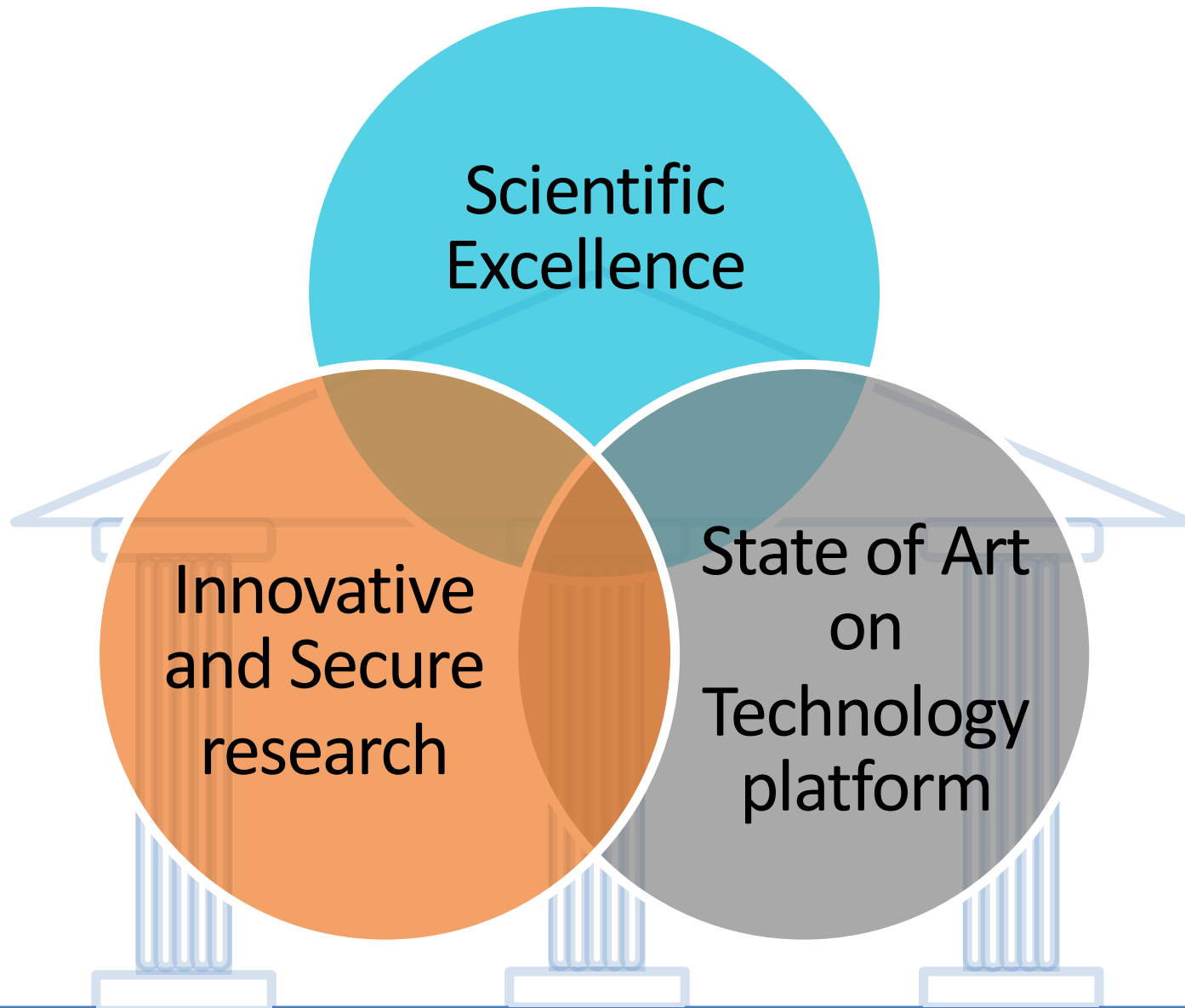


# Scientific & Technologic collaboration with LAAS



# Reconised Scientific excellence

## > CNRS is:

nature



**1st** on Nature Index in 2017

**2nd** Scimago Institution ranking in term of scientific publication on 2017.

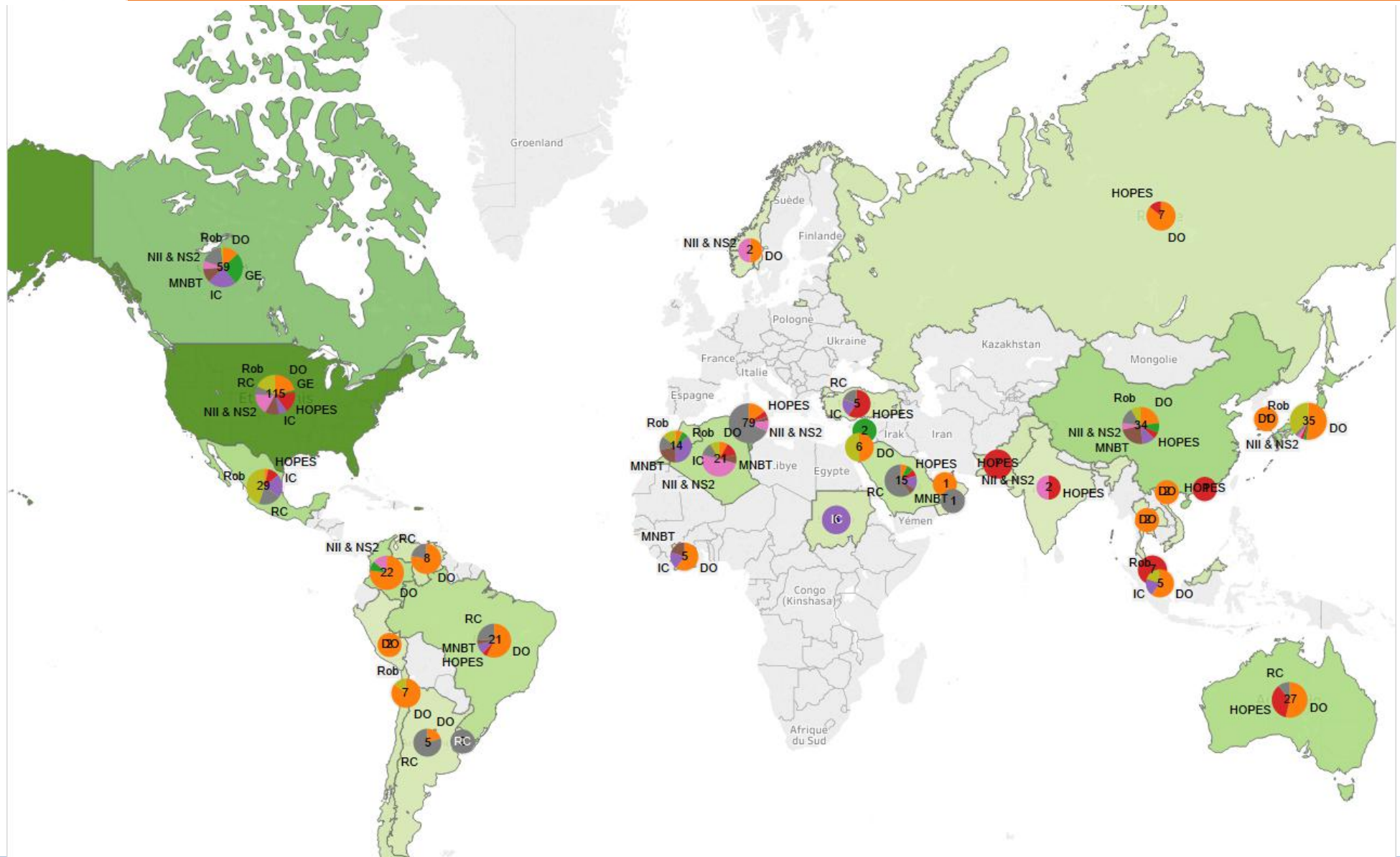


**8th** government research institution on Reuthers and Thomson Top 25 Global Innovators