

# Paris Region, an Innovation Powerhouse

Paris Region is a land of innovation recognized on a European and global scale, with an overall R&D spending equivalent to that of Silicon Valley. R&D accounts for the employment of more than 165,500 people in global R&D centers across a variety of businesses. Its diversified economy buzzes with top-ranked high-tech clusters and research centers, which generate exciting opportunities for cross-sector collaborations. Mainly carried out by private companies, R&D in Paris Region accounts for two-thirds of total expenditure and represents more than 85% of design-research jobs.



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## #1 in Europe for R&D (2017/19)

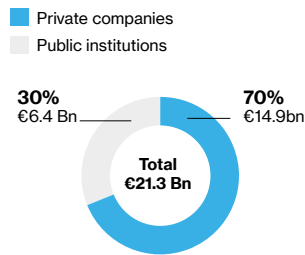
### The highest amount of R&D expenditure in Europe



5.3% of EU27 and 40.2% of French R&D expenditure  
2.87% of Paris Region's GDP

42.3% of R&D expenses made by private companies in France

36.1% of R&D expenses made by public institutions in France



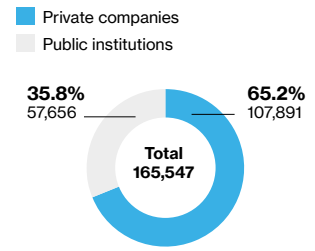
In Paris Region, 70% of R&D spending is carried out by companies.

Ministry of Education, Higher Education and Research, data 2019

### The largest R&D talent pool in Europe



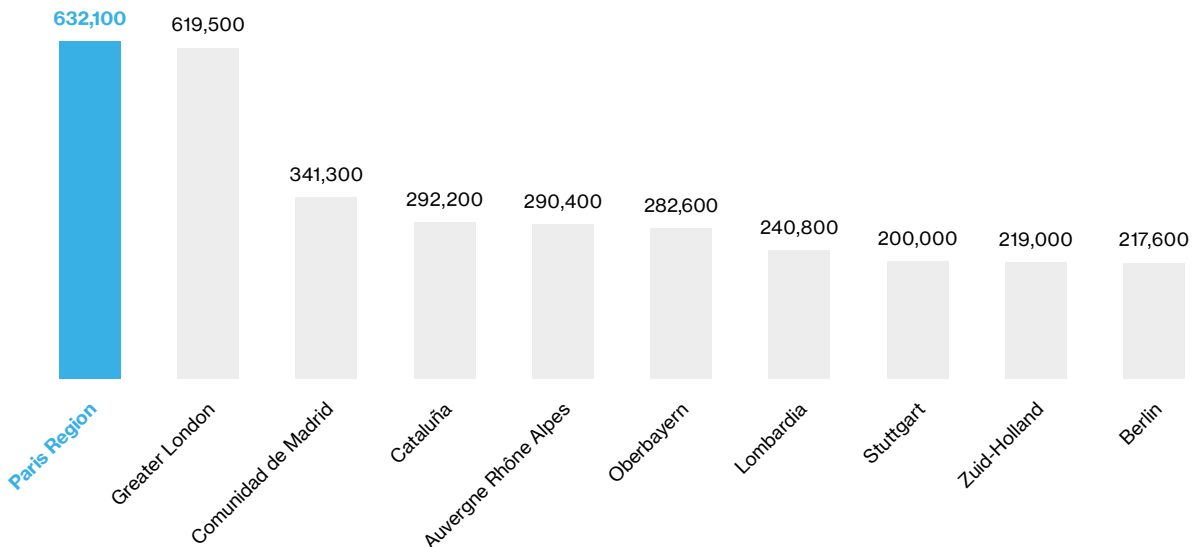
R&D talent such as professors, researchers, engineers, technicians and support staff work in universities, Grandes Ecoles, public institutes and companies.



5.6% of EU and 37.5% of French R&D employees 40.5% of the researchers in France

Ministry of Education, Higher Education and Research, 2021, data 2017

### Paris Region, the best place in Europe to source Scientists and Engineers



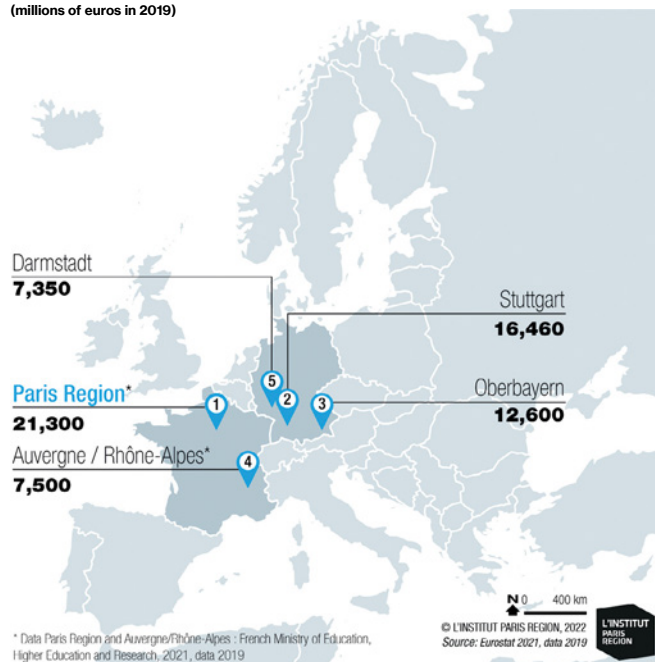
Eurostat, Scientists and engineers, 09/2021, data 2020, NUTS 2 (Greater London = Inner + Outer London)

#1

European Region for  
Research & Development  
Expenditure

### EU28 Top 5 regions by R&D expenditure

(millions of euros in 2019)



### Internationally Recognized Technological and Scientific Knowledge

In terms of research, the Region's reputation is internationally renowned, with researchers having been recognized with numerous prizes and distinctions.

