



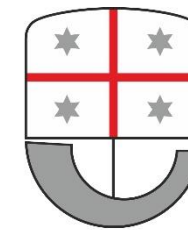
The European House

Ambrosetti

# Liguria 2022

Genova, Palazzo Ducale

Martedì, 14 luglio 2020



REGIONE LIGURIA

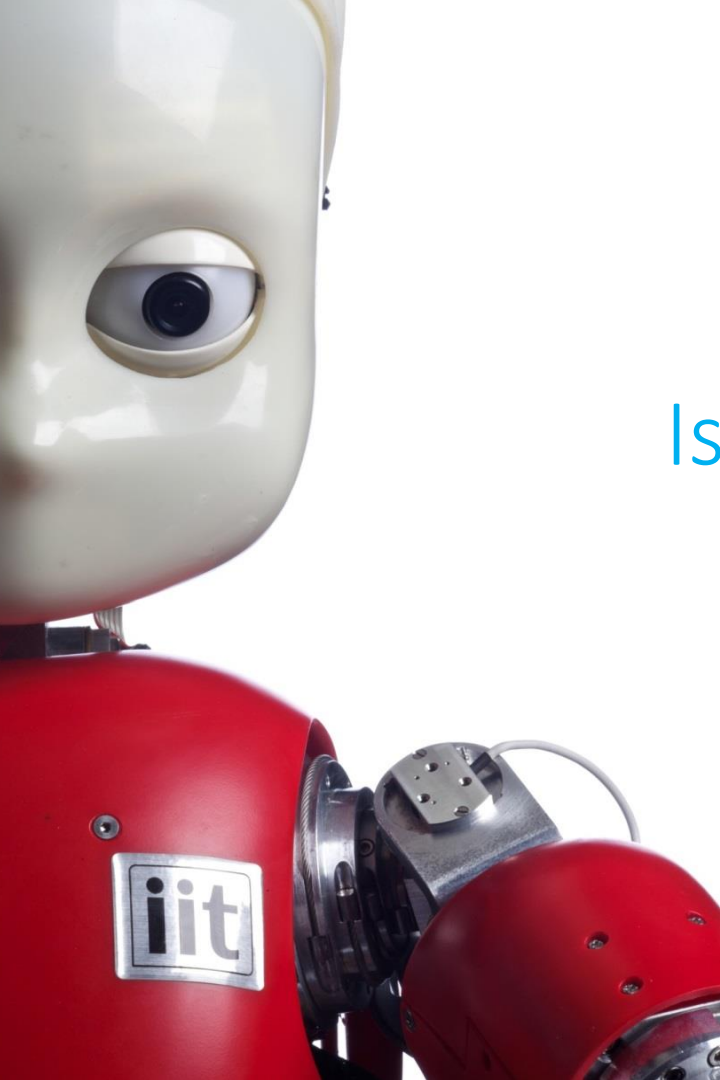
## PRESENTAZIONE DI GIORGIO METTA



Fondazione  
Compagnia  
di San Paolo



#LIGURIA2022



# Istituto Italiano di Tecnologia

*a true interdisciplinary synthesis*

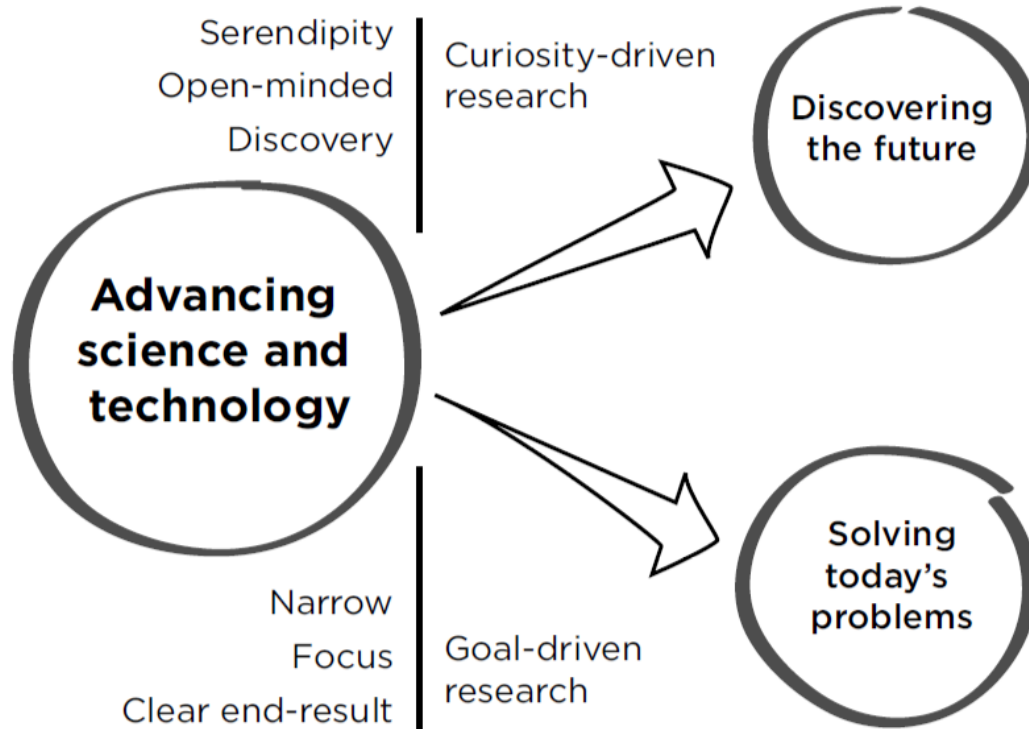


ISTITUTO ITALIANO  
DI TECNOLOGIA

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ISTIT

the [Istituto Italiano di Tecnologia](#)  
promotes excellence in [fundamental](#) and [applied](#) research,  
develops [higher education](#) in the area of science and  
technology and fosters the [evolution of industry](#) towards the  
forefront areas of technological innovation





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



