

# Univ. Grenoble Alpes



**Univ. Grenoble Alpes : a figurehead of Grenoble's ecosystem**

*2018 Japan-France symposium in Higher Education*



**Patrick Lévy**

7<sup>th</sup> September, 2018

# UNIV. GRENOBLE ALPES

## ■ Key figures

- ▶ 1 university, 3 higher education schools, 5 research centers, 1 teaching hospital
- ▶ 50,000+ students
- ▶ 3,700 doctoral students, of which 45% international
- ▶ 12,000 employees, of which 5,500 academic



## UNIV. GRENOBLE ALPES: LABELED « INITIATIVE OF EXCELLENCE » (IDEX)

- The Initiative of Excellence was launched in 2010 by the French government in order to support the **creation of 5 to 10 highly visible research universities** and to ensure the competitiveness of French HE&R institutions at an international scale.

### WHAT WORLD-CLASS UNIVERSITIES HAVE THAT REGULAR UNIVERSITIES DO NOT

- Highly qualified Faculty;
- Excellence in Research;
- Quality Teaching;
- High levels of governmental and non-governmental sources of funding;
- International and highly-talented students;
- Academic Freedom;
- Well-defined and autonomous governance structures;
- Well-equipped facilities for teaching, research, administration;
- Student life

(Altbach 2004; Khoon et al. 2005; Niland 2000, 2007)



## UNIV. GRENOBLE ALPES IN INTERNATIONAL RANKINGS

### ■ *Shanghai 2018*

**10<sup>th</sup>** in Geography

**12<sup>th</sup>** in Remote Sensing

**18<sup>th</sup>** in Earth Sciences

**21<sup>st</sup>** in Metallurgical Engineering

**Top 50** in Physics, Computer Science & Engineering, Water Resources, Materials Science & Engineering, Atmospheric Science, Electrical & Electronic Engineering, and Automation & Control Engineering

### ■ *QS World Ranking*

**Top 100** universities in Earth & Marine Sciences

**Top 200** in Natural Sciences, Physics & Astronomy, Environmental Studies, Chemistry, Material Sciences

■ **4<sup>th</sup>** in France's "Best Global Universities" (*US News and World Report 2018*)

■ **28<sup>th</sup>** "Most Innovative University in Europe" (*Thomson Reuters 2018*)

## A UNIVERSITY FIRMLY GROUNDED IN ITS CITY

### ■ 3 main campus sites in Grenoble

- ▶ The growth of the city and territory of Grenoble echoes the dialogue of **research, science and industry**
- ▶ From the glove industry to hydroelectricity (the “houille blanche”), and now micro- and nanotechnologies, software and energy, **Grenoble follows the rhythms of innovation.**

