Introduction

INAF mission includes, alongside with the fundamental objective of scientific research and technological development, the transfer of knowledge, with the aim of contributing to the social, cultural and economic development. INAF commits to transfer know-how and technology, stimulate excellence and higher education and disseminate the scientific culture in its specific areas of expertise.

We live in a "knowledge society", an expression that has become increasingly important since the Lisbon European Council in March 2000, which gave the European Union the strategic goal of developing a more competitive and dynamic knowledge-based economy, able to achieve sustainable growth with more and better jobs and greater social cohesion. It is a society in which the role of knowledge is pivotal from an economic, social and political point of view and which bases its growth on innovation, research and enhanced competitiveness. Our society therefore needs, in order to grow, continuous injection of new scientific knowledge and technological expertise. Besides, the tools offered by the scientific method are essential in approaching global challenges such as the climate change. In this context, research institutes are called to a new role.

This is the **Third Mission**, which research organizations and universities must undertake to foster the dialogue across different communities by a generous sharing of intellectual, human and scientific knowledge.

The term **Third Mission** encompasses a multiplicity of activities that tightly link research and society:

- **Innovation and Technology transfer** activities in a commercially responsible way are instrumental for the society to spark and encourage new spin-off activities, by sharing expertise, intellectual/technological properties and managing experience. This also implies for INAF efforts aimed at the evaluation, protection, and marketing of technologies developed in the field of research projects.

- A second avenue to foster interactions between the world of research and society is via the so-called **third cultural and social mission**. It concerns the production of public services to increase the general level of welfare and enhance awareness at cultural, social, educational and civil level. Having this mission in place will help tackling social and ethical problems that arise in a world of emerging complexity and subject to major and fast changes, in which the transmission of information and communication with the public are becoming central. Fundamental issues for the future of humanity, such as climate changes, depletion of energy resources, and Earth pollution (including light pollution) have led science to become an increasingly central element in the public debate. Research in Astronomy, Astrophysics and Space Science has produced so many groundbreaking discoveries about our Universe to influence our perception of life and of the value of what is on Earth. Science must inform, build a sense of scientific citizenship and offer citizens intellectual tools that enhance capacity, assurance and authority, thus enabling informed decisions. It also allows any interested citizen to participate and contribute to public debates on scientific and technological issues that are becoming of increasing interest to a vast community. More in general, fostering awareness of the scientific approach and its limits to any knowledge is a fundamental goal for any research institution. The international community of social scientists dealing with the so-called Science and Technology Studies speaks today of Public Engagement in Science and Technology (PEST).

The interest in public communication of science has been growing since 1985 when a famous report *The Public Understanding of Science* (PUS) was published. In the nineties, the PUS model based on

the need for public literacy was revised to implement the participatory and two-way dialogue channel, PEST.

The production of public goods of cultural, social, and educational nature aims to make available to society, in various forms, the results of research and specific service activities. These activities often produce intangible goods, in various ways and highly differentiated processes in terms of institutional commitment. This causes the same typology of activity to have sometimes the characteristics of a Third Mission for a given institution and not for another.

Technological Innovation and Industrial Competitiveness

Innovation is recognized as the engine of the modern **knowledge-based economy**. All the players in the business world plan their strategies with the goal of increasing their product positioning through innovations.

In this scenario, public administrations are willing to play a role in the process of innovation of the society and economy, through the development of policies that can trigger economic growth maximizing the opportunities to generate innovations and enhance capital investments. An example of this political trend is the introduction of new incentives for innovation, such as procurement for innovation and pre-competitive procurement, whose objective is the "*fertilization*" of the industry-research ecosystem to stimulate innovations leading to new markets.

