

IMDEA Materials Institute Internal Review Executive Summary

As part of the [Madrid Institutes for Advanced Studies](#) (IMDEA) network created in 2006 by the regional government of Madrid, IMDEA Materials' primary goal is to foster sustainable social and economic growth through technological innovation and the advancement of scientific knowledge. This mission is based on three central pillars: scientific excellence, attracting world-leading talent and technology transfer to industry. IMDEA Materials' main governing body is the [Board of Trustees](#) which is composed of key stakeholders while the Institute also has two advisory boards: The [Scientific Council](#) and The [Industrial Advisory Board](#) (IAB). The Institute is run by a Director who reports to the Board of Trustees and who is supported by an Executive Committee.

Since IMDEA Materials' previous internal review, much has changed. The COVID-19 pandemic greatly impacted the Institute's activities and required the adoption of new ways to work and interact. Through the measures, IMDEA Materials was able to weather this storm and is now focused on moving forward. Despite the difficulties faced over the past two years, the Institute has continued with the implementation of its regulatory compliance and ethics system. This has required a review of the Institute's activities to ensure compliance with good practice and procedures that guarantee the highest possible ethical and professional standards supported by our [Code of Ethics](#). An important element in IMDEA Materials' drive to improve ethical and professional standards has been the development and launch of the Institute's [Gender Equality Plan](#) (GEP) which was released in September 2021. This document was produced by the ethics and compliance committee, which has also been active in raising awareness of ethical issues, having organized more than two dozen training sessions on the topic since 2020.

Regarding best practice when it comes to securing funding, the Institute's Project Management Office (PMO) is also of vital importance in designing and improving internal procedures to ensure that projects are well managed. The IMDEA Materials PMO carries out a number of functions including detecting funding and collaboration opportunities, providing personalized support to group leaders, creating support material and ensuring that the Institute complies with relevant EU and Spanish regulations and legal requirements. The PMO, which is part of the HRS4R working group, also organizes a variety of communicative events including information days, strategic and brainstorming meetings and a virtual brokerage event. Of particular note was the measure taken in the previous action plan to hire a part-time health and safety technician which has led to better working conditions and the prevention of occupational risks.

As a public institution, dissemination and outreach activities are part of our commitment to broadening interest in, and knowledge of, science among the general public and younger generations. As such, the Institute regularly organizes or is involved in community events such as school visits, science fairs, an annual PhD Day etc. The institute is also active on social media ([LinkedIn](#), [Twitter](#), and [YouTube](#)) and in promoting its activities through the media. In order to boost these engagement efforts, IMDEA Materials has committed to take on a full-time communications officer.

As stated previously, technology transfer is one of the Institute's three central pillars. In March 2020, the Technology Transfer and Innovation Office (TTIO) was established and has since undertaken a range of activities that support researchers in identifying, protecting and valorizing their work. The previously mentioned IAB, which is formed by R&D leaders from top European companies, was also set up and serves to provide strategic guidance in improving relationships between the Institute and industry.

A second pillar is attracting talent. Central to carrying out that goal is implement successful policies and programs relating to recruitment and selection. With that in mind, IMDEA Materials has recently undertaken a complete revision of its recruitment and selection policy. In tandem with this ongoing revision, the Institute is also in the process of developing a new jobs portal and better data analysis. Relevant IMDEA Materials staff are subject to training on recruitment and selection while dedicated training on the use of the new analysis tools and website will be carried out once the jobs portal is active. Meanwhile, increasing female representation among the institute's ranks is also one of the Institute's goals within the recruitment and selection framework. While this has proved challenging, especially among more senior positions, IMDEA Materials continues working to improve in this area, prioritizing visibility of our female researchers in media content and building on the previously mentioned GEP.

Recruitment and selection are both strongly tied to working conditions at the Institute, both real and perceived. In relation to this, an internal survey conducted in March 2022 in relation to this area found that an overwhelming majority (85%) of IMDEA Materials staff believe that the Institute's commitment to improving employee health and wellbeing has increased in recent years and the general engagement index that measures commitment and pride in belonging to the Institute is 90%. The same survey also found that awareness of the ethical and professional aspects of their roles is also very high among researchers and that there is a general perception of professional fulfilment at work. .

