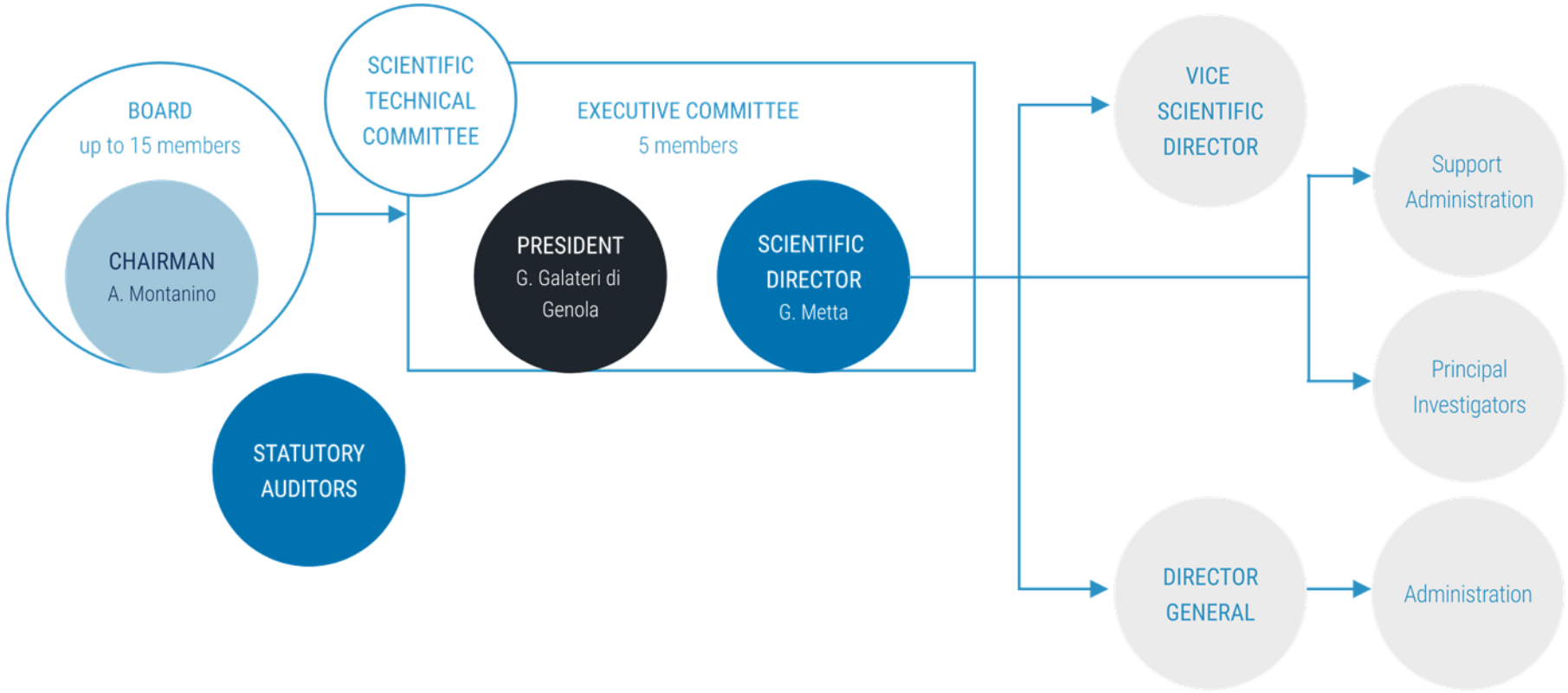
FACTS & FIGURES

IIT TODAY

ISTITUTO ITALIANO
DI TECNOLOGIA

Last update 31 December 2023

IIT Governance



Leadership

President
Gabriele Galateri di Genola

Scientific Director
Giorgio Metta

IIT Governance

Board

Responsible for the planning and approval of the Institute's main strategies (up to 15 members)


Andrea Montanino (Chairman)


Rita Cucchiara


Elena Goitini


Luigi Gubitosi


Alessandro Nasi


Gianluca Pettiti


Alessandro Profumo


Alessandro Rivera


Donatella Sciuto


Raffaele Squitieri


Francesco Stellacci


Mariarosaria Taddeo


Gianmario Verona

Executive Committee

Responsible for ordinary and extraordinary administration activities (5 members)


Gabriele Galateri di Genola


Giorgio Metta


Vittorio Terzi


Luciana Vaccaro


Giuseppe Zampini

IIT Governance

Scientific Technical Committee

General advisory role with regard to the technical and scientific evaluation of research activities (13 members)

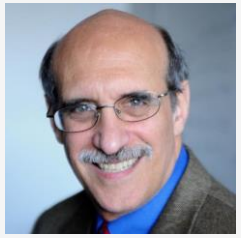

Francesco Sette (Chairman)


Adriano Aguzzi


Tamim Asfour


Uri Banin


Roberto Car


Martin Chalfie


Gianaurelio Cuniberti

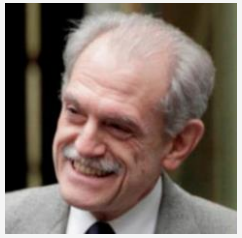

Adrienne Corboud Fumagalli


Oussama Khatib


Sonja Kotz

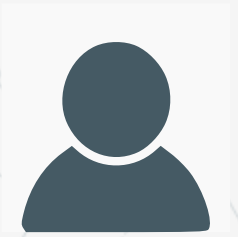

Arto Nurmikko

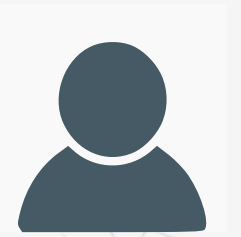

Jean-Jacques Slotine


Alberto Sangiovanni Vincentelli

Board of Statutory Auditors

To ensure compliance with the law and internal regulations and the proper keeping of accounts (3 members)


Francesco Alì (President)

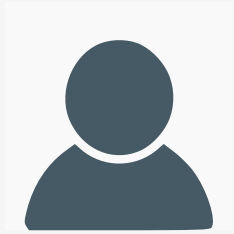

Vincenzo Di Felice


Enrico Vassallo

Internal Control

Audit, Risk Management & Compliance Directorate

To provide independent and objective assurance and advice to management and governing bodies on the adequacy and effectiveness of the internal control and risk management system



