POLITECNICO DI MILANO

STRATEGIC PLAN 2023—2025

2024 UPDATE



Aiming for sustainable and inclusive growth that promotes talents, skills, and ambitions.

Making a significant impact on the social and cultural progress of the country. Reinforcing an ethical dimension that is the foundation of our work.

This is our commitment.

This is the responsibility of a university capable of tackling major challenges by combining scientific rigour with creativity, concreteness with vision.

This is who we are: for over 160 years, a benchmark for those who look into the future.

STRATEGIC PLAN 2023—2025

2024 UPDATE

PREFACE Politecnico di Milano: identity, values, and aims Keeping our goals alive: the state of the art in 2024	4 4 5
MISSION	8
COMMITMENT TO SUSTAINABLE GROWTH	8
VISION	10
POSITIONING	11
SWOT ANALYSIS	13
ACTION MAP STRATEGIC GUIDELINES PEOPLE EDUCATION AND LEARNING RESEARCH SOCIAL RESPONSIBILITY	15 17 17 24 31 39
STEERING BOARD	48

PREFACE

Politecnico di Milano: identity, values, and aims

Founded in 1863, today Politecnico di Milano is the largest scientific-technological university in Italy. A modern university where, both in teaching and research, quality and innovation are the foundations of a strong and lasting relationship with the social and productive system and with foreign institutions in the fields of architecture, design, and engineering. A reputation built over one hundred and sixty years with commitment and vision.

Today, defining the university's development strategy means facing a **highly competitive system**. It means challenging the policies adopted by the world's leading universities, which are more attractive to students and professors, and able to draw financial resources. It means creating links within international networks outlining new scenarios in Europe and worldwide.

In a global context where knowledge and technological innovation are strategic drivers, easiness of access to information, knowledge, and expertise can lead to distorting effects, both for those who govern technologies and for those who are left behind. Academia has the challenging but complex task of rethinking the boundaries of knowledge and its area of application. This is accompanied by the progressive detachment of the financial system from the real economy, together with serious consequences for Western countries, with the progressive weakening of welfare policies, and with a growing sense of distrust towards institutions. This domino effect requires universities to play an ethical role due to their responsibility towards new generations.

It is within this unstable environment — recovering from a pandemic and challenged by different conflicts in Europe — that Politecnico has to distinguish itself as a **solid**, **recognisable and reliable point of reference**, both in Italy and abroad, capable of guiding public and private decisions in the long term.

In this time of uncertainty, we find in our founding values the reasons to build a future characterised by **continuous**, **sustainable**, **and inclusive growth**. Responsibility, respect, integrity, professionalism, fairness, trust and transparency lead every choice we make and every action we take toward a future in which students and staff are our institution's real asset.

Keeping our goals alive: the state of the art in 2024

It is fair to set ambitious goals, and it is only right to strive for them to the best of one's ability. In this spirit, Politecnico di Milano works hard towards the achievement of the goals set out in the Strategic Plan, maintaining a clear vision of the results obtained, the developments in progress and the gaps to be bridged. This document is **updated on an annual basis** with the specific intention of measuring the health of a project that is more than just words on paper. Rather, it is translated into concrete and effective actions, that are constantly monitored, and is periodically confronted with new policies as well as domestic and international constraints.

For this reason, a first results analysis was carried out between November and December 20231. It demonstrated that, for almost all targets, the performance indicators were **consistent with expectations**. A clear example is our sustainability target, where the commitment to excellence has been remarkable: we have developed, implemented and disseminated our First Strategic Sustainability Plan, seamlessly integrating it into the University's growth policies, as well as the Sustainability Report 2022.

Our attention to people has led us to increase the contribution to support the right to education; to cultivate an international environment, reviewing the selection criteria and entry procedures for international professors and students; to generate new opportunities for the professional growth of staff, especially the youngest staff members; to redefine teaching innovation models towards customised, multidisciplinary (especially for PhD programmes) and continuous education courses.

In some cases, the results achieved turned out to be **even better than expected**, as they have been accomplished two years ahead of schedule. Thus, additional targets have been included to supplement those already estimated. A case in point is Enhance, an international alliance in which Politecnico is one of the Partner Universities and which, as a result of the second funding obtained under the Erasmus+ European Universities 2023 call for proposals, has set us a new challenge: to further develop European Education Pathways.

A number of targets related to social responsibility are also **brand new** and have been added in: from the total reduction of food waste in catering to the implementation of a 'sustainable model' for proximity social innovation in Off Campuses to the doubling of the number of scientific diplomacy projects.

At the same time, it is important to highlight that in certain areas, although progress has been made, the expected results are still **proving challenging to attain**. Gender equality, for instance, is an issue that is still significantly influenced by external factors. This goal, by its very nature, shows weak signs of improvement. Another example is the accessibility of spaces within historic buildings, which often pose challenges due to their age. In this first phase of the Plan, we have paid great attention to a meticulous planning process, which has involved eight of our Departments and the operational phase will start in 2024, when the plans for the Central Administration offices and the break, wellness and sports areas will also be examined. The final

5

¹ N.B. The Strategic Plan was released and publicly presented in May 2023.

piece is the new laboratories: building sites for two large-scale infrastructures and a science lab will be opened soon. All of this aligns with the schedule for construction work, which is not always easy to manage.

Overall, we can therefore say that the framework that has been outlined confirms the substantial **validity of the guidelines** proposed during the first draft of the Plan, indicating a recognised ability to analyse, predict and manage. Attention should be drawn particularly to the aspect of prediction. In formulating certain parameters, we have taken into account exogenous factors that might distort the result. This is the case with the National Recovery and Resilience Plan (NRRP), whose effects in certain contexts are directly correlated to our performance. In fact, we know that this could change in the long run. Therefore, achieving positive figures (as in the case of PhD programmes) may not signify a genuine revival but rather serve to maintain the existing status.

More substantial changes are likely to occur later on, when projects take shape and reach a considerable degree of maturity. Having defined complex objectives, we certainly do not expect to be able to do everything right away. On the contrary, our mission and commitment to our community for sustainable growth, as detailed in the following pages, reflect a complex and long-term vision that requires **continuity and participation**. This will be accompanied by an extensive communication plan and the activation of new internal discussion channels so that change is not only possible but extensive and lasting. This is our biggest challenge.

Donatella Sciuto, Rector



MISSION

A leading guide. A landmark. 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.

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 diversity. An attractive community for students and researchers from all over the world; dedicated to significantly contributing to social and cultural development.

COMMITMENT TO SUSTAINABLE GROWTH

Politecnico di Milano, firmly embraces the principles underlying sustainable growth, of which the Strategic Plan is a clear statement. In the fullest and deepest sense of the term, sustainability means "caring for, supporting and fostering" an integral development of individuals and the whole society, as well as the environment. It is an expression of increased awareness and maturity. It indicates a unifying perspective for the three academic domains: research, teaching and social responsibility. It offers opportunities for shared growth within our community: from inclusion to diversity, from an improved quality of life to participatory involvement in university activities.

Ly In terms of TEACHING, sustainability means educating our students to critically address major global challenges and local needs, offering them appropriate models and concrete tools in an environment that fosters the right to education and equal opportunities.

ly In terms of RESEARCH, a sustainable approach requires understanding and adequately assessing the ethical implications of scientific progress and technological development. It extends disciplinary perspectives to humanities. It develops partnerships with top national and international research institutions. It guarantees independent, high-quality research with a focus on talent development and the careers of young researchers.

In terms of social responsibility, a sustainable proposal recognises and consolidates actions and projects in response to the needs of the city, the region, the country and in terms of international cooperation. Accordingly, we have drafted the first Strategic Sustainability Plan to measure and validate the results and effectiveness of our choices.



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 goals of the New European Bauhaus initiative, whose central focus is the value of beauty, 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, education is 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, in a cosmopolitan environment open to international exchange and sharing with research partners.

Scientific research, which has always been an integral part and a driving force of the Politecnico, will open new opportunities with a focus on the stable recruitment of young researchers, also thanks to the collaboration with already existing European networks and new ones that we will create to consolidate our goals in talent development. Also, we must remind the many initiatives of the National Recovery and Resilience Plan (NRRP) that puts us in a strong position to open new innovation scenarios.

It will therefore be crucial to rethink physical space to create more flexible places for study, research, and exchange; places that are sustainable (from an environmental and energy point of view), welcoming (to promote well-being and safety), accessible and liveable. Places that extend the university within the city and the local area, both at a physical and cultural level, to face new events.

POSITIONING

As one of the largest universities in the country, Politecnico di Milano adopts multi-directional strategies according to the context it refers to, starting from the Italian one. A context in which, in addition to increasing the number of graduates, further action is needed to bridge the gender gap side, especially in STEM (Science Technology Engineering and Mathematics) subjects, and in strengthening high-level education.

The Italian university system is also characterised by low attractiveness, public funding notoriously below the OECD average, and the effects of a poorly rewarding resource distribution policy. These are all factors that have strongly steered Politecnico's research efforts towards international funding and joint initiatives with industrial partners. From large companies to startups, Politecnico makes its expertise available for the development of a competitive and highly innovative ecosystem.

It is therefore not surprising that, despite the constraints imposed by still rather rigid disciplinary boundaries, Politecnico has distinguished itself for its ability to develop joint initiatives aimed at exploring transdisciplinary topics with partner universities in both Italy and overseas, paying close attention to the quality of outgoing profiles.

