Université Paris-Saclay, a major player in innovation

université
PARIS-SACLAY

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Université Paris-Saclay

Located in the south of the Paris region, covering a vast area from Orsay to Paris, including Évry-Courcouronnes, Saint-Quentin-en-Yvelines and Versailles, Université Paris-Saclay brings together five faculties, three University Technical Institutes (IUT), four grandes écoles, one university engineering school, two associate institutions and seven partnering national research organisations.

The members of Université Paris-Saclay have come together to work towards a shared objective: combine their strengths and assets to form a leading scientific cluster for research, education, student success and innovation, with the goal of contributing to the development of a fairer and better society.

A unique environment combining education, research and innovation

As France's leading university and one of the world's top 20 universities in the Shanghai ranking, Université Paris-Saclay has an undergraduate to PhD-level course offer, supported by cutting-edge research and a rich innovation ecosystem.

Covering science and engineering, life sciences and health, and humanities and social sciences, it closely combines research and innovation to educate the citizens of the future, tackle the major societal challenges of today and tomorrow and contribute to value creation.

université PARIS-SACLAY

A research-intensive university

5 FACULTIES

FACULTÉ DE MÉDECINE · FACULTÉ DE PHARMACIE · FACULTÉ DES SCIENCES D'ORSAY · FACULTÉ DES SCIENCES DU SPORT · FACULTÉ JEAN MONNET

1 OBSERVATORY

OBSERVATOIRE DES SCIENCES DE L'UNIVERS

4 *GRANDES ÉCOLES*

AgroParisTech · CentraleSupélec · Institut d'Optique

3 UNIVERSITY TECHNICAL INSTITUTES (IUT)

IUT D'ORSAY · IUT DE CACHAN · IUT DE SCEAUX

2 ASSOCIATE INSTITUTIONS

UNIVERSITÉ ÉVRY PARIS-SACLAY · UVSQ

1 UNIVERSITY ENGINEERING SCHOOL

POLYTECH

7 PARTNERING NATIONAL RESEARCH ORGANISATIONS

CEA · CNRS · IHÉS · INRAE · Inria · Inserm · ONERA

COORDINATOR OF THE EUROPEAN UNIVERSITY ALLIANCE FOR GLOBAL HEALTH

EUGLOH

MEMBER OF EUROPEAN AND INTERNATIONAL NETWORKS

CESAER · eua EUROPEAN UNIVERSITY ASSOCIATION · EUF · LERU · Udice Universités de Recherche Françaises · U7+

The university in figures (2024)

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220 laboratories and over *500* *experimental platforms*

More than *50* start-ups created every year

6 Fablabs, *6* incubators

50,000 students

4,600 PhD candidates

8,100 researchers and lecturers

8,500 administrative and technical staff

Top 50 patent depositors (INPI)

20,000 graduates a year

5 Nobel prizes

11 Fields medals

13,000 *scientific publications/year*

13% of French research

A wide range of courses

The Paris-Saclay Undergraduate School is dedicated to undergraduate-level study: academic bachelor's degrees, vocational degrees (BUT, DEUST), diplomas (DU) and paramedical training.

18 Graduate Schools and Institutes coordinate Master's tracks and education and research programmes, and doctoral schools focused on a specific subject.

Values which will guide the citizens of tomorrow

Equal opportunities, respect for diversity, the fight against discrimination, sustainable development, open science and innovation for human development are all at the heart of the university's strategy, which combines excellence, equality and social commitment.

An extensive and daring innovation ecosystem

> *At the heart of a technology cluster that accounts for 13% of French R&D, Université Paris-Saclay, in collaboration with its ecosystem, has placed innovation at the very heart of its strategy, on the same level as research and education. As one of the leading capitals of French tech, this region, with its vast student community trained in entrepreneurship, offers a wide range of facilities and services for businesses.*

21st, CentraleSupélec's start-up accelerator, helps engineering students develop their projects.

503, the Institut d'Optique Graduate School's centre for entrepreneurship and innovation, brings together engineering students in the innovation-entrepreneurship (FIE) field of study and innovative technology companies.

Building 440 - Diapason offers its premises for rent, so that they can be adapted to project needs.