Valeriano Vidili
(Director)

Stefano
Desiderio

Leonardo
Nigro

IIT Internal Committee

Committee of the Scientific Director

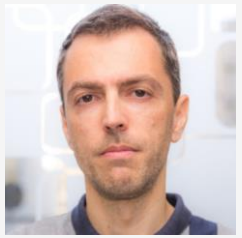
To support the Scientific Director's work on various strategic, scientific and organizational topics (15 members + 3 invited)


Athanassia Athanassiou


Darwin Caldwell


Marco De Vivo


Paolo Decuzzi


Tommaso Fellin


Stefano Gustincich


Ilka Kriegel


Liberato Manna


Barbara Mazzolai


Lorenzo Natale


Teresa Pellegrino


Raffaella Tonini

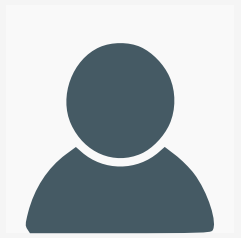

Velia Siciliano


Nicola Tirelli


Agnieszka Wykowska


Fabrizio Moscone*


Lorenzo De Michieli*


Francesca Cagnoni*

* invited

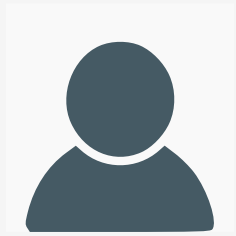
IIT Internal Committee

Management Committee

To support the Scientific Director in formulating and developing IIT's policies and strategies.

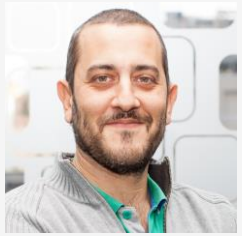

Fabrizio Moscone


Stefano Bencetti


Francesca Cagnoni


Andrea Caporali


Lorenzo De Michieli


Giuliano Greco


Antonella Fontana


Massimiliano Gatti


Enzo Gelati


Ilaria Monaldi


Marco Monga


Alessandro Roscini

IIT Values

Integrity

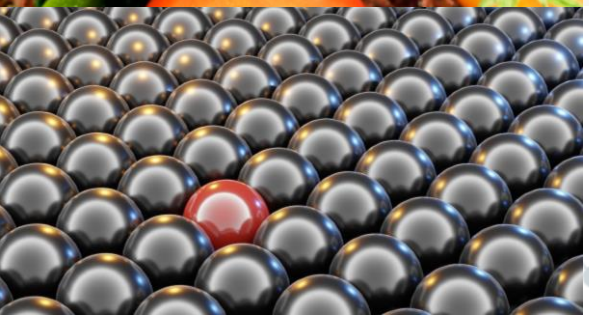
We adhere to scientific and moral integrity. We value and strive for openness, honesty, authenticity, sincerity, and transparent behavior. We communicate transparently.

Courage

We like challenges and we face them with determination, striving for excellence.

Societal responsibility

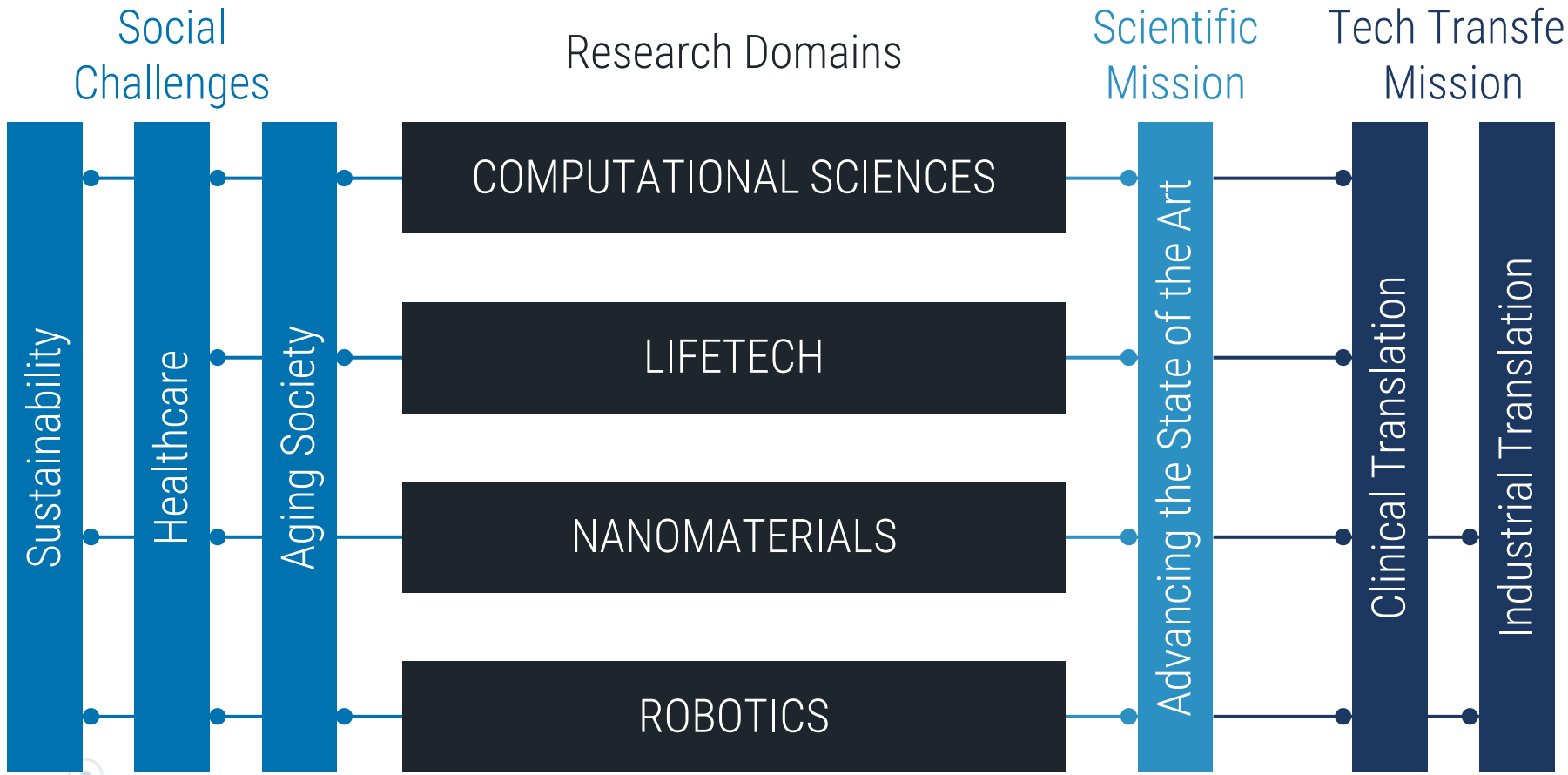
We aim to benefit humanity worldwide. We strive to help society develop for the common good.