ranking on 2017

## > LAAS is:

- More than 150 new formalised collaborative research projects each year
- 145 of joint publication with at least one international co-author in 2016.
- Work in collaborative project since 1991, one of the first french lab to start to work with industrial partners

# International collaboration



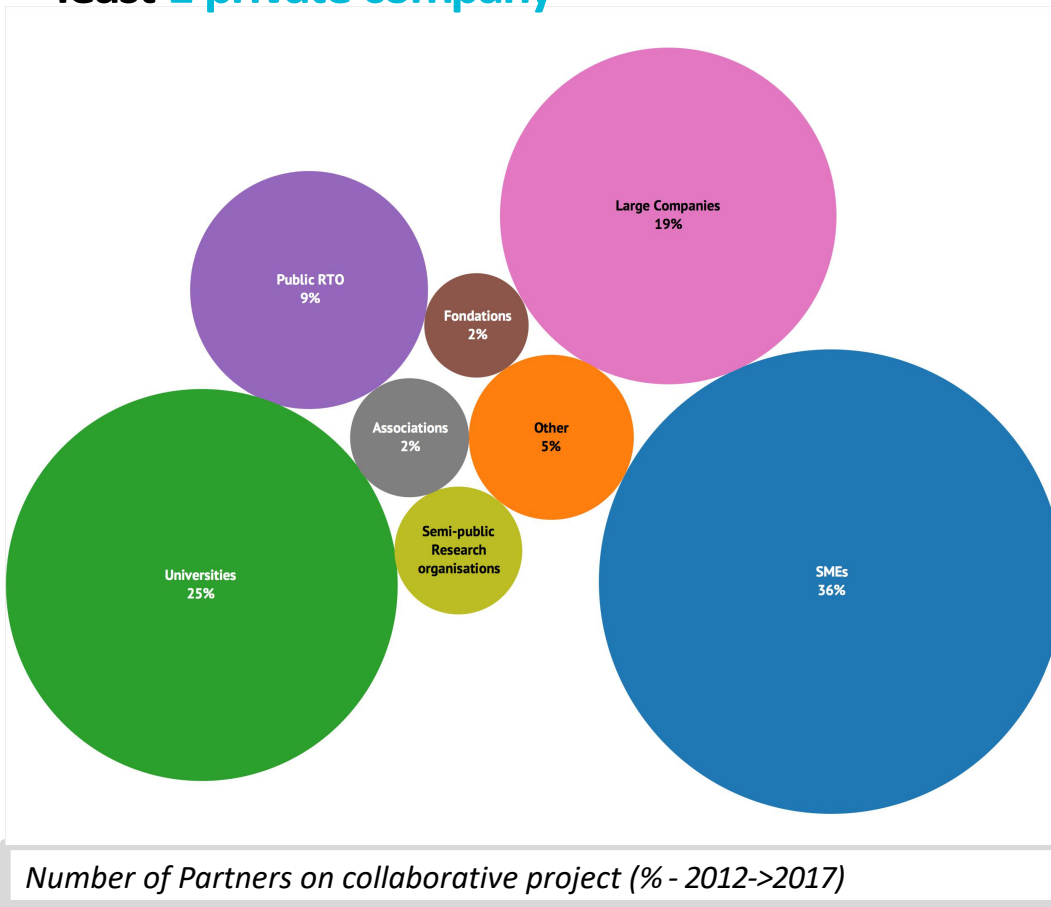
# Innovative and Secure research

- > Approximately **10 new patents each years** with LAAS-CNRS as (Co-)owner.
- > An agreement for each collaboration with a private partner (to be Negotiated in case by case basis)
- > A dedicated **service in charge to partnership and contracts** negotiation
- > Dedicated **Technology Transfer Organisations**, in charge to accelerate and help transfer of laboratory's patents and know-how