As a modern public institute of research, INAF produces knowledge in a field, Astronomy, Astrophysics and Space Sciences of global impact on science and of overarching breath. By its very nature INAF is an innovation provider and an economic policy player, and it is therefore expected to deploy a specific policy to maximize the economic impact and the return of investment from its activity. Whenever a large telescope pushes his gaze beyond the limits of the known horizon and every time a satellite explores the remote depth of the universe, something remains on Earth: new technologies, cutting-edge materials, unprecedented solutions to everyday problems. This is because, from the first telescopes of Galileo to the future generation of space-born and ground-based facilities, such as the James Webb and Extremely Large Telescope, the SKA and the CTA, Astrophysics has always been craving for cutting-edge technology and materials not available on the market, to be conceived and implemented from scratch. These technologies and materials - such as processing digital images or the Wi-Fi - have radically improved not only our way to do science, but also the quality of our lives.

Astronomy is a science that embeds the power to bring development where it is needed. Establishing groups of professional astronomers, technicians, engineers and other highly trained staff can provide ongoing economic and educational stimulus to a region. Moreover, the construction of new scientific facilities and infrastructures injects much-needed money, cultural development and employment.

It is worth pointing out the difficulties encountered in these paths because, unlike other European and non-European countries, the Italian Research Institutes do not benefit from ad hoc funding for technology transfer, an activity that normally is developed by investing ordinary research funds or funds from the proceeds of transfer activities (self-financing). This lack of dedicated funding greatly limits the possibilities of supporting promising and innovative technologies that often need, before being completely transferred, an intermediate step that demonstrates their applicability in other contexts (for example through a process of prototyping, industrialization, scalability, etc.). This financial deficiency is all the more serious if one thinks that companies tend not to invest in research and innovation and therefore, although they are responsible for at least partially covering the so-called last mile, it is very difficult to find forms of collaboration to invest in this stage of the technology transfer process.

This trend concerning companies is confirmed by analyses of the socio-economic impact: positive data are reported on the hiring of excellence, increase in turnover, opening of new business branches and opening of new markets when companies, in particular those with high technological profile, collaborate with research institutes. However, these types of collaboration tend to be the only ones that companies undertake. This fact requires rethinking and changes of strategy by the decision makers who deal with industrial policies and aim at revitalizing the economy through research, innovation and the resulting competitiveness. Another deeply felt need is the simplification of research-business relationships which, although encouraged at national and European level by the institutions, in collaborative research translate into restrictions sometimes excessive in choosing a partner. It would be desirable to be able to count on mechanisms that guarantee on the one hand a greater ability of companies to show the potential to absorb scientific and technological innovation stimulated by research (such mechanisms already defined but difficult to apply, often for financial reasons, such as the Pre- Commercial Procurement), on the other hand a greater freedom of choice of collaborating companies on activities that are at the frontier of technology in order to guarantee a better result in the transfer of knowledge. As a consequence, the distribution of the funding given above all by MISE and Regions in support of innovation turns out to lack pragmatism. Experience shows that few companies are capable of carrying out innovative research not only because of the lack of funding that would be provided by funding calls, but due to the lack of highly qualified personnel who can bring high-level ideas and projects. This strongly suggests an inversion of the funding paradigm that too often calls for business-led projects rather than research-led ones. A better balance in the distribution of resources between funds for production activities and funds given to research aimed at innovation would benefit companies and their participation in highly competitive and innovative programs.

Recently, during the reorganization of the "Direzione Scientifica", INAF endowed itself with the "Unità Scientifica Centrale VI" dedicated to research promotion. Among its institutional responsibilities, there is the promotion of the technological transfer between INAF and companies. Such scientific unit, adequately equipped with competent personnel, should:

- Promote already mature or potentially transferable technologies and services provided by INAF to the industrial companies both at national and local territories
- Be the contact point for INAF researchers, providing managerial and legal support at professional level, and for industrial companies, putting them in contact with appropriate researchers and following the full technological transfer process
- Scout continuously and stimulate the INAF community for new innovative ideas
- Promote national and international announcements of dedicated funding and support applications from administrative point of view
- Provide adequate direct funding and accessibility to the structures needed by researchers in order to increase the maturity of the transferable technology (i.e. TRL 4).

Higher Education Activities

The total number of researchers, members of institutions associated with INAF, is close to 500, of which about 300 work in the universities. Astronomers and astrophysicists are present in many universities, in particular in several Departments of Physics and Astronomy.