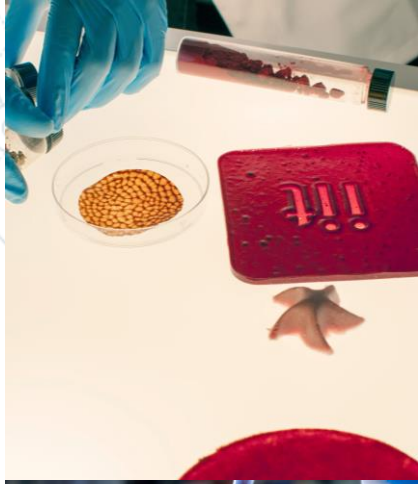


Inclusion

We welcome and cherish diversity in every form. We do not tolerate discrimination in any form. We are always inclusive, respecting individual freedom.

Research Vision

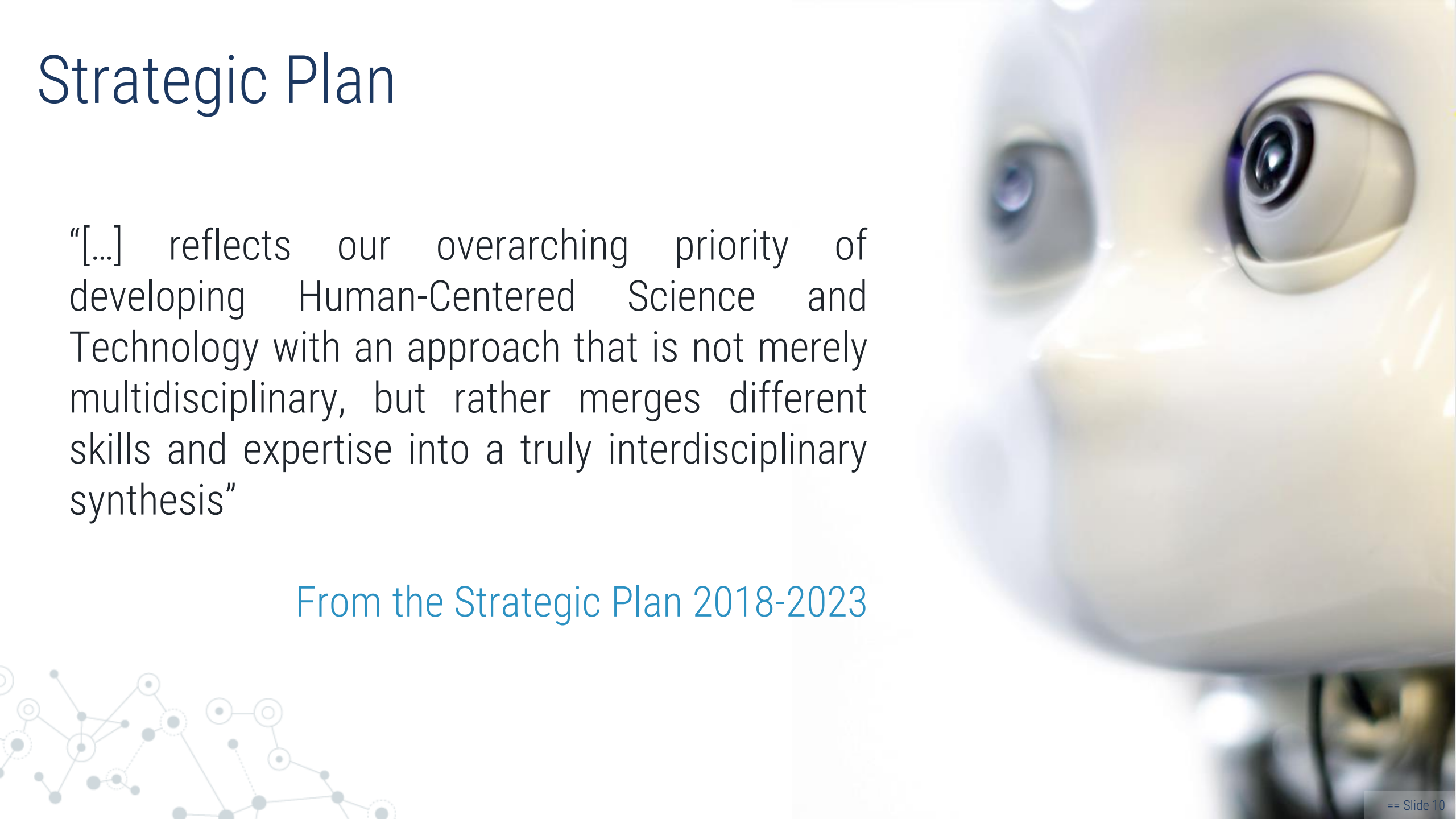




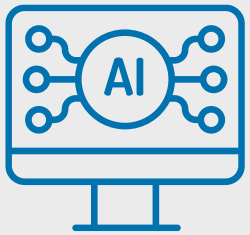
Strategic Plan

"[…] reflects our overarching priority of developing Human-Centered Science and Technology with an approach that is not merely multidisciplinary, but rather merges different skills and expertise into a truly interdisciplinary synthesis"

