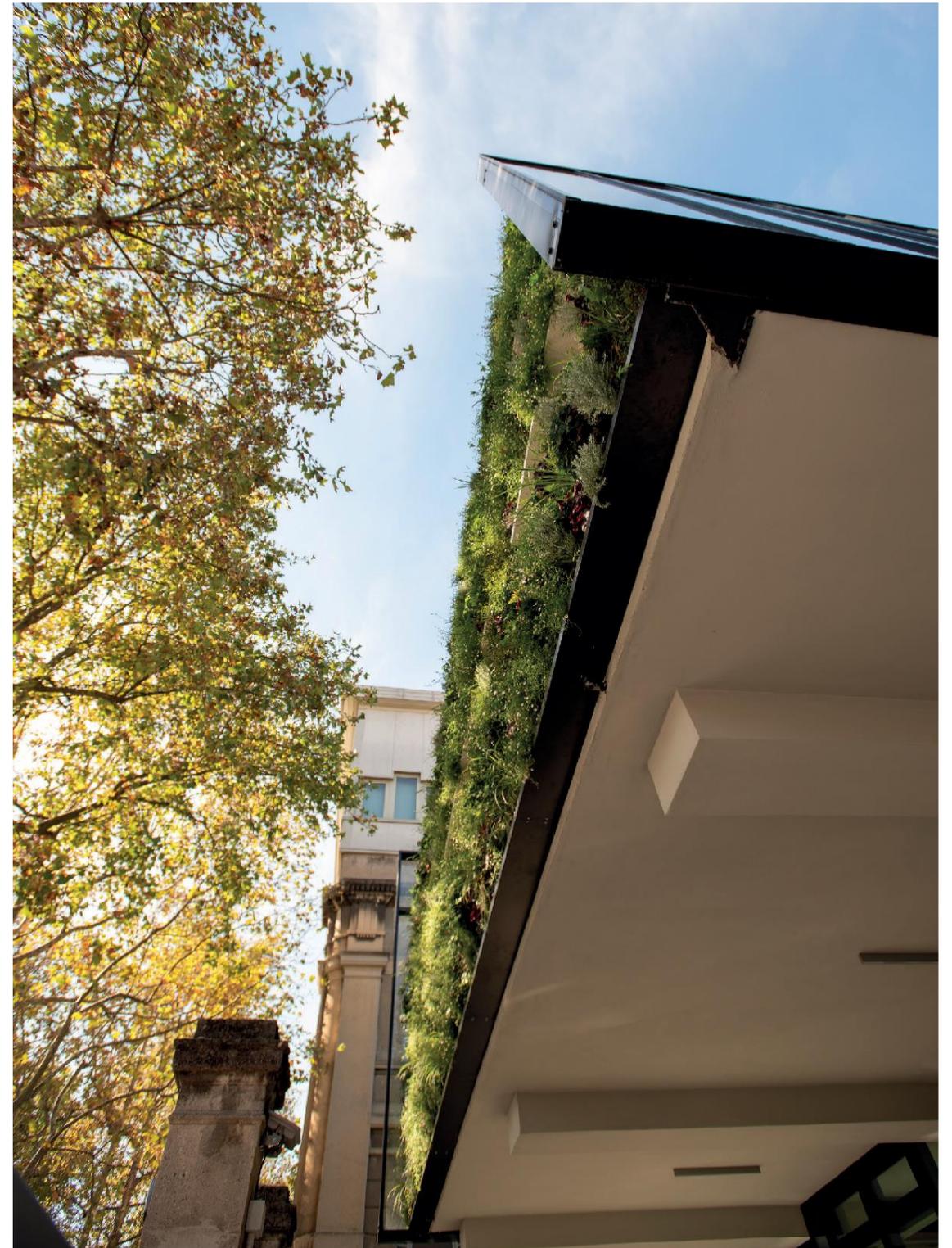
SUSTAINABLE CONSTRUCTION AND GREEN SPACES

STRATEGIC ORIENTATION

Politecnico di Milano pursues the improvement of the environmental quality of its campuses, starting with the regeneration of both outdoor and indoor spaces according to sustainability principles, always prioritizing the quality of life and the psycho-physical well-being of the people using these spaces.