INAF has established close collaborations with many universities. INAF researchers and technologists carry out teaching activities at various levels: undergraduate, graduate and doctoral courses, assist and supervise Master and PhD thesis projects and train new researchers. Thus, they are precious collaborators, contributing to preserving/enhancing the excellence in the education and training of the students in our national universities. Hopefully, the collaboration between INAF and universities should be governed by specific agreements with the CRUI rather than or in addition to

local agreements, and we encourage to foster close and fruitful schemes of collaboration. The scientific staff of universities have access to the infrastructures supported by INAF in the same way as the staff of the Institute itself. It would be extremely beneficial if INAF scientists could transfer part of their activity in host universities, under specific agreements.

Excellence in education is intimately linked to the development of frontline research. In general, research institutions do not receive ad hoc, dedicated funding for these activities and participate through agreements with universities using their ordinary funds and/or funds from specific projects for postgraduate training, often relying on European Regional Development Funds (ERDF).

INAF regularly funds a number of PhD scholarships focused on research themes of interest for the institute, using both ordinary funds and external funds assigned to the research projects (ASI, PRIN-MIUR funds, etc.).

INAF researchers and technologists participate in continuing professional training activities aimed at

i) training of secondary school teaching staff,
ii) training of personnel specialized in the field of ICT.

Pending agreements with the hosting universities, the goals for the future are:

• At least maintain, and possibly increase, the total number of undergraduate, graduate and postgraduate teaching courses, national doctoral schools, and other courses in higher education (currently about 70, corresponding to 3500 hours).

• Significantly increase the number of researchers and technologists involved overall (currently about 50)

• Develop an organic scheme for a regular funding of PhD scholarships, extended to the largest possible number of universities where Astrophysics is an active field, both supporting specific research topics with PhD Schools in Astronomy and awarding PhD scholarships focused on themes of interest for INAF and the host university institution. In this way the number of PhD students developing astrophysical research under the supervision (main or co-supervision) of INAF tutors should be around 100 in a given year.

In the framework of **Lifelong Learning**

- increase the number of courses (presently 10, corresponding to 80 hours of teaching)
- increase the number of customers (currently 250)
- increase the number of researchers and technologists involved overall (currently only 3)
- increase the number of external institutions involved (currently 20)

Public Engagement

Astronomy is one of the sciences that most fascinates the media and the public at large. Its characteristics provide an effective multidisciplinary teaching theme with great potential, also with respect to social inclusion issues, for schools of every type. Thanks to the interest arising in young people, Astronomy represents a precious tool to fight against the negative trend of abandoning scientific area studies occurring in most European countries. The cutting edge scientific skills and technologies that astronomical research contributes to develop are an excellent example of the cultural and industrial progress of advanced countries.

INAF pursues its objectives in this sector through a network of researchers and technologists spread throughout the offices (Didactics and Dissemination, D&D network), coordinated by Sector D of the Presidential Structure for Communication.

In the next decade it is recommended to continue operating with the following objectives:

• promoting, coordinating and capitalizing initiatives for the diffusion of astronomical knowledge at national level a local level;

• plan, coordinate and promote, also at ministerial level, astronomical teaching activities in schools;

• study the use of astronomical instrumentation for educational purposes at INAF facilities;

• design and manage Didactics and Dissemination work modules now required at European level, also in support of scientific research and development programs.

INAF is also expected to be involved in European programs to be presented in response to specific calls from the EU's Horizon Europe 9th framework program.

In the following we indicate the specific objectives related to the Public Engagement activities, divided into two fundamental pillars: activities of outreach dedicated to segments of general public and education activities, dedicated to the world of school.