Scientific Polygone campus



Health campus

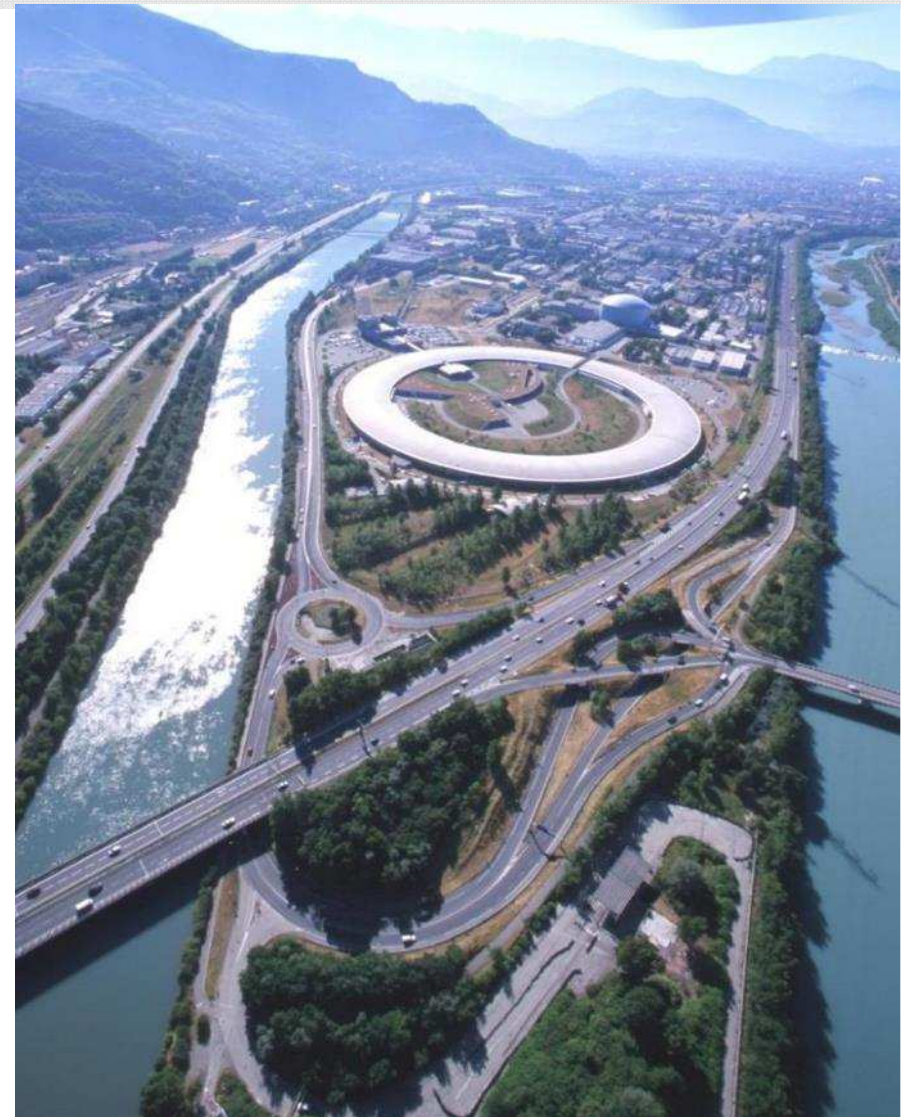


East campus



# AN EXCEPTIONAL ENVIRONMENT

- **5 International facilities**
  - ▶ ESRF, ILL, EMBL, GHMFL, IRAM
  
- **9 National research organizations**
  - ▶ CNRS, CEA, Inria, Inserm, Irstea, INRA, CRSSA, IRD, CEN/CNR
  
- **R&D business partners**
  - ▶ Sun Microsystems, HP, Orange, STMicroelectronics, Schneider Electric, Alstom, Xerox, Thales...



## INNOVATION ECOSYSTEM

### ■ Grenoble, City of Innovation

- ▶ 7,1% of the population works in R&D (2<sup>nd</sup> in France)
- ▶ 5<sup>th</sup> most inventive city in the world (*Forbes* 2013)
- ▶ 3<sup>rd</sup> European city of the future (*The Financial Times*)
- ▶ Top finalist for the European iCapital “Capital of Innovation Awards” (2014)
- ▶ 84<sup>th</sup> most innovative university in the world (*Thomson Reuters* 2015)

### ■ A Wealth of Thriving Business

- ▶ Over **470** international companies in Grenoble and **78,000** jobs in the Isère area



## ECOSYSTEM: STATE OF AFFAIRS

- Grenoble's ecosystem is highly performing, yet
- There is a constant need for regeneration and for boosting its attractiveness
- There is also a need for inclusiveness

**A recent study conducted by the Metropole showed that:**

- *There is an increasing gap between the perception of the highly qualified persons and their relatives on one hand and the less qualified population on the other hand*
- *Company leaders expectation #1 is the improvement of Grenoble's image and the emergence of a vision shared by all stakeholders*
- *Students are extremely happy about study and living conditions*
- *A rich and inspiring scientific environment*



## UNIV. GRENOBLE ALPES@2020: LEADER OF ITS ECOSYSTEM

### International recognition and visibility

- International recognition and visibility in order to **attract companies and people**

### Strategy

- Be a **spearhead of the ecosystem to develop new ecosystem pillars**: Quantum Engineering, MedTech, AI, Green Chemistry, Circular Manufacturing, ...