Not least, our university has invested, with great conviction, in social responsibility, cooperation, and educational development initiatives. Indeed, the university is now once again a point of reference for the growth of local communities. An extraordinary opportunity for social mobility and inclusion.

SNAPSHOT (2024)

PEOPLE

1,193 professors - 345 women and 43 from abroad

618 researchers - 213 women and 47 from abroad

742 postdocs - 299 women and 127 from abroad

797 lecturers - 265 women and 109 from abroad

1,800 PhD students - **620** women and **456** from abroad (36th-38th cycles)

1,335 technical-administrative staff -819 women

225,000 members of the Alumni community

500,000 m2 for students, researchers, companies, citizens

EDUCATION AND LEARNING

48,000 students - **8,200** international (A.Y. 22/23)

26 Bachelor Degree Programmes - 1 with other universities

46 Master's Degree Programmes 4 of them with other universities

189 Specializing Master's and Postgraduate Programmes

117 MOOC (Massive Open Online Courses)

97% employability rate 1 year after graduation (2021 survey)

RESEARCH

Over **30.000** papers (2018-2023)

20 PhD courses

280 research labs

8 big infrastructures

63 Joint Research Platforms

€ 189 million from Horizon 2020. 34 ERC

€ 116 million from Horizon Europe, 27 ERC

€ **182** million from self-funding (2022)

SOCIAL RESPONSIBILITY

4 Off Campuses with around 70 events on local areas (2019- 2023)

Over **60** projects funded by Polisocial Award - € 5 million funded by 5x1000 income tax (2012-2023)

Over 100 cooperation and development projects in 30 countries (2012-2023)

140,000 visitors/year for exhibitions and cultural events

135 start-ups in PoliHub - € **100** million fundings (2022)

SWOT ANALYSIS

The SWOT Analysis provides a picture of Politecnico's strengths and weaknesses, opportunities and threats regarding its positioning in the local, national and international context, based on the needs, expectations and goals expressed by a detailed analysis conducted among the relevant stakeholders.

The first distinguishing feature is certainly Politecnico di Milano's prestige, which, from the quality of education and research to economic soundness, places it on the shortlist of the twenty best universities in the world in its three domains of study: 10th in Architecture, 8th in Design and 18th in Engineering according to the QS World University Rankings 2023. Yet, there are still many structural weaknesses: from the limited availability of spaces to the low degree of internationalisation of teaching staff and the limited ability to influence the country's development policies. In addition, it faces contingent threats, dictated by the critical geopolitical situation, the widespread distrust in institutions and the limited resources available compared to major international universities. These should not, however, limit our natural inclination to accept new challenges and opportunities.

This is why, to support the identification of the actions in this plan, the analysis of internal factors (resources and limitations) and external factors (favourable and unfavourable external circumstances) was conducted with particular attention to the following areas of strategic interest: People, Education, Research, Social Responsibility.

STRENGTHS

- NATIONAL AND INTERNATIONAL REPUTATION
- QUALITY OF EDUCATION AND RESEARCH AND RELATED INFRASTRUCTURES
- POLITECNICO COMMUNITY'S SENSE OF BELONGING TO THE INSTITUTION
- ECONOMIC AND FINANCIAL SOUNDNESS AND SELF-FINANCING CAPABILITY
- RELATIONS WITH COMPANIES, COMMUNITY, INSTITUTIONS, AND OTHER UNIVERSITIES

OPPORTUNITIES

- NETWORKS OF EXCELLENT UNIVERSITIES AT THE INTERNATIONAL LEVEL
- LIFELONG LEARNING ACTIVITIES
- CRITICAL EMERGING CHALLENGES
- IMPORTANCE OF SUSTAINABLE DEVELOPMENT GOALS
- AVAILABILITY OF EXTRA FUNDING (NRRP)

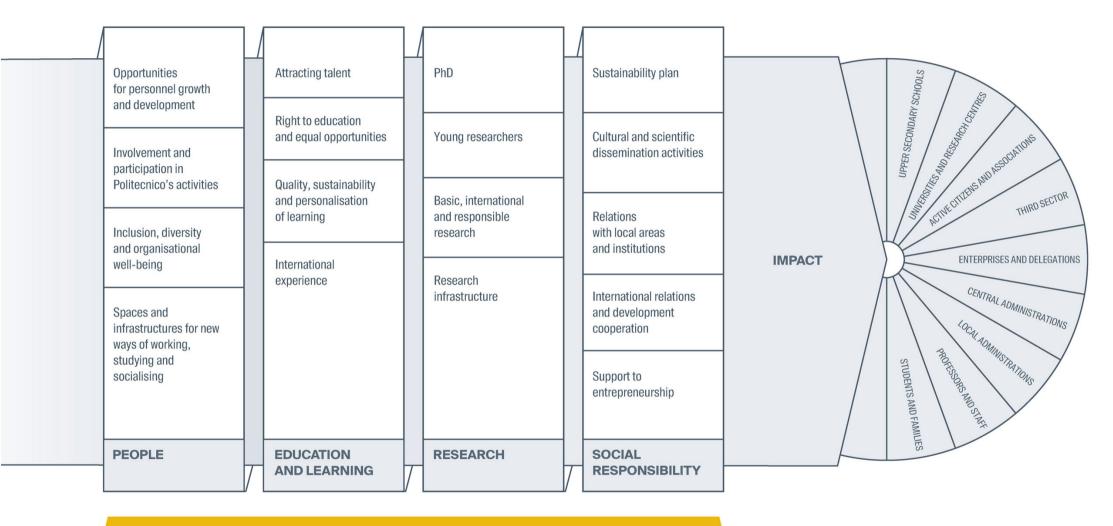
WEAKNESSES

- INTERNATIONALISATION OF TEACHING STAFF
- AVAILABILITY OF SPACE FOR TEACHING AND RESEARCH
- ABILITY TO INTERACT WITH LARGE INTERNATIONAL COMPANIES ON RESEARCH TOPICS
- ABILITY TO INFLUENCE THE COUNTRY'S DEVELOPMENT POLICIES
- ABILITY TO GENERATE INNOVATIVE PATENTS AND SPIN-OFFS AND THEIR GROWTH

THREATS

- COMPLEXITY OF THE GLOBALPOLITICAL AND ECONOMIC SITUATION
- LIMITED RESOURCES IF COMPARED TO LEADING INTERNATIONAL UNIVERSITIES WIDESPREAD SOCIETAL DISTRUST IN TECHNICAL-SCIENTIFIC SKILLS AND KNOWLEDGE
- STRONG INTERNATIONAL UNIVERSITY COMPETITION
- MANAGEMENT OF HUMAN RESOURCES RECRUITED AFTER NRRP

ACTION MAP



SUSTAINABLE GROWTH



STRATEGIC GUIDELINES

PEOPLE

People are the beating heart of Politecnico di Milano. A diverse community of researchers, professors, technicians, administrators, and students from today and the past. The management and organization of such a large community, feeding all our activities, from research to teaching, from innovation to social service, applies to the principles of the European Charter for Researchers. People's serenity and well-being, a sense of belonging to the institution and pride in being part of it are key conditions for everyone to express themselves to the fullest and define the quality of the work they carry out.

In accordance to the European Charter for Researchers, it is our responsibility to to select the best candidates, bring out their talents, indulge their passions and aspirations, allow everyone to express and enhance their potential for human and professional growth, promote inclusion and diversity and welcome, when necessary, small and large fragilities that hide in each of us. Because of that, Politecnico community must work in harmony with flexible work and study spaces that support personal needs, in line with new organisational and teaching processes. Contemporary spaces meet the demands of the university population and citizens in terms of semantics, functionality and meaning.

MAIN ACTIONS

P.1 OPPORTUNITIES FOR PERSONNEL GROWTH AND VALORIZATION

The professionalism of the people who work and study at Politecnico is a value that must be cherished, perfected and consolidated. The quality of our work is based on ensuring the right balance between the number of professors and technical and administrative staff with respect to the number of students, as well as their scientific expertise and cultural knowledge. Therefore, balanced and sustainable staff growth should be planned, both in terms of headcount and skills development, balancing internal growth, international recruitment and mobility programmes.

- P.1.1 Sustainable growth that rewards scientific and cultural qualification and professionalism

The next few years will see, firstly, the inclusion in the University's workforce of colleagues recruited using the resources of the National Recovery and Resilience Plan (NRRP) and, secondly, an increase in turnover that will manifest itself from 2027 onwards. The combination of these two mechanisms will allow us to plan for a growth in the number of professors, researchers, and technical and administrative staff that aims not only to increase the number of permanent staff, but also to reward, with due professional growth, the professionalism of each individual, according to their aptitude. In particular, in this first three-year period we launched a recruitment plan for 150 tenure track researchers aimed at supporting the University's strategic projects through the right balance between internal growth and international recruitment. At the same time, the entry of more than 100 new technical and administrative staff on fixed-term contracts and around 60 procedures dedicated to vertical progressions were planned.

- P.1.2 Developing staff skills through continuous training paths

Our sustainable growth path will be characterised by enhancing the skills and capabilities of each staff member. It is essential to support and enhance the individual and relational skills of all staff members so that they are better equipped to contribute effectively towards achieving the University's goals. This will be possible if the University ensures that researchers, professors and technical and administrative staff have access to sufficient opportunities for training and growth, fostering comprehensive and fulfilling professional and personal development.