Bench Incubator is a space dedicated to entrepreneurship at Université Évry Paris-Saclay. It supports people who would like to launch a business.

CEA Saclay Fablab is a platform at CEA Saclay, equipped with digital manufacturing tools for training, project development and the sharing of practical and technical knowledge.

Design Spot, Université Paris-Saclay's design centre, promotes design within the university's community.

Digiscope Fablab is the university's digital fabrication laboratory dedicated to scientific research and support, university teaching and professional training.

La Fabrique is CentraleSupélec's Fablab. It supports project leaders in their analysis, study, design, prototyping and industrialisation phases.

Farm'Inn Lab is AgroParisTech's experimentation and collaboration centre for agricultural innovation, focused on agroecological and energy transitions.

Food'InnLab is AgroParisTech's collaborative Food Tech platform for research, teaching and start-ups.

Genopole is France's leading biocluster for biotechnologies applied to healthcare, the environment, foodtech, agritech and bio-industry.

IncubAlliance, a deeptech incubator in the Paris-Saclay region, supports innovative technological entrepreneurship projects from within the university or companies.

Innov'Lab is a place for design and manufacturing advice, as well as assistance in creating prototypes.

INRAE digital incubator *(Pépinière numérique de l'INRAE)* is a network of places and people at INRAE, dedicated to learning, discovery and prototyping.

Inria Startup studio is a funding and support programme for digital deeptech start-ups.

Institut Vedecom – mobiLAB includes research and education facilities, workshops and laboratories, all fully dedicated to new forms of mobility.

Photonic Fablab is a prototyping platform at the Institut d'Optique Graduate School dedicated to product development and pre-industrialisation.

The 6,000 m² **Playground Paris-Saclay** welcomes and supports start-ups, innovative SMEs, large corporate groups and the shared Paris-Saclay showroom.

SATT Paris-Saclay finances and supports the commercialisation of local research and technology transfer from laboratories to socio-economic markets.

SystemX is a technological research institute (IRT) with expertise in analysis, modelling and simulation for decision support applied to complex systems

Versailles Science Lab is a new-generation fablab supported by Université de Versailles-Saint-Quentin-en-Yvelines (UVSQ) and focused on innovation, professional integration and scientific and economic development.

A map of Université Paris-Saclay

Faculties

1. Jean Monnet Faculty
2. Faculty of Medicine
3. Faculty of Pharmacy
4. Orsay Faculty of Science
5. Faculty of Sports Science

University Technical Institutes

6. Cachan University Technical Institute
7. Orsay University Technical Institute
8. Sceaux University Technical Institute

University engineering school

9. Polytech Paris-Saclay

Grandes écoles

10. Institut d'Optique Graduate School
11. AgroParisTech
12. CentraleSupélec
13. ENS Paris-Saclay

Innovation sites

- A 21st
- B 503
- C Building 440 - Diapason
- D Bench Incubator
- E Design Spot
- F CEA Saclay Fablab
- G Farm'Inn Lab at AgroParisTech
- H Fablab Digiscope
- I La Fabrique
- J Food'Inn Lab
- K Genopole
- L IncubAlliance
- M Innov'Lab
- N Inria Startup Studio
- O Institut Vedecom – mobiLAB
- P INRAE digital incubator
- Q Photonic FabLab
- R Playground Paris-Saclay
- S SATT Paris-Saclay
- T System X
- U Versailles Sciences Lab