From the Strategic Plan 2018-2023



Research Domains



COMPUTATIONAL SCIENCES

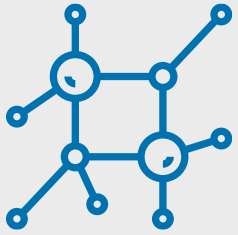
- Development HPC Algorithms and Software
- Computational Modeling
- Machine Learning, Deep Learning and A.I.
- Computer Vision

157 scientists (Researchers, PostDocs and PhD students)
37 technicians (3 technologists)
4 facility coordinator
10 PIs
2 ERC grant holders (1 grants ongoing)
20 ongoing European projects
85 patents

LIFETECH

- Neuroscience and Brain Technologies
- RNA Technologies
- Technologies for Healthcare

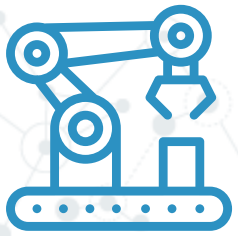
344 scientists (Researchers, PostDocs and PhD students)
63 technicians (8 technologists)
4 facility coordinators
32 PIs
12 ERC grant holders (8 grants ongoing)
45 ongoing European projects
261 patents



NANOMATERIALS

- Nanomaterials for Sustainability
- Nanotechnologies for Human Health
- Nanomaterials Energy
- Exploratory Material Sciences

350 scientists (Researchers, PostDocs and PhD students)
63 technicians (9 technologists)
5 facility coordinators
24 PIs
17 ERC grant holders (15 grants ongoing)
70 ongoing European projects
419 patents



ROBOTICS

- Mechatronics
- Soft Robotics
- Social Cognition and Human Robot Interaction
- Biomedical Robotics
- Intelligent Companion Robots

279 scientists (Researchers, PostDocs and PhD students)
146 technicians (6 technologists)
5 facility coordinators
13 PIs
5 ERC grant holders (5 grants ongoing)
36 ongoing European projects
264 patents

Scientific Initiatives

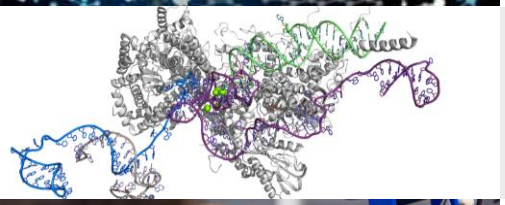
Visionary research that address the major societal challenges to break new ground

Cognitive Architectures (iCog)

Designing, building, and sharing a common cognitive architecture for an embodied artificial system.

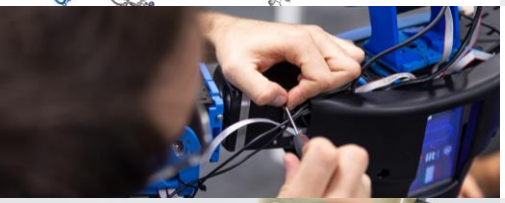
AI for Materials Sciences (iMat)

Applying Artificial Intelligence (AI) to new challenges in Materials Science.



RNA Technology (iRNA)

Investigating non-coding RNAs whose knowledge has experienced the most rapid growth in recent years.

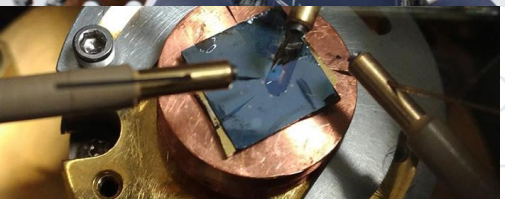


Robotics for a Better Life (RBL)

Advance research for making robots self-aware, adaptable, and interactive.

Sustainability

Facing sustainability goals of global economic, societal and environmental importance.



Visualization of Nanomaterials in Operando

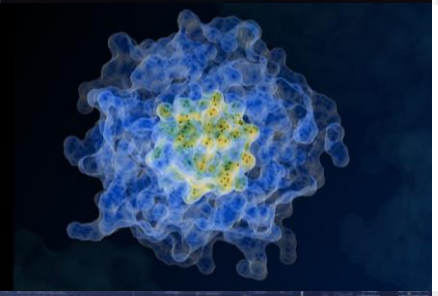
Visualizing molecular interactions and electronic processes at nano-interfaces.

Strategic Research Directions

Research aimed at addressing the Horizon Europe program of promoting strong alliances in artificial intelligence, data, and robotics

Artificial Intelligence (AI)

First ELLIS node in Italy (with the University of Genoa). The ELLIS Society is a highly prestigious European network for fostering research in machine learning and artificial intelligence (sever IIT PIs involved).
IIT Technology Transfer plans to create a business accelerator to complement the AI ecosystem with Industry 4.0 resources (Competence Centers), the EDIH, and a network of VCs, funds, and so on.

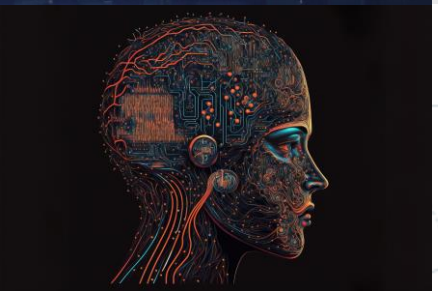


Atomistic and Molecular Simulation

New methods to calculate the thermodynamics and kinetics of molecular systems in life science and materials science.
IIT has been a pioneer in molecular simulations applied to drug discovery with a focus on kinetics and residence-time prediction. The next frontier, in this field, will be the systematic combination of atomistic and molecular simulations with machine learning and artificial intelligence.

Non-Turing Computation

Exploration of new avenues in non-Turing computation. Starting from exploring quantum technology (QT) based on state-of-the-art hardware and software and moving towards next-generation code for QT.
The challenges include scalability and precision.
IIT aims to build a network of Italian academic and industrial players to develop innovative QC applications.



Integrative Neuroscience

IIT neuroscientists work with diverse tools and at multiple levels of organization (molecular, cellular, circuits, systems, and behavior) to link fundamental neuronal mechanisms to behavior and cognition.
The promotion of mutual reinforcement between neuroscience, artificial intelligence, materials science, and robotics will strategically advance our neuroscientific knowledge and facilitate the flow of basic neuroscience into applications.

