

IMT LUCCA

2025-2027

LORENZO CASINI

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Foreword

When I first arrived at the IMT School in 2009, I was enthusiastic. I had been in the United States for a year and a half, and I never thought I would find a place in Italy to rival American universities. I was wrong. First, on an aesthetic point. Neither New Haven nor Princeton has the history and beauty and historic density of Lucca. At that time the IMT School performed many of his activities in San Michele and the few professors already involved in different capacities were reorganizing the existing Ph.D. Programs. It was at this time that the Ph.D. in Management and Development of Cultural Heritage – this was the original name of the current AMCH track – was born. I immediately believed in the project, supporting Maria Luisa Catoni to build and develop the program, and lecturing as a part of my commitment. In 2015 it was, therefore, a natural choice to join the IMT School permanently, because even at that time it was an institution with enormous potential. Its success is due to a balance between its international engagement, its national presence, and its strong and concrete link with the city of Lucca and the surrounding Tuscan territory. The IMT School's autonomy from other neighboring schools of excellence in Pisa and beyond, the quality of its staff, and the quality of the activities it carries out, as well as its inter- and multidisciplinary approach differentiates and identifies the IMT School. These aspects have made our institution strong and will help it grow in a sustainable way.

The successes and growth of the IMT School's activities in recent years, which deserve to continue, have brought the IMT School to a fork in the road. If our ordinary, everyday resources do not grow, many activities will no longer be able to be planned and implemented, and the institution will no longer thrive. A further step needs to be taken because, in addition to continuing to invest in the local area and to strengthen its ties with the city with great energy, the IMT School must also increase its national and international visibility as an institution. It must develop sustainable relationships with institutions as to increase public funding and to attract more and more resources from the private sector.

In addition to continuing the work that has been done to date, we must now all work together to make a leap that will bring the IMT School and the city of Lucca to a greater recognition at the national and international level. This is not an easy feat, but it is one that I feel I could take up because of the bond I have always felt with this institution and with the city.

1. The IMT School for Advanced Studies: an institution of excellence in a historic city

Established in 2005, the IMT (Institutions, Markets, Technologies) School for Advanced Studies, henceforth the IMT School or the School, belongs to the system of schools of excellence, along with six other institutions (the Scuola Superiore Meridionale was added in 2019-2022 as the seventh school).

In these twenty years, the IMT School has been characterized by a remarkable inter- and multi- disciplinary, by its Ph.D. programs, by the excellent quality of its Faculty and the curricula of its students, and by the dynamism of its administrative staff. These traits have contributed to ensuring that the IMT School has a very high level of performance in the field of research and is highly attractive to those who choose to undertake post-graduate study. It is also favored because of its location within a world-famous city of history and art such as Lucca. This excellence is also reflected in the important third mission activities and collaborative agreements carried out by the School, as well as in the international recognition that many of its faculty and projects have achieved.

Nonetheless, except for the early years when the School was able to take advantage of *ad hoc* funding necessary for its start-up, the School has suffered from significantly low allocations from the Italian Ministry of University and Research. These allocations are significantly lower than those provided to other schools of excellence. Specifically, compared to an average “FFO (Ordinary Financing Fund) quota base” for the Schools of 15,833,333 euros, the IMT School only had a “FFO quota base” of 5,562,367 euros in 2023 (see Table 1). And this lower quota “base” was for a volume of activity that is entirely comparable to the other schools. This amount of 5,562,367 euros is no longer able to sustainably guarantee the volume of activity that the School has carried out so far over time. Indeed, it is only thanks in great part to the professionalism and service-minded attitude of its staff that the IMT School has been able to thrive with such a low budget in comparison with other Schools.

This imbalance is no longer acceptable, especially in the face of the School’s great momentum and growth in recent years. The allocations require correction soon. If the allocations are not increased, the School will no longer be able to plan any growth or even consolidate existing activities. It is evident, in fact, that the “reward quota” of the FFO alone, although always an importance contribution, as further evidence of the quality of the Faculty and the activities carried out by the School, cannot support a stable planning of expenditure commitments and therefore makes it impossible,

for example, to foresee multi-year payments of current expenses. These multi-year payments of current expenses that are at risk may include, for instance, the launch of new scholarships, the enhancement of talented young people, the acquisition of new faculty members, and even the strengthening and career development of technical-administrative staff or the maintenance expenses of any new buildings.