Center for Genomic Science,  
Campus IFOM-IEO, MILANO



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



Center for Sustainable Future Technologies,  
Politecnico di Torino, TORINO



Center for Translational Neurophysiology,  
Università di Ferrara, FERRARA



Center for Microbiorobotics,  
Scuola Superiore Sant'Anna, PISA



Center for Nanotechnology Innovation,  
Scuola Normale Superiore, PISA



Center for Life Nanoscience,  
Università degli Studi di Roma La Sapienza, ROMA



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

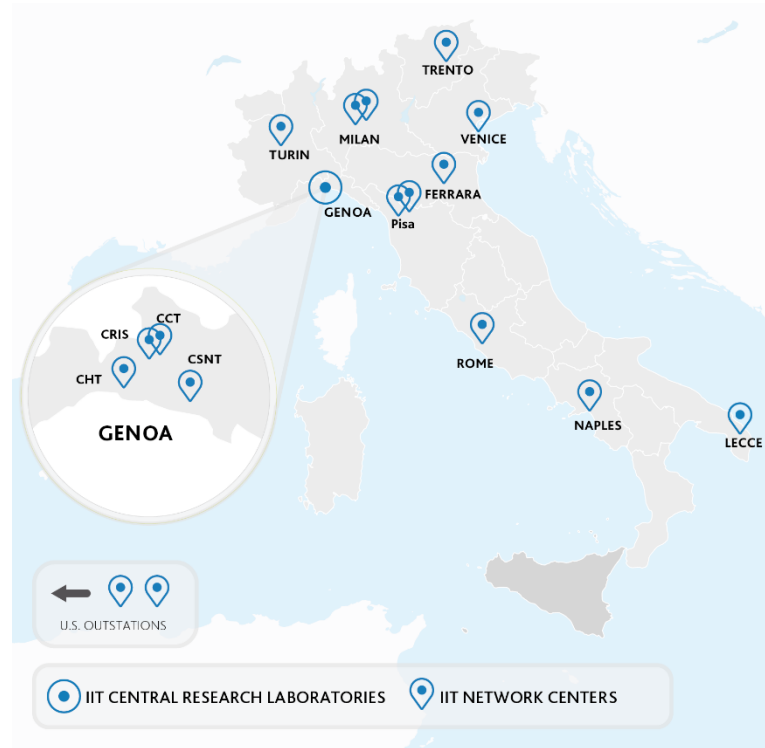


Center for Biomolecular Nanotechnologies,  
Università del Salento, LECCE



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

- Machine Learning, MIT, BOSTON (USA)
- Neurobiology Dept., Harvard Univ., BOSTON (USA)