Public relations

The overarching key messages that INAF should convey to all audience groups are:
1. INAF is a world leader in (astro)physics (this encompasses theoretical and experimental research, engineering and computing).
2. The new discoveries, from the first image of a supermassive black hole to the electromagnetic counterparts of gravitational wave events, to exo-planets, pave the way to new physics and to a journey of discoveries that will extend for decades.
3. To continue this journey of discovery, we need new telescopes, detectors and computing power. (To build them we need to push the boundaries of technology).
4. INAF brings benefits to society.
(INAF contributes to the human endeavor of acquiring knowledge and it has a strong positive impact on training future scientists and engineers, on driving innovation, on transferring knowledge and technology to society and industry, and on engaging citizens in the achievements of fundamental research).
5. INAF is an open institution.
(INAF's scientific results are available in open access and INAF is committed to open innovation. INAF is open to citizens and to the arts, humanities and other expressions of culture).
6. Peaceful collaboration and diversity are intrinsic to INAF.
(People from different nationalities, cultures and backgrounds and with different expertise collaborate peacefully, on an equal footing).

The more granular key messages for different target audiences are summarized in Table 1.

In order to accomplish this task various activities should be deployed, as summarized in Table 2.

Didactics

INAF activities towards the didactic world are based on the support to teaching ("Scuola 2.0"): extensive training activities for teachers, laboratory activities in schools, projects in the framework "Alternanza Scuola Lavoro".
To this end it is important to organize wide-ranging digital initiatives:
1) a gateway to the world of astronomy for teachers and students of all levels (the edu.inaf.it website), i.e. a collector of support initiatives for schools, with special attention to transforming the frontiers of research into educational activities. In particular:
● online training courses for teachers and students;
● moodle-type interactive online activities;
● didactic activities for primary and secondary schools;

● a portfolio of national school-work alternation projects;
● a portfolio of scientific shows promoted or participated by INAF (theater, music, conferences, TED etc.);
● a portfolio of astronomy activities for social integration;
● a portfolio of astronomy activities for specific learning disorders;
The astronomy activities promoted are based on the EBL (enquiry-based learning) method, on tinkering and gamification, in line with the most up-to-date pedagogical theories
2) An open access online magazine dedicated to teachers offering the best didactic activities of astronomy, earth and space science, e.g. AstroEDU, a project created in collaboration with the International Astronomical Union (IAU). The teachers of each school can submit their activities for publication on astroEDU. The Editorial Committee includes reviewers for each activity: a researcher who evaluates the scientific contents of the activity and an expert teacher in the same school segment for which the activity is proposed. This process is completely analogous to what already happens for scientific articles in which peer review is the basis for evaluating the work of researchers. AstroEDU provides a system for assessing the quality of work developed by teachers. Activities should also be given great visibility and wide distribution through partner networks and the use of the official endorsement of the IAU.

Libraries, Historical Archives, Museums: protecting and enhancing INAF historical and cultural heritage

Among the institutional tasks of INAF there is protecting, preserving and enhancing "*its bibliographic, archival and historical instrumental heritage by developing and organizing its acquisition, conservation and use in a coordinated form among the various institutes*" (INAF Statute, art.2, par. g).
In fact, INAF institutes include the 12 national Astronomical Observatories, whose foundation dates back to well over two centuries ago and whose bibliographic and instrumental heritage is in some cases even older. In compliance with the Code of Cultural Heritage and Landscape (D.Lgs. 22/01/2004, n. 42), INAF carries out a recovery and conservation activity to guarantee the protection and safeguard of this conspicuous historical heritage, which constitutes one of the most important and valuable collections in the field of the history of science, at Italian and international level. In addition, INAF strategy includes planning and implementing activities for the enhancement and use of its historical collections, also with multidisciplinary projects for the benefit of large audiences. In fact, in some Observatories (Brera, Capodimonte, Padua, Palermo, Teramo and soon Rome), a real Museum is active, in which the historical-instrumental heritage is permanently exhibited and can be visited, while in other locations the heritage is only preserved and collected in a collection, but not organically usable by the public.
INAF offers a unique peculiarity in the panorama of Italian research institutes, for the richness and rarity of the historical heritage, preserved in its Observatories.
INAF possesses a remarkable historical and instrumental heritage of over a thousand pieces: dials, telescopes, theodolites, watches, globes, mathematical and meteorological instruments, ranging from the 16th century to the first half of the 20th century. The various instrumental collections were established at the individual Observatories as the instruments purchased, or built by the talented mechanics with which the Observatories were equipped, became obsolete for daily research, and were therefore set aside.
INAF Libraries own about 125,000 monographic volumes, 7000 ancient volumes, 500 printed and online journals, of which about a hundred in current subscription.