### Innovation

- **Create and accelerate start-ups**
- **Fostering the links between companies and labs**
- **Developing PI and expertise** needed by the ecosystem

### Skills

- Provide **high profile skills** for existing and new economic sectors

### Coordination of stakeholders

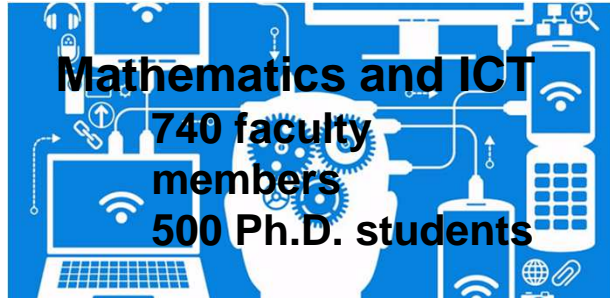
- **To share a mid- and long-term strategy with local stakeholders** (local authorities, industries, etc.)
- **Sharing information** so that each one can be an ambassador

## THE ECONOMIC IMPACT OF FRENCH RESEARCH-INTENSIVE UNIVERSITIES

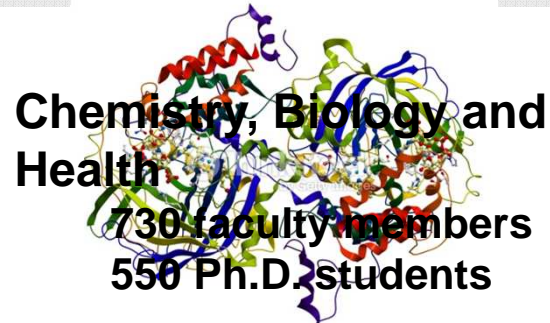
In 2016, the French research-intensive universities were estimated to have contributed **€42,5 billion GVA** (Gross Value Added) and **362,150 jobs** globally (étude BIGGAR, CURIF).

For each **€ 1** generated through their direct operations in GVA terms, they created **€ 5** in total benefits for the French economy

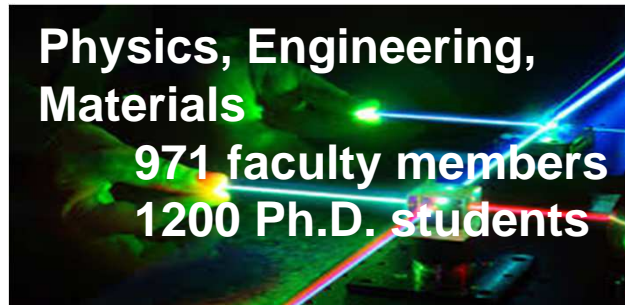
# RESEARCH@UNIV. GRENOBLE ALPES



**Mathematics and ICT**  
740 faculty members  
500 Ph.D. students



**Chemistry, Biology and Health**  
730 faculty members  
550 Ph.D. students



**Physics, Engineering, Materials**  
971 faculty members  
1200 Ph.D. students



**Law, politics, economy, management, social sciences**  
370 faculty members  
550 Ph.D. students



**Particles, Astrophysics, Geosciences, Environment and ecology**  
500 faculty members  
400 Ph.D. students



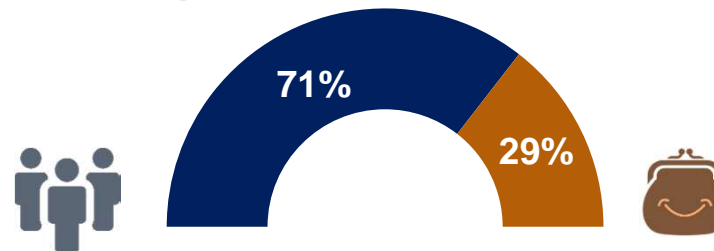
**Arts, literature, languages, humanities, cognition**  
500 faculty members  
640 Ph.D. students

