

## TEMPLATE 3: INTERNAL REVIEW

Name Organisation under review: ...POLITECNICO DI MILANO.

Organisation's contact details: ...ricerca@polimi.it.....

Web-link to published version of organisation's HR Strategy and Action Plan: <https://www.polimi.it/en/scientific-research/research-at-the-politecnico/aims-and-results/>

Web-link to organisational recruitment policy (OTM-R principles):<sup>45</sup> ...<https://www.polimi.it/en/scientific-research/research-at-the-politecnico/aims-and-results/>

**SUBMISSION DATE TO THE EUROPEAN COMMISSION:** .....

### 1. ORGANISATIONAL INFORMATION

Please provide an update of the key figures for your organisation. Figures marked \* are compulsory.

<b>STAFF &amp; STUDENTS</b>	<b>FTE</b>
Total researchers = staff, fellowship holders, bursary holders, PhD. students either full-time or part-time involved in research	4012 (31/12/2020)
Of whom are international (i.e. foreign nationality)	490
Of whom are externally funded (i.e. for whom the organisation is host organisation)	
Of whom are women	1342
Of whom are stage R3 or R4 <sup>1</sup> = Researchers with a large degree of autonomy, typically holding the status of Principal Investigator or Professor.	1188
Of whom are stage R2 = in most organisations corresponding with postdoctoral level	1011
Of whom are stage R1 = in most organisations corresponding with doctoral level	1773
Total number of students (if relevant)	43.506

<sup>1</sup> [http://ec.europa.eu/euraxess/pdf/research\\_policies/Towards\\_a\\_European\\_Framework\\_for\\_Research\\_Careers\\_final.pdf](http://ec.europa.eu/euraxess/pdf/research_policies/Towards_a_European_Framework_for_Research_Careers_final.pdf)

Total number of staff (including management, administrative, teaching and research staff)	4012- 1236= 5248
<b>RESEARCH FUNDING (figures for most recent fiscal year)</b>	<b>€</b>
Total annual organisational budget	491.463.751,00
Annual organisational direct government funding (block funding, used for teaching, research, infrastructure,...)	267.472.777,06
Annual competitive government-sourced funding (designated for research, obtained in competition with other organisations – including EU funding)	27.903.420,10
Annual funding from private, non-government sources, designated for research	67.492.889,00
<b>ORGANISATIONAL PROFILE (a very brief description of your organisation, max. 100 words)</b>	
<p>POLIMI is a public university established in 1863, which trains engineers, architects and industrial designers. Education is at bachelor, master and PhD level.</p> <p>POLIMI is a leading technological research university combining excellence in basic and theoretical research and first-rate research infrastructures that provide the possibility of a wide range of experimental research. It is organized in 12 Departments including all main areas of engineering, architecture and design. In 2021, the ranking "by Subject" listed the Politecnico di Milano among the world top 20 in all three specific areas: 20<sup>th</sup> in Engineering, 10<sup>th</sup> in Architecture and 5<sup>th</sup> in Design. In the Italian panorama, the university confirms its position as the first technical university.</p>	

## 2. STRENGTHS AND WEAKNESSES OF THE CURRENT PRACTICE (NARRATIVE)

Please review the strengths and weaknesses under the 4 thematic areas of the Charter and Code, as provided by your organisation in the initial assessment phase. When doing so, you should do not only look back, but also consider new priorities, strategic decisions, etc. which may further influence the action plan. Please also provide a brief commentary in the "Remarks" column if major changes have occurred versus the initial plan.

Ethical and professional aspects

### STRENGTHS

**Freedom of Research:** Italian law and the statute of POLIMI ensure the freedom of research and teaching guaranteed by the Italian Constitution in the

interest of society and respect for human dignity.

**Ethics:** Ten years ago Politecnico di Milano has started a path of awareness and attention towards ethical issues and people's values.

Attention is paid to the regulatory part which is constantly updated. On the website (<https://www.polimi.it/en/the-politecnico/statute-and-regulations/>) the new Code of Ethics is published. It clarifies the founding values of the university to students, research and support staff. Moral principles on which the action of the university management is based. Similarly, the Code for the Safeguarding of Personal Dignity was updated in 2019. It establishes a series of measures to combat and prevent any type of discrimination and abuses, both physical and psychological, as well as mobbing, and provides all useful information to activate support actions through the figure of the Confidential Counsellor.

The seven main ethical values are also disseminated through physical installations in the Polimi campuses and a video published at <https://www.polimi.it/en/the-politecnico/about-polimi/our-values/>

A public web page lists the specific policies documents available: <https://www.polimi.it/en/footer/policy/>

**Professional responsibility and attitude:** The Ethical Research Committee was created in 2016 according to criteria of competence, interdisciplinarity and independence. Research staff at Politecnico di Milano has at their disposal a series of regulations for the intellectual property, transparency and anti-plagiarism (software has been adopted by the University for prevention purposes) and also with regard to privacy and the protection of personal data. Administrative personnel is dedicated to offer support to Researchers on these aspects if needed.

An interdisciplinary network, called META, composed by of scholars from engineering, architecture and design departments at Politecnico di Milano, was set up. It aims at producing and disseminating knowledge and offering expertise in philosophical, epistemological, ethical and social issues related to the processes of science, technology, and innovation. (<http://www.meta.polimi.it/en/>)

**Innovation, Technology transfer and IP protection:** Politecnico di Milano has a strategy to support researchers in technology transfer, by identifying different actions and investing financial resources to nurture the path of research discovery towards innovation (patents, licensing, proof of concept, startups and spin-offs). These are managed by the Technology Transfer Office. Furthermore it has created a Unit dedicated to support corporate relations to create long term partnerships with companies seeking the support of the University in their research and innovation projects. An online patent database is available: <https://www.polimi.it/index.php?id=6246&L=0>

Training days and workshops are offered to researchers that aim at following entrepreneurial activities related to the exploitation of their research results.

**Security:** Politecnico di Milano is particularly interested in the well-being and health of the staff by promoting protection and prevention policies and actions. Importance was given to this topic with the pandemic which led to the creation of an internal monitoring unit to ensure rapid responses to the emergency situation for students, researchers and technical staff, thus preventing the outbreak of the infection on our premises, while providing a safe environment for the research labs that needed to be able to continue operating.

**Evaluation:** professors and researchers of the Politecnico di Milano are assessed on their research performance as members of a Department. The University evaluates the Departments research each year through their publications and research financing, and monitors their research plans that are updated every three years. Furthermore, every 5 years the National Agency performs a research evaluation of the Departments of all Universities in Italy through their publications and third mission activities. The results of both evaluations concur to the internal distribution of financial resources to the departments.