This IMT School's financial situation has become even more delicate since the Fondazione Cassa di Risparmio of Lucca capped its contribution to the School (at almost 600,000 euros a year: see Table 3) without further plans for a future increase. Indeed, the IMT School owes its birth and growth to the Foundation, to the institutions and bodies in the territory, to President Marcello Pera, to the School's first director and founder, Fabio Pammolli, and to the directors and rector who have followed him. The School's debt to the Fondazione and the aforementioned people also includes the committed defense of its autonomy at times when it was endangered.

In order to put the IMT School in the best position to lobby the Italian Government and Parliament and communicate the immediate need for and urgency of an increased FFO basic quota allocation, this document first intends to represent the state of the art, with numbers, data, strengths and areas on which the School plans to act during the upcoming three-year period 2025-2027. It also provides a framework for a possible distribution of the School's governance functions.

This document is meant to be an open platform to continue gathering and incorporating suggestions and comments aimed at ensuring the financial stability and sustainable growth of the School, with a **vision** of this institution as a **doctoral school of excellence at the international level**.

The objectives of the next three-year period hinge on the areas of intervention identified in previous programming. These goals revolve, in particular, around the following **5 areas**, joined in a single key concept, that of a **qualitative sustainable growth**, by means of:

- 1) The **increase of ordinary resources** to secure the School;
- 2) The **enhancement of the careers of the most capable researchers**;
- 3) The **improvement of services to students**;
- 4) The **enhancement of the technical-administrative personnel**.
- 5) The **sustainable rebalancing of the gender gap**.

These goals have already emerged in recent years and have been confirmed in their importance through conversations with different components of the IMT School. Interventions in these five areas should be accompanied by **5 important cross-cutting actions**:

- 1) **greater internationalization** (including visibility) of the IMT School;
- 2) **better positioning of the IMT School** at the national level, including in extra-doctoral training and research in collaboration with the public and private sector;
- 3) the enhancement of the School's role in the use, regulation, implementation and impact of **AI models, open data and open science**;
- 4) the **rationalization and expansion of spaces**, including promoting energy efficiency and environmental sustainability;
- 5) **optimization of organizational and procedural aspects**, with regard to all areas of the School's activities.

2. The present state: human, instrumental, and financial resources

Based on MUR and PIAO 2024-2026 data, as of Dec. 31, 2023, the IMT School has a total population of about 430 people, consisting of doctoral students (268 among the different cycles that are still active), administrative staff (51), and teaching and research staff in various capacities (113). In addition to these numbers are 31 visiting professors.

Among Ph.D. students – which include about 70 to 80 first year Ph.D. students per year – the gender proportion is balanced, with close to 46 percent women. Some Ph.D. tracks have 80 percent women (such as AMCH) and others have a clear predominance of men (such as CYSEC). About one-third of the students are foreign nationals. In addition, since 2023, more than 100 students have been attending the School through Master's degrees (lauree magistrali) activated with other universities (including the Master's Degree in Bionics Engineering with the Scuola Superiore Sant'Anna and the University of Pisa, the Master's Degree in Forensic Psychology and Criminology with the University of Padua, and the Master's Degree in Software Science and Technology with the University of Florence).

The administrative staff, led by one director general, has 42 people working in 9 offices. There are also 12 staff positions distributed in 4 offices (of which the legal office and the office on planning and quality control each have only one unit). As for gender, the director general is male, while

83 percent of the staff are women. A similar percentage is present for office managers; it should be noted that men are concentrated in only 2 offices, purchasing and information systems and technology - 7 units - and in legal support with 1 unit). Of EPs there is only 1, a man, while most staff are distributed between Category D and Category C.

There are 30 professors, of whom only 6 are women (3 full professors out of 14 and 3 associate professors out of 16). Tenure track researchers (Ricercatori di Tipo B) number 11, all men; researchers (Ricercatore di tipo A) are 26, with about one-third women. Research fellows (Assegnista di ricerca) number 49, of whom about half are women.