IIT in numbers

18
Centers
16 in Italy
2 US outstations
50.000 m^2 of labs

1881
Staff
70 countries
36 years average age
43% female, 81% scientific staff

864
Scientific Projects
461.0 MEUR
256 ongoing

20250+
Publications
625k+ citations

953
Commercial Projects
117.7 MEUR
197 ongoing

1335
Patents
424 inventions

18
Joint Labs

34
Start Ups

IIT Centers

50.000 m^2
of labs

Center for Convergent Technologies, Morego, GENOA (headquarters)

Center for Advanced Biomaterials for Health Care, Università Federico II di Napoli, NAPLES

Center for Biomolecular Nanotechnologies, Università del Salento, LECCE

Center for Cultural Heritage Technology, Università Ca' Foscari, VENICE

Center for Genomic Science, Campus IFOM-IEO, MILAN

Center for Human Technologies, Erzelli, GENOA

Center for Joint Industrial Research, GENOA

Center for Life Nano & Neuroscience, Sapienza Università di Roma, ROME

Center for Material Interfaces, Scuola Superiore Sant'Anna, PONTEDERA

Center for Nano Science and Technology, Politecnico di Milano, MILAN

Center for Nanotechnology Innovation, Scuola Normale Superiore, PISA

Center for Neuroscience and Cognitive Science, Università di Trento, TRENTO

Center for Robotics and Intelligent Systems, San Quirico, GENOA

Center for Sustainable Future Technologies, Politecnico di Torino, TURIN

Center for Synaptic Neuroscience and Technology, Università di Genova, GENOA

Center for Translational Neurophysiology, Università di Ferrara, FERRARA

IIT@Harvard
Harvard University, CAMBRIDGE, MA (USA)

IIT@MIT Massachusetts Institute of Technology, CAMBRIDGE, MA (USA)

== Slide 15 ==

IIT Staff

1881

70
countries

36 years
average age

43%
female

81%
scientists

IIT Staff

1881

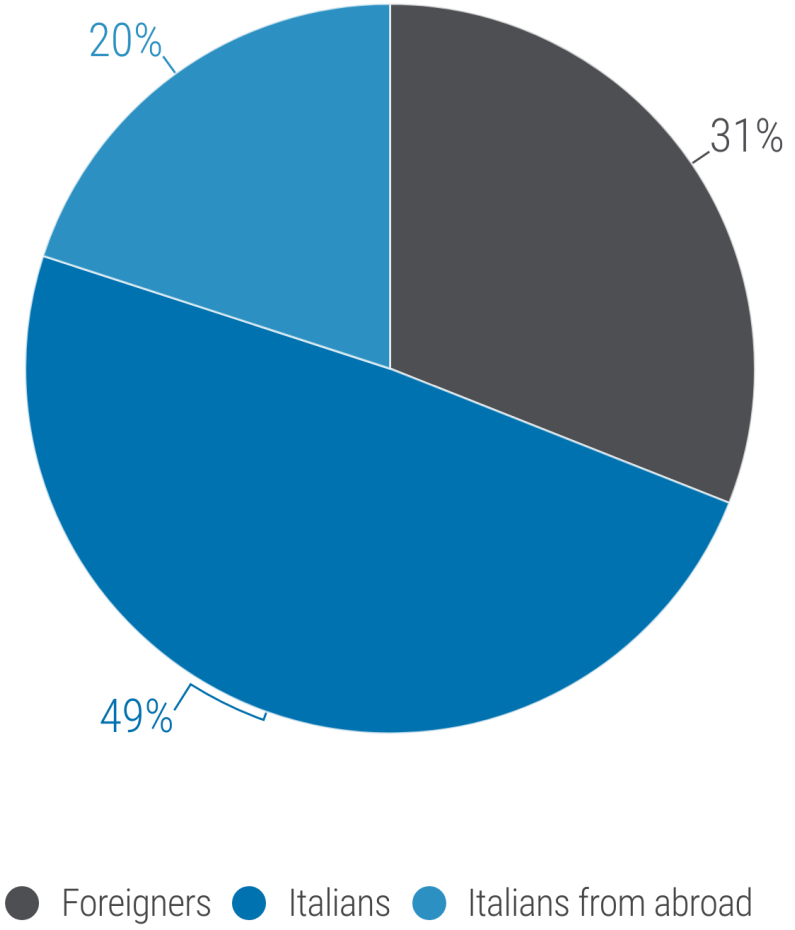
70
countries

36 years
average age

43%
female

81%
scientists

Origin
of the Scientific Staff (%)