Evaluation on the single researcher is performed by the Department and, for those researchers that seek promotion to associate or full professor positions by the National Habilitation periodical review.

WEAKNESSES:

Lack of national funds for basic research that considerably reduces the possibilities of research freedom and does not guarantee stability to the research system. Lack of mobility funds at national level impact negatively on researchers opportunity and freedom.

Research funding for new high risk research programs not driven by projects or industrial financing is limited.

Space available for new research infrastructures is limited by the current configuration and positioning of the campuses and buildings.

Funding for investments and functioning of research infrastructures is limited both at the national and local levels and does not allow long-term planning.

STRENGTHS

**Job offers:** Politecnico di Milano publishes on its website all calls for job opportunities, that are also published on Euraxess website and on the Gazzetta ufficiale della Repubblica Italiana.

**Recruitment:** equal opportunities are guaranteed for all applicants and for the university community. Disadvantaged persons are equally treated. Regulations for appointment to teaching positions and Application for a teaching assignment via the stipulation of a contract are clear and easy to find online (<https://www.polimi.it/en/the-politecnico/statute-and-regulations/>).

**Selection:** Selection procedures are regulated at the national level. Gender issues are considered in the ANAC-anti corruption guidelines for public administrations. No mandatory rules are foreseen.

**Mobility:** It is highly encouraged since the Doctoral School. Specific activities are carried out to support Early-stage Researchers in the context of MSCA calls and other international opportunities for both ingoing and outgoing. Mobility represents a value for Politecnico di Milano in the personal and career development. The university reserves a percentage of positions available only for foreign researchers who wish to come in Italy and do research at Polimi: internationalisation has become one of the founding values on which the University Strategic Plan is based.

**Recognition of qualifications:** The law on administrative procedures requires that academic qualification of researchers are duly certified and recognised at national level.

**Postdoctoral appointments:** Post-doctoral contracts in Italy are of two types: research grants appointments, that can be renewed yearly, and fixed term researchers (3 years contracts extendible to 5) with teaching commitment. Tenure-track researchers positions are the following career step and tenure is granted through promotion to associate professor after three years, provided the researcher has obtained the National Habilitation as associate professor and the committee review is positive.

All these contracts can be funded by research projects. Term and tenure-track researchers have compulsory teaching commitments, defined by the national law.

## **WEAKNESSES**

Composition of selection committees sometimes do not reflect the recommendation of OTM-R because there is a high gender gap in some disciplines. However, whenever possible, different gender representation is required in the evaluation committees.

Specific activities need to be planned:

- to improve the quality of recruitment and professional growth, programmes have to be organised with the aim of strengthening the Ph.d. programme, in particular for interdisciplinary topics, and to stimulate talent development programmes for researchers.
- To favour equal opportunities in career promotions
- To foster the equal opportunities programme, starting from gender policies
- To underscore the value of diversity and encourage measures that favour inclusion
- To support financial aid and merit-based scholarships

## Working conditions

### **STRENGTHS**

**Professional Recognition:** Italian laws recognise the professionalism of researchers and professors. Their role and competence area is published on the national ministry website (<https://cercauniversita.cineca.it/php5/docenti/cerca.php>)

**Environment:** Politecnico di Milano is structured in 12 Departments, each with a General Manager, a Director elected by the professors and researchers and the necessary governing bodies. Each Department has managerial and organizational autonomy and works in the interest of the working researchers and staff by offering all the tools, infrastructures and spaces necessary to ensure that research and all related activities are carried out in the best way.

The extra-urban Campuses also have a General Manager and a Vice-Rector.

The university has started a program for campus sustainability and has planned the refurbishing and development of the new research labs in both Milano campuses, in order to provide a better and more comfortable working environment. The process is under way and a rethinking of spaces has started focusing on the future workspaces in the post-pandemic future.

### **Working conditions and career development**

The academic career follows national legislation. All positions are assigned by public calls and a jury evaluation. ERC grantees coming from other universities may be enrolled without calls thanks to a national law that foresees the possibility of a permanent contract in the case the university has the budget.

Politecnico di Milano has decided on a strategy of institutional support of researcher's career development. Training sessions are organised at all levels with the aim of supporting researchers in acquiring or improving their skills in the preparation of research funding proposals, in particular for the EU funding programs. In the past 2 years a Talent Development programme with the aim of following Early Stage Researchers in the consolidation of their CV has been defined and financed. Activities start with an interview to identify the personal goals, followed by coaching, training, providing tailored funding opportunities, and soft skills development opportunities. Currently, there are 136 young researchers supported.

The Ph.D. School offers every year a specific course on Research Skills for PhD students

**Non discrimination, gender and conciliation:** Politecnico di Milano has actively advocated actions against all types of discrimination.

In 2018 the University has established an Equal Opportunities Committee and defined a project POP (Pari Opportunità Politecniche) (<https://www.polimi.it/en/the-politecnico/university-projects/polytechnic-equal-opportunities-pop/index.html>) with the mandate to identify actions aimed at guaranteeing a professional environment for both researchers and students where diversity is fully respected and becomes a founding value. The programme is developed on 5 strategic lines: gender identity, culture, nation and religion, sexual orientation, different abilities, and psychological well-being.

Several services are provided: Nursery services for staff, free nursery for students, doctoral students, research fund support for the return from maternity leave for assistant and associate professors.

Since 2019 the University formally publishes an annual gender budget that monitors gender gap at all levels (<https://diversityandinclusion.polimi.it/en/report/> )

In 2020, in the reorganization of the central administration, a new division called Equal Opportunities has been created with the aim to offer all services related to grant equal opportunities to students, researchers and staff.

**Mobility and sabbaticals:** Associate and full professors can take advantage of a period of leave. The sabbatical year can be asked for different reasons, among which scientific research activities in national or international institutions, and it is granted for the entire academic year and can be renewed in the following academic year. The leave for study reasons is granted for specific reasons of study or scientific research that require a stay longer than one month abroad, and can be used for shorter periods (less than one year).

**Salary.** The University as a public entity, abides to national rules in terms of salary. The current law mandates predefined salary increases (scatti) based on an evaluation performed every two years on the accomplishment of predefined duties in terms of teaching, research and university management participation.

Administrative and technical staff is evaluated each year through a performance-based systems that aims at encouraging active participation and high professional standards.

## **WEAKNESSES**

Even though mobility is considered a value for personal and career development, the percentage of researchers taking this opportunity is still low

Due to the autonomy of Departments and their different activities, it is hard to have a good communication among all structures.



## Training and development

Training actions are organised by the central administration to strengthen the skills of researchers and train them to ensure that their professional path benefits from it.

The training relates to funding programs, the drafting of abstracts, the drafting of the impact of projects, the communication and dissemination of research results.