Associate institutions

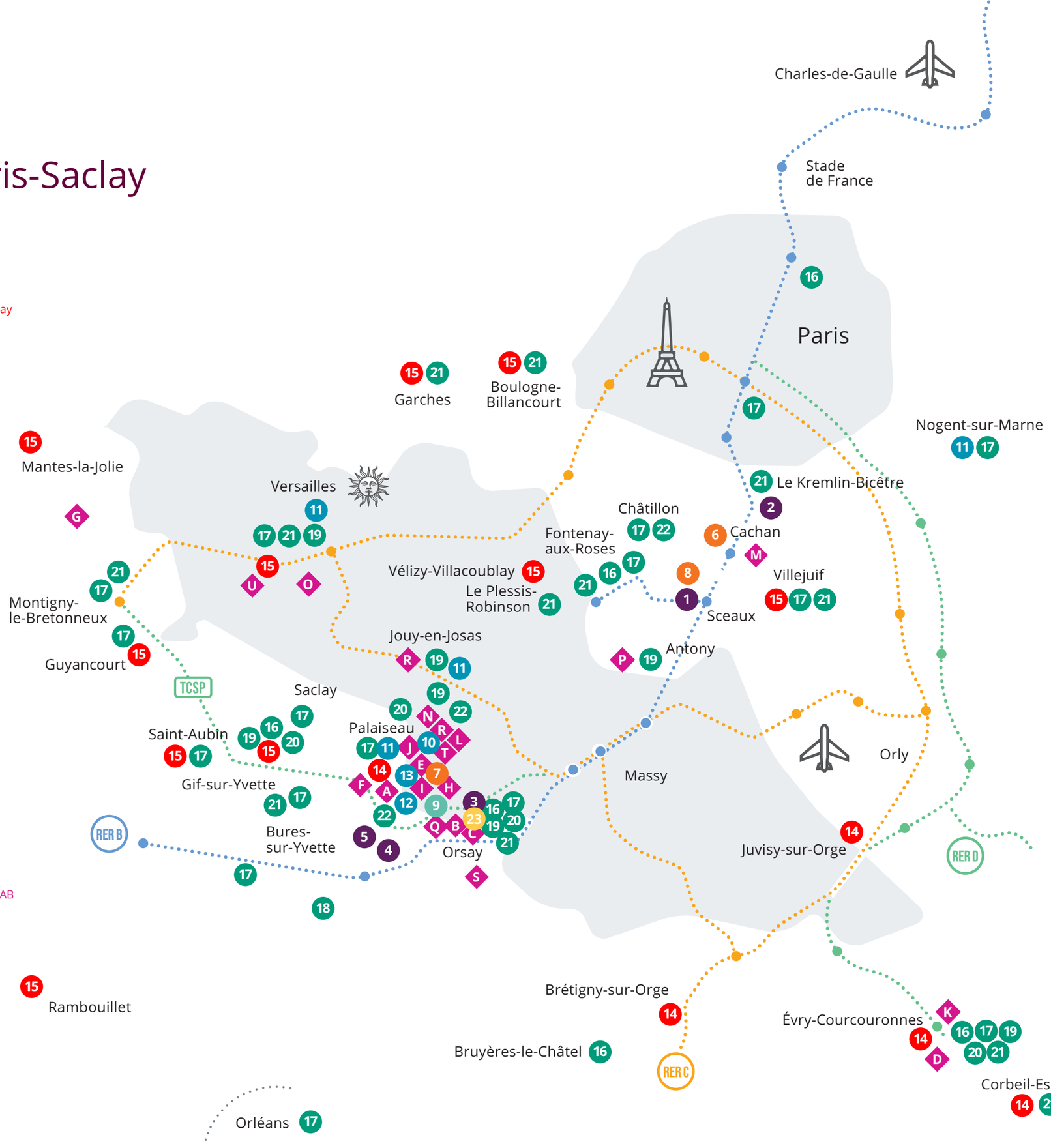
14. Université Évry Paris-Saclay
15. UVSQ

National Research Organisations

16. CEA
17. CNRS
18. IHES
19. INRAE
20. Inria
21. Inserm
22. ONERA

Observatory

23. Université Paris-Saclay Observatory of the Sciences of the Universe



The university innovation cluster (PUI) coordinated by Université Paris-Saclay

Awarded the France 2030 label in July 2023, Innovation Alliance Université Paris-Saclay brings together 13 key players from the region's innovation ecosystem and 15 partners.
This university innovation cluster (Pôle universitaire d'innovation - PUI) coordinated by Université Paris-Saclay has remarkable regional assets in terms of academic excellence and start-up creation (more than 50 companies created per year), its socio-economic network (large industrial groups, SMEs, start-ups, local authorities, associations, etc.) and international recognition. Its strategic ambition is to develop and strengthen innovation that meets current and future societal challenges and promotes human progress.