A first overarching point should be made. The greatest impulse of growth in recent years has mainly concerned the academic component of the School and the number and types of activities. The increase of the administrative staff has been more moderate. With regard to the sustainability of the School, this dichotomy between administrative staff and activities/faculty needs close consideration.

As for instrumental resources, the IMT School is spread over 3 buildings (San Francesco, San Ponziano and Via Brunero Paoli), to which Palazzo Boccella has now been added and whose works should be completed by the end of 2024. To date, the School has about 200 beds for doctoral students and visitors in buildings renovated by the Fondazione Cassa di Risparmio di Lucca.

With regard to financial resources, the funding amounts to 20 million euros, including about 13 million euros from FFO (see Table 1 and Table 2). Based on the 2024 budget, revenues amount to about 20 million euros. As for the costs, again based on the budget 2024, those for personnel amount to about 10 million euros, including just over 2.2 million for technical-administrative staff and about 8 million euros for those dedicated to research and teaching. Current management costs amount to 9.2 million euros. Finally, it should be noted that the IMT School also has access to PNRR resources, i.e. the funds provided by the National Reprise and Resilience Plan, which will, however, end in 2026.

In summary, the resource picture shows some important data:

- The IMT School is **small**, both in terms of staff and resources;
- **The FFO “quota base” is undersized** relative to the needs of the IMT School and its sustainable growth;
- A **significant gender imbalance** exists in the academic staff;

- The **administrative staff is under-sized** compared to the activities performed and the services required for both the teaching and research staff and the growing student population;
- There is a need to **rationalize and upgrade spaces**, including to strengthen urban redevelopment efforts and integration with the city and the territory.

3. The distinguishing features and points of excellence of the IMT School

Beyond the problematic issues identified above, the analysis of the organization and operation of the IMT School allows us to highlight numerous points of excellence, fostered by several factors such as the special legal order of the School, the excellence and dedication of its academic and administrative staff, the quality of its students, the important contribution provided by the Fondazione Cassa di Risparmio di Lucca, and the close connection of the School with the city and the territory.

The three-year plan from 2024-2026 has already detailed the results of the SWOT analysis performed on the School. Among the strengths which we would like to point out here are inter- and multi-disciplinarity; research excellence; the campus system and the connection with the city.

3.1. The School's inter- and multi-disciplinarity

The IMT School offers inter- and multi-disciplinary Ph.D. programs to train people capable of innovating and addressing the complexity of contemporary problems. That is the School trains people with skills from the so-called hard sciences, social sciences, humanities, and life sciences. Such training results in a very high placement rate of students.

Today there are 6 Ph.D. programs, which all highlight the wide variety of topics and the School's propensity for inter- and multi-disciplinarity, innovation, and cross-pollination. These 6 Ph.D. programs include Cognitive, Computational and Social Neurosciences; Cultural Systems, with 2 pathways, Analysis and Management of Cultural Heritage (AMCH) and Museum Studies (MUST); Economics, Analytics and Decision Sciences; Systems Science, with 4 pathways, Computational Mechanics (CM), Complex Systems and Networks (CN), Learning and Control (LC), Software Quality (SQ); Management of Digital Transformation; and finally, the National Doctorate in Cybersecurity. To these must be added the 4 national and/or national interest doctorates in which the School

participates - Artificial Intelligence; Heritage Science; Blockchain and Distributed Ledger Technology; Theoretical and Applied Neuroscience.

The inter- and multi-disciplinary dimension, as much for the so-called STEM disciplines as for the disciplines belonging to the social sciences and humanities, is also markedly recorded in research activities. It is sufficient here to indicate, in a non-exhaustive way, some thematic lines, which run through all active research activities at the School. These include, to name but a few: interaction between cyber-physical systems, human systems and artificial intelligence systems; state and private in the sphere of essential services (education, health, labor, welfare, culture and cultural heritage); economic, cultural, social and organizational resilience and sustainability in relation to environmental, technological, geopolitical changes and globalization; analysis of the importance and impact of innovation on individuals, territories and public and private organizations; impact of technologies and digital transformation on work and organizations; analysis of decision-making processes and the role of data (and related methods of analysis) in territorial, national and supranational organizations; impact of technologies and digital transformation on security of infrastructures, assets of companies and privacy of citizens; fruition (digital and physical), analysis and organization of cultural heritage and cultural and creative industries; analysis of the impact of the encounter between cultures and the role of cultural heritage, cultural diplomacy, "difficult heritage"; global accessibility to cultural heritage; defense of democracy also in relation to manipulation of images, words, objects, news, and opinions.