Some of the courses are also provided in the form of MOOC's (<https://www.pok.polimi.it/>)

The University provides also courses on teaching methods and tools for new professors joining the staff. In addition, during the pandemic a large effort has been devoted to support teachers in making an effective use of on-line technologies for their teaching, followed in the Fall of 2020 by courses on how to provide more effective lectures in extended classrooms using different tools available and the new resources provided in the classrooms.

### **Supervision**

The doctoral studies establish a commitment to a good relationship between the doctoral students and supervisors.

Supervision is also facilitated within activities for the MSCA actions where a yearly masterclass is organised and the central staff supports external applicants to establish research relationships with the corresponding Departments.

### **WEAKNESSES**

Researchers ask for more customised training for what concerns the analysis of the new European Framework programme for Research and the compliance of the research topics with the clusters.

Collaboration with the international system has to be strengthened in order to provide more opportunities and to reinforce Researchers' presents in international partnerships and consortia.

Training of doctoral supervisors is not yet formalized.

Have any of the priorities for the short- and medium term changed?

The global pandemic that affected Italy and the world at the beginning of 2020 created a situation of operational difficulty which meant that priorities needed a review. Some activities have been postponed in order to guarantee and manage distance learning for 43,000 students and also to guarantee all services of the administration in the best possible way.

The activities linked to the HRS4R have merged into other actions, and in particular, into the three-year Rector strategy. The intention is to create a general awareness and proactivity towards issues related to the improvement of the individual and the work environment.

Have any of the circumstances in which your organisation operates, changed and as such have had an impact on your HR strategy?

In 2017 the Rector Changed, the working group changed twice (once in 2017 and once in 2020). Despite the circumstances have changed due to the pandemic and the needs, it has strengthened the willingness to work to ensure that the University's founding values, which correspond perfectly with those of HRS4R process, will be strengthened and have the right visibility thanks to the dissemination of the Strategic Plan and of all activities undertaken during this period.

Are any strategic decisions under way that may influence the action plan?

The Strategic Plan for 2020-2022 is ongoing and already considers the pandemic: we are working in order to meet our objectives.

### 3. ACTIONS

Please consult the list of all actions you have submitted as part of your HR strategy. Please add to the overview the current status of these actions as well as the status of the indicators. If any actions have been altered, omitted or added, please provide a commentary for each action.

Note: Choose one or more of the principles automatically retrieved from the GAP Analysis with their implementation ratings:

PLANNED ACTION	RESPONSIBLE FOR IMPLEMENTING	TIMING	MONITORING PLAN	RESULTS
Active participation to brokerage events to explore possible joint proposals	Research Area	4th quarter 2017	Number of Brokerage events attended to find new possible partners and number of proposals presented at the brokerage events	<p>Activities related to the involvement of researchers in new opportunities gave several results in the 2017. Polimi, through the support of Research Service participated to 13 interactive events in Europe. During these events, a member of the Research Service and professors involved in the specific research topics of the brokerage events presented their Research ideas. New partnerships were born after these events not only for H2020 funded projects. Thanks to the positive results Research Service continued to propose this activity and participate actively to brokerage events. In 2018 Polimi researchers were involved in 5 events and so also for 2019.</p> <p>With this activity researchers gained several opportunities to meet colleagues from other universities and start discussions for H2020 funding applications but also for joint publications or agreements between universities with several purposes.</p>

Active service support to project ideas for each Department	Research Area	4th quarter 2017 and repeated in 2018	Number of meetings for proposal clinics to stimulate the participation to H2020 projects and maximize success probability in each Department	<p>Research Service developed strategic activities to support researchers in their project ideas. In particular, specific meetings for proposal clinics were organised at the departmental level. This action gave researchers the opportunity to optimise their effort in project applications and increase the success rate. The action was realised fully in 2017 as a new opportunity and in 2017 several meetings were organised in all 12 Departments. Meetings were organised as follows: a training session on the H2020 framework and funding and tips on how to write a competitive proposal. The session was followed by an individual meeting for the clinic on a project proposal idea.</p> <p>Since all departments received the training, based on the project ideas researchers were working on, and two requests emerged so 2 meetings were organized in 2018 for 2 Departments (with the same formula: training +clinics) and several individual meetings in 2019 in other 2 Departments.</p>
Continuing development of Talent development activities for young researchers with a dedicated MSCA Helpdesk and participation	Research Area	4th quarter 2018	Number of submitted projects and results obtained	<p>With a joint effort and a strong commitment from the Rectorate Research Service through the MSCA Helpdesk organised activities to host for the first time a Masterclass for MSCA projects. The idea was to open a public call for researchers abroad, select the best CVs, invite them at Polimi for three days, organise training sessions to present Polimi as host institution, to train on how to write a good MSCA project, to organise meeting with selected supervisors. The pilot projects gave good results, and it was repeated in 2019. Polimi will continue this action also for the next year investing an amount of annual budget in this kind of projects that are strategical for the attraction and for the mobility of Researchers.</p>

to new calls for projects in ERC field				<p>Results in details were the following:</p> <p>2018 - call H2020 -MSCA-IF-2018: 35 projects submitted – (6 grants + 9 SoE);</p> <p>2019 - call H2020 -MSCA-IF-2019: 35 projects submitted – (4 granted, 6 SoE);</p> <p>2020 - call H2020 -MSCA-IF-2020: 49 projects submitted – (6 granted,17 SoE);</p>
Continuing development of Talent development activities for young researchers with a dedicated MSCA Helpdesk and participation to new call for ERC projects	Research Area	4th quarter 2018	Launch of a new parallel action to attract young researchers with a specific programme related to MSCA (programme MSCA IF @ POLIMI)	<p>A special service was structured in order to offer specific support to Early Stage Researchers. An FTE is actively involved in MSCA Helpdesk, which has the goal to help researchers to apply for funding (helping in the administrative matters, in the review of projects, and in the Tutor-Researcher relationship) and to attract young researchers from abroad, organising yearly Masterclasses.</p> <p>See the official webpage:</p> <p><a href="https://www.polimi.it/en/faculty-and-staff/calls-and-competitions/call-for-msca-ef-master-class-2019-polimi/">https://www.polimi.it/en/faculty-and-staff/calls-and-competitions/call-for-msca-ef-master-class-2019-polimi/</a></p>