INAF has carried out since its birth various protection and enhancement actions of its historical and cultural heritage through the Libraries and Archives Service and the Museums Service, later merged into the Libraries, Museums and Third Mission Service. An example in this sense is the portal *'Polvere di Stelle'* ('Stardust', created at www.beniculturali.inaf.it), which collects the archival, bibliographical and instrumental databases of all the INAF historical and cultural heritage. The cataloging, inventory and archival files follow homogeneous and functional criteria and according to the ministerial and international standards ISBD, ISAD, ICCD-PST.
The portal allows simultaneous searches on different types of material conserved at INAF historical-scientific collections, and is enriched both by the database of biographies of Italian astronomers, in continuous implementation, and by a digital display case, which allows the consultation of the ancient books of particular emphasis. It is recommended the continuous update of this portal both for the catalogs of the instruments and documents and for the activities aimed at researchers and the general public. INAF, in fact, has made important investments to digitize its rare and valuable volumes, whose high resolution scans are kept in the national repository hosted by the IA2 (Italian Astronomical Archives) at the Trieste Astronomical Observatory.
A digitalization program is recommended also for the archival heritage, which consists of documents of great scientific importance and of high historical interest, in order to make it available for public online consultation. Examples of projects already undertaken in this respect are the solar observation series (spots, protuberances, facoles, spectra) made simultaneously in the period 1865-1880 by Pietro Tacchini (kept at the Astrophysical Observatory of Catania) and Angelo Secchi (preserved at the Astronomical Observatory of Rome), in concomitance with the bicentennial anniversary of the birth of P. Angelo Secchi (1818-2018) and the digitalizations of the oldest meteorological observations owned by INAF, i.e. those carried out in Padua by Giovanni Poleni from 1725 to 1764, by Giambattista Morgagni in the period 1740-1768 and by Giuseppe Toaldo and Vincenzo Chiminello from 1766 to 1804. This material is precious for current meteorological studies and is increasingly requested for consultation by scholars from all over the world.
Other examples to be taken as a good practice in this field are the Internet Cultural project created and managed by the Central Institute for the Unique Catalog (ICCU) of MIBAC, joined by INAF in 2018, to disseminate its digital collections in areas that are not too specialized. With this agreement INAF has granted the consultation on the web of its digital collections on the Internet Cultural portal and the transmission of metadata to the portals of Italian and European Culture. Besides, a collaboration was started with the Ministry for Cultural Heritage regarding the attribution to the historical instrumental heritage INAF of the unique number of the ICCD (Istituto Centrale per il Catalogo e la Documentazione, Central Institute for Catalog and Documentation) General Catalog to the historical instrumental heritage INAF, as well as for the creation of a specific semantic dictionary for the astronomical heritage, currently missing in the ICCD catalog structure. This represents a unique pilot experience in the scenario of the Italian scientific heritage.

Past experience of activities and projects for the enhancement of the historical astronomical heritage, has shown that, for a national institute like INAF with a distributed structure on the territory, coordinated work is essential to achieve results in the field of national and international projects. The current organization provides for cultural assets only a service articulated as "Section of the technical structure of the Scientific Directorate" which tend to limit the possibilities of developing projects at national and international level, contrary to what happens, for example, for museums and libraries in the universities. It is therefore necessary to proceed with the establishment of an Archival, Museum and Astronomical Library System (SAMBA), as a specific Central Scientific Unit for the enhancement of the Cultural Heritage of INAF. The appropriate managerial autonomy of the SAMBA would allow the promotion of wider scientific and programmatic collaboration relationships with Italian and foreign museums and scientific institutes, as well as a more effective participation in European and international calls (e.g. FISR, JPI, ...).