The organizational structure of the School, which is deliberately not based on disciplines or departments, has been built to put research problems and issues at the center to treat them in their complexity from different methodological perspectives. Such a centering of issues entails a collaboration between knowledge, even areas of knowledge which are traditionally distant from one another, and a mobilization of these areas from time to time in relation to the nature and characteristics of the research problem, be it basic or applied research. This trait, which at its heart allows research themes and problems to drive multi-disciplinarity, makes the School unique in the national panorama and rare in the international arena. This approach is also a source of potential difficulties when managing recruitment and evaluations.

3.2. Excellence in research, education and third mission

An analysis of the IMT School's research output indicates excellent levels of quality which are confirmed by the high percentage of FFO reward quota obtained by the School, including when compared to other special-order Schools. This excellence is reflected both at the individual level (with many faculty members holding major national and international grants) and at the group level. Funding is obtained both through projects, including the Department of Excellence "Economic and Digital Resilience" (RED) for the five-year period 2023-2027, and on the basis of conventions and agreements as well as third-party activities in the different fields: economics, neuroscience, cultural heritage, system science.

This high quality is reflected in the richness and variety of activities of the 8 research units that contribute both to the realization of the School's objectives and to the School's visibility at the national and international level. These 8 research units include AXES - Laboratory for the Analysis of complex Economic Systems; DYSCO - Dynamical Systems, Control, and Optimization; LYNX - Center for the Interdisciplinary Analysis of Images, Contexts, Cultural Heritage; MOMILAB - Molecular Mind Laboratory; MUSAM - Multi-scale Analysis of Materials; NETWORKS - Network Theory, Theory of Modern Statistical Physics, Economic and Financial Systems; PHIBOR - Philosophy on the Border of Civilizations and Intellectual Endeavours; SYSMA - System Modelling and Analysis. To these are added 5 laboratories: IT Facilities; MUSAM-Lab; Neuroscience lab - Intesa Sanpaolo Innovation Center; Open Lab; GAME Science Research Center.

Numerous research, training and collaboration agreements have been signed by the School. As for technology and methodological transfer, in addition to participating in important networks, offices and consortia, the IMT School is particularly active both as an institution and through the participation of individual members of the academic community in the governing bodies of companies and institutions.

With regards to the so-termed third mission, the School has demonstrated an increasing number and level of activities in recent years, and this has translated into a more pronounced visibility and collaboration with the territory, a greater visibility of the School especially at the national level, and a greater effectiveness in acting as a point of reference for organizations, institutions and companies in the areas presided over by the School.

Thus, the strengths of the IMT School's research activities are many. In this regard three important aspects of research should not be forgotten.

First, research realizes the School's multidisciplinary identity. Second, that research is closely interwoven into teaching and proximate educational activities. And third, the School practices "field research and training", a trait that distinguishes and characterizes it, especially on the Italian context.

From the organizational point of view, two dimensions should be emphasized. The first is that of the impact of group research activities, which are visible in research projects, School's activities, doctoral programs, some research units and laboratories. From all of these emerge a marked inter- and multi-disciplinarity, and excellent cooperation between different disciplines. The second, which concerns all members of the academic community, is the impact of individual research activity, in which faculty and researchers of the School achieve a very high level of quality in their respective disciplines.

It is important, therefore, to consider how the organization of research in the IMT School positively reflects and enhances both dimensions of excellence, one which is more horizontal in scholarly groups and aggregated across disciplines, the other more vertical in individual disciplines and the work of individual scholars.

Finally, we need to emphasize that the IMT School has also been able to achieve excellence in its activities thanks to the Faculty's ability to identify and welcome original and innovative lines of study and insights. These original research trends make the School a point of reference on the national and international scene..