Increasing awareness of funding opportunities and customized mailing service for each research area	Research Area	4th quarter 2017	Number of mailing activities with customized newsletters for each Department	<p>To increase awareness of funding opportunities, Polimi decided to use the Research Professional tool. Introducing Research Professional we reached the following objectives:</p> <p>2017: 42 customised newsletters produced by Research Office using Research Professional and sent to all Departments</p> <p>2018: 48 customised newsletters produced by Research Office using Research Professional and sent to all Departments</p> <p>2019: 48 customised newsletters produced by Research Office using Research Professional and sent to all Departments</p>
Creation of an inter-disciplinary study unit (META) dedicated to Social Sciences and Humanities for Science and Technology	Rectorate	2th quarter 2017	Creation of the META study unit, collecting 30+ faculty members of Politecnico di Milano. Promotion of the unit, periodic meetings on ethical aspects and sociological impact of research	<p>META Group has been founded at the end of 2016, collecting 30+ faculty members of Politecnico di Milano. It launched a series of events and activities in 2017. The aim is the promotion of the unit, periodic meetings on ethical aspects and sociological impact of research open to all members of Politecnico. Founders are professors Paolo Volontè (Design Dept.), Viola Schiaffonati (Electronics, Information and Bioengineering Dept.) and Simona Chiodo (Architecture and Urban Studies Dept.). During the last 2 years, the managing committee was enriched with new researchers arrived at PoliMi from abroad: Giovanni Valente, Stefano Crabu and Daniele Chiffi.</p> <p>The META Group has a website where all activities are listed: <a href="http://www.meta.polimi.it/">http://www.meta.polimi.it/</a></p>

<p>Events to raise awareness and discuss on Ethics issues</p>	<p>Research Area</p>	<p>3rd quarter 2017</p>	<p>Conference organized by the META study unit and the Research Ethical Committee with the aim of fostering a culture of research attentive to the ethical aspects of innovation, see the website</p>	<p>The META Group has increased the interest on ethical issues inside the University reaching all researchers and creating collaborations with other groups in national and international universities. The first experiment of involvement of the whole university community was the conference organized by the META Group and the Research Ethical Committee with the aim of fostering a culture of research attentive to the ethical aspects of innovation. Other events organised are listed below:</p> <ol style="list-style-type: none"> <li>1. Conference: "Ethics for Technological Innovation", PoliMi, October 19, 2017</li> <li>2. Workshop: "Philosophy and Mathematics for Medicine", PoliMi, May 10, 2018</li> <li>3. Conference: "First Irvine-Munich-PoliMi-Salzburg Conference in Philosophy and Foundations of Physics", Salzburg, September 3-4, 2018</li> <li>4. Workshop: "Time in Physics", Salzburg, September 4-5, 2018</li> <li>5. Conference: "Analogical Reasoning in Science and Mathematics", Munich, October 26-28, 2018</li> <li>6. Conference: "Putting Ethics into Work: Educating the Future Professionals in Engineering, Architecture and Design", PoliMi, November 8, 2018</li> <li>7. Workshop: "Philosophy and Technologies of Simulation", PoliMi, November 22-23, 2018</li> <li>8. Workshop: "Etica per la Tecnologia: Come affrontare consapevolmente le sfide di tutti i giorni", PoliMi, March 4, 2019 (in italian)</li> <li>9. Workshop: "Interpreting Quantum Mechanics: Old and New Philosophical Problems", PoliMi, March 11, 2019</li> </ol>
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Training on ethics issues	Research Area/ PhD School	4th quarter of 2018	Training sessions, seminars, and courses “Ethics in Research” and “Ethics, Technology and Society” for PhD candidates and post-doc researchers	<p>Considering the importance of Ethical issues; Polimi decided to organise several training sessions, seminars, and courses “Ethics in Research” and “Ethics, Technology and Society” for PhD candidates and for post-doc researchers. The following sessions were scheduled:</p> <ul style="list-style-type: none"> <li>- ETHICS IN RESEARCH (proff. Aliverti Andrea and Hughes Jonathan): held on the 05<sup>th</sup> feb 2018, and on the 09<sup>th</sup> feb 2018</li> <li>- ETHICS, TECHNOLOGY, AND SOCIETY (prof. Schiaffonati Viola): held on the 12<sup>th</sup> feb 2018, and on the 16<sup>th</sup> feb 2018</li> </ul> <p>For PhD candidates and Postdocs together an event on “Ethics in H2020” was organised on April 16th 2019 with the National Contact Point.</p>



Training on ethics issues	Research Area	4th quarter 2019	Preparation of courses at the Bachelor and Master level, and MOOCs for students and researchers, aimed at introducing training on Ethics. Monitoring the number of activated modules, and number of students and researchers who attended them	<p>The PoliMi Open Knowledge is the MOOC programme of Politecnico di Milano:</p> <ul style="list-style-type: none"> <li>- MOOCs for Students - MOOCs For Bachelor of science: to improve the preparation for Bachelor of Science or consolidate the high school skills before starting courses at Politecnico di Milano.</li> <li>- MOOCs For Master of science: to improve the preparation for Master of Science or align skills to the ones required by Politecnico di Milano.</li> <li>- From University to job: to strengthen and enhance the soft skills to smooth steps into the job scene.</li> <li>- MOOCs For Citizens: to open up the expertise of Politecnico di Milano for the benefit of a general audience, promoting conscious citizenship in compliance with the third mission of universities.</li> <li>- MOOCs For Teachers: to support teaching innovation in both Higher Education institutions and schools</li> <li>- MOOCs For Researchers: to support researcher to develop transversal skills useful for their activities</li> </ul> <p>For this specific purpose, training sessions aimed at introducing training on Ethics were organised.</p> <p>The platform used is the the following: <a href="https://www.pok.polimi.it/">https://www.pok.polimi.it/</a></p>
Support in the development of the ethics section in H2020	Research Area	4th quarter 2017	Continuous support to researchers in preparing the documents and secretarial support to the Ethical Research Committee	<p>The Ethical Research Committee has its secretary in the Research Service. The Secretary is the main contact point for Researchers that need explanations and information about Committee procedures and applications for the process. Continuous support is provided by mail and phone. The person in charge who helps researchers is also in charge to follow Ethical Committee meetings and invitation of researchers in presenting their project and ethics issues. Information</p>

projects				are available here: <a href="https://www.polimi.it/en/scientific-research/contacts/ethical-committee/">https://www.polimi.it/en/scientific-research/contacts/ethical-committee/</a>
Increase the internal research communication and ERC seminars	ACRE	From the 1st quarter 2017 till the 4th quarter 2018	<p>Dissemination through the Departments of selected research projects, and of the main research results achieved.</p> <p>Monitoring through number of views / contacts on the published material.</p> <p>Creation of a charter of services offered to researchers for H2020 projects communication.</p>	<p>Considering the need of Researchers within H2020 projects to provide dissemination and communication of results and give visibility to the work funded by EC, the Communications Offices created a chart of services. In particular Researchers and Departments in general received a list of possible activities for H2020 projects communication: a first draft of the chart was submitted to the Departments' Heads in order to collect their advices. The final version was published on the intranet, shared with the Departments' Heads and presented in each Department by the Head of Communication and External Relations Area.</p> <p>Dissemination events:</p> <ul style="list-style-type: none"> <li>- 2017: 1 ERC week, 1 Wind Tunnel Open Day, 16 meetings with the Rector in research laboratories</li> <li>- 2018: 13 meetings with the Rector in research laboratories, 1 inauguration of LLM lab</li> <li>- 2019: 5 meetings with the Rector in research laboratories, 2 meetings with the Rector about strategic research topics, 1 inauguration of the ERC Technobiology Labs, 1 meeting with the Rector, researcher and PhD candidates focused on interdisciplinary projects</li> </ul> <p>The list of Services includes all possible activities that can be realised for a project considering the target and the final purpose of the project itself.</p>