13 founders

15 partners

Missions

Training and raising awareness among future entrepreneurs: encouraging students, PhD candidates and scientists to add value to their research by creating start-ups.
➔ *Educational initiatives, discovery programmes, roundtables, personalised support, etc.*

Linking technology to the market: ensuring that technologies are better aligned with societal and economic needs as soon as they emerge.
➔ *Market and economic potential studies, etc.*

Supporting the university's community in technology and business creation: optimising projects and consolidating the value-added potential of technologies and inventions.
➔ *The mapping of existing initiatives, networking events for entrepreneurs, specific expertise proposals during the pre-creation phase of the start-up, etc.*

Strengthening innovation and boosting partnerships with the socio-economic world: giving companies better access to laboratory skills and expertise to increase the volume of partnership research.
➔ *Implementation of tools to improve contact and access to technology platforms and laboratories, organisation of company meetings, etc.*

The objectives for 2027

Train 800 PhD candidates (x16)
Train 14,000 students (x1.5)
Register a total of > 130 inventions throughout the year (x1.15)
Negotiate and sign co-ownership agreements in an average time of 30 months (/1.5)
Launch > 70 start-ups linked to the PUI's founding institutions (x2.15)
Establish 50 research and corporate sponsorship contracts (x1.75)

"Innovation Alliance Université Paris-Saclay is fully operational. This university innovation cluster (PUI) allows its members to improve coordination and the sharing of information, promoting the effectiveness and impact of innovation-related initiatives. It helps to raise awareness, train and support our doctoral students in their efforts to launch start-ups, including deep tech. Incubators and services for project managers are coordinated to make the service offer clearer and increase its effectiveness.
To improve the relationship between academic research and businesses, a map of innovation in the university's Graduate Schools and a satisfaction survey are being carried out, making it easier to identify the skills, know-how and technologies within the cluster."

Xavier Apolinarski, Vice-President for Innovation at Université Paris-Saclay.

Programmes for innovation, development and business creation

> *To ensure its students find success in the working world, the university has developed a course offer that meets the current and future needs of businesses and society.*

Supporting technology transfer

The university and its partners are committed to improving the quality of projects so that they have a better chance of coming to fruition and leading to the creation of new businesses. Together, they deploy a wide range of initiatives to promote and support technology transfer, from raising awareness to initiating innovation:

Raising awareness and detection:
Identifying promising technologies and informing stakeholders of their potential.
➜ *The Université Paris-Saclay maturaction programme; the Université Paris-Saclay Valo' programme; the Deeptech entrepreneurship programme with the Maison du doctorat; Deeptech + with CentraleSupélec; the Genesis Light programme with IncubAlliance.*

Prematuration:
Developing the technology concept or application and demonstrating it experimentally.
➜ *Prematuration Poc in labs call for projects from Université Paris-Saclay; SATT Paris-Saclay call for POC'UP projects; SATT Paris-Saclay call for POC Young Doctor projects.*

Maturation:
This is a key stage for making scientific results reliable for target applications and securing the transfer operation by finalising technical, intellectual property, legal and even marketing issues.
➜ *SATT Paris-Saclay call for Maturation projects.*

Prototyping/design:
This crucial stage provides the first tangible proof of the invention.
➜ *The Design Spot.*

Incubation:
Phase for creating a solid business model and business plan.
➜ *Genesis Lab with IncubAlliance.*

Seeding:
Support phase to help the company penetrate the market.
➜ *Paris-Saclay French Tech Seed Fund.*

Future talents

Every year **7,000 students** are made aware of the importance of innovation and business creation through a wide range of initiatives such as:

Discovery initiatives:

➜ *Maturation programmes, hackathons, start-up week, morning sessions on research development and lunchtime sessions on entrepreneurship, Starthèse Start'up Pitch-iD.*

Specific courses and qualifications:

➜ *Four university diplomas (DU): Entrepreneurship; Creation & Development of Innovative Start-ups; Entrepreneurship, Law, Digital; Intrapreneurship (20 spots available on average for each diploma).*