IIT Staff

1881

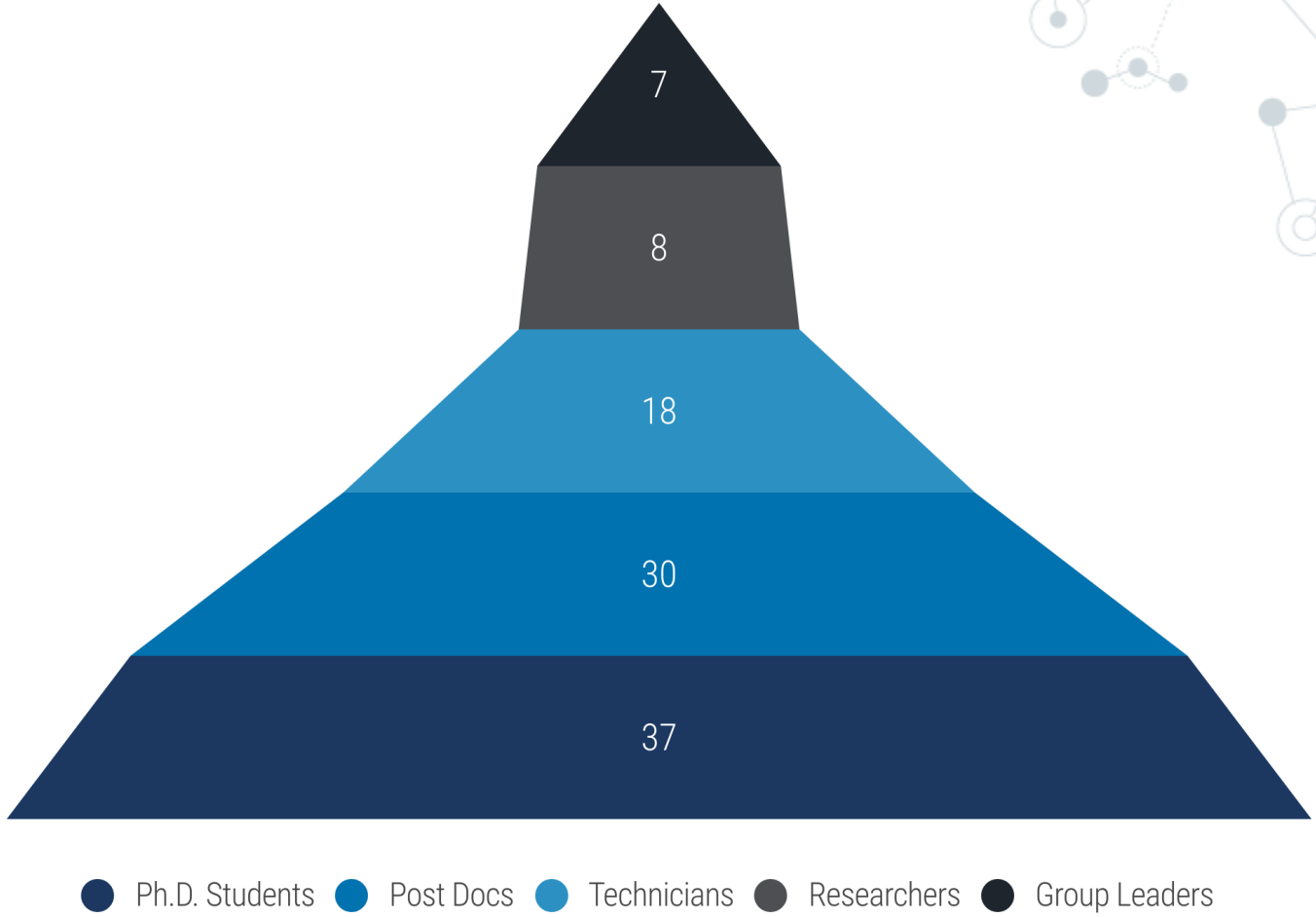
70
countries

36 years
average age

43%
female

81%
scientists

Composition of the Scientific Staff (%)



Projects

1817
projects
453 ongoing

864
scientific
461.0 MEUR

953
commercial
117.7 MEUR

in-kind
28.4 MEUR

Projects

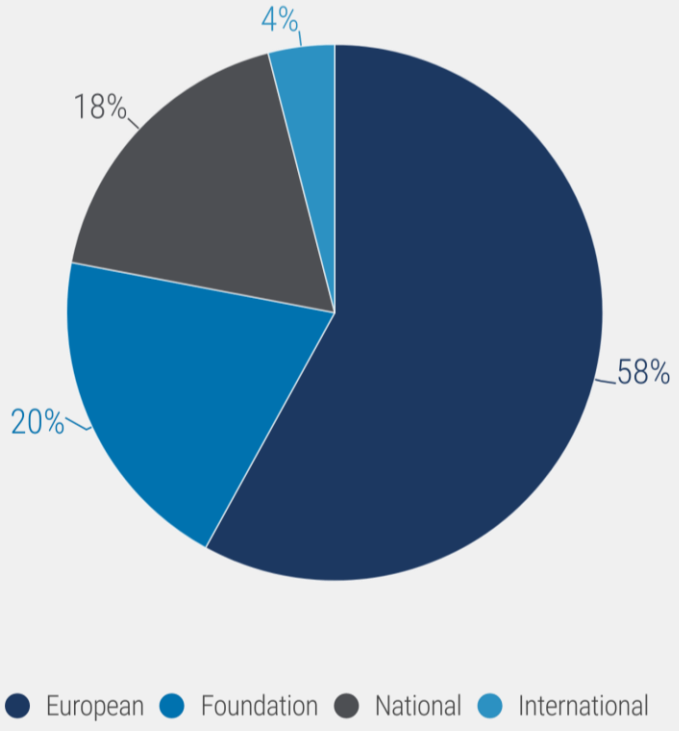
1817
projects
453 ongoing

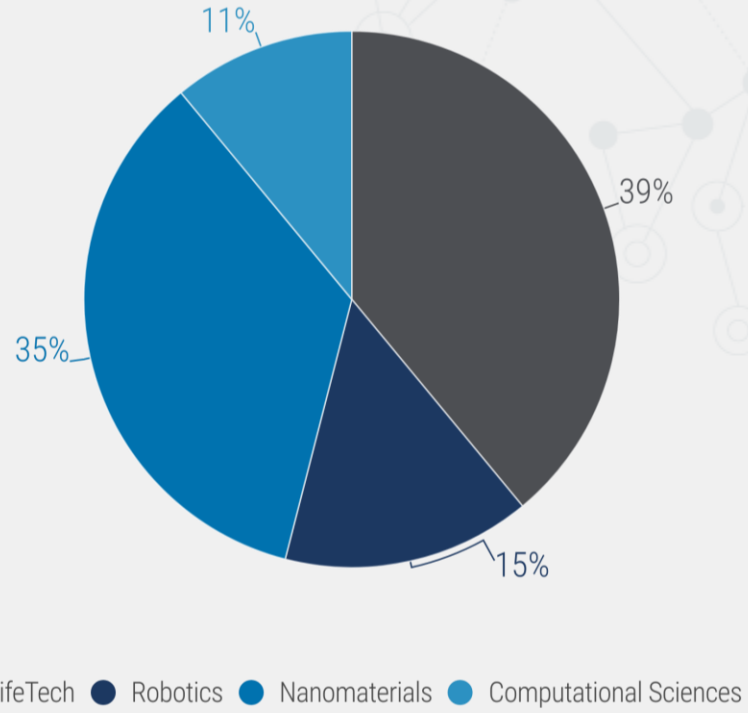
864
scientific
461.0 MEUR

953
commercial
117.7 MEUR

in-kind
28.4 MEUR

Ongoing Scientific Projects
by funding source (on the left) and by research domain (on the right) (%)