<p>Increase the internal research communication and ERC seminars</p>			<p>Events dedicated to internal staff for the presentation and dissemination of research projects</p>	<p>Events were organised for internal staff to provide visibility of projects. In particular the work was organised to launch open discussion on the following specific topic of “Smart cities” in order to make more effective the dissemination of common research lines across different Departments and regarding the following topics:</p> <ul style="list-style-type: none"> <li>- Energy Efficient, Sustainable Environment, Urban Health and Resilient Cities;</li> <li>- Smart Living, Safety &amp; Security, Social Inclusion;</li> <li>- Smart and Sustainable Mobility, Active Transport, Smart Gov, Big Data and Urban Analytics;</li> <li>- Valorisation of Cultural and Tourist Heritage, Complex Construction and Healthcare Facilities;</li> </ul> <p>In addition the following activities were realised:</p> <ul style="list-style-type: none"> <li>- Participation of testimonials from ERC winners in the PhD school - research skills course in order to provide valuable example of winning career plans;</li> <li>- Participation of Testimonials at the event organized by the Cariplo Foundation and dedicated to ERC accompanying measures - December 2018;</li> <li>- Participation at ERC birthday event with the exhibition of funded project’s posters;</li> <li>- Promotion through Articles in Polimi Alumni Magazine;</li> <li>- Definition of a communication campaign with press releases on funded ERC projects.</li> </ul>
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Increase the internal research communication and ERC seminars		News about research projects published on the University intranet	<p>All projects are listed in the following webpage: <a href="https://www.polimi.it/?id=6413">https://www.polimi.it/?id=6413</a></p> <p>All information related to funded projects are disseminated also through the Press Releases and the Press Reviews, available on the intranet (in Italian only).</p> <p>Guidelines for the communication were published in 2018, describing all services offered for the communication activities of H2020 research projects</p>
Increase the internal research communication and ERC seminars		Coordination of a network of departmental staff dedicated to communication activities	<p>Considering the autonomy of Departments in organising their activities at the central level, specific Units were created in each Department, under the name of "UOF Comunicazione" (Communication Unit) with formal responsible staff. The Unit has in charge of all activities related to the communication aspects of funded projects and helps researchers in the dissemination activities. Projects WPS that foresee dissemination and communication activities are realised with the active help of the Unit.</p>
Increase the internal research communication and ERC seminars		Organization of Rector visits to research laboratories	<p>Considering the strategical importance of ERC projects and the investment of POLIMI in the creation of new innovative laboratories where ERC project are realised, official visits of the Rector were organised in these Laboratories and in Departments in general. Visits were scheduled as follows:</p> <ul style="list-style-type: none"> <li>- The 23th May 2018: Department of Chemistry, Materials and Chemical Engineering "Giulio Natta" (DCMC)</li> <li>- The 12th June 2018: Department of Design (Design)</li> <li>- The 5th July 2018: Department of Electronics, Information and</li> </ul>

				<p>Bioengineering (DEIB)</p> <ul style="list-style-type: none"> <li>- The 10<sup>th</sup> July 2018: Department of Architecture and Urban Studies (DASTU)</li> <li>- The 10<sup>th</sup> July 2018: Department of Management, Economics and Industrial Engineering (DIG)</li> <li>- The 13<sup>th</sup> September 2018: Department of Aerospace Science and Technology (DAER)</li> <li>- The 18<sup>th</sup> September 2018: Department of Physics (DFIS)</li> <li>- The 19<sup>th</sup> September 2018: Department of Architecture, Built Environment and Construction Engineering (DABC)</li> <li>- The 19<sup>th</sup> September 2018: Department of Mathematics Francesco Brioschi (DMAT)</li> <li>- The 27<sup>th</sup> September 2018: Department of Civil and Environmental Engineering (DICA)</li> <li>- The 24<sup>th</sup> October 2018: Department of Energy (DENG)</li> <li>- The 25<sup>th</sup> October 2018 Department of Mechanical Engineering (DMEC)</li> </ul>
Increase the research communication and ERC seminars	ACRE	4th quarter 2018	Events on ERC projects disseminations	<p>Testimonials from ERC winners in the PhD school - research skills course;</p> <p>Participation with testimony of advent funded projects organized by the Cariplo Foundation - December 2018;</p> <p>Exhibition of Posters of ERC birthday projects;</p> <p>Articles in Alumni Polimi Magazine;</p> <p>Press releases on funded ERC projects.</p>

