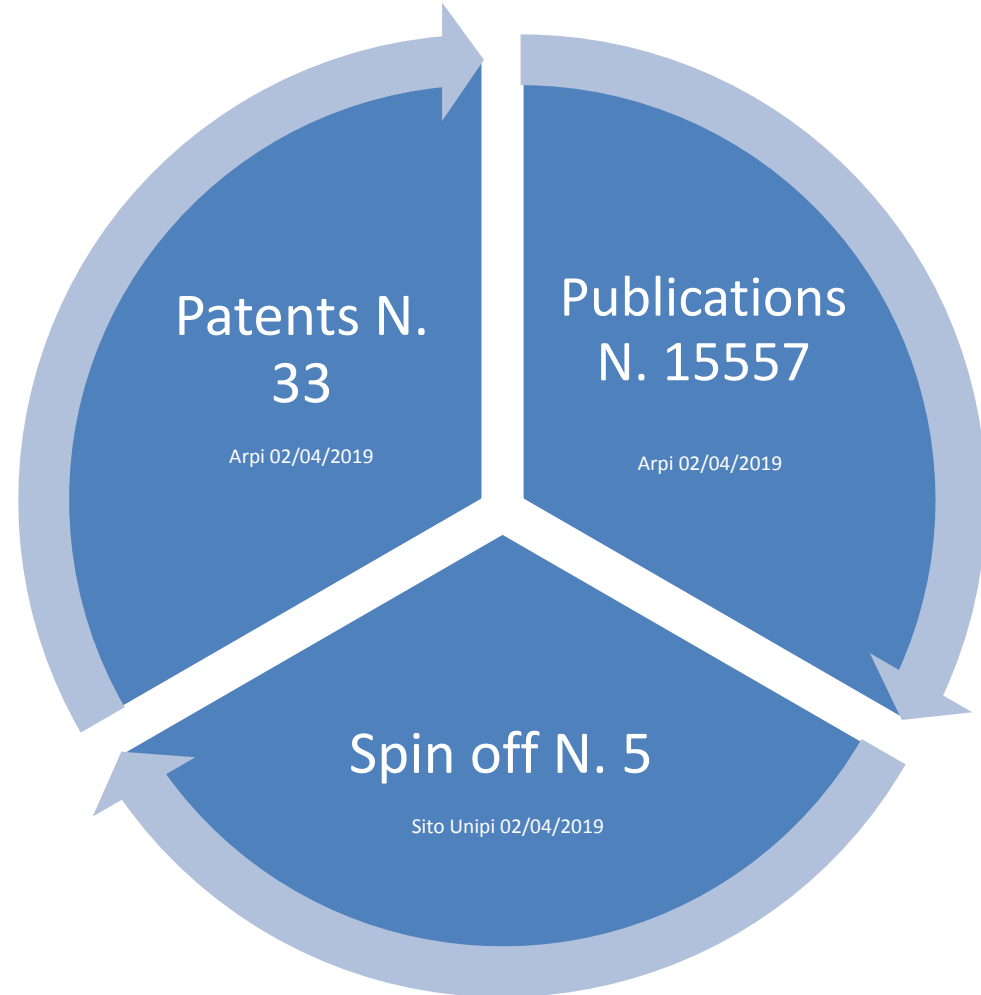
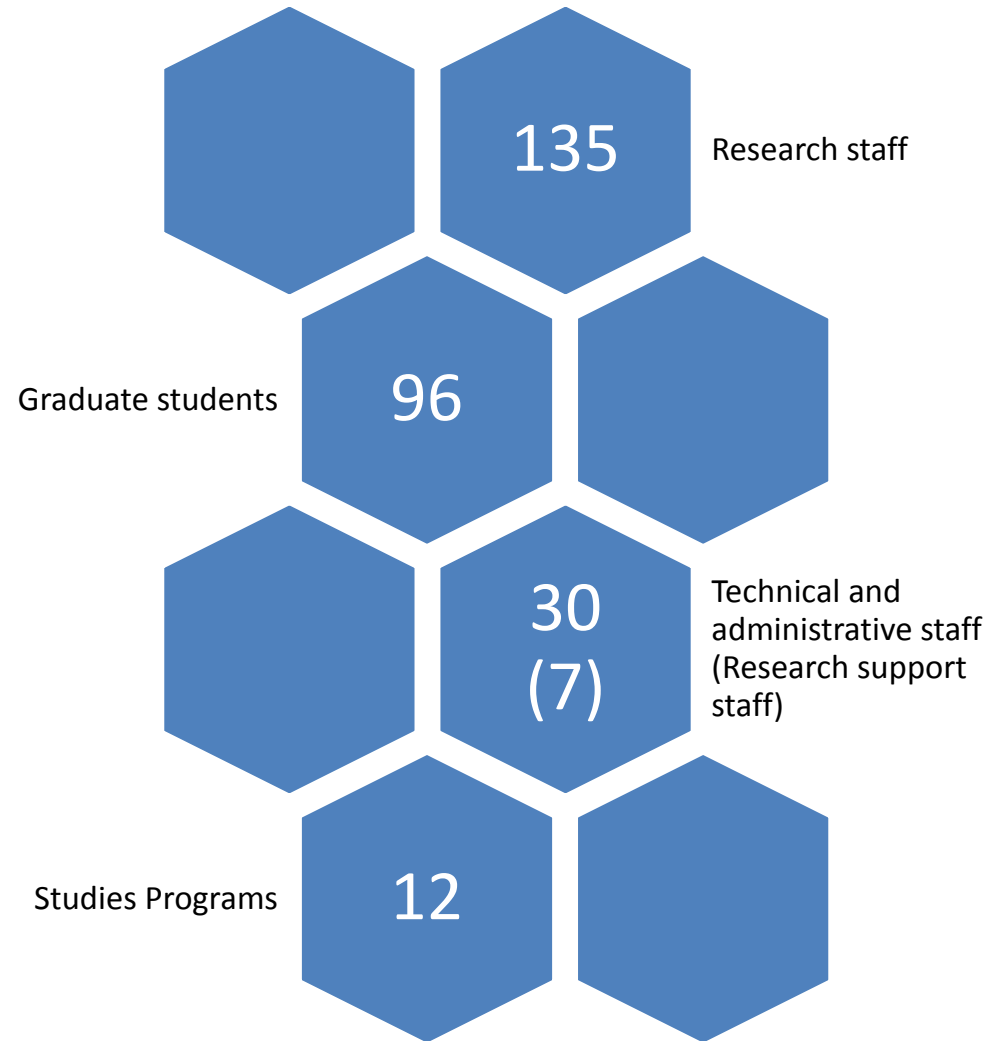