148 European projects
47 national projects
50 foundation projects
11 international projects

== Slide 20 ==

Projects

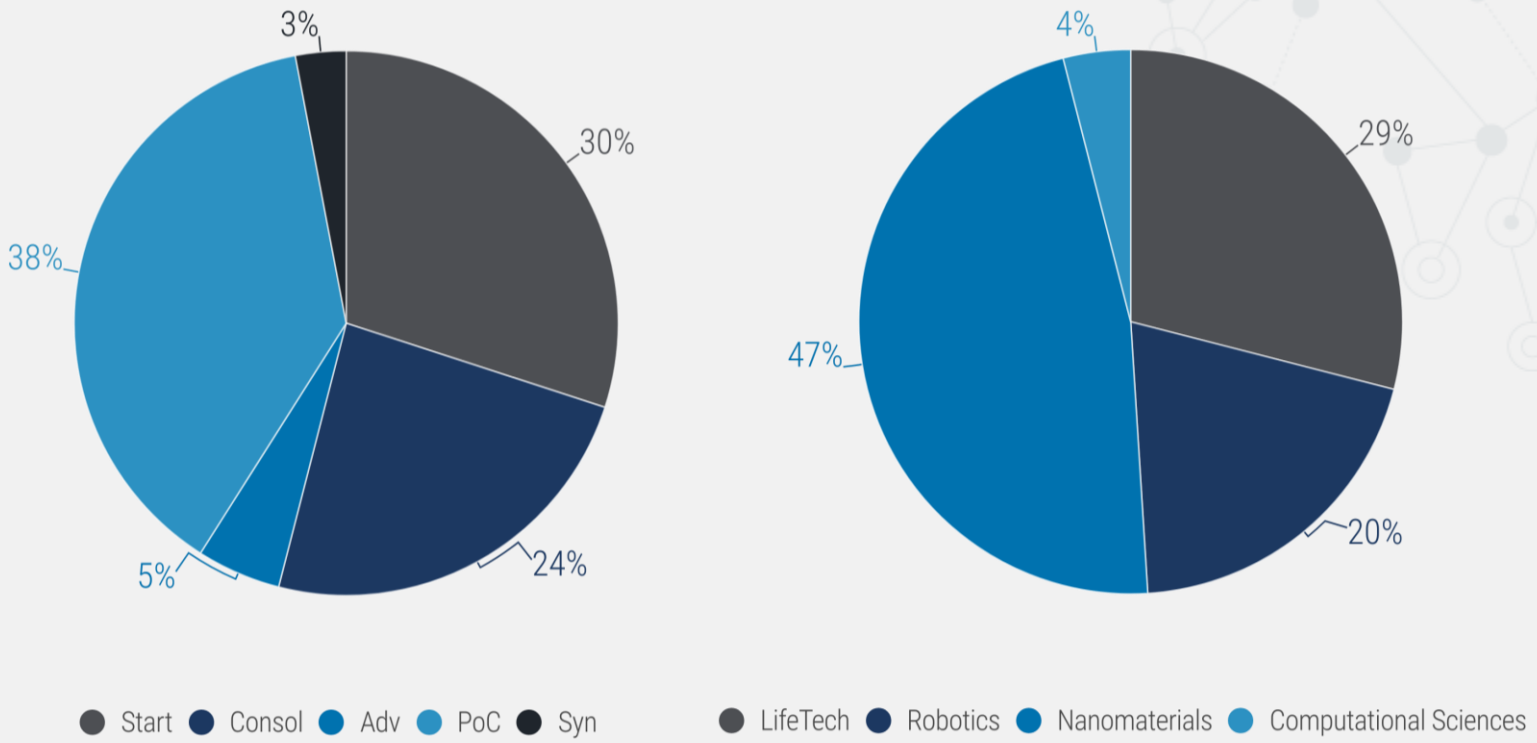
1817
projects
453 ongoing

864
scientific
461.0 MEUR

953
commercial
117.7 MEUR

in-kind
28.4 MEUR

European Research Council (ERC) grants
by grant type (on the left) and by research domain (on the right) (%)



66 secured grants
43 ERC grant holders
34 grants ongoing

Publications

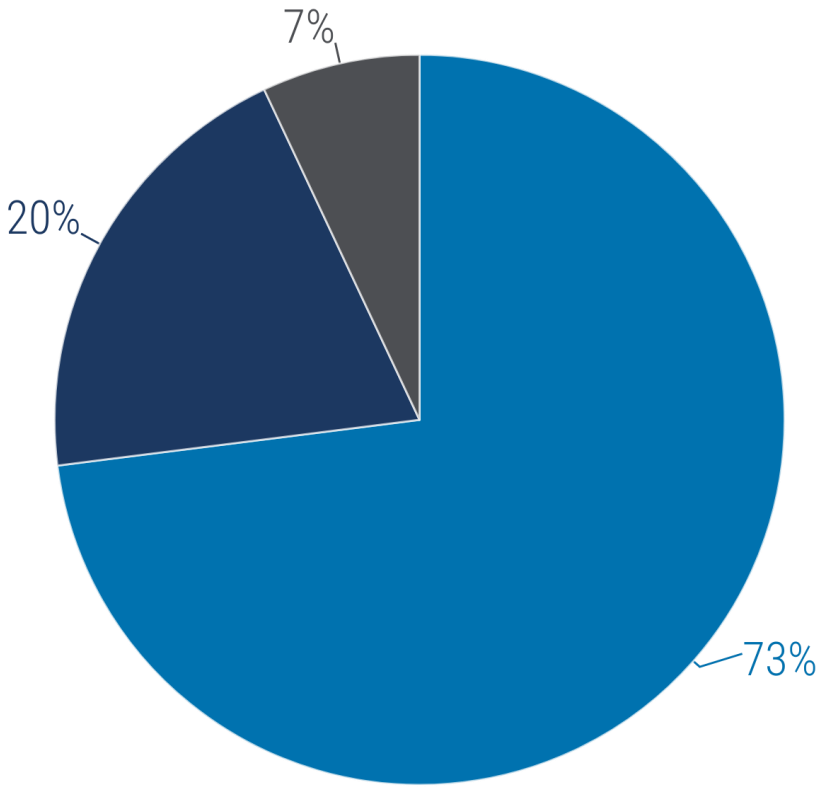
20.2k+
publications
625k citations
(Scopus - Elsevier B.V.)