To this end, we are working towards enhancing the training provided to professors and research staff by expanding the current training options related to teaching methodologies and introducing new training courses specifically targeted towards younger people.

At the same time, we have set up programmes to identify any gaps in the skills of our technical and administrative staff, in order to develop customised training plans.

P.2 INVOLVEMENT AND PARTICIPATION IN THE POLITECNICO'S ACTIVITIES

The University's mission is to participate in a process of education and knowledge development that involves everyone of different roles and at different stages of life who studies and works at Politecnico, whose contribution is essential to achieve the expected goals.

As part of this task, we want to encourage extensive involvement and participation from everyone, through the creation of interdisciplinary working groups on strategic issues for our community, for example by designing new teaching models and defining and monitoring the University's Strategic Sustainability Plan, identifying the most suitable implementation and communication tools.

We also want to continue the work done so far alongside students to support and encourage their active participation in the life of the University, aware that they are the cornerstones of a quality University and society's best ambassadors.

- P.2.1 New channels of discussion and internal communication

In order to encourage the involvement of every actor in the University's strategic choices, we will enhance opportunities and ways of internal sharing through a governance communication project. In addition to the activation of the more traditional working groups, which by their very nature are very important tools, a series of targeted meetings and an advocacy plan will be planned with the aim of activating more effective channels of internal listening and dialogue, activating a participatory decision-making process.

- P.2.2 Participation of students and PhD students in Politecnico's life

In order to encourage ever greater participation of students and PhD students in the life of the University, we want to move forward in three directions: one new direction and two directions continuing on from the previous mandate. We will continue to support, financially and in terms of organisation, student associations, who play a central role in making Politecnico an International University Campus.

We will continue the work done so far in supporting student representation, supporting the participation of all students in the election phase, and strengthening the accompaniment and orientation of newly registered students.

In addition to these efforts to continue, we aim to increase the opportunities for students and PhD students to participate in the life of the University through paid assignments for support activities. In these terms, we have reviewed the hourly wages and the budget available for these activities, we are rethinking the organisational arrangements in place today, and we are considering innovative solutions to give our students the opportunity to work at the University.

P.3 INCLUSION. DIVERSITY AND WELL-BEING AT WORK

Respecting people for their individuality, and ensuring the complete inclusion of everyone in University life, are fundamental human principles. They are essential for fostering a growth environment where each person's potential can flourish.

- P.3.1 Diversity and inclusion, with specific attention to gender equality

In order to formulate concrete and collective actions on issues related to valuing the uniqueness of people and promoting inclusion in terms of diversity and to see the results, it is crucial to engage on multiple fronts and adopt a long-term perspective to take care of the implementation of regulatory and cultural innovations.

The first plan is to offer training and create specific skills and knowledge. Beforehand, it is essential to acknowledge that unconscious biases, including those related to gender and other factors are inherent in human beings. We must respond to these by providing tools to recognise and reduce their impact. In addition to this, it is important to initiate a training plan on inclusive leadership, especially for those who perform supervisory and coordinating tasks, that takes into account individual skills and organising them effectively within a team context.

The second plan is the regulatory plan: we want to analyse the University regulations to see whether there are possible developments that could ensure greater inclusion, for example by extending alias careers (currently provided for students) to professors and technical and administrative staff.

Lastly, the third plan concerns recruitment and, more generally, governance. In this area, it is important to strive for a fair representation of diversity in the different University populations, with particular attention to the proportion of women among young researchers and in the governing positions at Politecnico.

- P.3.2 More inclusive work environments for people with disabilities or SLDs

The University offers the tools to build a life full of hope and dignity to everyone who, due to their disability, are often forced to live on the margins of society, instead of feeling valuable contributors to society.

About this, Politecnico is carrying out manifold actions. (1) Identify and map all architectural barriers within buildings, areas posing challenges for blind people, and areas presenting language barriers and difficulties for deaf people. (2) Redefine the University's 'Architectural Barrier Elimination Plan', ensuring that all new buildings are accessible and compliant with standards, and that during periods when there are restrictions on the number of usable entrances (weekends, summer, and events), accessible routes are not closed or restricted. (3) Develop technical and engineering solutions for the safe and sustainable removal of architectural barriers. (4) Raise awareness on the importance of the removal of architectural barriers to

ensure accessibility and inclusiveness for all, and develop learning programmes for staff and students on being aware of the needs of blind and deaf people. (5) Discuss with the Municipality of Milan, the Region of Lombardy, the institutions based in our campuses (Cremona, Lecco, Mantova and Piacenza), as well as the companies (Ferrovie dello Stato, Trenord) for accessible means of transport, with ramps, lifts and well-marked routes, raising awareness among staff and passengers.

- P.3.3 Investments in well-being and corporate welfare

The University is committed to significantly increasing investment in University welfare through a project to expand services for professors, researchers and technical and administrative staff. Already today, the University offers a comprehensive array of services, including support with mobility, access to childcare centres, supplementary healthcare options, after-school programs, and support from the fund for technical and administrative staff. In this first year, special emphasis was placed on increasing the membership rate of existing lines of business and expanding the range of services offered to meet new needs. New actions may emerge from the analysis of the results of the climate survey launched in December 2023.

P.4 SPACES AND INFRASTRUCTURES FOR NEW WAYS OF WORKING, STUDYING AND SOCIALISING

Our Campuses are places of work, study and socialisation: the organisation of spaces must therefore favour different modes of interaction and adapt to the needs of different users. In order to enable people to realise their aspirations and potential, we must provide services that make our environments accessible, safe and comfortable. Together with the development of the innovation district in Bovisa and the projects already planned, it will be essential to reinterpret

and enhance the existing spaces in order to adapt them to the new teaching models, to the needs of an increasingly multidisciplinary and excellent research endeavour, enhancing the University's experience and favouring opportunities to meet, create and share ideas.

- P.4.1 Working spaces redesigned to favour new ways of working

Through a dedicated Strategic Working Group, the goal is to identify opportunities arising from the application of new collaborative work methods in order to conceive, design, implement and manage spaces that encourage activities conducive to the development of environments that facilitate working and human relations.

The strategy aims to improve, adapt and modernise current facilities to meet international, competitive, and high-performance quality standards, optimising space allocation to accommodate various user needs effectively. The aim is to design and realise adaptable spaces that also promote the use of informal and varied working methods based on functional combinations and physical attributes. The group is also working to develop solutions aimed at fostering closer collaboration between professors and technical and administrative staff, promoting strategies and spatial projects that place professors and other staff at the centre of the system in their relations with students. The group is currently following up eight projects in just as many departments for more than 3,000 m² of redesigned space according to the principles outlined above (+50% compared to existing spaces), and in 2024 projects for central

administration offices and the needs for break/wellness/sports spaces in all facilities will be examined.

- P.4.2 Study spaces to encourage the presence of students on campus

The Working Group focused on designing new study spaces aims to design and realise spaces and environments that foster learning, encouraging students to stay and spend more time on the Campus throughout the day. The collaborative effort, conducted in synergy with student representatives, aims to improve, adapt and modernise the existing study areas, including in terms of numbers, by designing and implementing flexible spaces that can be used for study, group work and teaching activities. At the moment, 10 projects have been set up on just as many spaces on the three Campuses in Milan, partly outdoors and partly indoors, for almost 1,000 new workstations and more than 1,000 existing workstations completely replaced with more functional and modern ones.

PEOPLE: KPIS

OPPORTUNITIES FOR PERSONNEL GROWTH AND VALORIZATION

150 New Researchers75% of Professors and Staff trained in Innovative Skills

INVOLVEMENT AND PARTICIPATION IN THE POLITECNICO'S ACTIVITIES

+100% Part-time Activities for Undergraduate and Graduate Students

INCLUSION, DIVERSITY AND WELL-BEING AT WORK

40% of Female representation in new research recruitsFull campus accessibility8,000 Subscriptions to Welfare Initiatives

SPACES AND INFRASTRUCTURES FOR NEW WAYS OF WORKING, STUDYING AND SOCIALISING

- +50% Spaces equipped for study and group-work
- +500 Study Spaces
- +50,000 m2 of green spaces, sports grounds, services, offices, laboratories