# IIT@Genoa: The Robot Valley



Center for Human  
Technologies (CHT)



Center for Robotics  
and Intelligent  
Systems (CRIS)



Center for  
Convergent  
Technologies  
(CCT)



Center for Joint  
Industrial Research  
(CJIR)



Center for Human  
Technologies (CHT)



Center for Robotics  
and Intelligent  
Systems (CRIS)



Center for  
Convergent  
Technologies  
(CCT)



# the magic of IIT



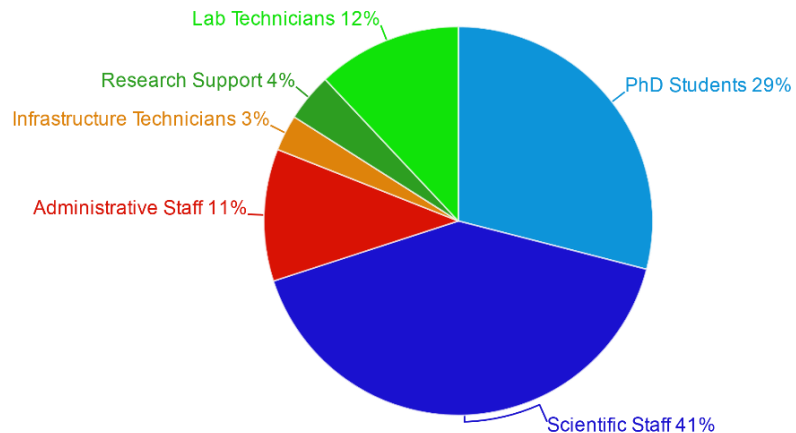
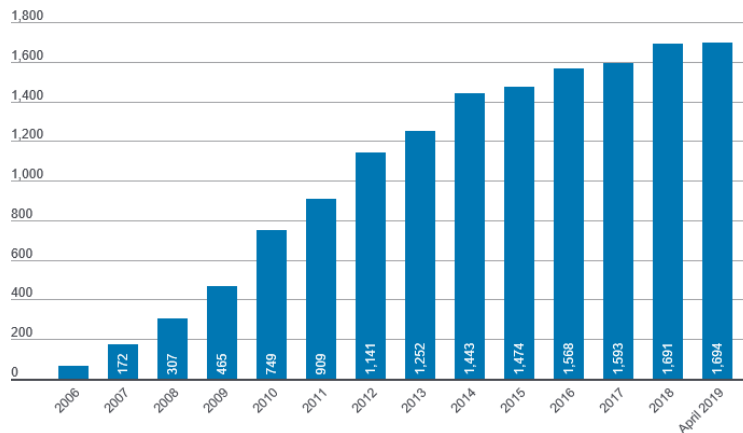
# people, people, people