<p>Data management plan support implemented and open data management policy defined</p>	<p>Research Area- ASICT- Human Resources Area</p>	<p>4th quarter 2018</p>	<p>Publication of the Policy</p>	<p>An informal group supporting research data management composed of members of the ICT and ASAB (Archives and Library Systems) areas was established; furthermore, also a helpdesk has been activated (dmp-helpdesk@polimi.it) and advertised during meetings held in the 12 Departments. The Helpdesk is actively involved in researchers' support during DMP definition and drafting.</p> <p>The group prepared guidelines for developing a DMP, after interviewing several project coordinators to better understand the specific needs. Guidelines are published in the intranet section of Polimi website.</p> <p>The group supported various project coordinators from different disciplines (e.g. mechanics, energy, management) in drafting DMP for their projects.</p> <p>A formal policy on research data has not yet been developed. A first draft was drawn up the Rectorate together with Technology Transfer Office. Polimi still needs to work to define it.</p>
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Open access seminars	Library	4th quarter 2017	Dissemination and presentation of Open Access Policy of Politecnico di Milano to the Departments and continuous monitoring of its application by researchers	<p>Open Access Policy was officially presented in the the 12 Departments in 2016 and repeated in 2018. Meeting were organised from the OA staff and the Departments Secretary.</p> <p>In 2018 the Departments visited were 10. The dates below:</p> <p>DAER – 4th May 2018  DICA – 29th May 2018  DCMC – 20th June 2018  DEIB – 27th June 2018  DESIGN – 11th July 2018  DIG – 18th July 2018  DENG – 11th Sept 2018  DESIGN – 3rd Oct 2018 (a second and more specific presentation was requested  DMEC – 22th Nov 2018  DFIS – 29th Nov 2018</p> <p>Other useful activities were organised to help researchers in their work. They are listed below:</p> <ul style="list-style-type: none"> <li>- Weekly copyright monitoring of the products inserted in IRIS RE.PUBLIC in open mode (<a href="https://re.public.polimi.it/">https://re.public.polimi.it/</a>)</li> <li>- Periodic statistics (at least once a month) of products inserted in Iris RE.PUBLIC repository in open mode</li> <li>- Statistics on deposits for each department included in the presentations</li> </ul>
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Open Data Policy will be disseminated to researchers	Research Area-ASICT	4th quarter 2018	Events will be launched to promote the Policy	Course “The dissemination of research results in H2020 and Open Science policies in Europe”. Event realised on the 13 <sup>th</sup> October 2017, NOAD Open Aire.
Open Data Policy management tool trial	Research Area-ASICT	4th quarter 2018	Trial of an open science tool for projects and data management	Trial of the tool chosen (Mendeley) was completed on time. Research groups have been involved in the entire experimentation. Activity was followed only by ASICT
To provide specific support and training on how to write a Plan for the Exploitation and Dissemination of Results	Research Area	4th quarter 2018	Support for the use of the tool and training sessions	On demand support and awareness of the tool was provided by the informal group involved on this topics. An appropriate email address was activated (dpm@polimi.it)
To provide a tool useful for the self-evaluation of the impact of international publications for the Italian	ASICT- Rectorate	4th quarter 2018	Release of a tool for an automatic estimate of the impact of publications through the impact factor and number of citations, following the guidelines of the Italian National Agency for the Evaluation of the	An automatic function was implemented in our Research Catalogue that allows to calculate data needed



national evaluation agency			University and Research Systems	
Continuous improvement of spaces	Rectorate	4th quarter 2019	Multi-year development of building projects	Project has been developed and approved. Several solutions have been applied and at the moment the Leonardo Campus is going to be renewed
Increasing availability of spaces for research discussion and increasing of Laboratories space	Rectorate	4th quarter 2019	Arrangement of new laboratories for the Physics Department. Arrangement of a common research discussion space for PhD candidates and Postdoc researchers	Physics laboratories were realised on time. The identified space for PhD and Postdoc students was assigned for other purposes. At the moment PhD School is waiting for a new room to realise the common research discussion space for PhD candidates
			Monitoring through the number of square meters of new laboratories and common discussion spaces	It was not possible to create a common area for students for logistical and security reasons  New laboratories under construction were completed in 2020 for the Architecture School and research

Individual placement programme at the PhD level	Career Service / PhD School	4th quarter 2017	Number of PhD candidates supported; PhD course on "Industrial Skills"	<p>In 2017 PhD candidates supported by Career Service were 56 (support in terms of CV revision, interviews and support in job search). 14 of them already achieved the title, and the other 42 enrolled at the third year of doctorate. 46% found an industry job after this experience. The most relevant sectors: consulting, chemistry, design, automotive and someone as a freelancer.</p> <p>2018 - 29 PhD divided into 18 that achieved the title (some in POST-DOC roles) and 11 enrolled in the third year of the doctorate; 79.3% found a job in the company or university after this action. Also in this case the most relevant sectors were consulting, chemistry, design, automotive and someone as a freelancer.</p> <p>2019: 30 participants (3rd year PHD students and PHD) in the Placement Path for PHD. Of these, a number of 24 are employed, and 12 are working in companies.</p> <p>2020: 15 participants (3rd year PHD students and PHD). Of these, a number of 10 are employed and 8 are working in companies.</p> <p>Industrial skills training courses were organised within the PhD school programmes and they were followed by several students, as follows:</p> <p>2017: 36 students  2018: 20 students  2019: 34 students  2020: 35 students</p>
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Increasing of the activities of MSCA Helpdesk in terms of number of MSCA project presented.	Research Area	1st quarter 2018	Number of proposals submitted with the central office support	<p>2018 assistance:  ITN&gt; submitted: 87 proposals (11 proposals actively supported, revised and submitted); granted proposals: 8; success rate: 9%  IF&gt; 33 proposals supported, revised and submitted; granted proposals: 6; success rate: 18%  COFUND&gt; 3 supported, revised and submitted; proposal granted: 0  RISE&gt; 7 proposals submitted; granted proposals: 2; success rate: 28%</p> <p>2019 assistance:  ITN&gt; submitted: 70 proposals submitted (12 proposals actively supported, revised and submitted); granted proposals: 12; success rate: 17%  IF&gt; 35 proposals supported, revised and submitted; granted proposals: 4; success rate: 11,42%  COFUND&gt; 2 supported, revised and submitted; proposal granted: 0  RISE&gt; 9 proposals submitted; granted proposals: 5; success rate: 55%</p> <p>2020 assistance:  ITN&gt; submitted: 70 proposals submitted; 17 proposals supported, revised and submitted; granted proposals: 10; success rate: 14%;  IF&gt; 49 proposals submitted; 46 proposals supported, revised and submitted; granted proposals: 6; success rate:: 12%  RISE&gt; 6 proposals submitted; granted: 0  COFUND&gt; 3 proposals supported, revised and submitted as partner; granted proposals: 1 as partner</p>
Tracking the research experiences abroad of young researchers to map the	ASICT + Undergraduate and Graduate Students Services	4th quarter 2018	Tool to map the activities abroad of PhD candidates, with a specific focus on research visits and stages	Tool successfully implemented. 22624 days abroad have been mapped during 2018, fully in line with a stay of about 3 months abroad in their career.

potentially fruitful partners for future collaborations				
Website, specific list of opportunities	ACRE	4th quarter 2018	Implementation of a webpage containing the mobility opportunities for professors within the Erasmus+ projects	International Relation Office together with the Communication services created a webpage dedicated to all opportunities coming from Erasmus+. The webpage created is at the following address: <a href="https://www.polimi.it/il-politecnico/progetti-di-ateneo/progetti-internazionali/">https://www.polimi.it/il-politecnico/progetti-di-ateneo/progetti-internazionali/</a> Direct link is: <a href="https://www.polimi.it/il-politecnico/progetti-di-ateneo/progetti-internazionali/progetti-di-mobilita/">https://www.polimi.it/il-politecnico/progetti-di-ateneo/progetti-internazionali/progetti-di-mobilita/</a>
Professional development needs to be implemented by MOOCs	METID+ ACRE	3rd quarter 2017	Realization of new MOOCs on Flipped Classroom Methodology; Open Educational Resources (OER); Active Learning; number of Digital Education events	Design, development and launch of 4 MOOCs for teachers' professional development: 1. Flipped Classroom MOOC: 9 editions (2017-2019) 1180 people enrolled 2. Using OER in Teaching: 9 editions (2017-2019) 737 people enrolled 3. Active Learning MOOC: 7 editions (2017-2019) 687 people enrolled 4. Assessment MOOC: 4 editions (2017-2019) 404 people enrolled Total amount of 3008 people enrolled  # Management and monitoring of the 4 MOOCs