GOALS	MAIN ACTIONS	ID_KPI	INDICATORS	BASELINE 22	TARGET 25	OUTCOME 23	SDGs		
PEOPLE									
personnel growth and	P.1.1 Sustainable growth that rewards scientific and cultural qualification and professionalism	KPI-P1	New researchers (untenured with permanent contract (RTDB)+fixed-term (RTT)) recruited	01	150 (Three-year period 2023- 2025)	21 (Year 2023)	SDG 8		
		KPI-P2	Trained teaching and technical and administrative staff with innovative skills	57% Technical and administrative staff: 74.7% Teaching staff: 43.2% (Three-year period 2020- 2022)	75% (Three-year period 2023- 2025)	59% PTA: 85.7% Teaching staff: 39.4% (Year 2023)	SDG 8		
P.2 Involvement and participation in the politecnicos activities	P.2.1 New channels of discussion and internal communication P.2.2 Participation of students and PhD students in University life	KPI-P3	Part-time work hours per person for students and PhD students	1.5 h/per person (up to 2022)	3 h/per person (+100%) (up to 2025)	2 h/per person (up to 2023)	SDG 16		
P.3 Inclusion, diversity and well- being at work	P.3.2 More inclusive workplaces for people with disabilities or SLDs P.3.3 Investments in well-being and company welfare	KPI-P4	Female representation in researcher admissions (untenured researchers with fixed term contract (RTDA) + untenured researchers with permanent contract (RTDB) + fixed-terms researchers (RTT))	35% (up to 2022)	40% (up to 2025)	35% (up to 2023)	SDG 5		
		KPI-P5	Full campus accessibility	NO (up to 2022)	YES (up to 2025)	NO (up to 2023)	SDG 8 SDG 10		
		KPI-P6	Subscriptions to Welfare Initiatives	6,000 (up to 2022)	8,000 (up to 2025)	6,987 (up to 2023)	SDG 8		
infrastructures for new ways of working, studying and	P.4.1 Working spaces redesigned to favour new ways of working P.4.2 Study spaces to encourage the	KPI-P7	Sq m. equipped for study and group work	6,000 (up to 2023)	+50% (up to 2025)	0 (up to 2023)	SDG 8 SDG 11		
		KPI-P8	Study places ²	3,770 (up to 2023)	500 new posts (three-year period 2023-2025)	0 (Year 2023)	SDG 8 SDG 11		
		KPI-P9	Sq m available Bovisa Nord (green, sports, services, offices, laboratories)	0 (Three-year period 2020- 2022)	50,000 sq m (Three- year period 2023- 2025)	0 (Year 2023)	SDG 8 SDG 11		

NOTES:

- 1 The baseline is considered to be 0 by proposing to recruit 150 new researchers in the three-year period 2023-2025
- 2 Reference is made to the creation of the new study places powered by the grid and with access to Wi-Fi



EDUCATION AND LEARNING

Learning is not acquiring erudition but gaining education and developing awareness. Teaching is a responsibility towards the new generations, the future of the planet, of society, and, above all, our country. Education is, first and foremost, a great opportunity for individual and collective growth that values merit and does not discriminate. This is why it is crucial to foster an environment that supports the right to education, equal opportunities and social inclusion.

Our University further strives to attract and select the best students from all over the world as well as ensure that they receive high-quality international education through the acquisition of skills and tools that will enable them to smoothly move into the labour market.

For these reasons, the process of experimenting with innovative teaching methodologies, long initiated by our University, will be consolidated and implemented, defining new tools and new organisational, orientation and pedagogical models. Politecnico will strengthen personalised paths, new professional, multi- and inter-disciplinary profiles, continuing education, and lifelong learning.

MAIN ACTIONS

F.1 - ATTRACTING TALENTS

Politecnico must continue to be an attractive University for capable and deserving students from all over the world, both Italian and international. That way we can give back to society people who are able to face the challenges of the future with a critical approach. Moreover, for a Research and Innovation University, the cultivation of human capital from the tertiary education level is a key asset.

- F.1.1 Redesigning promotion policies

Until today, communication and promotion policies have been uniform and spread across all programmes of study. In order to continue to attract and educate top-quality learners, both University students and professionals (for ongoing learning), it is essential to establish an integrated marketing and communication plan, which has the ability to diversify according to the needs of the programmes, the training offer and the characteristics of the people the University aims to attract. It is therefore necessary to strengthen communication and orientation activities towards upper secondary schools, other Italian and international Universities, and the world of work, by designing welcoming and inclusion services that help retaining students.

- F.1.2 Revision of the selection criteria

In synergy with the efforts to revise the management of teaching activities (as outlined below), the entrance procedures for three-year programmes were redesigned in 2023 in order to immediately direct students towards the dedication and motivation our University inherently requires. The methods and procedures for accessing Laurea Magistrale programmes (equivalent to Master of Science) are also being redefined in order to ensure the quality of new students from Italian and international Institutes and Universities. The quality of education and the services offered in fact require an optimisation of available resources, with particular

attention to available space and the student-to-professor ratio, which has always been one of the weak spots of the Italian University System.

F.2 - RIGHT TO EDUCATION AND EQUAL OPPORTUNITIES

Article 34 of the Constitution of the Italian Republic reads: "Capable and deserving pupils, including those lacking financial resources, have the right to attain the highest levels of education."

Politecnico di Milano guarantees access to education to all deserving people, regardless of their financial situation, and fosters an inclusive environment that respects diversity in gender, abilities, cultures, and backgrounds, and encourages social and interpersonal relations. Therefore, we increase our support for scholarships and grants in order to promote equal opportunities as much as possible.

- F.2.1 Support and enhancement of diversity

We direct communication activities towards raising awareness of STEAM (Science, Technology, Engineering, Arts and Mathematics) courses, with a focus on potential future female students, valuing multiculturalism in the paths of study. In addition, we are preparing actions for inclusiveness in all University services and infrastructures. With regard to training pathways, we have improved and created systematic tools and activities to monitor student academic records, with subsequent corrective and improvement actions aimed at ensuring their success. Therefore, we are investing and will continue to invest in learning analytics projects that include special elements that focus on people in need and simultaneously allow for the identification and enhancement of people with excellent profiles.

- F.2.2 Increased action and investment in favour of students

We will continue to provide all eligible students the opportunity to study at Politecnico regardless of their financial status, and we are committed to increasing the number of residences across all of the University's Campuses. In addition, we are broadening our commitment to the right to education by identifying ways to help deserving students with below-average income levels cope with the increase in cost of living, particularly with accommodation, transportation and teaching materials. In this regard, the regulations governing the awarding of contributions to students who wish to contribute to the University's academic or administrative activities have been revised, increasing the number of hours allocated and the hourly pay rate. Over the coming months, we will also supplement the way in which student contributions are measured in order to have an even broader and more integrated view

F.3 - QUALITY, SUSTAINABILITY AND PERSONALISATION OF LEARNING

It is essential for Politecnico to ensure that students have the opportunity to pursue a tailor-made educational pathway in line with their passions and talents. All this calls for a multidisciplinary approach and flexible education as well as training itineraries both during and after graduation, with the possible integration of curricular courses. Extra-curricular activities, through specific

pedagogical, organisational and technological methods, allow the preservation of overall efficiency in the framework.

- F.3.1 Redefining the governance model of teaching

The quality of education and training is also achieved through a correct teaching management model. In particular, for designing a strong management model, the following issues stand out among the various factors to be considered: teaching spaces, the number of professors, the institutional teaching load, the teaching budget for substitutes and supplementary activities, traditional and innovative teaching methods, the number of students, ministerial constraints and resources linked to the FFO (Ordinary Financing Fund), and the internal allocation of teaching credentials.

The search for possible solutions to improve the quality of teaching activity must be able to address these aspects in a unified way, through a wide-ranging overview directed towards innovative, sustainable proposals shared by our community. A University Committee has therefore been set up and has already begun work on proposing a new model for the sustainable management of teaching activities, responding to the different needs and specificities of modes, forms and content in the areas of architecture, design and engineering. The Committee's task is to formulate various solutions that take into account existing constraints and assess future impacts, with the aim of further improving the quality of our teaching activities.

In 2023, the Committee proposed the first streamlining measures to the Senate for discussion and approval, including: a new teaching mix based on the student experience, a new University-wide model for assigning teaching duties to professors, a new budget planning process for defining the educational offer. Upcoming topics of discussion in the work plan include the revision of the admission procedures for Laurea Magistrale programmes (equivalent to Master of Science), the rationalisation of timetables and the allocation of classrooms for teaching activities, and a further improvement and consolidation of the allocation of resources for teaching activities.

The new teaching management model will also include criteria for financing teaching in synergy with industry.

- F.3.2 Consolidating innovation within educational paths

In recent years, we have invested substantially in educational innovation. This path must be supported, particularly in light of the new educational mix mentioned earlier. The directions to be taken could include greater flexibility in study pathways, additional curricular and extracurricular cross-curricular content (experimenting with a micro-credential system) to strengthen the value of the synergy between the dimensions of design and technological, ethical, social and political innovation in the context of the UN 2030 Sustainable Development Goals. In addition, mutual integration of teaching and research, a cornerstone of a Research University, should be encouraged, aligning with the educational objectives and the distinctive characteristics of each discipline.

- F.3.3 Strengthening lifelong learning

In an increasingly advanced and complex world, it is difficult to integrate all the knowledge and skills needed for future professions. It therefore becomes crucial to supplement the curricular

offer of traditional study programmes with an offer of advanced, constantly evolving content to be enjoyed during working life. Similarly to what other International Universities have done, we are therefore investing in this direction, reinforcing the system of offering continuing education (life-long learning) in collaboration with our community of Alumni, consortia and companies, also by designing new POK (Polimi Open Knowledge) courses for delivering training content and issuing certificates.

F.4 - INTERNATIONAL EXPERIENCE

The internationalisation of education is one of the cornerstones of the development strategy of European Universities. International experience fosters, for both students and professors, the ability to understand and appreciate cultural diversity, as well as the understanding of different contexts from one's own.

Politecnico has always been committed to facilitating access to international educational experiences, including through the projects of the European networks in which we participate. In this context, and in order to foster the development of students' potential and contribute to the formation of excellent graduates, we want to ensure a teaching staff committed to high-quality teaching, investing in the process of attraction and selection at national and international level, to create a multicultural community in all respects.