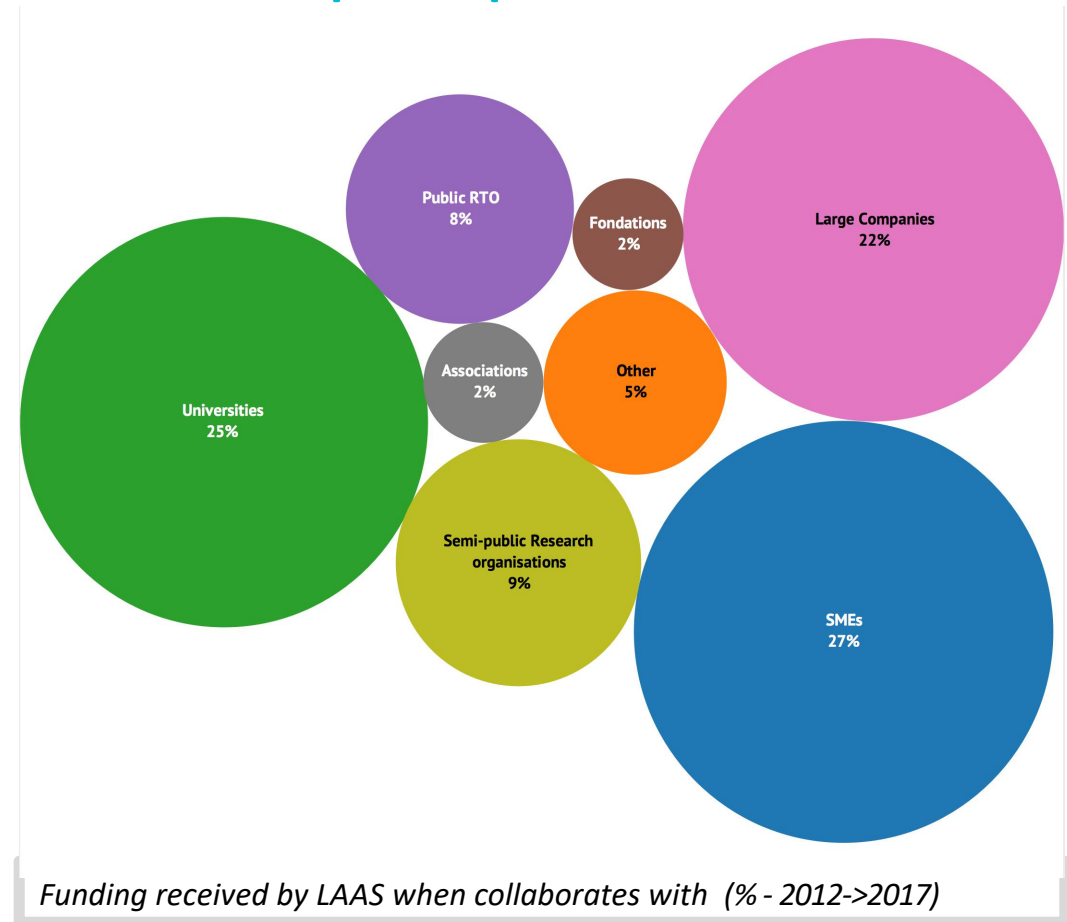


# Collaboration on contract research environment

- More than 50% of contractual research with at least 1 private company



- 50% of funding received by LAAS in collaboration with at least 1 private partner



# Partnership with industrial world – Key figures

- > **More than 300 contracts ongoing yearly**
  - **12** European PRCD projects (**2** *ERC Advanced Grants* – **1** *ERC Cosolidator Grant*), **4** started in 2017.
  - Almost **50%** involve (at least) one industrial partner
  - **13** CIFRE conventions started in 2016 [**29** ongoing]
  