3.3. The campus system and the link with the city

Among the characteristics of the IMT School is, as we have seen, the availability of residency facilities and their distribution over 3 complexes within the walls of Lucca. Palazzo Boccella will be added to these complexes in 2024, once work on the building is completed. The campus model represents a crucial factor in attracting doctoral students and faculty, especially those from abroad. In addition, the real estate developments realized so far, including the renovation of the San Francesco complex, have represented virtuous experiences of urban regeneration and redevelopment of degraded or otherwise neglected areas of Lucca's historic center.

However, as already highlighted, the enhancement of this excellence will also require major efforts for the rationalization and enhancement of

spaces (including, for example, parking spaces) as well as a close attention to their management and costs.

In this respect, it is appropriate for the IMT campus to be a campus for all, ensuring quality services to each of its stakeholders, from the students – for whom, especially in terms of housing, much has been done – to the researchers, technical-administrative staff, and faculty.

4. The areas of action

In these 20 years, the IMT School has achieved important goals. The School has managed to consolidate a level of excellence in the different disciplines and at the interdisciplinary level. The School has cultivated a fruitful relationship with the territory and the city of Lucca, and a great degree of openness to other institutions (university and non-university), entities and companies.

It is therefore important to ensure continuity in the actions and areas already planned, as already signaled in the PIAO and in the 2024-2026 Three-Year Planning. At the same time, there are some areas, listed below, on which it seems urgent priority to focus attention. Focusing attention on these areas in the next three years will ensure the **sustainable growth of** the IMT School and pursue the vision of this institution as a doctoral school of excellence with an international standing.

4.1. Increasing financial resources

The issue of resources is the most urgent. The FFO basic quota is not only much lower than that of other schools of excellence. By now this quota no longer allows the IMT School to plan even minimal increases in spending without having to forgo other payments. In addition, the resources obtained from the PNRR are transitional in nature anyway, and 2026 will see a sharp drop in resources from this source.

Therefore, the increase in stable resources can no longer be postponed. To address this issue, we must proceed in two ways.

The first is to ask the Italian Government and Parliament for an increase in the FFO basic quota of at least 4.5 million euros annually, starting with the 2025 budget law or 2026 at the latest. In this way, the basic quota for the IMT School can hopefully reach at least 10 million euros and thus be close to that of other schools of excellence. This is an ambitious goal, which requires an intense strategy of communication at every level with government authorities and national political bodies to

continue to represent the situation of the IMT School, to make it known, and to show the critical nature of the current situation with the goal of proposing possible solutions. It is a long path, a path which is not easy, but it is feasible if conducted in a decisive but calm way with an awareness of institutional dynamics and timing, together with targeted campaigns aimed at improving the visibility, also in the media, of the IMT School, especially in relation to the activities that most characterize and qualify it.

The second way is to increase funding from other public and private entities, either through forms of partnership or stable contributions (along the lines of what is already happening with the Fondazione Cassa di Risparmio di Lucca) or through project activities. In this last respect, the IMT School's research excellence and its ability to aggregate different disciplines on innovative topics can represent a great opportunity.

4.2. Enhancing the careers of the most capable and deserving researchers

Among the strengths of the IMT School is its ability to attract, both in doctoral programs and as research fellows or type-A researcher(s), quality young people who can often constitute an important avenue for the School's growth, forming a nursery of excellence with inter- and multi-disciplinary methods.

It is important to build pathways to enhance the resources of excellence that the IMT School produces or manages to attract, according to clear, transparent, reasonable, and proportionate criteria. At the same time, recruitment methods must be ensured to maintain high quality teaching and research.

Therefore, a balance needs to be found so the legitimate expectations of those exhibiting merit and excellence are not transformed into vested rights or automatic mechanisms, always with respect for the principles of reasonableness and proportionality. This path becomes even more necessary and urgent in view of the new position of the RTT.

4.3. Improving services to the students

The IMT School is outstanding for its doctoral programs and has become particularly attractive over the years. This is also due to its location in the historic center of a city of history and art and for its residential facilities.

As the student population has grown and activities have increased, it has become necessary to take action to improve student services.