- F.4.1 Increasing international exchange opportunities

The long-term objective is to give every student access to an international experience. Therefore, we will continue to increase our support for mobility with scholarships and strengthen exchange and double degree agreements with European and non-European Universities recognised as international leaders.

- F.4.2 Developing the European Technical University

Politecnico is one of the founding members of ENHANCE, an alliance that, within the EUI (European Universities Initiative), aims to design a European Federal Technical University. In 2023, we were awarded a second funding to continue the initiative in order to develop a joint (face-to-face and online) course platform that offer every student at the Partner Universities access to the content, knowledge and experience offered by several cross-border campuses (European Education Pathways).

- F.4.3 Increasing attractiveness and professors' international mobility

In order to cultivate an international environment, we will invest in collaborations with visiting professors. In addition, we are enhancing communication and simplifying access procedures to attract international professors. Finally, we are envisaging, also for teaching, dual affiliation agreements for international professors and the activation of new renewable contracts of up to five years for visiting professors and highly-qualified professionals.

EDUCATION AND LEARNING: KPIS

ATTRACTING TALENTS

25% of International Students

RIGHT TO STUDY AND EQUAL OPPORTUNITIES

30% Gender balanced Study Programmes **+25%** Student Support

QUALITY, SUSTAINABILITY AND PERSONALISATION OF TRAINING

New Teaching Model

130 Corsi MOOC (Massive Open Online Courses)

INTERNATIONAL EXPERIENCE

2,500 Students abroad
Developing the European Technical University
Development and implementation of European Education Pathways
+100% Courses with International Professors

GOALS	MAIN ACTIONS	ID_KPI	INDICATOR	BASELINE	TARGET 25	OUTCOME 23	SDGs			
EDUCATION AND LEARNING										
F.1 - Attracting talents	F.1.1 Redesigning promotion policies F.1.2 Revision of the selection criteria	KPI-F1	International students enrolled in the 1st year of the Laurea Magistrale (eq. to Master of Science) as a percentage of total enrolments	25% ¹ (A.Y. 21/22)	25% (A.Y. 24/25)	30% (A.Y. 22/23)	SDG 4 SDG 5			
F.2 - Right to education and equal opportunities	F.2.1 Support and development of diversity in all its forms F.2.2 Increased actions and investments for students	KPI-F2	Gender-balanced programmes (M/F ratio between 40% and 60%)	20.5% (A.Y. 22/23)	30% (A.Y. 24/25)	22% (A.Y. 23/24 1st semester)	SDG 4 SDG 5			
		KPI-F3	Support provided - Scholarships BS; - Tutoring activities TA; - Extraordinary grants CS; - Study awards PS; - International mobility exchange ME; - Part-time activities PT;	4,000 (A.Y. 21/22)	5,000 (+25%) (A.Y. 24/25)	4,239 (A.Y. 22/23)	SDG 4 SDG 5			
F.3 - Quality, sustainability and personalisation of learning	F.3.1 Redefining the governance model of teaching F.3.2 Consolidating innovation within educational paths F.3.3 Strengthening lifelong learning	KPI-F4	MOOCs courses delivered	100 (up to 2022)	130 (up to 2025)	117 (up to 2023)	SDG 9			
F.4 - International experience	F.4.1 Increasing international exchange opportunities F.4.2 Developing the European Technical University F.4.3 Increasing the international KP	KPI-F5	2,500 Students abroad	1,937 (A.Y. 21/22)	2,500 (A.Y. 24/25)	2,284 (A.Y. 22/23)	SDG 4 SDG 17			
		KPI- F6A	Developing the European Technical University	NO (up to 2022)	YES (up to 2025)	YES (up to 2023)	SDG 4 SDG 17			
		KPI- F6B	Development and implementation of European Education Pathways	NO (up to 2023)	YES (up to 2025)	NO (up to 2023)	SDG 4 SDG 17			
NOTES:	attracting international professors	KPI-F7	Teaching delivered by international professors	208 (A.Y. 21/22)	400 (+100%) (A.Y. 24/25)	227 (A.Y. 22/23)	SDG 4 SDG 17			

1 Even with selection activities based on rankings, it is expected that international students will continue to make up 25% of our total student population



RESEARCH

Politecnico di Milano's research is developed within the boundaries dictated by the principles of scientific and ethical integrity and is aimed at having a positive impact on the major challenges of modern society. It serves the Sustainable Development Goals (SDGs), respecting the environment and the planet.

Therefore, our university intends to support and promote excellence and frontier research, continuing to increase its competitiveness also in the context of European university alliances. Accordingly, measures aimed at the development of PhD programmes, the support of young researchers and the selection of incoming profiles are important. The development of special projects, that take on board and anticipating future trends in basic and applied scientific research and technological development, is crucial.

The contribution to the measures and actions of the National Recovery and Resilience Plan (NRRP) is decisive, as is the active involvement of business partners in the field of applied research. Joint projects with companies and public institutions, as well as business initiatives and the expansion of research infrastructures are also pivotal thanks to the growth of the innovation district in the Bovisa area, the foundation for which was built in October 2023.

MAIN ACTIONS

R.1 - PHD

The PhD School is essential to train professors and professionals capable of tackling complex challenges and problems.

In recent years, Politecnico's PhD programmes have grown in number, also thanks to substantial funding from the National Operational Programme for Research ('PON') and NRRP funds, to become the largest University community after students. The increase in the number of PhD students is a unique opportunity to support our all-round research lines. We continue to prioritise continued investment in PhD scholarships, also with an eye to post-NRRP projects, in order to consolidate and sustain this growth. This is why we want the PhD programme to grow both in terms of absolute number and as a percentage relative to the number of professors.

- R.1.1 Interdisciplinary scholarships focused on the SDGs

We intend to reconfirm the financing of interdisciplinary PhD scholarships already proposed in 2023, fostering jointly supervised pathways between young researchers from different disciplinary and thematic areas and focusing on frontier contributions in the context of the major challenges of the future of basic and applied research associated with the Sustainable Development Goals.

- R.1.2 Internationalisation

PhDs are an opportunity to consolidate and increase the University's collaborations on an international level. This entails, firstly, stimulating double PhD agreements with selected Partner Universities, continuing to target European funding linked to Innovative Training Networks to consolidate our networks of relations, and involving more and more international professors in our educational and training offer and research activities to increase the attractiveness and

internationalisation dimension of Politecnico. In addition, we aim to increase actions that offer PhD students the opportunity to carry out research stays abroad. In particular, we intend to promote mobility actions related to research infrastructure sharing projects between partners of our Alliances of International Universities.

- R.1.3 Administrative support

The significant increase in the number of PhD students necessitates an increase in training and development of the administrative staff involved in assisting and managing the related procedures. Since doctoral development involves many of the University's initiatives (research, internationalisation, business relations, technology transfer, recruitment, attractiveness, communication), this action involves the PhD School, the Departments and the different areas of the University.

- R.1.4 Training of supervisors

In order to encourage and foster the supervision of doctoral research by young researchers, we have completed, in synergy with the PhD School and the University Research Service, a pilot edition of the programme to support the training of supervisors, with particular emphasis on PhD programmes. Beginning in 2024, three editions of the training programme will be offered annually. Although primarily aimed at training young researchers, the programme will be accessible to anyone who believes they can benefit from participating in it.

- R.1.5 Young researchers' skills empowerment

The growth of the PhD School continues to call for reinforcement and integration of the educational offerings, taking into account the diversity of careers that our PhDs pursue after graduation. We have started to foster the expansion of educational and training offerings related to the dimension of transversal and transferable skills, ethics in research, technological development and entrepreneurship, and we intend to continue to strengthen this offer. We have also initiated a programme to enhance the University's expertise, with the support of the Research Ethics Committee, the META group (Social Sciences and Humanities for Science and Technology) and the Technology Transfer Office (TTO). Synergies with our Alumni community also play an important role in our development programme.

We will continue to foster actions aimed at identifying the research and entrepreneurship aptitude of our students, starting from their Laurea Magistrale (equivalent to Master of Science) training years with the offer of training, mentoring and approach support to the world of research, exploitation of results and start-ups in order to make them more aware of their talents in the longer term, increasing the attractiveness and knowledge of PhD programmes and of possible career developments in the business world.

R.2 YOUNG RESEARCHERS

For young researchers, the first few years are decisive in shaping their academic careers and opening up new lines of research. For this reason, it is our task to continue investing in education, training and skills development, making Politecnico an attractive environment for their professional life. We have taken practical steps with the aim of enhancing the capacity to develop independent development paths for young researchers, also stimulating proposals for new

research lines. Researchers at the University with at least seven years of experience after obtaining a PhD (or equivalent), i.e., young researchers who are eligible to apply for ERC Starting Grants, will benefit from these measures.

- R.2.1 Network of Talent Academies

Our University continues to be involved in a European Talent Academy in cooperation with Imperial College London and Technische Universität München. The project offers young researchers the opportunity and support to develop research collaborations with strategically relevant Universities and international organisations. Strengthening the network of collaborations continues to be our primary objective, extending the programme to more young researchers and involving more European partners, starting with the Fellowship Programme already established in 2023 as part of IDEA League (ETH Zürich, TU Delft, RWTH Aachen, Chalmers).