49% of personnel from 60 countries

16% returning Italians

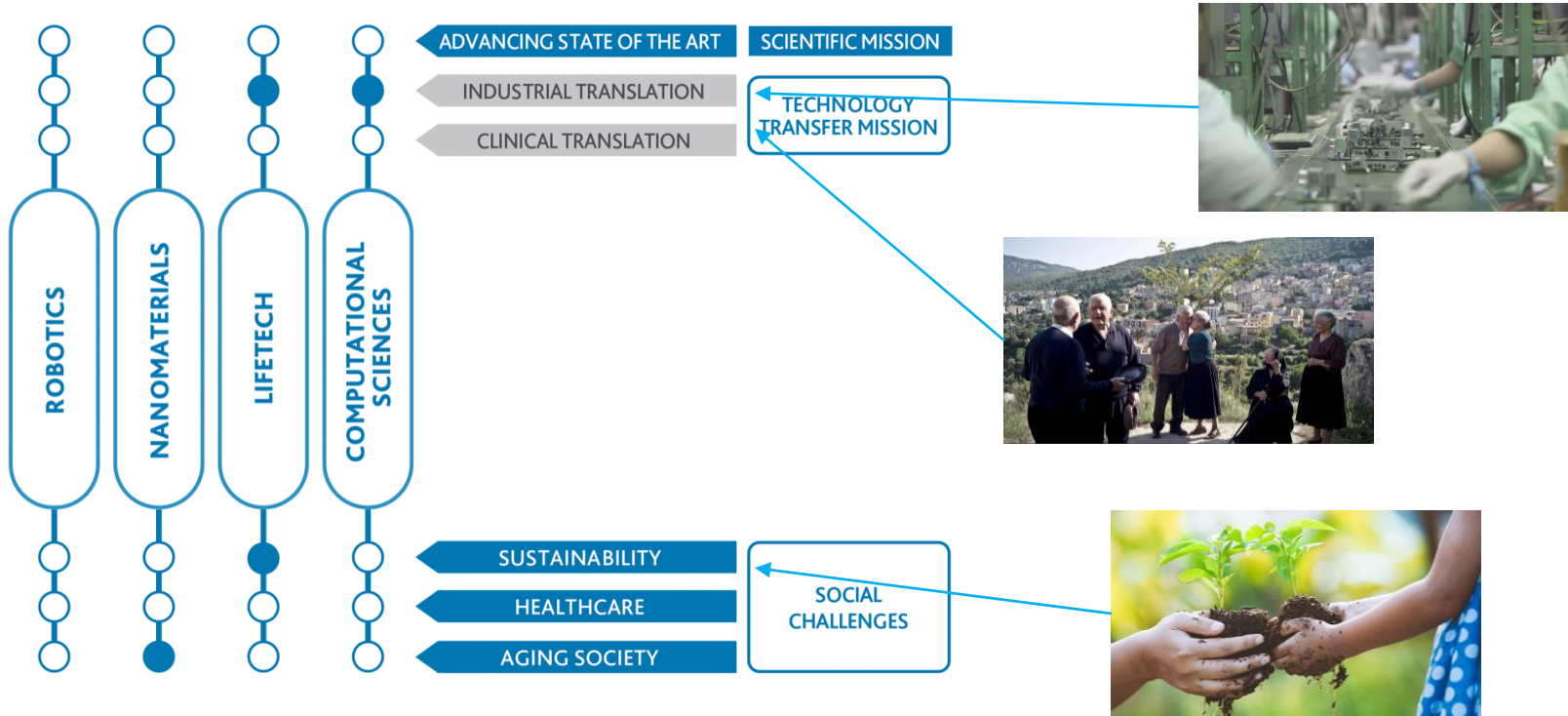
41% women

average age of ~35 years

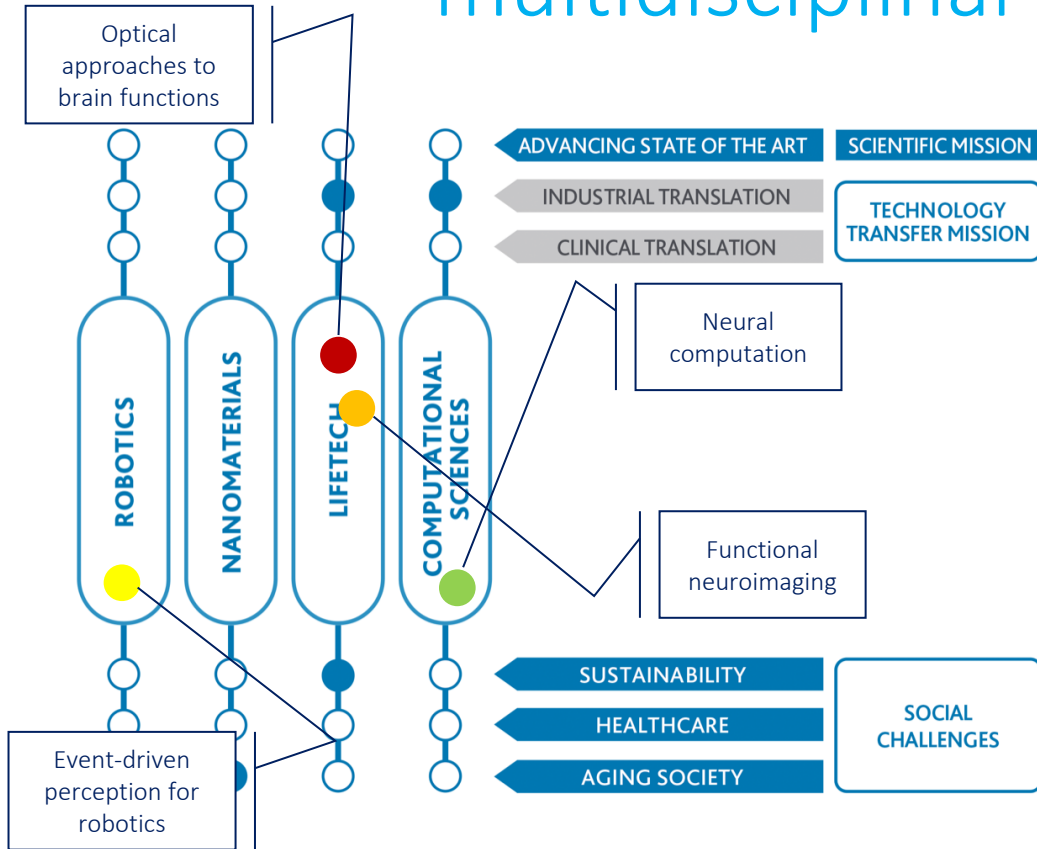