Training and development, meanwhile, is a key element in ensuring that IDMEA Materials can continue to deliver on its third pillar of promoting scientific excellence and providing a working environment in which researchers feel they can grow and develop professionally. The Institute is strongly committed to this, as can be seen with the [Training and Development Plan](#) (T&DP) in transversal skills which is now part of IMDEA Material's regular activities. The plan has been designed thanks to researcher feedback

and focuses on career development. The Institute is also committed to a renewed focus on expanded training for technicians and also in supporting attendance and participation for researchers at congresses, conferences, seminars, and other such activities of scientific value. It is important to note that the most recent IMDEA Materials internal survey showed that most researchers feel that they are given the time and resources they need to engage in personal development. While our commitment to these three central pillars has been unwavering since the Institute’s foundation, we continue to expand our horizons, particularly in IMDEA Materials’ increased commitment to the United Nation’s 17 Sustainable Development Goals.

The internal review has been prepared in order to demonstrate the enormous amount of work and effort dedicated to ensuring that IMDEA Materials Institute adheres to the highest possible standards in everything it does. As an institute, we are conscious of the enormous contribution that materials science can make to society and to industry. We are also aware of the responsibility that comes with such a role. These two facts are what continue to drive us toward delivering best practice. In doing so, we have created a strong, positive work environment, dedicated to scientific excellence and with a proven track record of delivering real-world benefits to the society we serve.

HRS4R Action plan:

First AP	Second AP	Third AP
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No.	Proposed actions	Gap Principle(s)	Timing	Responsible Unit	Indicator(s) / Target	Current status
1	Include information and relevant documents in intranet	1, 2, 3, 6, 10, 11, 30, 31, 32, 34	May'15- Apr'17	HR, PMO, IT	Intranet development, uploading of all relevant documents and intranet training.	Completed. One cornerstone of the initial action plan was to improve communication within the Institute and facilitate access to information (policies and general information and documents). To this end, the Institute developed and put in place a new intranet to centralize all the information and relevant documentation. The new intranet was developed and inaugurated as scheduled.
2	Limit access to laboratories until specific training has been received.	7	Jun'15	HR	New procedure for laboratory access Online initial training	Completed. All new incorporations must be authorised by their supervisor and are trained by laboratory technicians on the basic safety rules and operation of the equipment they are going to use before having independent access to the laboratories.

3	Regular training in Health & Safety issues.	7	Jun'15	HR	Number of trainings (6)	<p>Extended. Trainings continue to be organised regularly.</p> <p>Completed. This action is part of the routine activity of the Institute.</p>
4	Define new career structure	28	Sep'15-Jan'17	MGM, HR	New career structure	<p>Completed. The new definition of the research career structure was discussed and drafted in the management committee (Sep'15) and was then sent to the team leaders to be discussed and improved during the Researchers' meeting in October 2015. The resulting research career structure was then reviewed and approved by the Scientific Council during its December 10th meeting. Finally, it was shared during the Researchers' meeting in January 2016.</p>
5	More networking with other IMDEAs	28	Sep'15-Dec'15	MGM, Events	IMDEA's day organization	<p>Completed. As part of the promotion of networking among the IMDEA's Institutes, the IMDEA's day was organised on November 6th, 2015. Around 300 researchers from all Institutes attended.</p> <p>Update (2022). From 2022, the IMDEA institutes' Technology Transfer and Innovation Units are coordinating. There is also more coordination in communication activities.</p>
6	Provide more information regarding secondments (intranet)	28, 29	Sep'15-Jan'17	HR, PMO	Information updated in intranet	<p>Completed. This action has been discontinued</p>
7	Implement a career advice and development plan	28, 36, 37	Sep'15-Jan'17	MGM, HR	Number of training courses organised	<p>Extended. Some of the internal trainings organised: "From research to enterprise: an introduction to start up creation and management", "Guide for a research career inside and outside academia", "Science communication", "Professional management of R&I projects under H2020 collaborative schemes", "Idea generation and informed creativity for R&I projects".</p> <p>Completed. A survey to consult on the training and development plan for 2020-22 was carried out. The final version of the training and development plan was published on 30/10/19.</p> <p>The plan is regularly reviewed and updated to address identified needs, e.g. during the pandemic, well-being training was included. Some activities have been re-scheduled due to the pandemic.</p>