- R.2.2 Young researchers, industry and entrepreneurship

In order to support the growth, independent research and involvement of young researchers in University projects, we will promote their participation in collaborative activities with our strategic research partners. The programme will start by mapping the research skills of young researchers against the interests of joint research activities and will be geared towards promoting the identification of new opportunities for collaboration or the strengthening of existing ones. In order to support the inclusion of young researchers in POC and pre-seed development projects, we will also promote their involvement in activities related to the development of the Bovisa Innovation District.

- R.2.3 Individual projects by young researchers

We consider it strategic to develop a group of young researchers who actively engage in independent and international research. Against a wider backdrop, in which Politecnico strongly supports research project ideas (basic and applied research) and enhances their level of national and international competitiveness, we have set up a research fund for young researchers who are committed to submitting individual projects and who, despite not having been awarded funding, have received positive evaluations from the Committee responsible for reviewing them.

R.3 - BASIC, INTERNATIONAL AND RESPONSIBLE RESEARCH

Support for basic research is important for identifying new strands that allow a long-term view and are not only associated with short-term impact. It is therefore essential to support fundamental research in all disciplines of the University by rewarding high-quality projects. To foster a continuous exchange of ideas, it is also necessary to form an increasingly international research environment that is integrated with the European context and capable of attracting and fostering wide-ranging collaborations. Today's major technological and social challenges call for a multidisciplinary perspective, and the University is the main promoter of this vision. We need to create research opportunities that bring together the different disciplinary perspectives within the University, including fields that are currently under-represented, such as the humanities or

life sciences, also with a strong involvement from society and leveraging collaborations with other national and international research institutions.

Our University must be equipped with the necessary skills to face both the challenges of the ethics of science and technology, on which we have particularly focused in recent years, and those related to the more general implications of scientific progress, technological development and innovative design.

- R.3.1 Interdisciplinary round tables and discussions on SDGs

In order to develop interdisciplinary research capabilities, we intend to support the creation of opportunities for research on topics that cut across disciplines.

A first project launched focuses on examining the role of the University within the urban environment, not only as a real estate actor, but also as an active participant in local regeneration efforts, with specific attention to the local areas and populations. Campuses that are increasingly integrated with the city can serve as centres for interaction and provide various services to the community; at the same time, we must beware of possible external effects (e.g., social and functional homogenisation or the risks of gentrification). The starting point is the study of the impacts of the development project of the Bovisa Innovation District on the local area, which will see the establishment of civic schools in Milan. The goal of the study is to be aware of both the positive effects and the possible negative repercussions so as to be able to identify possible mitigation measures in the future.

- R.3.2 Criteria for research assessment and development of responsible research policies

We intend to stimulate reflection for re-examining how research is assessed and how this may affect the criteria currently used to evaluate research structures and the recruitment and careers of researchers and professors. The starting point for this study is the COARA (Coalition for Advancing Research Assessment) agreement, which contains the auspices of the recent guidelines proposed by the European Commission and implemented in various national (starting with ANVUR, the Italian National Agency for the Evaluation of Universities and Research Institutes) and international fora.

We will continue to develop an ethical and responsible Open Science and Open Access approach to scientific research, identifying appropriate communication tools to enhance the impact of research. The promotion and exchange of best practices, experiences, and case studies within European research networks and alliances will continue.

- R.3.3 Participation in European strategic research alliances and networks

It is intended to continue promoting the University's active participation in European research networks and strategic alliances. The activities included an initial phase of reconnaissance and systematisation of the main European research networks and the University's current level of participation and commitment. Actions were initiated to strengthen the presence in strategic networks, with particular reference to alliances of European Universities. We intend to continue to foster the development of structured research relationships that include the possibility of using the laboratory facilities of Strategic International Universities participating in these networks, as well as the effective planning of the consolidation of our PhD programmes following on from the

initiatives associated with the National Research and Resilience Plan (NRRP). In this context, a programme will be launched to co-fund collaborative projects involving PhDs on joint projects as well as research periods in laboratories abroad for PhD students/post-docs and professors at the University, including stays at Politecnico for PhD students/post-docs and researchers from Partner Universities. Meetings will be promoted in which project activities of researchers from Universities participating in the network will be encouraged.

- R.3.4 Technology foresight

The consolidation of the recently activated Technology Foresight Centre will enable the pooling of internal research results and external contributions from companies and institutions to support policy makers and industry decision-makers in pursuing sustainable technological innovations. The development of stable collaborations between the Centre and the network of leading international centres will help to strengthen its expertise and reputation, to the benefit of the entire University and its ecosystem.

R.4 - EXPERIMENTAL RESEARCH INFRASCTRUCTURES

Advanced and internationally competitive research requires state-of-the-art experimental infrastructures that are, at the same time, a powerful factor in attracting talent. Consequently, the research laboratories and infrastructures for all the University's disciplinary components should be maintained, updated and upgraded, encouraging collaboration between departments where possible, aiming at economies of scale and scope, also in synergy with companies willing to invest in research carried out in collaboration with Politecnico.

- R.4.1 Living Labs and Joint Research Platforms

We consider it strategic to promote the development of Living Labs on Campus and in synergy with Off Campus spaces. These are intended to be characterised by intermediate dimensions between laboratory and large-scale, also in collaboration with strategic partners in the public and private ecosystem in which Politecnico operates. The subjects associated with the Living Labs involve elements strongly linked to sustainable development goals that necessarily involve a system of stakeholders, our Alumni and student participation. In this context, it is also important to consider the synergy with the missions of the Horizon Europe programme

- R.4.2 Interdisciplinary labs and related staff training

We must ensure growth and optimisation of the use of existing laboratories. This also includes the enhancement of the set of interdepartmental laboratories recently promoted and co-financed by the University. In addition, we want to encourage and develop professional development paths for laboratory technicians both in the departments and in the University infrastructure. These will be facilitated through, for instance, the activation of internal Executive PhD programmes at Politecnico.

We believe it is important for Politecnico to be equipped with highly-attractive research infrastructures in line with technological development, whether they be the development of existing or newly established laboratories, thanks also to the involvement of industrial partners in applied research. Efforts will continue to be made to share research infrastructures in

international strategic networks, also in synergy with the internationalisation measures already described.

- R.4.3 University laboratories

The overall objective is to provide Politecnico with a research infrastructure on life sciences, which is an interdisciplinary subject matter. This is currently spread over several departments and the aim is to exploit possible synergies. The infrastructure is highly attractive and staffed with highly-professional personnel, in line with technological development, thanks also to the engagement of industrial partners. The interdisciplinary context will be an added value. With the aim of recognising the value of those departments that, despite being among the best 350 departments of State Universities, did not qualify for the final financing (reserved for 180), we also co-financed the development of two new large laboratories, scheduled for completion in early 2025.

RESEARCH: KPIS

PHD

2,000 PhD students

YOUNG RESEARCHERS

75 Funded Projects assigned to Young Researchers

BASIC, INTERNATIONAL AND RESPONSIBLE RESEARCH

22 ERC-funded Projects € **105** million from Horizon Europe

EXPERIMENTAL RESEARCH INFRASTRUCTURES

3 New Laboratories

GOALS	MAIN ACTIONS	ID_KPI	INDICATORS	BASELINE	TARGET 25	OUTCOME 23	SDGs
RESEARCH							
R.1 - PHD	R.1.1 Interdisciplinary scholarships focused on the SDGs R.1.2 Internationalisation R.1.3 Administrative support R.1.4 Training of supervisors R.1.5 Young researchers' skills empowerment	KPI-R1	Number of PhD students	1,600 (cycle 35-37) (October 2022)	2,000 (cycle 38-40) (October 2025)	1,390 (cycle 38-39) (up to 2023)	SDG 4 SDG 9
R.2 Young researchers	R.2.1 Network of Talent Academies R.2.2 Young researchers, industry and entrepreneurship R.2.3 Individual projects by young researchers	KPI-R2	Funded Projects assigned to young researchers	62 (Three-year period 2020- 2022)	75 (Three-year period 2023-2025)	25(Year 2023)	SDG 9
R.3.1 Interdisciplinary round tables and discussions on SDGs R.3 - Basic, international and responsible research strategic research alliances and networks R.3.1 Interdisciplinary round tables and discussions on SDGs R.3.2 Criteria for research assessment and development of responsible research policies R.3.3 Participation in European strategic research alliances and networks R.3.4 Technology foresight	KPI-R3	New ERC projects financed on Heurope calls	17 (start of programme up to 2022)	39(+22) (programme start-end 2025)	27(+10) (programme start-end 2023)	SDG 9	
	KPI-R4	Budget of projects financed on Heurope Calls	€64 m (programme start-end 2022)	€ 70 m (+ €105 m) (programme start-end 2025)	€ 116 m (+ €52 m) (programme start-end 2023)	SDG 9	
R.4 - Experimental research infrasctructure s	R.4.1 Living Lab and Joint Research Platforms R.4.2 Interdisciplinary labs and related staff training R.4.3 University laboratories	KPI-R5	Creation of large laboratories	8 (up to 2022)	11(+3) (up to 2025)	8(+0) (up to 2023)	SDG 3



SOCIAL RESPONSIBILITY

Social responsibility includes actions carried out as a complement and in synergy with teaching and research in favour of social, cultural, environmental, and economic development. They activate a process of mutual exchange and enrichment with civil society.

Our university wants to design and manage these initiatives even more broadly and across the board: from environmental sustainability and climate change mitigation to social innovation; from supporting entrepreneurship to science diplomacy; from open cultural, educational, and scientific events to projects with a major impact on the city and the region.