14.8k+
journal
papers
101k+ IF

4.1k+
conference
proceedings

1.2k+
books/book
series

Publications Types (%)



Patents

1335
patents
424 inventions

Patent Portfolio

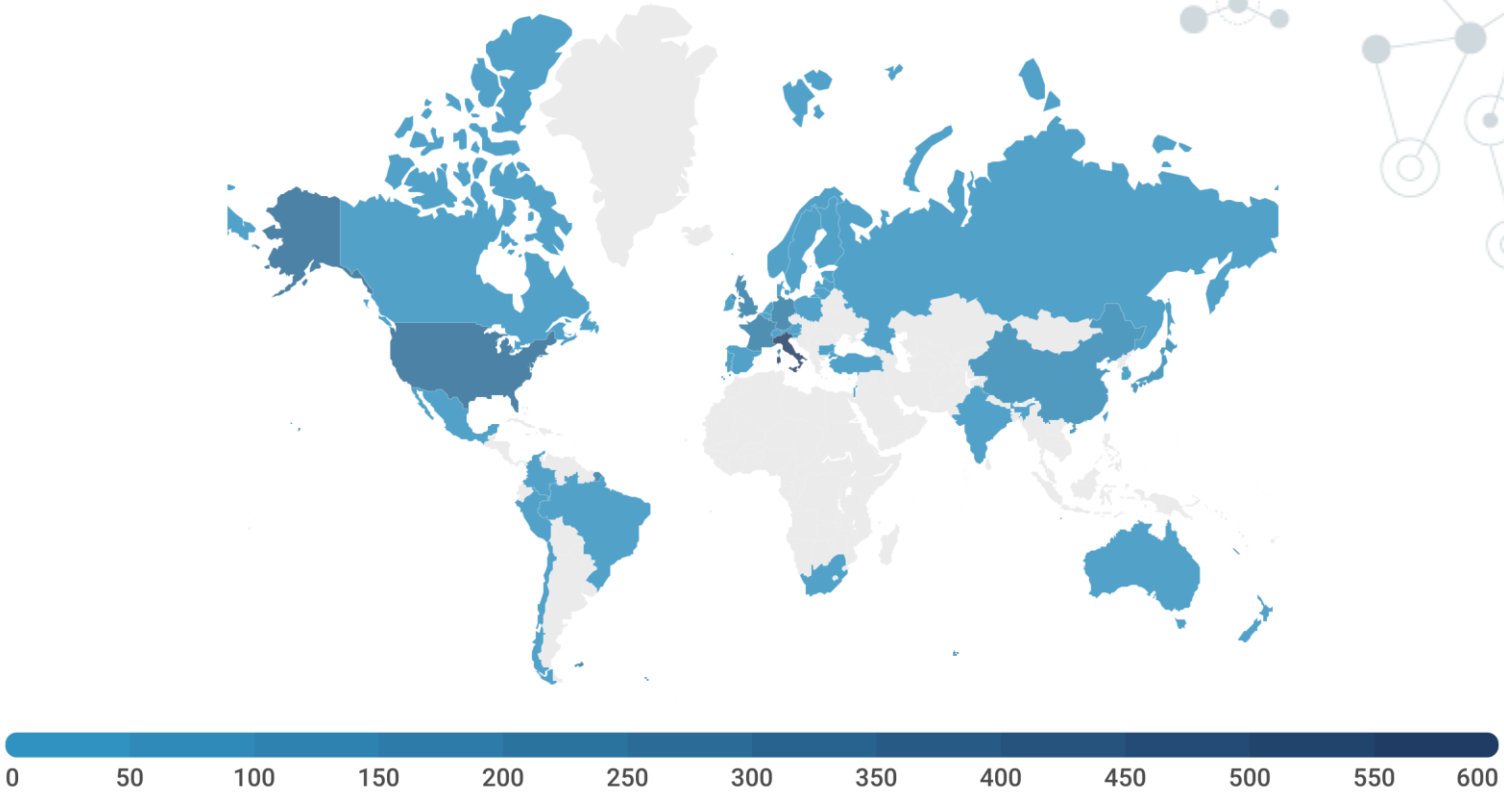
8%
Computational Sciences

25%
LifeTech

41%
Nanomaterials

26%
Robotics

Patents Coverage Map



IIT Joint Labs(18)

BRACCO

DANIELI AUTOMATION

CrestOptics

HRI Honda Research Institute JP

Università di Genova

CAMOZZI

INTELLIMECH® CONSORZIO PER LA MECCATRONICA

LEONARDO

novacart

INAIL ISTITUTO NAZIONALE PER L'ASSICURAZIONE CONTRO GLI INFORTUNI SUL LAVORO

GASLINI

CONGREGAZIONE DELLE SUORE INFERMIERE DELL'ADDOLORATA OSPEDALE VALDUCE

D-TAILS Disruptive Technological Advances In Life Science

BE DIMENSIONAL

Nikon

SAN CAMILLO IRCCS SRL

OSPEDALE POLICLINICO SAN MARTINO Sistema Sanitario Regione Liguria *Istituto di Ricovero e Cura a Carattere Scientifico*

fm FONDAZIONE MONDINO Istituto Neurologico Nazionale a Carattere Scientifico | IRCCS

IIT Start Ups(34)

(a selection)

Alkivio®

BEDIMENSIONAL

FORESEE BIOSYSTEMS

fleeptech

Organic Bioelectronics

PiezoSkin Sensing Technologies

BiKi TECHNOLOGIES designing better medicines

Genoa Instruments

morecognition enabling human muscles

ADVANCED MICROTURBINES

ribes·tech

CIRCLE GARAGE

HiQnano THE ART OF PRODUCING NANOPARTICLES

movendo technology enabling people

PROTESO

SMO SMART MICRO OPTICS

ReWing

CORTICALE

iama therapeutics

NOVAVIDO

qb robotics

Transine Therapeutics

KIDARIA BIOSCIENCE

optogenix new frontiers in neuroscience

x nano invisible matters

Start up Projects and Business Ideas: +50