➜ *Vocational undergraduate degree (BUT): Business and Administration Management (GEA), Management, Entrepreneurship and Business Management course; Organisational Management course (maximum of 80 spots for each course).*

➜ *Master's programme in Strategic Management, with Entrepreneurship and Innovative Project Management track (45 spots); Master's programme in Law Entrepreneurship and Digital (LEAD); Master's programme in innovation and research development.*

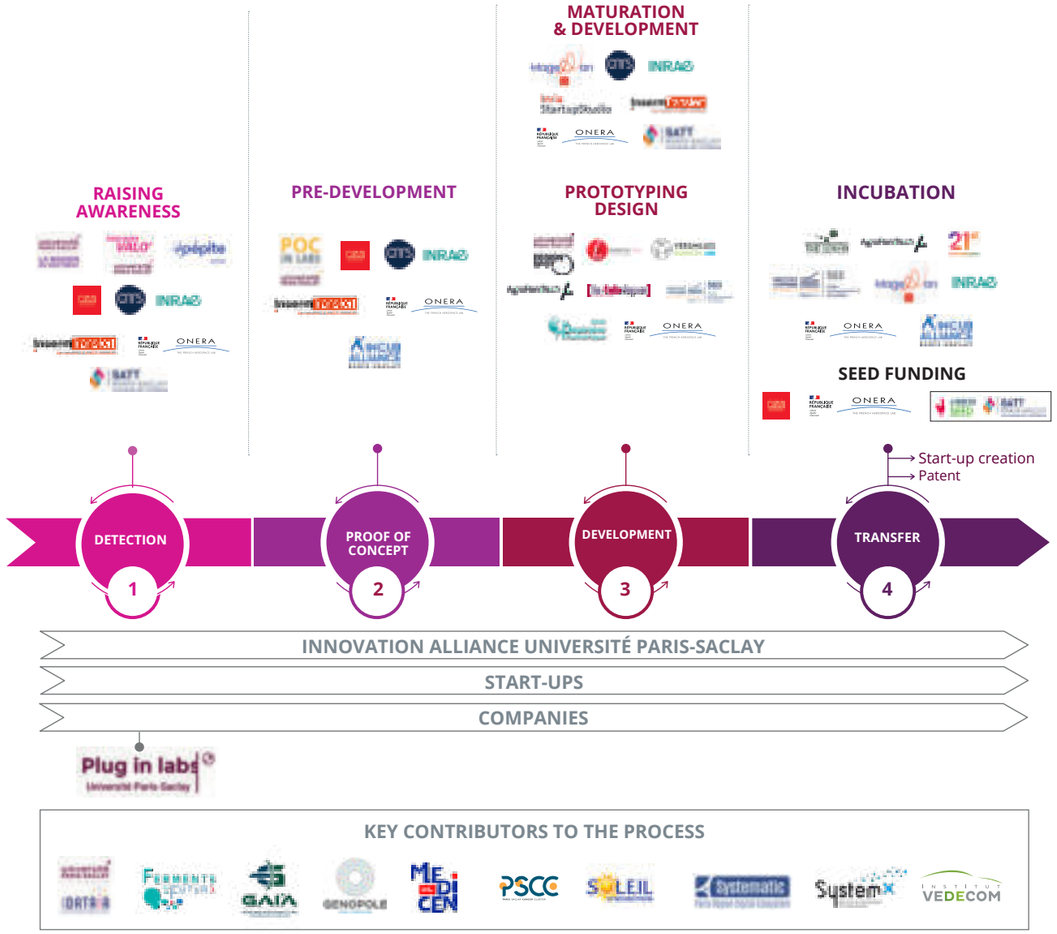
➜ *Student-Entrepreneur Diploma (D2E) from Pépite PEIPS, the network of young entrepreneurs in the Paris-Saclay region (26 spots).*

➜ *The Institut d'Optique Graduate School's innovation-entrepreneurship (FIE) programme.*

Chairs:

➜ *The Augmented Operating Block (BOPA) Innovation Chair coordinated by AP-HP, Institut Mines-Télécom and Université Paris-Saclay.*

➜ *The ABIOMAS (Augmented Biomass) Innovation Chair coordinated by the Université Paris-Saclay Foundation.*



Scientific partnerships with companies

Université Paris-Saclay places its partnerships with companies at the very heart of its strategy. It uses services and systems to give companies better access to the facilities and expertise of the laboratories and platforms within its ecosystem.