Within this framework, Politecnico intends to make its commitment even more meaningful, systematic, and organic; planned, managed, and participated; differential and visible to get the involvement and awareness of an increasingly large audience.

MAIN ACTIONS

RS.1 Strategic Sustainability Plan

In the two-year period 2021-2022, we developed the organisational framework for all the actions that the University community has activated to support the achievement of the seventeen goals outlined in the 2030 Agenda for Sustainable Development, which led to the publication of the SDGs@Polimi report and participation in the Times Higher Education Impact Ranking. The report was an initial step in identifying the University's actions and policies aimed at making Politecnico a leading example of sustainability across all the areas in which it operates. This work was the basis for the drafting of the first Strategic Sustainability Plan in 2023, which was realised thanks to the collective efforts of hundreds of colleagues.

The Strategic Sustainability Plan defines the objectives for implementing the principles of environmental and social sustainability on our campuses, because we believe that action in this area has an educational value for all those who interact with our spaces. We want our campuses to serve as a space for researching and experimenting with solutions inspired by the integration of beauty, sustainability and inclusiveness, thus promoting best practices that have a measurable effect and that can serve as a model of virtuous development.

- RS.1.1 First Strategic Sustainability Plan

In 2023, the first Integrated Sustainability Report was drawn up, for the year 2022, as a useful starting point for defining the goals of our Strategic Sustainability Plan 2023-2025. The plan, which has been shared and disseminated, has enabled the definition of objectives, policies, actions, organisation and funding that the University wants to set itself, moving from a set of individual actions to a unified and integrated vision; from the consolidation of objectives that have already been set to the introduction of even more ambitious goals; from the commitment of a group of experts to the widespread involvement of numerous and diverse skills; from the collection of individual results to a continuous and structured monitoring of actions. The plan must now be implemented, its results monitored and periodically updated in line with the University's Strategic Plan.

- RS.1.2 Extensive portfolio of sustainability projects for our campuses and their cities

We want to give new impetus to the measures already in place in the areas of sustainability (food waste reduction, sport and wellness, gender policies, disability and accessibility, reuse of materials and waste management, sustainable mobility, behavioural change), to extend them in a spirit of broad involvement (students, technical and administrative staff, professors), and at the same time we also want to lead the way towards energy transition (renewable energy sources, energy saving, energy communities).

The global dimension of these challenges offers us the opportunity to continue to strengthen our collaboration with the city of Milan, the Lombardy Region and more generally the areas where our Campuses are located. It also opens up interesting developments for industrial research. Indeed, sustainability projects lend themselves well to developing Living Labs where we can share the results of our research with the University community and the general public, and this is a possibility that we want to explore together with our industrial partners and by investing resources in terms of co-financing PhD scholarships.

We are also coming up with new opportunities for volunteering, in collaboration with student associations and the third sector on issues of both environmental and social sustainability.

RS.2 - CULTURAL AND SCIENTIFIC DISSEMINATION ACTIVITIES

People's knowledge and awareness are among the basic requirements for the development of society. Therefore, it is essential for Politecnico to contribute to the dissemination of a culture of technology and science, enhancing their visibility and positive impact on the local area and on people's lives, considering their ethical and social implications. The University must be a place of culture, a place to reflect on the major social challenges and to bring contributions of thought and knowledge that help citizens, businesses and institutions make informed decisions. These objectives require the coordination of numerous activities, from thematic reviews to the presentation of contemporary communication formats, from the creation of architecture, design and engineering exhibitions and events to better support for the dissemination of results, in order to establish itself as a cultural and scientific reference point, also thanks to the consolidation of the Technology Foresight Centre that has been opened.

Two important anniversaries in our history will occur during the current Rector's term of office: in 2023 we celebrated 160 years since the founding of Politecnico, and in 2027 we will celebrate 100 years since the inauguration of the campus in Piazza Leonardo da Vinci. These anniversaries are unique events on which to develop specific communication strategies (for example, we have taken advantage of the 160th anniversary of the University to launch a major redesign of the Politecnico's visual identity and digital communication).

- RS.2.1 Programming of communication initiatives for major architecture, design and engineering events

An extraordinary opportunity to position Politecnico on the global stage as a scientific and cultural reference point is to give stability and recognition to the University's major events, starting with existing actions such as Mantova Architettura, the Engineering Festival and the numerous events related to the School of Design, to be developed in close collaboration with local, national and international partners. Around these events, we are working to give a greater

systematic approach to a slideshow of moments of discussion and public debate on the main topics of scientific and cultural interest on all Politecnico Campuses and throughout the local area, putting at the centre a system of responsible and participatory identity that can uniquely communicate the richness of the many souls of our University.

- RS.2.2 Extensive communication plan on sustainable development topics

Sustainable development is an unavoidable need for contemporary society. A communication strategy on this issue is therefore being implemented to promote awareness and broad participation both locally and internationally. In this sense, the University can play a fundamental role through the dissemination of scientific knowledge, the training of new generations of professionals, the production of frontier research and the dissemination of best practices.

- RS.2.3 Socio-cultural impact of the Technology Foresight Centre

Politecnico di Milano is recognised as one of the most authoritative centres of expertise on the role of emerging technologies in shaping the society of the future. The consolidation and enhancement of the recently activated Technology Foresight Centre in the area will enable the pooling of internal research results and external contributions from companies and institutions to support policy makers and industry decision-makers in pursuing sustainable technological innovations. The development of communication initiatives to foster new stable collaborations between the Centre and the network of other leading international centres helps to strengthen its expertise and reputation, to the benefit of the entire University and its ecosystem.

RS.3 - RELATIONS WITH THE TERRITORY AND INSTITUTIONS

Since its foundation, our University has been an integral part of the local context in which it operates and has always set itself the goal of making an increasingly significant contribution to it and to the entire country. Its role in supporting institutions in defining development policies for the local region and society is a mission of social responsibility.

Working in collaboration with the local area also means working alongside the third sector, so as to support it in its actions, also with innovative solutions.

Politecnico's objective is to maintain and strengthen its role as a scientific and cultural centre that serves all players, along the lines of the initiatives promoted by Polisocial (Off Campus and Polisocial Award), capable of aligning technological solutions with people's needs.

- RS.3.1 Influential participation in institutional discussions

The University must strengthen its role as a trusted participant for the development policies of local and national institutions. In this regard, the University's participation in the main institutional forums where these policies are defined must be made systematic and shared. This participation must be organised and transparent in order to increase the University's capacity for impact.

- RS.3.2 Polisocial, Off Campus and Living Lab as models for social innovation

Off Campus and Polisocial are two of Politecnico's powerful social engagement tools. We are now in the phase of consolidating these programmes, both nationally and internationally, in order to propose a distinctive Politecnico model of social responsibility. More specifically, we are

striving to increase the resources available for Polisocial through collaborations with supporting partners and to develop Off Campus activities in the city of Milan, together with the third sector. This means working on the community of professors, students and technical and administrative staff engaged in the local area, as well as strengthening collaborations at different levels aimed at encouraging local initiatives of citizen engagement and co-design of sustainable territorial development.

At the same time, a further objective will be to promote similar projects at the different Campuses. More prospectively, it is a question of defining a model of an 'off-campus' space in close contact with the city that can be a guide at the European level, both from the point of view of the organisation of spaces and the mechanisms of engagement. Particular attention is paid to young people and the inclusion of diverse audiences, 'In Campus' and 'Off Campus', and the expression of their cultural backgrounds.

- RS.3.3 New "Polimi4NonProfit" platform for mutual collaboration

The third sector (non-profit, but also cooperatives and social enterprises) is an asset for society. An important objective will therefore be to establish a systematic and fruitful relationship between the various souls of Politecnico and the third sector players. This will involve enabling a platform where emerging problems and challenges are presented first, followed by the availability of skills and resources (theses, curricular and extracurricular activities, passion-in-action measures, opportunities for collaboration in funded projects, etc.). The identification of existing competencies and relationships and the design of platform services is ongoing.

RS.4 - INTERNATIONAL RELATIONS AND DEVELOPMENT COOPERATION

A University that defines itself as international must also aim to actively engage in the establishment of sustainable policies at international level, forging connections with countries, with a view to scientific diplomacy, with targeted approaches of collaboration and cooperation also aimed at supporting the most qualified expressions of culture and of Italy. We are, therefore, continuing with the experiences already initiated at the international level, in line with recent statements by the European Commission, and expanding the network of scientific collaborations that promote paradigms for international cooperation in research and technological innovation in support of foreign policy and international relations, with the ultimate goal of delivering research results for the benefit of humankind and helping to solve global challenges.

- RS.4.1 Scientific and cultural diplomacy in international relations

By leveraging many of the actions that Politecnico di Milano has implemented in recent years, we intend to encourage the use of scientific cooperation to improve relations between countries ('science for diplomacy').

We are consolidating paradigms for international cooperation in research, technological innovation, and global institutional capacity-building, with a focus on global challenges. Therefore, we have encouraged Politecnico to join the main projects that deal with science diplomacy (EU Alliance on Science Diplomacy, UNESCO Chairs, etc.) and set up a cross-sectional working group in the University to contribute to the creation of a culture of science diplomacy.

- RS.4.2 Development cooperation activities as the ideal engine of our university

We want to facilitate the connection between science and policy to help address those societal challenges that, while often impacting local communities differently, possess a transnational character, so as to maximise their positive impact on society.