Seminars on innovative teaching methodologies	METID	4th quarter 2017	Number of seminars and workshops for researchers and professors organized and participation level	<p>Seminars: 13 events with international experts organized involving around 150 teachers</p> <p>Workshops for professors (more than 150 enrolments) 4 editions organized: - 2017 – 1 edition of 6 workshops - 2018 - 2 editions of 6 workshops one dedicated to Faculty members of the School of Design - 2019 – 1 edition of 6 workshops (January/February)</p> <p>Workshops for researchers (145 enrolments) 4 editions: - 2019 – 2 editions in parallel in June/July and 2 in October/November</p> <p>EDUTONIC (62 enrolments) Informal events launched in 2019, where professors can present, share and discuss with colleagues their experience in experimenting innovative teaching approach/methodology - 2019 – 4 events</p>
Activities for innovative teaching methodology	PhD School + METID	4th quarter 2017	Realization of new PhD course “Innovative Teaching Skills”	<p>2 editions of the course organized in 5 workshops (1 hour dedicated to a real case study from an innovative teacher, 2 hours as thematic workshop). Students had to attend and pass at least one MOOC of the series MOOCsForTeachers and prepare a final project work to be discussed during the exam.</p> <p>1 edition in 2018: 44 students enrolled 2 editions in 2019: 24 students enrolled</p>

<p>Definition of a yearly catalogue of training sessions for all researchers offered also from PhD School with sessions related to communication and dissemination aspects, funding and ethics in research</p>	<p>Research Area</p>	<p>4th quarter 2017</p>	<p>Definition and realization of yearly programs for training path that will involve PhD candidates and post-doc researchers</p>	<p>In 2017 PhD candidates supported were 96 . In 2018 the same support was provided to 101 PhD Students. In 2019 PhD candidates supported with training paths were 161.</p>
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Training in soft and transferable skills	PhD school	4th quarter 2017	PhD courses on Scientific and Professional Communication; Scientific Dissemination; Ethical aspects in Research and Technology; Decision Making	<p>Scientific Communication in English / 16.4.2018 – 15.6.2018 / 120 PhD candidates</p> <p>Professional Communication / 16.1.2018 – 6.2.2018 / 34 PhD candidates</p> <p>Communicating Scientific Research / 1.3.2018 – 30.6.2018 / 36 PhD candidates</p> <p>Ethics in Research / 5.2.2018 – 9.2.2018 / 25 PhD candidates</p> <p>Ethical, Technology and Society / 12.2.2018 – 16.2.2018 / 27 PhD candidates</p> <p>Methods and Models for the Decision Making / 1.2.2018 – 22.3.2018 / 20 PhD candidates</p> <p>Industrial Skills / 21.5.2018 – 31.5.2018 / 34 PhD candidates</p> <p>Innovative Teaching Skills / 5.4.2018 – 12.5.2018 / 36 PhD candidates</p>
Managing relationships with foreign research organizations aimed at good practices exchange in Talent Development	Research Area	4th quarter 2018	Meetings with other European offices and international strategic partners involved in talent development activities	<p>2017: UCL, Imperial College London, Instituto Tecnico Lisboa, University College Cork, NTNU, Leeds University, KU Leuven.</p> <p>2018: UCL, Rotterdam University, Leitat Barcelona, Parigi Diderot, Paris Sorbonne, Imperial College London, Geneve University, University of Malta.</p> <p>2019: Imperial College, EPFL, UPM, IRB Barcelona, Paris Diderot, University of Lyon, Université PSL</p>
Definition of	ACRE +	From	Research activities of the	Press releases

<p>a Plan for collecting and promoting external communication of research activities and of research results through multiple channels</p>	<p>Research Area</p>	<p>the 1st quarter 2017 till the 4th quarter 2018</p>	<p>University will be communicated through:</p> <ul style="list-style-type: none"> <li>- Press releases dedicated to research projects</li> <li>- News on all institutional social media channels</li> <li>- News on the University website</li> <li>- Research Newsletter for external audiences</li> <li>- Communications of the H2020 projects on the University website</li> <li>- Organization of visits to research laboratories open to the public (PolimiOpenLabs)</li> <li>- Events dedicated to children and teenagers</li> <li>- Co-organization with</li> </ul>	<p>2017: 54 press releases on research activities  2018: 47 press releases on research activities</p> <p>Number of posts on the official social media channels:  <a href="http://www.facebook.com/polimi">www.facebook.com/polimi</a> (123.0000 follower - December 2018)  2017: 83 posts  2018: 107 posts</p> <p><a href="http://www.twitter.com/polimi">www.twitter.com/polimi</a> (30000 followers - December 2018)  2017: 57 tweets  2018: 71 tweets</p> <p><a href="http://www.linkedin.com/school/polimi">www.linkedin.com/school/polimi</a> (229000 followers - December 2018)  2017: 18 updates  2018: 23 updates</p> <p>Published Videos  2017: 44 videos published on Youtube  2018: 42 videos published on Youtube, Facebook, LinkedIn, IGTV</p> <p>News on the university website  2017: 42 news published  2018: 49 news published  2018: Redesign of the Research section with a specific focus on H2020</p>
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			<p>other universities and institutions of MeetMeTonight, the European Researchers' Night of Milano</p> <ul style="list-style-type: none"> <li>- Videos presenting research activities</li> <li>- Videos where professors and researchers of the university comment on topics relevant to their field</li> </ul>	<p>projects</p> <p>Events</p> <p>Organization of visits to research laboratories open to the public (PolimiOpenLabs)</p> <p>2017: 4 events 2018: 9 events</p> <p>Events dedicated to children and teenagers in collaboration with Focus Junior magazine</p> <p>2017: 4 events 2018: 3 events</p> <p>Co-organization with other universities and institutions of MeetMeTonight, the European Researchers' Night of Milano.</p> <p>2017: 2 days of interactive labs, shows, scientific talks, exhibitions, more than 100 Polimi researchers involved</p> <p>2018: 2 days of interactive labs, shows, scientific talks, exhibitions, more than 250 Polimi researchers involved</p> <p>Number of newsletters</p> <p>2017: 7 issues 2018: 8 issues</p>
	ACRE+ Research Area	From the 1st quarter 2017 till the 4th	<ul style="list-style-type: none"> <li>- Press review</li> <li>- Views of social media posts</li> </ul>	<p>Press review 2017: 618 press articles (AVE: 2.254.270 EURO)</p> <p>Press review 2018: 746 press articles (AVE: 6.776.953 EURO)</p>

		quarter 2018	- Number of news published on the website	Reach of social media posts Facebook 2017 average reach: 9.495 2018 average reach: 12.593
			- Number of events	Linkedin 2017 average reach: 41.000 2018 average reach: 50.517
			- Views of videos	Twitter 2017 average reach: 2.838 2018 average reach: 4.735
				Views of videos