In this regard, some initiatives could cover:

- Accommodations, either within the School or by activating special agreements with facilities within the walls of Lucca;
- Study stations and desks, which are currently undersized and not yet assisted by an adequate booking platform in the medium to long term;
- The development of assistance to international students, currently carried out by the Facilities office, thanks in part to the Allievi and Ex-Allievi Association in which there are active students who support their colleagues for these procedures;
- Mentoring system, with regard to the School's Career Service, which, together with the Alumni and Alumni Association, plans to organize a mentoring program, and has already organized some side initiatives on these topics (and on the topic of well-being in working life in general);
- Development of the Library, particularly access to electronic and open access resources, as well as increasing the attractiveness of the Library as a space, including solving some workstation and study problems;
- Increased availability of classrooms;
- More resources in international mobility and inter-institutional exchange;
- Rewards and support for experimental or highly innovative theses, which often require an additional year of research;
- Status check and future enhancement of all services to students (e.g., gymnasium, childcare, in addition to those already mentioned).

4.4. Enhancing the value of technical-administrative personnel

The administration of the IMT School includes dynamic and quality staff which are, however, often subjected to an excessive workload, especially with the growth of teaching and research activities and the increase in the number of researchers, lecturers, and doctoral students. In addition, the large number of foreign students results in a considerable overload.

In other words, the technical-administrative staff is currently understaffed and inadequately rewarded. To confirm this, a quota of funding from the Department of Excellence RED project was used to ensure a reward for these staff.

It is urgent that we take action to enhance the technical-administrative staff of the IMT School, on the one hand by increasing resources and, on the other, by studying increases in the percentage share currently allocated from the projects. At the same time, training programs and tools for greater internationalization, through exchanges or participation in joint initiatives at the national and international level, should be encouraged. This should also be encouraged given the strong international talents of the staff- many of the School's technical-administrative staff is already multilingual.

The most significant problem, however, remains that of the regulatory stakes that currently block the so called decentralized resources fund – amounting to just over 100,000 euros in the fixed part – and that limit the possibilities for economic growth of technical-administrative staff and the enhancement of internal careers. In this regard, it is essential to resume and intensify discussions with institutions to find a solution quickly.

In addition, issues regarding IT allocations, mail tickets, and other services should also be addressed to ensure that there are no implementation distortions.

4.5. Sustainable rebalance of the gender gap

The IMT School's data on gender balance are negative, particularly for academic staff. The situation for tenure-track researchers (RTD type B), for example, sees 11 out of 11 men, while among professors there are 6 out of 30 women. The situation is less unbalanced for researchers. This results in a pyramid in which women are less present as one ascends the academic hierarchy. Among students and alumni, there is a substantial gender balance on the whole, although this is not the case when comparing different tracks. As for the technical-administrative staff, however, there is a strong majority of women, with a male director general and the sole EP.

In recent years, the IMT School has nevertheless attempted to close the gender gap by, for example, adopting the first gender budget in 2021, and by continuing in recent years to monitor the School's population data disaggregated by gender through the action of the dedicated body (the CUG) and the relevant administrative offices. However, this act and the

subsequent gender plan have been ineffective and have not yet allowed for major changes.

Sustainable growth of the IMT School should therefore include:

- 1) The valorization of younger researchers and their careers (as specified above), while continuing to reward merit and excellence;
- 2) The adoption of appropriate measures to foster gender rebalancing in a sustainable manner, to be achieved through concrete actions such as:
 - Recognizing incentives and/or rewards for recruiting women;
 - Not penalizing the careers of those of the male gender who are at an early stage in their careers and find themselves unknowingly and unintentionally feeding the gender gap;
 - Encouraging policies to support parenting and work-life balance in general;
 - Studying mechanisms to amend election regulations to ensure gender balance in the governing bodies, in compliance with statutory provisions.

5. The cross-cutting actions

The initiatives referring to the areas of intervention outlined above can be more easily implemented through the following 5 cross-cutting actions.

5.1. Increasing the degree of IMT School's internationalization

While the IMT School has achieved excellence, it still suffers from a level of internationalization that does not match its achievements. It is therefore important to strengthen this area with interventions aimed at covering every aspect, from communication to technology transfers to institutional collaborations. Above all, a communication strategy is necessary to continue the School's activities and strengthen those that have been carried out in recent years (from the opening of social accounts to the creation of the magazine Open). In doing so we can increase the global (and national) visibility of the IMT School in the world and in Italy.