						<p>2019: 3 courses were organised (not including languages).</p> <p>2020: 3 courses were organised (not including languages).</p> <p>2021: 6 courses were organised (not including languages).</p> <p>2022: 4 courses were organised up to May (not including languages).</p> <p>This action is part of the routine activity of the Institute.</p>
8	Define a policy for Jr. and Sr. researchers extended visits to other institutions as part of the career development plan	29	Sep'15-Jan'17	MGM, HR	Number of stages by Jr. and Sr. researchers	<p>Extended. While mobility is encouraged and supported by the Institute, there is not a specific program for researchers to apply for a stage at another institution. Currently there is no budget for such a program but we expect to be able to fund it in the near future.</p> <p>We are currently applying for a RISE call to fund mobility of researchers (all levels) within a research project and have also applied to a Maria de Maeztu fellowship that includes the development of a sabbatical and mobility program (incoming and outgoing) for R3-R4.</p> <p>Update (2022): Thanks to the Maria de Maeztu Centre of Excellence acknowledgement we were able to support three new internal calls:</p> <ul style="list-style-type: none"> • International joint PhD supervision agreements • Mobility program for research assistants • Sabbatical and mobility program for staff and international researchers
9	Define policy/procedure for complaints & appeals	34	Nov'15-Jan'16	HR	Approved policy	<p>Completed. The new policy was drafted and approved by the Management Committee (apr'16). It was then made available through the intranet. Newcomers are informed of workplace commitments on their induction.</p>
10	Update selection procedure	14	Jan'16-Mar'16	HR, MGM	Approved policy	<p>Completed. The new policy was drafted and approved by the Management Committee (dec'16).</p>
11	Publish updated recruitment and selection policy that includes scientific and technical categories'	OTM-R, 13, 27	May'19	HR	Publication in jobs portal	<p>Completed. The policy was reviewed by the ethics and compliance committee (April 2019), approved by management (April 2019) and published on the Institute's jobs portal on 22/05/2019.</p>

	requirements and competences					Update (2022): Following the suggestions of the HRS4R evaluators in the interim assessment, the policy was fully reviewed in May 2022.
12	Train all group leaders and managers on OTM-R	OTM-R, 2, 3, 4, 12, 14, 16, 17, 18, 19, 20	May'20	HR	Date and number of group leaders and managers trained	Completed. The training took place on 12/11/2021 as part of the Leadership and Management Skills Course for PIs. Fourteen group leaders and three area managers participated in a 3-days training that included specific training on recruitment.
13	Regular review of OTM-R system by ethics and compliance committee. The committee will be responsible of the follow up and analysis of indicators and planned actions, proposing new improvements and presenting indicators in researchers meetings.	OTM-R 12, 13, 14, 15, 16, 17, 18, 19, 20, 21	Annually	Ethics and compliance committee	Ethics and compliance committee meeting / accomplished actions and new planned actions	Completed. The ethics and compliance committee met on 04/04/2019, 14/01/2021 and 01/04/2022 to review the OTM-R system. The indicators are annually presented in researchers' meetings after they are reviewed by the ethics and compliance committee. This action is now part of the routine activity of the Institute. As a result of regular review and consultations, it has been decided to improve the jobs portal so that the whole recruitment and selection process can be done from the same tool, and the recruitment and selection policy has been completely revised (see action 31).
14	Improve information on jobs portal regarding working conditions	OTM-R, 13, 15, 27	Dec'19	Ethics and compliance committee, HR	Updated information on website	Completed. The information was updated on the jobs portal on December 2019. Two new sections were included: "Reasons to do a PhD at IMDEA Materials" and "Foreign Researchers in Spain". Update (2022): It will be further updated to include information on the selection process and a FAQ section of the new jobs portal (see action 31).
15	Training on ethics and compliance	1, 2, 3, 4, 5, 6, 10, 34	Dec'19	Ethics and compliance committee	Number of trainings organised and dates	Completed. 2019: 9 training actions in researchers' meetings. 2020: 1 training action in researchers' meetings and 6 actions on ethics and compliance. 2021: 4 training actions in researchers' meetings and 19 actions on ethics and compliance Regular training is part of the activities of Ethics Committee.
16	Set up of Ethics Channel	6, 10, 27, 32, 34	Dec'19	Ethics and compliance committee	Date ethics channel is active / number of	Completed. The ethics channel is active since 12/07/2019 after the general announcement by the Director. No complaints were received in the period.