Platforms

Plug in labs provides a single entry point to the skills and facilities of public research at Université Paris-Saclay. This digital platform enables companies to discover the skills of laboratories and technology platforms and identify potential partners for future innovative projects. It includes more than 500 experimental platforms divided into three fields (science & engineering, life sciences and social sciences & humanities), six strategic industrial sectors (Aerospace; Security and Defence; Health and Biotech; Mobility of the Future; Information and Communication Technology; Energy and Environment; Agrotech and Foodtech) and 220 laboratories exploring eight themes:

- **Quality of life, health and food** (201 platforms and 108 laboratories)
- **Chemistry and materials** (102 platforms and 51 laboratories)
- **Complex systems and software engineering** (100 platforms and 115 laboratories)
- **Energy, ecology and environment** (47 platforms and 82 laboratories)
- **Social, societal and solidarity-based innovation** (33 platforms and 55 laboratories)
- **Aeronautics, aerospace and defence** (21 platforms and 41 laboratories)
- **Mobility and transport** (12 platforms and 31 laboratories)
- **Digital technology** (12 platforms and 61 laboratories).

Platforms in engineering & science:
Calculations, data processing; Ultrafast dynamics, flow dynamics; Calibration; Time-resolved experiments; Ion implantation; Ion-matter, light-matter, laser-matter interaction; Irradiation; Magnetometry, superconductivity; Materials, micro- and nanomaterials; Microscopy; Modelling, simulation; Spectroscopy; Electronic systems, etc.

→ *ALTO Orsay linear tandem accelerator (nuclear physics)*

→ *Paris-Saclay Mesocentre (computing)*

→ *Additive manufacturing platform at the University Research Laboratory in Automated Production (Lurpa - Univ. Paris-Saclay/ENS Paris-Saclay)*

→ *Platform for applied research and development activities in ground and space instrumentation (PARADISE)*

→ *Clean room at the Centre for Nanoscience and Nanotechnology (C2N – Univ. Paris-Saclay/CNRS/Univ. Paris-Cité).*

Platforms in life sciences:
Physicochemical analyses; Animal care and functional exploration; Biobanks, biological resources; Bioinformatics; Structural biology, biophysics; Bioproduction; Chemistry, screening; Cytometry, histology; Plant experimentation, agronomy; Preclinical, clinical exploration; Genomics, post-genomics; Cellular imaging; In vivo imaging, Food processes, etc.

→ *Paris-Saclay Institute of Therapeutic Innovation, (Ipsit - Univ. Paris-Saclay/Inserm/CNRS) - Drug development chain*

→ *Platforms of the Functional Ecology and Ecotoxicology of Agroecosystems laboratory, (Ecosys - Univ. Paris-Saclay/INRAE/AgroParisTech) - Biogeochemical processes, material and energy flows, functions of organisms in isolation or interacting with their environment*

→ *Jean-Pierre Bourgin Institute (IJPB - Univ. Paris-Saclay/INRAE/AgroParisTech) platforms - Plant studies*

→ *MetaGenoPolis - Microbiota science applied to nutrition and health*

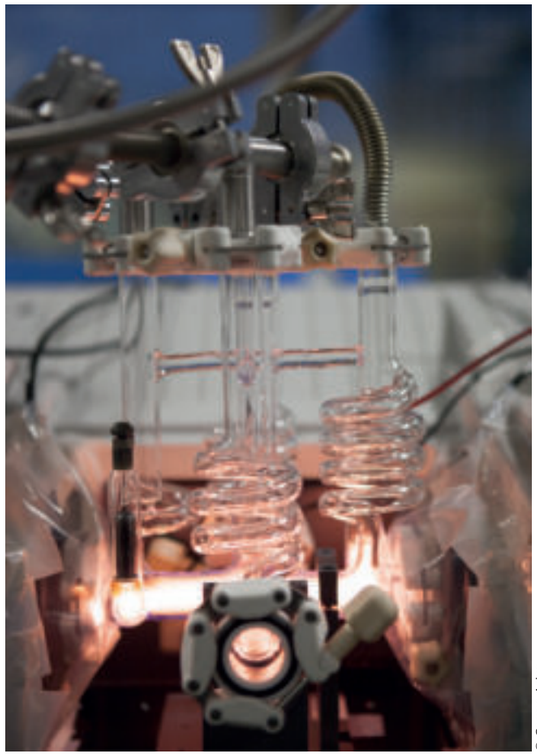
→ *NeuroSpin - Brain imaging and cognitive sciences.*