Paris Region is home to the highest concentration of mathematicians in the world, including many Abel Prize and Fields Medal winners.

33

Nobel Prizes

The two most prestigious  
awards in mathematics

4

Abel Prizes

11

Fields Medals

### At the Forefront of Innovation

Paris is ranked at Europe's **#1** and the world's **#10** largest science and technology clusters according to the Global Innovation Index 2021

Cornell University, INSEAD, WIPO, 2021

Paris:

- **#1** most innovative city in Europe
- **#7** in the world, ahead of London (#9), Berlin (#18), Munich (#21) and Helsinki (#24) in Europe

Paris stands out for its:

- High number of international projects
- High volume of start-ups
- Above-average R&D spending as a percentage of GDP
- Large number of international patents filed
- High level of patenting activity, particularly in the private sector
- Areas of excellence, which include transportation equipment, pharmaceuticals and biotechnology

JLL, Innovation Geographies, 2020, 2022

#### Patents

**7,614** patents filed, i.e. **61.6%** of the patents filed in France

INPI, data 2020

Paris Region is the European leader, and accounts for **4.4%** of all European patent applications in EU 28.

In 2017, the Region's scientific output accounted for **3.7%** of European publications.

#### Publications

**19,917** scientific publications in 2017  
**34.5%** of the national publications.

The Region specializes in mathematics, physics, human and social sciences, sciences of the universe

Paris Region: **26%** of international copublications, especially with the USA, the UK, Italy and Japan.

Hceres, OST, 2021

### A Concentration of National Scientific Power

**102** doctoral schools

**20,264** students enrolled in doctoral programs, i.e. **31.5%** in France

**7,431** foreign PhD students

Ministry of Education, Higher Education and Research 2019-2020

**5,789** foreign researchers  
**40.2%** of foreign researchers in France

FNAK, data 2018

The highest number of scientists and engineers, of people employed in Technology and Knowledge-intensive sectors, in science and technology

Eurostat, 2021, data 2020

### Presence of Major Research Infrastructures

**2** out of 3 of European most innovative research institutions

**#1** CNRS National Center for Scientific Research

**#3** CEA Alternative Energies and Atomic Energy Commission

**#12** INSERM National Institute of Health and Medical Research  
European Research Ranking, 2020

#### The CNRS National Center for Scientific Research holds top international rankings

- **#2** in Scimago Institutions Rankings
- **#4** in the Nature Index
- **#3** most visible research institution on the Web
- **#6** largest patent filer in France
- **#8** most innovative public research institution
- **33,000** people dedicated to research in France
- **1,144** research laboratories in France and abroad

# A Multidisciplinary Technological Hub in the Heart of Europe

Paris Region is renowned for its competitiveness clusters, especially in tech. From artificial intelligence to biotechnology, nanotechnology, telecommunications, AR/VR, 3D Animation, and Aerospace, businesses can plug into a fast-growing ecosystem in no time.

By bringing together large corporations, SMEs, start-ups, academics and researchers, Paris Region spurs remarkable collaborations and open innovation partnerships.

8 regional competitiveness clusters make up this dynamic ecosystem.

4,936 members including:

- 3,698 companies
- 694 labs and teaching institutions

Over

**3,030**

including

**€8.3 Bn**

of total funding



## ASTech

Aeronautics, space and defence

- 306 members, incl.
- 109 major groups
  - 117 SMEs
  - 48 labs and teaching institutions

73 projects funded since the cluster was founded

Total funding: **€313 M**



## Cap Digital

Digital and ecological transformation

- 904 members, incl.
- 71 major groups
  - 752 SMEs
  - 63 labs and teaching institutions
  - 12 investments funds
  - 7 urban communities

828 projects funded since the cluster was founded

Total funding: **€1.75 Bn**



## Cosmetic Valley

Perfumery and cosmetics

- 600 members, incl.
- 80 major groups
  - 520 SMEs
  - 200 labs and teaching institutions

350 projects funded since the cluster was founded

Total funding: **€450 M**



## Finance Innovation

Financial services

- 600 members, incl.
- 180 major groups
  - 400 SMEs
  - 20 labs and teaching institutions

28 projects funded since the cluster was founded

Total funding: **€1 Bn** (publicly and privately raised funds)



## Medicen

High-tech healthcare and new therapies

- 510 members, incl.
- 42 major groups
  - 427 SMEs and startups
  - 34 labs and teaching institutions

470 projects accelerated by the cluster

Total funding: **€2.30 M**



## Next Move

Automotive and mobility industry

- 570 members, incl.
- 106 major groups
  - 332 SMEs
  - 88 labs and teaching institutions
  - 17 partners or private institutions

306 projects funded since the cluster was founded

Total funding: **€1.6 Bn**



## Polymeris

Rubber, plastics and composites industry

- 546 members, incl.
- 43 major groups
  - 191 SMEs
  - 25 mid-caps
  - 73 micro-enterprises, start-ups
  - 101 research centers, universities or training organizations
  - 13 regional governments or institutional bodies
  - 99 others

350 projects funded since the cluster was founded



## Systematic

European innovation and technology cluster in digital and Deep Tech

- 900 members, incl.
- 150 major groups
  - 600 start-ups / SMEs / mid-cap companies
  - 140 labs and teaching institutions
  - 20 investors
  - 20 local authorities and institutional bodies

625 projects funded since the cluster was founded

Total funding: **Over €3.18 Bn**

ASTech, Cap Digital, Cosmetic Valley, Finance Innovation, Medicen, NextMove, Polymeris, Systematic (data 2021)