					complaints received	<p>Regular communication on the ethics channel is part of the activities of the ethics and compliance committee.</p> <p>Indicators are regularly reviewed as part of the compliance system.</p>
17	Hire part-time H&S supervisor	7, 23	Sep'19	HR	Date of hiring	Completed. A Health and Safety technician was hired on 08/07/2019.
18	Focus group to decide on possible appraisal practices and to design a system for regular evaluation and career development	11, 21, 39	Mar'20	Ethics committee	Dates of focus group meetings and report with conclusions and attendants / evaluation and career development policy/process for R1 and R2.	<p>Extended. A pilot programme was implemented to determine the optimal characteristics for a regular evaluation and career development system.</p> <p>Predoctoral researchers have to submit their annual report to their university. The report includes progress on their PhD and training and it is reviewed by the supervisor and the university's tutor.</p> <p>For postdoctoral researchers a voluntary career development plan has been established.</p> <p>Update (2022). In order to systematise the regular assessments, a checklist with specific questions for R1 and R2 will be elaborated (see action 39).</p>
19	Reorganization of specific laboratories to improve services provided	23	Jun'20	Technicians supervisor	Implemented changes	<p>Completed. The technicians' supervisor put in place a new system to gather information on the services provided and the delivery dates for the workshop (presented at the 29/05/2019 researchers' meeting). Some tasks were reorganised and additionally, a laboratory technician in training started in September 2020 to strengthen support in the workshop. This initiative was successful and has been continued. It has also been extended to the chemistry laboratory.</p>
20	Welcome guide	24, 30, 34	Mar'20	HR	Welcome guide	<p>Completed. The employee handbook was prepared and published on IDINET in July 2020.</p> <p>The document was presented at the researchers' meeting on 22/07/20, and a general email that included it was sent on 22/07/2020.</p> <p>The employee handbook is now given to all newcomers and also to final selection candidates together with the offer letter.</p> <p>It will be updated in 2023. It is part of the regular activities of HR.</p>
21	Specific training on team management	37, 38, 39, 40	Jun'20	HR	Number of trainings organised,	Extended. The Leadership and Management Skills Course for PIs was delayed due to the coronavirus pandemic

	and leadership for group leaders				attendees and dates.	and finally took place from 10 to 12 November 2021. Fourteen group leaders and three area managers participated in the 3-days training. The experience, especially the fact that it was residential, was very well received and the participants requested that it be organised on a regular basis every two or three years. Extended (AP'22). Repeat training for group leaders every 3 years. Next in 2024.
22	Regular gathering of indicators for R1 and R2	36, 38	Annual	HR	Indicators gathered annually	Completed. Indicators regarding the activity of the Institute are gathered annually and are included in several reports, including the annual report.
23	Increase the number of total technicians in two	23	Dec'21	MGMT	Number of new technicians	Completed. Two technicians were hired in 01/02/2020.
24	Improve jobs portal so that it provides also the trends in the indicators	OTM-R, 13, 14, 15	Dec'20	HR	New reports from jobs portal	Completed. The development is active as of 12/09/2019. It allows the Institute to get statistics on the offers published each year by the Institute and on the successful candidates. This data is disaggregated by gender and nationality (national and international). It allows the Institute to detect possible improvements to its selection and recruitment practices.
25	Design and create a new report for group leaders with comprehensive information on their activity	5, 6	Sep'20	HR	Date of implementation	Completed. For the design of the report, several researchers were consulted. The finance department and the project management office were also involved in the report's layout. The report aimed to make information from the Institute's ERP system accessible to group leaders to facilitate good management. The report has been operative since November 2020 and was presented at a researchers' meeting. This action was added in 2020 to the AP.
26	Review the processes of the occupational risk prevention system and new staff/students incorporations to reduce administrative workload.	5, 7	Sep'22 - Dec'22	HR	Indicator: Number of processes reviewed. Target: 3.	New.