In this area, it is first of all necessary to strengthen a University culture, mapping the actions that have already been launched and seeking to increase the capacity and visibility of the University, fostering internal development opportunities and promoting its external strength in the definition of specific policies concerning critical geographical areas and related to sustainable development issues. We have already launched the PhD programme 'Science Diplomacy for Researchers', a strategic initiative that focuses on training young researchers as the foundational pillar for strengthening the future, and we are working on the creation of networks/think tanks as a means to facilitate the connection between science and policy-making.

- RS.4.3 Students and professors from at-risk areas

The current situation has emphasised the danger for students and researchers who come from at-risk areas of the world or who are at risk because they belong to vulnerable groups. For these geographical or cultural areas of the world, scholarships are, in fact, a tool for diplomacy by which science takes a stand and affirms its values on equal opportunities. Building on the experience of the past few years, which has seen us prepare to join some of the international networks associated with the Scholar at Risk issue, Politecnico is striving to support students and researchers in these situations in a more continuous way by strengthening the internal management process and continuing to allocate international scholarships for refugee students and researchers.

RS.5 - SUPPORT FOR ENTREPRENEURSHIP

The ability to transform ideas and research results into innovation and new businesses drives the sustainable growth of society. Over time, Politecnico has launched a number of tools to support innovative ideas, from patenting to proofs of concept (POCs), to start-up incubators and venture capital funds. In the coming years, the Innovation District at the Bovisa Campus will be completed as a platform for innovation and a location for start-ups. This is a unique opportunity to define a more ambitious development strategy and enhance the services offered by the Politecnico system in order to promote their usability alongside with qualified external partners.

- RS.5.1 Bovisa Campus as a platform for innovation

The future availability of space in the Goccia area allows for the planning of an Innovation Park, supplemented by the public and private ecosystem. This will take advantage of the proximity to the University departments and their respective research projects, laboratories and researchers and PhD students.

We therefore aim to fully leverage the interaction between Politecnico, PoliHub, and Venture Capital by allocating space and hosting incubation/acceleration programmes for more mature start-ups. We also intend to set up shared laboratories where start-ups can begin the pre-industrialisation phase of their products. These will be spaces equipped to host researchers from companies and start-ups in co-working.

- RS.5.2 Full cycle: from proof of concept to start-up to scale-up

The Technology Transfer Office (TTO) works in synergy with PoliHub to accompany research groups through all stages of entrepreneurial development, with significant developments in access to funding. We now want to strengthen the support that the University can give to the entire cycle, increasing deal flow also thanks to entrepreneurship training programmes and the strengthening of the TTO, strengthening the entrepreneurial skills of the teams and accompanying them in the management of all support activities through PoliHub, structuring scale-up support paths, expanding the portfolio of partners interested in investing in Politecnico start-ups, and involving an increasing number of strategic research partners.

- RS.5.3 Entrepreneurship training

In order to increase the potential of the innovation process supported by Politecnico di Milano, it is essential to provide support to young innovators right from the beginning of their journey. We therefore want to design structured training programmes that students of all levels can access, as well as post-docs, teaching staff and alumni, in order to intercept and address the entrepreneurial research development attitude and provide the support to develop the necessary skills. These training programmes will alternate between theoretical topics and testimonies of entrepreneurs, in collaboration with companies at different stages of the life cycle. An example of this is the 'Am I an Innovator?' programme provided by the Career Service in 2023, which has already seen the participation of over 400 students in its first edition.

SOCIAL RESPONSIBILITY: KPIS

STRATEGIC SUSTAINABILITY PLAN

First Strategic Sustainability Plan
+4 MW Production from Photovoltaics
0 Food waste in catering and event catering

CULTURAL AND SCIENTIFIC DISSEMINATION ACTIVITIES

360,000 Participants to the Cultural Events programme **6,000** Press Releases on SDGs

RELATIONS WITH THE TERRITORY AND INSTITUTIONS

200 Organisations engaged by Off Campus A **'sustainable model**' of proximity social innovation **Polimi4NonProfit** platform

INTERNATIONAL RELATIONS AND DEVELOPMENT COOPERATION

24 Science Diplomacy Projects

SUPPORT FOR ENTREPRENEURSHIP

450 Supported start-ups on the growth path **2,000** People trained in entrepreneurship

GOALS	MAIN ACTIONS	ID_KPI	INDICATORS	BASELINE	TARGET 2025	OUTCOME 2023	SDGs	
SOCIAL RESPONSIBILITY								
RS.1 Strategic Sustainability Plan	RS.1.1 First Strategic Sustainability Plan RS.1.2 Extensive portfolio of sustainability projects for our campuses and their cities	KPI-RS1	Realisation of the Politecnico's Strategic Sustainability Plan	NO (up to 2022)	YES (up to 2025)	YES (up to 2023)	SDG 1 SDG 17	
		KPI-RS2A	Photovoltaic power generation capacity	0.15 MW (up to 2022)	4 MW (up to 2025)	1.5 MW (up to 2023)	SDG 7 SDG 13	
		KPI-RS2B	Zero food waste in catering and event catering	NO (up to 2023)	YES (up to 2025)	NO (up to 2023)	SDG 2 SDG 12	
RS.2 - Cultural and scientific dissemination activities RS.2.1 Programming of communication initiatives for major architecture, design and engineering events RS.2.2 Extensive communication plan on sustainable development topics RS.2.3 Socio-cultural impact of the Technology Foresight Centre	KPI-RS3	In-person participants and digital users in the programme of cultural / outreach events and videos	300,000 30,000 (in person) 270,000 (digital users) (Three-year period 2020- 2022)	360,000 35,000 (in person) 325,000 (digital users) (Three-year period 2023- 2025)	140,200 20,000 (in person) 120,200 (digital users) (Year 2023)	SDG 4 SDG 11		
		KPI-RS4	Presence in leading trade and mainstream publications with sustainable development issues	5,000 (Three-year period 2020- 2022)	6,000 (Three-year period 2023- 2025)	3,800 (Year 2023)	SDG 4 SDG 11	
RS.3 - Relations with the territory and institutions	RS.3.1 Authoritative participation on institutional discussions RS.3.2 Polisocial, Off Campus and Living Labs as models of social innovation RS.3.3 New 'Polimi4non-profit' platform for mutual collaboration	KPI-RS5A	Organisations engaged by Off Campus	40 (Three-year period 2020- 2022)	200 (Three-year period 2023- 2025)	72 (Year 2023)	SDG 11 SDG 17	
		KPI-RS5B	A 'sustainable model' of proximity social innovation	NO (up to 2023)	YES (up to 2025)	NO (up to 2023)	SDG 11 SDG 17	
		KPI-RS6	Polimi4NonProfit platform	NO (up to 2022)	YES (up to 2025)	NO (up to 2023)	SDG 1 SDG 17	
RS.4 - International relations and development cooperation	RS.4.1 Scientific and cultural diplomacy in international relations RS.4.2 Development cooperation activities as the ideal engine of our university RS.4.3 Students and professors from at-risk areas	KPI-RS7	Number of Science Diplomacy Projects	N.A. (up to 2022)	24 (Three-year period 2023- 2025)	9 (Year 2023)	SDG 17	
RS.5 - Support for entrepreneurship	RS.5.1 Bovisa Campus as a platform for innovation RS.5.2 Cycle from proof of concept to start-up to scale-up RS.5.3 Entrepreneurship training	KPI-RS8	Start-ups involved by the University in their growth path	204 (Three-year period 2020- 2022)	450 (Three-year period 2023- 2025)	257 212 start-ups; 45 ideas	SDG 9	

					(up to 23)	
		Participants (professors, PTA, students) in	750	2,000	762 (Year 2023)	SDG 9
		extra-curricular entrepreneurship training	(Three-year period	(Three-year period		
		programmes	2020- 2022)	2023- 2025)	(1eai 2023)	

STEERING BOARD

The picture outlined so far describes a complex and challenging project, based on a shared approach and constant interaction ranging from Departments to Schools, to Campuses; from students to Alumni; from companies to public administrations; from cultural and service sector institutions to major international universities.

That is why, along with the Rector and the Executive Vice Rectors, the Vice Rectors have been introduced, committed to advancing and exploring the key issues of this mandate, supported by fifty Delegates. A model that, by its very definition, aims to characterise a shared commitment, a broad vision, and an inclusive management.

RECTOR

Rector	Donatella Sciuto			
VICE RECTORS				
Implementation of the Strategic Plan	Isabella Nova			
Communication and Cultural Events	Umberto Tolino			
Education and Learning	Stefano Ronchi			
Digital Infrastructures and Services	Gianpaolo Cugola			
People Management and Organization	Cristina Masella			
Institutional and Community Relations	Carolina Pacchi			
International Affairs	Ilaria Valente			
Research	Alberto Guadagnini			
Talent Development	Paolo Biscari			
Development and Enhancement of University Spaces	Emilio Faroldi			
Sustainable Development and Impact on Society	Alessandro Perego			
Technology Transfer and Corporate Relations	Daniele Rocchi			

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WE WOULD ALSO LIKE TO THANK COMPANIES AND INSTITUTIONS SUPPORTING US IN DEFINING THE STRATEGIC LINES.

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A PRESENT THAT OPENS UP TO NEW CHALLENGES.