Networks and agreements with international institutions should be strengthened, including by increasing "exchange" opportunities for

students, as well as for the entire population of the School, including faculty and technical-administrative staff in terms of training.

Other means of accomplishing this internationalization goal include visiting professors, organizing international seminars and honorary doctorates.

5.2. Better positioning of the IMT school as a center of excellence

Partly related to the previous point, this action serves to position the IMT School as an even more impactful research and training center of excellence in the territorial, national and international arena.

To this end, it is important to improve internal organizational articulation, which is now fragmented. It is important that we start the shared and participatory process of identifying the areas provided for in the Statute.

In addition, teaching can be strengthened along **4 directions**:

- 1) **Enhancing and strengthening field research and training**, including through seasonal schools, master's degrees, and advanced courses offered to specific Italian and foreign targets;
- 2) **Expanding training offerings for members of the public administration and businesses**, including through seasonal schools;
- 3) **Enhancing advanced educational initiatives** both through collaboration on graduate degrees and through the launch of *honors* courses.
- 4) **Developing and increasing targeted School communications** (to which the entire School community would be called, not just faculty members).

5.3. Strengthening open data, open science and AI models and guidance in schools

It is important to strengthen the way research products are accessed and communicated, implementing *policies* inspired by open data and open science criteria, as already practiced by some research units. Therefore, it is necessary to increase investments in computational resources, either through a cloud or by additional servers.

The School should develop advanced paths for the application of artificial intelligence models in its various areas of activity, including

teaching, research, and administration. It should also strengthen research projects focused on analyzing the impact these tools have on individual and organizational practices.

Along with these activities, the role of the IMT School in the orientation of young scholars should be strengthened, for example, by organizing meeting times or other programs with high schools.

5.4. Rationalizing and expanding spaces

The Campus system represents, as seen, one of the strengths of the IMT School. The acquisition of Palazzo Boccella will allow, once the work is completed, for new spaces. It is important to verify that all possible alternatives for the use of this building are thoroughly evaluated, precisely because the needs are increasing for all stakeholders.

A rationalization plan should be carried out to ensure better locations for Faculty and students, especially with reference to study stations and desks. This plan should be with an eye towards modernization, urban redevelopment, and environmental sustainability (energy efficiency and reduction of the IMT School's carbon footprint).

There is also a classroom emergency, on which it might be useful to check the availability of San Michele, at least in an initial phase.

We need to start with a detailed plan of what the School actually needs today, and then in 5 and 10 years, so as to expand and rationalize spaces with a view to making the IMT School an even greater place of excellence in the international academic scene.

In general terms, the goal must be to strengthen the Campus system as much as possible, for the entire population of the IMT School- students, researchers, faculty, visiting, technical-administrative staff- and in all services (including parking and the gym) to enhance a seamless connection with the city and the historic center of Lucca.

5.5. Optimizing organizational and procedural aspects

Another area in which it is important to take action is on the organization and procedures of the School, in all areas from administration to teaching and research.

The relevant bodies have produced important documents to date. These documents' guidance needs to be put into practice and efforts need to be focused on the quality of services, in every respect. To this end, it is also useful to improve internal organizational articulation, which is now

fragmented, and to simplify a number of procedures and fulfillments, so as to lighten the administrative burden for technical-administrative staff, students, researchers and faculty.

6. The framework of functions

To develop the above interventions and actions, we must define governance areas and functional delegations consistent with the areas of intervention and objectives to be achieved. We can identify, on a preliminary basis, eight groups of functions:

- 1) **Organization, Budget, Faculty Management**
- 2) **Teaching and student services**
- 3) **Research and innovation**
- 4) **Communication (internal and external) and gender policies**
- 5) **IT, logistics, and spaces**
- 6) **Relationships with the city and territory and third mission**
- 7) **Internationalization**
- 8) **Open data, open science, AI and orientation**

7. Conclusions: the IMT School in the three-year period 2025-2027

The IMT School, as seen, was born and developed by a gradual and consistent growth, through the recruitment of excellence in different disciplines and growth as an inter- and multi-disciplinary School integrated in the city and with the territory.