27	Develop a communication strategy to improve internal and external communication.	8, 9	Aug'22 – Aug'24	Projects and Technology & HR	<p>Indicator: increase presence on social media.</p> <p>Target: increase presence by 50% in LinkedIn, Twitter and YouTube and 1 new Instagram profile created.</p> <p>Indicator: Hire a communication specialist.</p> <p>Target: 1.</p>	New.
28	Improve management of GDPR to ensure compliance, avoid errors and simplify the tracking and management of data.	5, 7	Oct'24 – Mar'25	General Management	<p>Indicator: Reduce the number of incidences reported.</p> <p>Target: 10%.</p> <p>Indicator: Reduce the number of person hours dedicated to GDPR management.</p> <p>Target: by 10%.</p>	New.
29	Increase the security of IT infrastructures (cybersecurity solution).	7	Jul'23 – Dec'23	IT	<p>Indicator: Reduce time of incidence detection.</p> <p>Target: by 15%.</p>	New.
30	Increase the safety of regular backups and ensure the fast and efficient data recovery (cloud backup system).	7	Jan'23 – Jun'23	IT	<p>Indicator: Regularity of cloud backups.</p> <p>Target: once per month.</p>	New.
31	Improve efficiency of the recruitment and selection process (new jobs portal).	OTM-R, 12, 13, 15	Sep'22 – Mar'23	HR	<p>Indicator: Annual report with complete statistics.</p> <p>Target: 1.</p> <p>Indicator: Additional pages in the</p>	New.

					jobs portal. Target: 2.	
32	Specific training on recruitment and selection (including avoiding bias).	OTM-R, 12, 13, 15, 16, 20	Sep'22 – Mar'23	HR	Indicator: Trainings organised. Target: 2. Indicator: Number of attendees in each training. Target: 15.	New.
33	Establish a mentoring program involving alumni (pilot) to promote professional development and reinforce collaboration with alumni.	28, 30, 38, 39	Jan'23 – Dec'24	HR	Indicator: Number of alumni recruited as mentors. Target: 3. Indicator: number of R1 and R2 participating in the program. Target: 6.	New.
34	Reinforce technical support.	23, 24	Jan'23 – Aug'25	General Management and HR	Indicator: Number of additional technicians. Target: 3.	New.
35	Increase awareness of the Institute's infrastructure and capabilities and its scientific and computer tools.	23, 24, 28, 38, 39	Jul'22 – Aug' 25	HR	Indicator: Hands-on seminars each year. Target: 4. Indicator: scientific equipment guide (document). Target: 1. Indicator: New trainings on the Institute's Scientific infrastructure within the Multiscale Characterization of Materials and Processes programme. Target: 2.	New.

					Indicator: Catalogue of IT services (document). Target: 1.	
36	New soft-landing services to assist foreign researchers in their initial search for accommodation.	10, 18	Sep'22 – Dec'22	HR	Indicator: Agreements with rental agencies and student residences. Target: 3.	New.
37	Specific trainings on internal policies and procedures.	2, 4, 5, 6, 7, 38, 39	Sep'22 – Aug'25	HR	Indicator: Trainings organised each year. Target: 6.	New.
38	Increase the productivity of initial and regular training tasks (training tool).	2, 4, 5, 6, 7, 38, 39	Sep'24 – Aug'25	HR	Indicator: Increase regularity of training. Target: 100% on-boarding training starts within the first month of joining the Institute. Indicator: Reduction of workload of trainers. Target: by 33%	New.
39	Promote the systematization of regular assessments	11, 39	Sep'23 – Dec'23	HR	Indicator: Increase systematization of regular assessments. Target: Use of checklist with specific questions for R1 and R2 by 33% of group leaders.	