more than 1760 people

# a strategic plan for big societal challenges

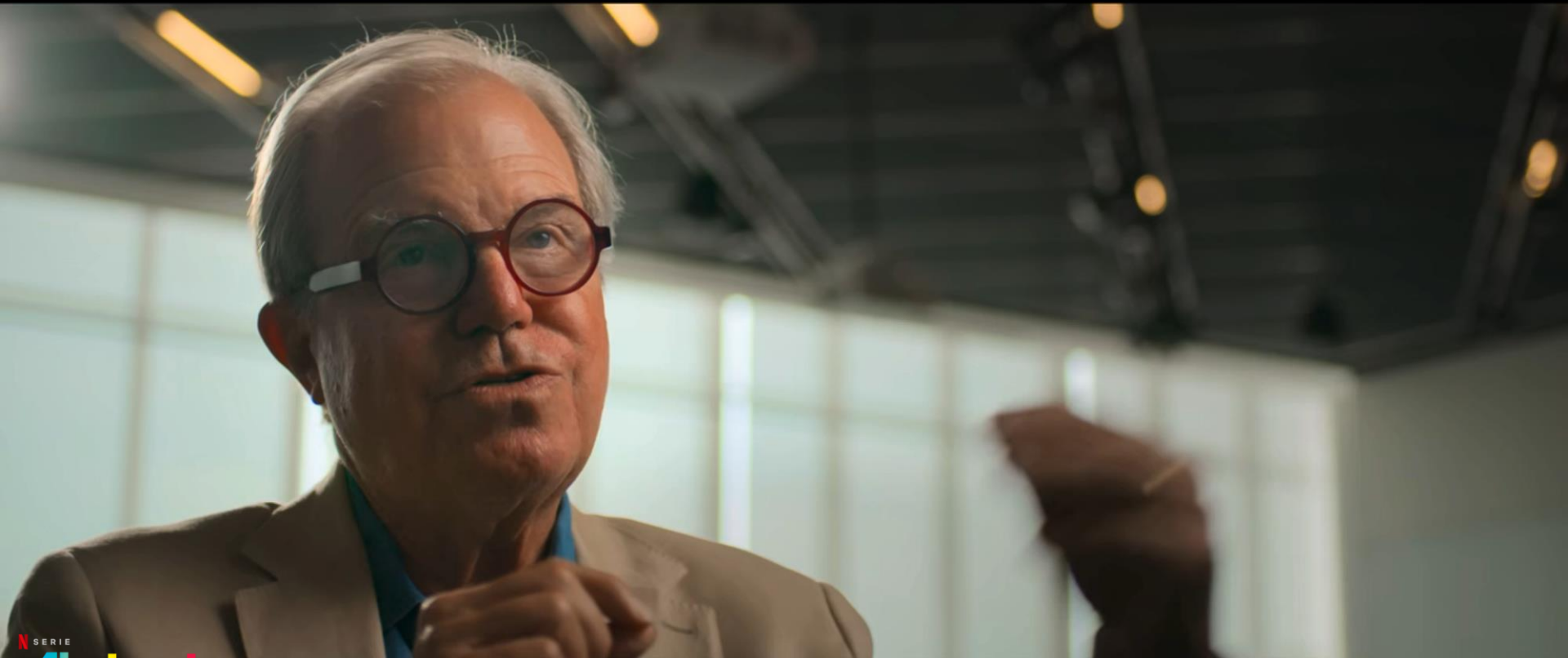


# multidisciplinary research



**NEW**  
*Initiatives*







BANG!