In the 2023-25 period we will:

- refurbish the University's building infrastructure to reduce energy waste and prevent the adverse effects of climate change
- design new buildings according to innovative sustainability standards
- sustainably regenerate and restore outdoor spaces to mitigate the impacts of climate change





GOALS

Refurbishment of buildings



TARGET

Upgrading plan for the entire building infrastructure

3 renovated buildings

Climate Change Adaptation Plan

New construction projects

New Bovisa Nord Campus 'Net Zero Carbon' (NZC)

100% of new projects realised with NZC standards

Land recovery and nature-based solutions

15,000 m² of land restored



ACTIONS

- **Upgrading plan** - Definition of an energy upgrading plan for all University buildings, with identification of economic benefits and decarbonisation potential
- **Building renovation** - Identification of priority building interventions and complete renovation of at least 3 of the buildings with the worst energy performance
- **Existing buildings** - Replacement of windows and doors and addition of passive systems (shielding or shading) for 30% of older buildings
- **Adaptation Plan** - Analysis of the risks and adaptation potential of Politecnico and drafting of a Climate Change Adaptation Plan for the University's campuses

- **Net Zero Carbon (NZC) standard for Politecnico** - Definition and application of a *Net Zero Carbon (NZC)* standard in the design of new buildings and spaces
- **Minimum sustainability requirements** - Definition and application of a standard of minimum sustainability requirements in the design of buildings and installations

- **Restoration of land consumption** - Soil de-sealing of the Durando Campus
- **Heat islands** - Identification of the most critical routes from the point of view of heat exposure and provision of shading systems, preferably of a natural type
- **Green areas** - Revision/renewal of existing green areas in order to maximise the number of trees, increase biodiversity, increase drainage capacity

→ ENVIRONMENT



SUSTAINABLE MOBILITY

STRATEGIC ORIENTATION

Politecnico di Milano promotes sustainable mobility within its community with the ultimate aim of increasing individual and collective well-being. The value perspectives that the University wants to pursue are manifold: from the improvement of the quality, liveability and accessibility of spaces both on and off campus to the promotion of active mobility, from the improvement of travel safety to the reduction of total emissions related to campus access.

In the 2023-25 period we will:

- reduce the modal share of private motorised private vehicles for campus access
- alleviate parking pressure to reclaim both indoor and outdoor spaces for other uses
- reduce total greenhouse gas emissions as a contribution to improving air quality and supporting climate action





GOALS

Reduced use of private motorised vehicles



TARGET

-15% modal share of 'private motorised vehicles' for students

-20% modal share of 'private motorised vehicles' for staff



ACTIONS

- **Pedestrianisation** - Pedestrianisation of the Leonardo Campus and Via Pascal
- **Subsidised public transport passes** - Increased funds allocated for the purchase of public transport passes for the entire population and increase in the number of users benefiting from sustainable mobility agreements
- **Interaction with the territory** - Dialogue with the competent bodies to monitor the quality and reliability of public transport and the possibility of extending cycle paths to reach the University campuses

Promoting active mobility

+10% of users accessing campuses by bicycle

- **Infrastructure to support active mobility** - Investment in changing rooms with showers on campus, electric bike charging stations, bike and scooter parkings
- **Safety** - Development of an app indicating access routes to campuses suitable for cycling and their respective safety levels
- **Awareness-raising and engagement** - Information campaigns, participation and organisation of events to promote active mobility

Greenhouse gas emissions

-15% emissions related to commuting

- **Remote working** - Interventions aimed at coordinating remote working as a means to reducing emissions
- **Charging points** - 100% increase in the number of charging points for electric cars

ENVIRONMENT



CIRCULAR ECONOMY

STRATEGIC ORIENTATION

Politecnico di Milano aims to adopt a systemic approach to monitor resource consumption and management according to the principles of circular economy, based on a combination of good management practices, technological innovation and active engagement of the entire community in a leading-by-example approach.