In these twenty years, the School has attracted and produced outstanding students and researchers, achieving extraordinary results in all subjects in which it is active. In addition, the administrative staff displays a dynamism and quality that is difficult to find in other university settings.

The data shows that the IMT School can now take a positive step forward, but it cannot do so by forgetting the fundamental characteristics of this institution. The IMT School is a **doctoral institution**, not a university, and there are no conditions or numbers to compete with the generalist universities. The growth of the IMT School must first and foremost be **qualitative**, in innovation and in the ways of research and teaching, in services, in spaces, in recruitment, in communication, in the third mission.

The IMT School model finds a qualifying feature in the circumstance that young talents can work together with already established and prominent scholars and leaders in their respective disciplines, while being able to rely on excellent services, an excellent infrastructure, and a dedicated administrative staff. Currently, the fame or prestige of those working at the IMT School precedes the fame of the institution. The goal in the long run, therefore, must be that the IMT School's fame and reputation may become more well-known and prestigious than those individual people who are and have been there.

Tables

Table 1

State funding to special-order institutions (ANVUR data)

Institution	FFO basic quota 2023	FFO 2023	Postgraduate (given 2022)	PRO3 (2023)	Total state funding
IMT	5.562.367	11.373.811	980.361	285.345	12.639.517
IUSS	7.573.709	12.298.639	738.078	238.000	13.274.717
GSSI	12.788.373	19.878.074	844.263	454.938	21.177.275
SISSA	16.174.171	27.757.499	2.981.607	513.883	31.252.989
St. Anne's	21.204.283	38.647.467	2.368.778	637.817	41.654.062
SNS Pisa	31.697.097	44.159.083	2.083.320	870.017	47.112.420
Media Schools	15.833.333	25.685.762	1.666.068	500.000	27.851.830

Table 2

Funding years 2023 and 2022 (IMT data)

Ricavi	2023	2022
MUR – FFO Quota base	5.744.480	5.531.006
MUR – FFO Quota premiale	4.000.975	3.424.427
MUR – Interventi per gli studenti	1.114.564	983.161
MUR – Piani straordinari	1.631.060	1.164.871
MUR – Altri interventi	1.687.076	1.375.532
Contributi da altri Enti Pubblici	461.390	156.660
Contributi da Università	116.424	-
Contributi da altri Enti Privati	518.656	90.037
Proventi propri (<i>per iscrizioni convegni e seminari, attività commerciali, sponsorizzazioni ecc.</i>)	427.631	230.766
Progetti di ricerca	1.880.180	1.507.073
Totale	17.582.436	14.463.533
Utilizzo fondo	641.003	145.451
Recuperi e rimborsi vari	31.432	18.100
Proventi diversi	79.595	17.981
Totale	18.334.466	14.645.065

Table 3
Contributions Fondazione Cassa di Risparmio di Lucca (IMT data)

Year	In-kind contributions			Contributions	Contributions
	Use of facilities	Facilities Services	Total in-kind	Young researchers	
2006	121.000	-	121.000	-	121.000
2007	121.000	-	121.000	-	121.000
2008	121.000	-	121.000	800.000	921.000
2009	121.000	-	121.000	800.000	921.000
2010	121.000	-	121.000	800.000	921.000
2011	121.000	-	121.000	800.000	921.000
2012	121.000	-	121.000	800.000	921.000
2013	341.000	122.500	463.500	400.000	863.500
2014	561.000	245.000	806.000	400.000	1.206.000
2015	561.000	245.000	806.000	300.000	1.106.000
2016	561.000	245.000	806.000	480.000	1.286.000
2017	561.000	18.000	579.000	480.000	1.059.000
2018	561.000	18.000	579.000	-	579.000
2019	561.000	18.000	579.000	-	579.000
2020	561.000	18.000	579.000	-	579.000
2021	500.500	18.000	518.500	-	518.500
2022	440.000	-	440.000	-	440.000
2023	597.125	-	597.125	-	597.125
Total	6.652.626	947.500	7.600.125	6.060.000	13.660.125