			<p>- Number of newsletters</p> <p>2017 average views on Youtube: 1.348 2018 average views on Youtube, Facebook, Linkedin, IGTV: 10.057</p> <p>Number of news published on the website 2017: 42 2018: 49</p> <p>2018: Redesign of the Research section</p> <p>Participants in the events MeetMeTonight 2017: 2 days of interactive labs, shows, scientific talks, exhibitions, more than 100 Polimi researchers involved 2018: 2 days of interactive labs, shows, scientific talks, exhibitions, more than 250 Polimi researchers involved</p> <p>Organization of visits to research laboratories open to the public (PolimiOpenLabs) 2017: 1800 participants 2018: 3500 participants</p> <p>Events for children and teenagers 2017: 800 participants 2018: 933 participants</p> <p>Newsletters' recipients 2017: 27500 recipients 2018: 32000 recipients</p>
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The extended version of the reviewed HR Strategy for your organisation for the next 3 years, including the OTM-R policy must be published on your organisation's website.

Please provide the link to the dedicated webpage(s) on your organisation's web site \*:

If your organisation has already filled in the OTM-R checklist in the Initial Phase, please also indicate how your organisation is working towards / has developed an Open, Transparent and Merit-Based Recruitment Policy. Although there may be some overlap with a range of actions listed above in the action plan (as emerged from the Gap Analysis), please provide a short commentary demonstrating the progress of the implementation versus the initial phase.

Comments on the implementation of the OTM-R principles

Considering the checklist we submitted in the previous assessment, it is clear that our University is actively operating to meet some standards but it has also to be considered the nature of the University: as public university, we need to comply with public laws for public entities. This may represent a limit in many cases since the University cannot change the recruitments policies and procedures with respect to national legislation. Anyway, the University is committed to comply with the OTM-R whenever within the bounds of the Italian Law and improve the quality of the ongoing work.

In case your organisation has entered the HRS4R process prior to the publication of the OTM-R toolkit and recommendations by the European Commission (2015), please fill out the OTM-R checklist<sup>45</sup>.

Ideally, the extended version of the reviewed OTM-R policy and actions should be published on your organisation's website. Please provide the web link to the OTM-R dedicated webpage(s) if it is different than the one where the reviewed HR Strategy is located.

(same webpage)

N.B. Please be aware that your OTM-R policy should be 'embedded' into the institutional HR strategy at the renewal phase at the latest.

#### 4. IMPLEMENTATION (MAX. 1 PAGE)

General overview of the implementation process: (max. 1000 words).

Make sure you also cover all the aspects highlighted in the checklist below:

- How have you prepared the internal review?

*The internal review was prepared by the Working Group with the involvement of several administrative offices (Research, Communication, Human Resources, ICT Unit, PhD School) engaged in the actions realised. Monitoring activity started to be implemented with a working group that was partially renewed at the beginning of 2020 due to the fact that some members changed status. An official appointment in January 2020 identified new members. Actually the Working group is composed by one representative for each category (PhD, research fellow, assistant professor, associate professor and full professor).*

The working group (as started at the beginning of the process in 2014) has the goal to analyse the current situation in the University focusing the attention on the key points identified in the questionnaire. The working group has been nominated by the Rector (with a Rector Decree) using the criteria of gender equality, experience, age, scientific research areas, department, representation of the different stakeholders groups.

The members of the group are:

- Institutional Representative - Donatella Sciuto - Vice Rector;
- Head of the PhD School - Paolo Biscari;
- Associate Professor - Manuela Antonelli;

- Researcher - Maurizio Zani;

- Research Fellow – Annalinda De Rosa;

- PhD Candidate – Riccardo Peli.

The organisations divisions involved in the process are the Academic Senate, Research Committee, Directors of Central Administration Divisions.

The administrative offices (i.e. the Research office, the Human Resources office, the students office, and the PhD office) have been involved in providing relevant information on the areas covered by the gap analysis.

- How have you involved the research community, your main stakeholders, in the implementation process?

The process we have implemented is the following:

- The working group decides and prepares documents

- all documents are reviewed by the Internal Research Committee for comments and a validation

- the Academic Senate evaluate documents validated by Internal Research Committee for a final approval. Given the presence of all Departments' Directors in the Senate, the departments are automatically informed.

- Document validated by Academic Senate are discussed also by the Directors Committee of the Central Administration, so that all involved Units in the administration are up to date.

During the meetings of the working group it happened to invite staff from specific offices for actions related to topics to discuss.

- Do you have an implementation committee and/or steering group regularly overseeing progress?

*The work has been realised by the Working Group nominated three years ago by the new Rector. The working group followed all activities with the support of the Research Office that worked as secretariat of the Group. Meetings were scheduled when necessary and to update the monitoring plan and documents circulated by emails for advices and points of view on specific tasks.*

- Is there any alignment of organisational policies with the HRS4R? For example, is the HRS4R recognized in the organisation's research strategy, overarching HR policy?

*Yes, Politecnico di Milano has a Strategic Plan for the period 2017-2019 and the alignment of the organisational policies is one of the commitments of the administration and departments. The Rector discussed in 2019 the new planning for the years 2020-2022 for the Central Administration and in January the Strategic Plan for the University that integrates the new Action Plan. Due to the Pandemic Crisis the plan was rediscussed and redefined in April 2020 and later publicly announced.*

- How is your organisation ensuring that the proposed actions are also being implemented?

*Each specific activity of the Action Plan has been assigned to specific administrative offices/ Departments/Areas and has been followed by the Working Group and the Research Office. After the official approval of the Action Plan, all Areas of the Central Administration and their Managers are informed and involved in the implementation of the proposed activities.*

- How are you monitoring progress?

*The working group and Research Office are responsible for the monitoring of the implementation of the actions in order to put in place possible contingency plans if an office is not fully aware about activities to realise.*

- How do you expect to prepare for the external review?

*The working group will gather all the necessary documents and provide access to the publicly available information for the experts. Moreover, the working group will contact and select representatives of the different categories of stakeholders including administrative areas to be involved in the assessment process.*

Additional remarks/comments about the proposed implementation process: (max. 1000 words):

*Please note that the revised HR strategy and Action Plan must also be published upon completion of the internal assessment.*