The creation of the SAMBA would also allow to set up transversal training courses (doctorates or masters), in collaboration with the Ministry, Universities and Institutes for the restoration, allowing INAF to increase the number of researchers with specific historical-scientific skills who become specialists in the conservation and enhancement of the astronomical cultural heritage.

The experience gained in these years leads INAF to increase the use and development of new technologies for the use of cultural heritage in the near future. These, in fact, through a direct sensorial perception, favor an active participation of the public which, with the implementation of multimedia, innovative and engaging solutions, will be able to increase the interest, both for the historical heritage and for the most innovative scientific projects in the field. astrophysicist.
At the same time, good heritage conservation practices should also be encouraged, defining guidelines for the protection and restoration (in which some INAF laboratories could also play an important role) and improvement of the astronomical heritage.
It will therefore be strategic for INAF to give continuity to the skills acquired in these years, as well as to develop new ones to implement the objectives set in the context of issues relating to the protection and enhancement of cultural heritage.
In the coming years it will be essential to build and strengthen coordination of the various recovery and conservation activities managed individually in the various local structures. In this way support is needed for the actions aimed at cataloging and restoration of collections, for setting up exhibitions of the historical and scientific heritage in the various local realities, for increasing the value of this heritage through studies, publications and events concerning astronomical instrumentation and the history of Italian and international astronomy.

Audience	Drivers	Messages
Industry	Innovation Knowledge transfer Job creation Recruitment Return on investment (International)Collaboration	INAF is a large, global, multidisciplinary organization that requires a wide range of goods and services. A significant fraction of INAF's annual budget returns to industry through procurement. Contracts with INAF help industry to drive its innovation. INAF develops cutting-edge technologies related to telescopes, detectors and computing and a wide variety of technology domains. INAF technologies have applications in many fields beyond astrophysics that could benefit your area of industry. INAF inspires and trains the future workforce. The unique know-how and expertise of INAF's scientists and engineers is the key to effectively bridging the gap between fundamental research and its applications. INAF is an ideal showcase for knowledge transfer.
Governments and policy-makers	Scientific excellence Economic and social impact Return on investment Job creation Inspiration for STEM (science, technology, engineering and mathematics) Influence on global scientific agenda	INAF is one of the world's leading centers for (astro)physics – it produces cutting-edge science and technology. INAF is an integral part of international research efforts. INAF continues to train generations of scientists, technicians and engineers worldwide. The new observing infrastructures and missions Allow a new chapter of (astro)physics to be explored. The astrophysics community is developing an ambitious vision for next-generation facilities

		following the huge success of the present facilities. INAF is a key actor in delivering transparent and responsible research. INAF operates with a comparable budget to a small/medium-sized European university. INAF is an ideal showcase for knowledge transfer. The unique know-how and expertise of INAF scientists and engineers is the key to effectively bridging the gap between fundamental research and its applications. INAF engages and promotes SMEs and start-ups, and supports their growth through its network of business incubation centers. A significant part of INAF's annual budget returns to industry through procurement. INAF consistently strives to deliver environmentally responsible research, both through how it operates and through the results it produces. INAF adheres to the highest standards of health, safety and security. Teachers and students in your country have greater access to inspiring, cutting-edge educational resources and training.
General Public	Curiosity Impact Wonder Knowledge for empowerment	INAF is a unique environment that contributes to answering humankind's fundamental questions about the universe. INAF has built and runs some of the largest scientific instruments in the world. Fundamental scientific research is a driving force for technological innovations that impact our lives.

		At INAF, people from all over the world collaborate, transcending barriers of age, religion, gender and nationality. The results of the work carried out at INAF are available to everyone. We take our place in society seriously. We want to engage citizens with our work. INAF adheres to the highest standards of health, safety and security. INAF consistently strives to deliver environmentally responsible research, both through how it operates and through the results it produces.
Local communities	Economic benefit Tourism Impact on the environment and on individuals	INAF is one of the drivers of economic and cultural development in our local area. INAF is world famous and puts a positive spotlight on our region. INAF adheres to the highest standards of health, safety and security. INAF consistently strives to deliver environmentally responsible research, both through how it operates and through the results it produces. We take our place in the community seriously. We work closely with local institutions and authorities, for the INAF of today and tomorrow. INAF organizes dedicated events and has specific channels to engage with the local community. We are working to ensure a bright future for INAF
Teachers and students (from pre-university to graduate)	Being updated on current research in astrophysics Continuing professional development	INAF is a unique place that contributes to answering humankind's fundamental questions about the universe.