# COMMITMENTS OF THE IDEX UNIV. GRENOBLE ALPES

**Consolidated budget: 282 M€**

**Funding 37,5 M**

:



**Human resources**  
**26,8 M€**

**160 PhD**  
**10 junior chairs**  
**121 post-docs**  
**87 staffs**

**Other costs 10,7 M€**

**Equipment**  
**Traveling**  
**Internships**  
**Dissemination**  
**Communication**

## RAISED FUNDING: 2017

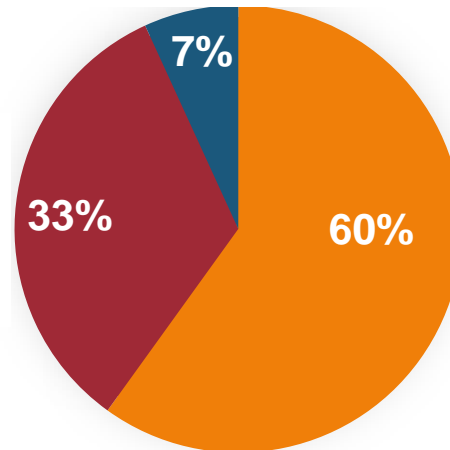


**45 M€ of raised funding**

■ 7% private sector (1,6 M€)

■ 33% international funding (8 M€)

- ▶ Europe : 6,7 M€
- ▶ Hors Europe : 1,3 M€



■ 60% public funding(14,5 M€)



**More than 100 publications**



**Innovative actions towards PhD students**

## FUNDING RESEARCH AND VALORISATION

<b>Cross Disciplinary Program</b>	Scientific and socio-economic challenges oriented interdisciplinary projects
<b>Scientific Equipment</b>	Co-funding of scientific community equipment
<b>Innovation Grant</b>	Foster innovation ; common labs with cultural and socio-economic acors, transfer acceleration
<b>Initiatives de Recherche Stratégique</b>	Support new comers and emerging ideas
<b>Chaires IDEX UGA</b>	Attract young talented people with ERC profile
<b>Postes environnés IDEX UGA</b>	Attract talented people on permanent positions