AN EXCELLENCE CENTER IN THE  
UNIVERSITY OF PISA FOR RESEARCH  
AND HIGHER EDUCATION IN THE  
FIELD OF INFORMATION AND  
COMMUNICATION TECHNOLOGY (ICT)



# DEPARTMENT AT A GLANCE



# RESEARCH AREAS

## Automation and Robotics

Systems Control, Industrial Automation, Autonomous Systems, Industrial & Service Robotics, Collaborative & Soft Robotics, Haptic, Aerial Marine & Land Mobile Robotics

## Bioengineering

Biomedical Signal Processing, Wearable Biomedical Sensors and Systems, Cardiovascular and Neural Modeling, Computer Assisted Surgery and Augmented Reality, Biomedical Additive Manufacturing

## Applied Electromagnetics

Antennas for future generation, Metamaterials, RFID, Electromagnetic field evaluation for safety and security, Ultra thin electromagnetic absorbers

## Telecommunication Systems

Digital Communications, Communication Networks, Radar and Remote Sensing

## Electronics

Semiconductor Technology, Devices and Sensors; Analog, Digital, RF Circuits and Systems Design; Power Management

## Computer Science & Engineering

Embedded Systems, Computer Networks, Pervasive Computing, Data Analytics and Soft Computing, Information Systems, Cybersecurity, Computer Ethics and Digital Citizenship





# RESEARCH PROJECTS



Centro E. Piaggio  
biomechanics and robotics research Center



23 EU projects (49 in 3 years)  
 6 EU projects coordinated by DII  
 3 ERC grants  
 25 Regional Projects  
 130+ contracts with industries  
 630+ collaborations with industries  
 “Dipartimento di Eccellenza”- MIUR



# RESEARCH IMPACT



## Large enterprises and SMEs

Technology transfer, Research for Industry 4.0  
Collaborations with industries  
Involvement of industries in projects



## Healthcare

E-health, Rehabilitation, design, fabrication and characterization of biomedical devices and phantoms  
Surgical planning and navigation for our area patients  
Rehabilitation and Prosthetics



## Entertainment/Culture

Virtual and augmented reality  
Soft robotics for human-robot interaction



## Safety for people and environment

Monitoring and rescue in hostile and hazardous environments  
Safe Human-Robot Interaction



## CyberSecurity

Security of Enterprises and Public Administration  
Security in the Internet of Things  
Security in Automotive