An abstract background featuring a central point from which numerous thin, radiating lines extend outwards. The lines are colored in a gradient from bright yellow and orange in the center to deep red and dark purple towards the edges, creating a sense of energy and movement.

Bits

Atoms

Neurons

Genes

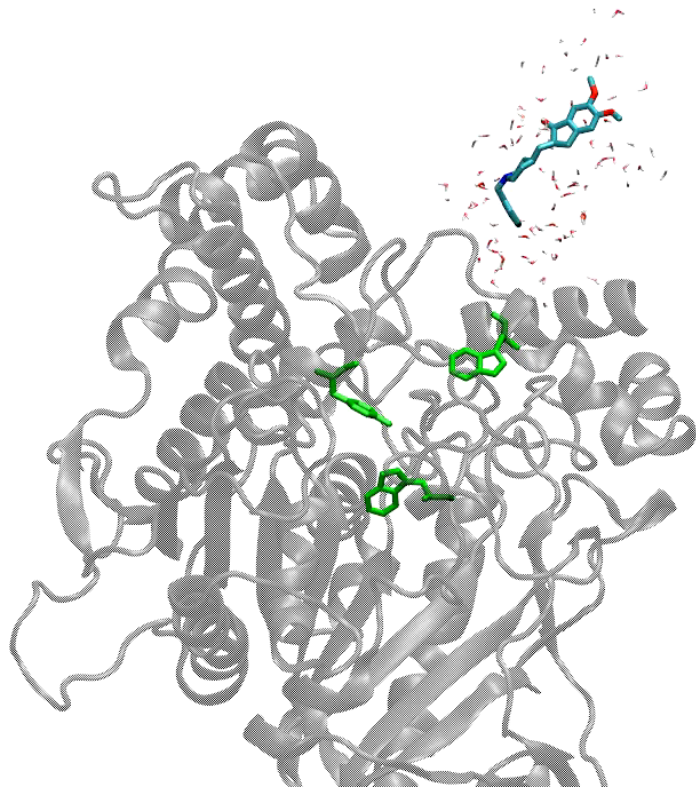


digital tech  
for health

- ↓ IIT and Gaslini Children's Hospital
- ↓ 40 families analyzed
- ↓ 19,396 genes, 6Tb in 48 hours
- ↓ 150,000 variants per sample!
- ↓ 50-100 variants for manual analysis
- ↓ 1 candidate mutation found



0 ns



how food waste  
becomes food  
packaging



EHAB  
TECHNOLOG

it

STITU  
CO



ISTITUTO  
ITALIANO DI  
TECNOLOGIA



Centro S. Piegato  
Engineering of Flexible Robots 2009



ADAPTIVE  
ROBUST  
SOFT  
SIMPLE

SO  
HA

When grasping objects, human hand joints are  
correlate following primitive motion synergies.  
grasping an object, the hand is trying to r  
is repelled by contact with the object, this  
called "soft sensing".



# joint laboratories





# startups

 COESIS

**hiq-nano**  
THE ART OF PRODUCING  
NANOPARTICLES

 **movendo**  
technology  
enabling people

  
Organic  
Bioelectronics

**POLIPO**

**SMO**  
SMART MICRO OPTICS

 **ADVANCED**  
MICROTURBINES

 **BEDIMENSIONAL**

**PIEZOSKIN**

**qb**robotics

 **optogenix**

**B I K I**  
TECHNOLOGIES  
DESIGNING BETTER MEDICINES

**POLITRONICA**  
for Digital Printing & Manufacturing

 **FLEET**  
TECHNOLOGIES

 **ribes.tech**

 **KIME**

 **morecognition**  
enabling human muscles

 **CIRCLE**  
**GARAGE**

 **Genoa**  
Instruments

- 23 startups incorporated
- +4 in 2019
- 170+ new jobs

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