Platforms in social sciences and humanities:
Digital library, Design Center, etc.

→ *Yvette digital heritage library*

→ *Design Center*

→ *COVADO SHS Platform.*



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"We were able to benefit from the entire Paris-Saclay innovation ecosystem and meet some fantastic people."

Sylvia Cohen-Kaminsky, researcher in the Pulmonary hypertension: pathophysiology and novel therapies laboratory (HPPIT - Univ. Paris-Saclay, Inserm) and co-founder of the start-up Alsymo.

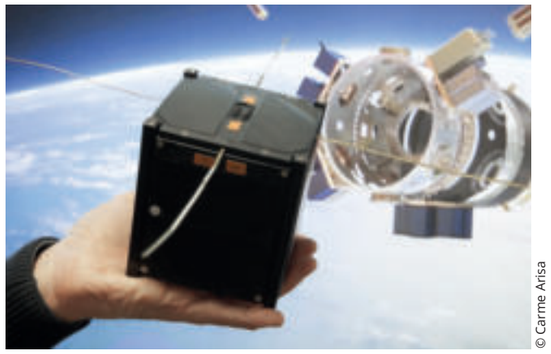
Collaborative arrangements

• CIFRE theses
Industrial Research Training Agreements (CIFRE) are an opportunity to strengthen exchanges between public research laboratories and the socio-economic world. Participation in these agreements allows companies to receive financial support to recruit a student for their PhD (three years of research) at Université Paris-Saclay, leading to the writing of a thesis.

• Services
These services give companies access to cutting-edge scientific facilities in Université Paris-Saclay laboratories and platforms, enabling them to carry out tests, trials and measurements on their own or with the expertise of university staff.

• Framework agreements
A framework agreement can be signed between Université Paris-Saclay and a company to facilitate and accelerate collaboration over a given period. The agreement sets out the general terms of cooperation between the two parties, defining the objectives, areas of collaboration, distribution of industrial property, etc.

• Joint laboratories
These five-year collaborations involve companies of all sizes and are based on a common scientific theme shared by the company and the laboratory. The company benefits from cutting-edge expertise in a specific field, shared governance and the pooling of material and human resources.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• Patent licence agreements
Université Paris-Saclay possesses a varied portfolio of patents. Patent licensing agreements provide companies with rapid access to university innovations, reducing development costs and speeding up the time-to-market of technologies.

• Investments and shareholdings
Investing and shareholding in university start-ups are opportunities to acquire a stake in a young company, contribute strategic expertise and share in its success.

"For us, the support of UVSQ and Université Paris-Saclay is very important. It is essential to be connected to this ecosystem because it is a showcase which promotes excellence. The local roots are key for us."

Cécile Chevalier, CEO of Diagante, a start-up from the Laboratory for Infection and Chronic Inflammation (2I - Univ. Paris-Saclay/INSERM/UVSQ).


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More than *720* laboratories and platforms

More than *400* CIFRE agreements

More than *330* research collaborations signed with companies

More than *20* existing joint laboratories

A portfolio of more than *40* licensed patents

"I admire the pragmatism demonstrated by the Centre for Nanoscience and Nanotechnology (C2N - Univ. Paris-Saclay, CNRS, Univ. Paris Cité). I am not surprised that many start-ups are emerging on the Université Paris-Saclay campus."

François Auque, director of Airbus space activities from 2000 to 2016, President of the Airbus Ventures investment fund until 2018, today partner at InfraVia Capital and volunteer advisor to the start-up ION-X from C2N.

Contacts and links

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