	Inspiration Wonder Belonging to a network of shared interests	Fundamental research is a driver for science education. INAF is one of the world's leading research institutions for (astro)physics. INAF has built and runs some of the largest scientific instruments in the world. At INAF, people from all over the world collaborate, transcending barriers of age, religion, gender and nationality. The results of the work carried out at INAF are available to everyone. You (as a student) could participate in INAF's research, now or in the future. Our science has the power to inspire your students. INAF lays the groundwork for collaborations between students and teachers from many different countries.
Potential candidates (students, graduates, professionals)	Joining a prestigious employer Being part of a unique and talented workforce Diversity of career opportunities Career advancement	INAF is a unique place to work. Take part! INAF is a hub of expertise in astrophysics, engineering and computing. We require skilled professionals in these fields to deliver the science of tomorrow. INAF is at the heart of an international network. It is a melting pot of collaborations and partnerships. Every kind of thinking is welcome and needed. INAF needs more than just physicists and engineers. Whatever your field of expertise, whatever stage you are at in your career, INAF could be your next opportunity. A job at INAF is an excellent stepping stone to a successful career in a range of fields.

		INAF combines attractive working and training conditions, as well as the freedom to work flexibly. INAF is a key actor in delivering transparent and responsible research. People working at INAF enjoy living a cosmopolitan life.
INAF community	Pride Curiosity Community spirit Career development	INAF attracts the brightest minds and some of the most talented people in the world. We are part of a bustling, dynamic, international and diverse community, united by shared values. All of us play a role in INAF's amazing discoveries and share its success. INAF encourages and supports training in transferable skills for effective career development. INAF adheres to the highest standards of health, safety and security. INAF consistently strives to deliver environmentally responsible research, both through how it operates and through the results it produces.
Donors	Corporate social responsibility Philanthropy Positive publicity Impact	INAF is a global and highly respected brand. Giving to INAF makes you a partner in spreading INAF's spirit of scientific curiosity. By giving to INAF, you can contribute to enabling more talented young people to take up science, engineering and computing careers. The work carried out at INAF has a significant and positive impact on society, and by giving to INAF you help to reinforce this impact.

Table 2

Channel	Activities	Target
Digital portfolio (online)	INAF websites: home.INAF, media.INAF and those of other INAF sectors, departments, groups, units and sections Social media: Facebook, Twitter, Instagram, YouTube, LinkedIn	All
Exhibitions	Permanent exhibitions Travelling exhibitions Online resources for exhibitions	All
Visits	Visits to INAF On-site visits (including schools) Guided virtual tours INAF Virtual Reality Special guest visits INAF shop	All
Public events	Researchers' Night INAF outreach events INAF open days Public and private events at the Globe	All (with special focus on local community)
Audio-visual: photography, video and animations	Stock footage, photos and videos Live broadcasts 2D and 3D animations and illustrations Apps Multi-media gallery	All
Visual identity and print	Logos Branding for INAF departments, projects, etc. Corporate material (business cards, e-mail signatures, etc.) Presentation about INAF for VIP visits Annual Report Brochures Christmas card Posters	All
Media relations	Press Office website	Media outlets

	Media management system (clippings, media database) On-site visits for journalists Backgrounders/media packs Media training	INAF scientists and staff, including Management
INAF Messenger	Website Digital PDF magazine Printed magazine?	International astrophysics community
Internal communications	“INAF Community” webpages Bulletin for the INAF community sent by e-mail Printed Bulletin Screens and electronic text displays Astrochannel E-mails to members of personnel	INAF community