## KEY SUCCESS CRITERIA FOR RESEARCH IN GRENOBLE

- Visibility, ranking
- ERC
- Funding
- Socio-economic partnership

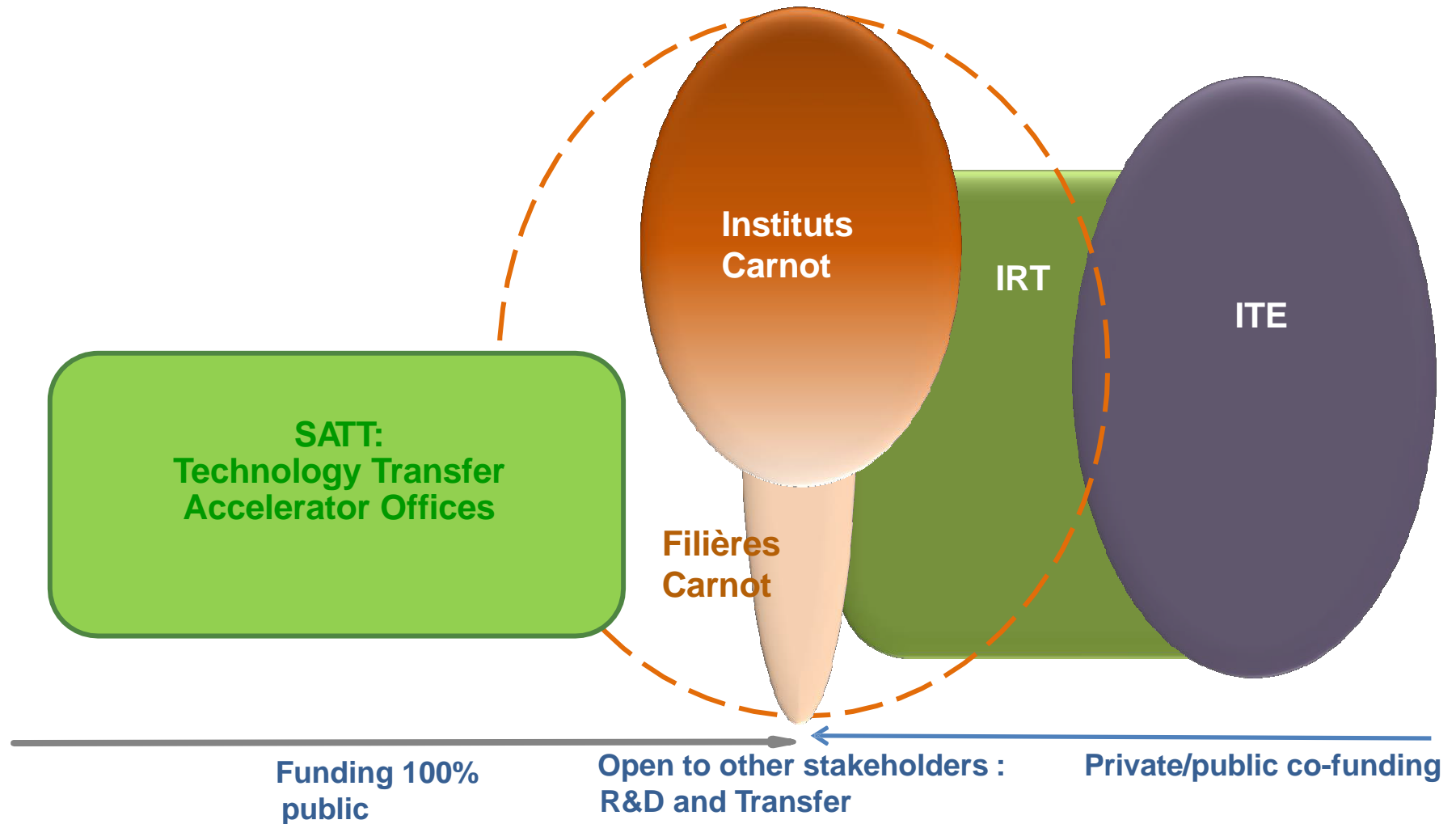
## COMMERCIALIZATION AND TRANSFERT

- 96,1 M€ funding in 2017 excluding IP revenues and LLL
- Transfer and commercialization

Action	2014-2015	2015-2016	2016-2017
Start-ups		26	28
SATT Linksium projects	27	24	25
Patents	621	656	652



# TRANSFER STRATEGY: DIFFEREND KINDS OF INSTRUMENTS



## UNIV. GRENOBLE ALPES: INVOLVEMENT IN NUMEROUS LARGE PARTNERSHIPS FOR RESEARCH AND TRANSFER

### ■ Instituts Carnots :



(Partnerships between higher education institutions and private companies to promote the **private-public research**)

### ■ IRT Nanoelec: 115 partners, 30 ongoing projects, 180 ETPT, 400 M€

(Long term partnerships between higher education institutions and private companies to intensify the **Industry-Research-Training dynamic** and that way, enable real **innovations and technological leaps**)



### ■ ITE : Supergrid

(Interdisciplinary platforms in the field of low-carbon energy, gathering skills of industry and public research in co-partnerships, with private/public co-fundings)

### ■ SATT Linksium Grenoble Alpes

(Public funded structure that evaluate, market and license technology from University and Public Research Organizations)

### ■ 3 « Pôles de compétitivité »

(Competitiveness clusters: H.E. institutions + public research + small, middle and large companies) :



# Univ. Grenoble Alpes



Thank you for your attention!