- > **eHorizon program (Autonomous vehicle – CONTINENTAL – 2017-2022):**
  - **9** PhD thesis (CNRS)
  - **12** PhD thesis (CIFRE)
  
- > **Joint Labs: 1991 → MIRGAS** (RENIX - LAAS, LEEI, IMFT) ;  
**LCIP** (Motorola) ; **LIS** (Airbus, Astrium, EDF, Technicatome, Thales) ; **LIPSA** (Freescale) ;  
**PEARL** (Alstom — ENIT, IUTGE-UPS, LAAS, Laplace-INP, ...) ; **AUTODIAG** (Actia — IRIT, LAAS) ;  
**Pix-Cell** (Essilor — CIRIMAT, LAAS, LAPLACE) ;  
**AIRSYS** (Airbus — IRIT, LAAS, ONERA);  
  
2014: **BIOSOFT** (Innopsys - LAAS)  
2015: **IMPYACT** (Lacroix - LAAS) ;                    **OPERA** (Essilor - LAAS)  
2016: **CapIRO** (acoem - LAAS)  
2018: **3 new joint labs** will coming
  
- > **Innovation:**
  - 2015 : **13** declarations of invention
  - 2016 : **26** declarations of invention

# Licensing / Co-ownership agreement

- > **Co Ownership agreement**: General or very specific rules can be define at the beginning of the project, before creation of result, **in the collaborative agreement.**
  
- > **Licencing**: Agreement to grant access rights on laboratories patents is negotiated on case by case basis.

CNRS  
INNOVATION



**2 dedicated** subsidiaries of CNRS:

One national, one regional, to help laboratories and researcher to managed discussions about direct licensing or Co-ownership agreement with industrial partners





EHTech: Energy Harvesting (shower water) — 2009



Epsiline: Laser Technology-based Anemometers — 2009



EXEM: Monitoring Electromagnetism in Radiocommunications — 2010



Seeks: Collaborative Search Engine — 2010



i Habitation: Domotics (building restoration and new) — 2012



3dis Technologies: Cost-effective Circuit Interconnection Technology — 2014



SuBmarine Open Technologies: GPS navigator for diver — 2015



SmartCatch : Intravascular microdevices for the capture of circulating tumor cells in the frame of personalized medicine — 2016



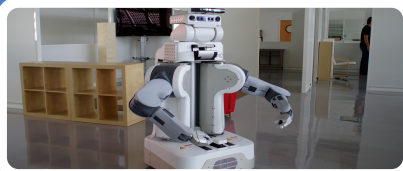
Inorevia : Microfluidic instruments for biomedical analysis— 2016

# State of Art on Technology platform



## Energy Platform

- Access to the database issued from the 6000 sensors.
- Hosting and training of visiting researchers.



## Robots Platform

- Two equipped experiment hall (motion capture, apartment model, safety devices, ...)
- Host several robots ( humanoid, indoors wheeled, outdoor exploitation & drones)



## Network Platform

- allow testing and validating the architecture protocol and network mechanisms for research
- Directly connected to RENATER and Géant, the European network of research



## Micro and Nanotechnologies Platform

- 2500 m<sup>2</sup> with 1500m<sup>2</sup> clean room
- 180-200 regular users



## Characterization Platform

- Platform allowing multidisciplinary characterization
- 7 M€ shared equipment over 1200 m<sup>2</sup> facilities

# Horizon for new opportunities

## > **Horizon Europe**

- First estimation of 100 billions euros of budget.
- Majority of effort on “industrial competitiveness”
- Simpler rules.

## > **European and national Artificial Intelligence initiatives**

## > **New project of law PACTE for entrepreneurship:**

- bring public research and industry closer with specific program and funding.
- Creation of spin-off easily