In the 2023-25 period we will:

- fight food and water waste
- strengthen and complete the resource consumption monitoring system
- reduce the amount of waste generated by the University and enhance the waste sorting and collection system





GOALS



TARGET



ACTIONS

Reducing food waste

Zero food waste in 100% of food courts and catering events

- **Technological innovation** - Implementation of a system to recover leftover food
- **Partnerships** - Definition of partnerships with companies and nonprofit sector organisations involved in the redistribution of leftover food (in connection with *Polimi4nonprofit*)

Waste monitoring and reduction

Re-use of 60% assets that are no longer usable
Monitoring of 100% University-wide produced waste

- **Reduction of disposable products** - Implementation of actions such as use of 'washable' products in catering and canteens, replacement of paper towels by electric hand dryers, further dematerialisation of documentation
- **Waste prevention and waste sorting** - Implementation of initiatives to raise awareness on waste reduction, to support the reuse of goods and to enhance the waste sorting system
- **Recycling points and waste monitoring** - Upgrading of recycling points to improve management and to enable more effective monitoring of waste production and waste sorting quality
- **Innovation initiatives** - Local organic waste management with compost and biogas/biomethane production

Monitoring and eliminating water wastage

Water consumption monitored throughout the University

- **Monitoring** - Implementation of a comprehensive water monitoring system and consumption reduction



→ METODOLOGICAL NOTE

STRUCTURE OF THE DOCUMENT

The Sustainability Strategy has a two-level structure: the highest level is that of the six *priorities*, identified as the macro-areas that the University wants to address in terms of sustainable growth; the second level is that of the 18 *themes* into which the priorities are divided, identifying specific areas of intervention. For each theme, a table is presented in which Objectives, Targets and Actions to be implemented in the 2023-25 period are defined, following a Strategic Orientation provided at the beginning of each table.

The broader framework adopted for defining the Strategy's contribution to sustainable development is that of the UN SDGs, which allows for a comprehensive and detailed view of sustainable development issues. Each theme is associated with the SDGs whose achievement it supports; the linkage is summarised in the SDG analytical index in the final section of the document.

DEVELOPMENT PROCESS

In order to draft this first edition of its Sustainability Strategy, Politecnico di Milano did not carry out a systematic materiality analysis, adopting a simplified approach for the definition of the priorities and topics to be focused on for the three-year period of reference.

The Sustainability Strategy was drawn up starting from the information obtained from the data collection for the 2022 Sustainability Report, which allowed to identify the University's strengths and weaknesses with respect to sustainable development issues and the lines of action on which to focus to improve sustainability performance, from the analysis of the strategic documents published by Politecnico and from a broad discussion involving all the University's governance.

Talks were held with the Rector and the Executive Vice Rectors, the Rector's Delegates and the Vice Rectors with expertise in the identified priorities, in order to define the strategic intentions, guidelines and objectives for the three-year period in a participative manner. An analysis of sustainability plans and strategies published by peer universities of Politecnico di Milano was also conducted in order to compare the priority areas in which the academic community has been engaged in recent years.

This was followed by an implementation process in cooperation with the Heads of the Central Administration Divisions and the Heads of Administrative Units, who supported the identification of the actions necessary to achieve the objectives and the definition of targets for monitoring progress and measuring achievements at the end of the three-year period.

TARGET DEFINITION

In order to define and monitor the targets expressed in the Strategy, it is specified that:

- Targets expressed as an increase/reduction (absolute or percentage) are understood as the difference between the value measured at the end of 2025 and the corresponding value in 2022, unless otherwise specified (eg '-30% energy consumption'; '+5 MW installed PV power').
- Targets expressed as an absolute value or as a percentage of the achievement of a certain amount are understood as the value measured at the end of 2025 (eg '30% gender-balanced courses'; '3 new laboratories on sustainability topics') unless otherwise specified; where a time span is specified (eg '50% of teaching staff and technical and administrative staff trained in the three-year period'; '500 people involved in the three-year period'), the value is understood as the cumulative value over the time span itself.
- For non-quantitative targets (eg 'Drafting of University guidelines on open science issues'), their achievement will be assessed by the end of 2025.



→ INDEX OF SUSTAINABLE DEVELOPMENT GOALS

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The process was led by the Rector of Politecnico di Milano, Donatella Sciuto, and the Executive Vice Rector Isabella Nova and was coordinated by a dedicated working group:

- Alessandro Perego, Vice Rector for Sustainable Development and Societal Impact
- Chiara Pesenti, Head of Campus Life Division
- Giulia Guidicini, Sustainability Task Force (General Directorate)
- Chiara Zito, Sustainability Task Force (General Directorate)

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