

## The Eastern Paris Federal University

RESEARCH

### EXPERTISE AND TRANSFERT

## LIFELONG LEARNING

www.univ-paris-est.fr





## The Eastern Paris Federal University

Université Paris-Est (UPE) was created on March 21st, 2007 as a higher education and research federal organisation. and groups together a community of 22 institutions with highly diverse missions under the supervision of different government ministries.

It builds close links between research and general, technical and professional learning, underpinning a multidisciplinary, cutting-edge university that can compete on the international stage with strong links between research, life-long training, expertise and knowledge transfer. It works with both public and private sectors.

## UNIVERSITÉ PARIS-EST: A FEDERAL UNIVERSITY

10 higher education and research institutions: 2 recently-created multi-disciplinary universities with a strong focus on the professional sphere, 2 three-hundred year old grandes écoles, 3 specialised engineering schools, and 3 national higher schools of architecture

















Ecole d'architecture de la ville & des territoires

paris-belleville

Université Paris-Est Créteil Val-de-Marne

Université Paris-Est Marne-la-Vallée

École des Ponts ParisTech

École nationale vétérinaire d'Alfort

ESIEE Paris

École spéciale des travaux publics, du bâtiment et de l'industrie

École des Ingénieurs de la Ville de Paris

École nationale supérieure d'architecture de la ville et des territoires à Marne-la-Vallée

École nationale supérieure d'architecture de Paris-Belleville

École nationale supérieure d'architecture de Paris-Malaquais

Centre national de la recherche scientifique

Institut national de la santé et de la recherche médicale

Institut français des sciences et technologies des transports, de l'aménagement et des réseaux

**3** research and development institutes





# operating agencies and technical centres



CSTB

EFS

ina

101

FCBA

Agence nationale de sécurité sanitaire de l'alimentation, de l'environnement et du travail

Centre scientifique et technique du bâtiment

Établissement Français du Sang

Institut national de l'audiovisuel

Institut national de l'information géographique et forestière

Institut technologique FCBA (Forêt Cellulose Bois-construction Ameublement)

Laboratoire de recherche des monuments historiques



Assistance publique Hôpitaux de Paris

Centre hospitalier intercommunal de Créteil

4 main partners to promote innovation and development

hospital centres





Efficacity, Institut pour la transition énergétique en partenariat avec UPE (Investissements d'Avenir)

SATT lle-de-France Innov, société d'accélération du transfert de technologies

Pôle de compétitivité Advancity



advancity

Medicen Paris Région, pôle de compétitivité mondial des technologies innovantes pour la santé et les nouvelles thérapies



## Doctoral studies: training through research, for research and innovation

Université Paris-Est hosts 6 multi-disciplinary doctoral schools created in 2007. As the first embodiment of a common identity, they help rationalise and structure a research and training offering in phase with local and regional requirements and with UPE's international development strategy.



Université Paris-Est partners students from first-year undergraduate studies right through to PhDs, all under a single banner – the training and professional integration of doctoral students is its core business.

The Department of Doctoral Studies coordinates doctoral training policy and organises programmes to ensure that all PhD students are up to speed in languages, general

#### acc&ss Paristest

UPE hosts accEss Paris-Est, the EURAXESS services centre dedicated to PhD students and researchers on international mobility programmes.

acc&ss Paris-Est can help with finding accommodation, obtaining a visa or residence permit or opening a bank account.

It also organises French language courses and theme-based workshops, welcome parties and other social events to make scientific visits more pleasant. culture and business knowledge. It also ensures they are properly prepared for the world of work by monitoring their subsequent professional integration and by organising skills assessments and seminars, etc.

To showcase the university internationally and develop international mobility, UPE hosts every year world renowned professors and researchers who help with research or learning projects and deliver top-class lectures. Mobility scholarships and support for jointly-directed international theses for both PhD and post-doctoral candidates help boost attractiveness.



#### ÉCOLE DOCTORALE-PARIS-EST Cultures et Sociétés

ÉCOLE DOCTORALE

CS comprises hosting teams for the humanities, arts and social sciences.

MSTIC focuses on fundamental and applied mathematics in Communication & Information technologies (CITs).

ÉCOLE DOCTORALE PARISEST OMI works in economics and management, law, Organisations, Marchés, Institutions political science, sociology and philosophy.

> ÉCOLE DOCTORALE PARIS-EST SIE is concerned mainly Sciences, Ingénierie et Environnement with physics, mechanical engineering, chemistry, geoscience and environmental science.

ÉCOLE DOCTORALE PARIS-EST SVS trains researchers Sciences de la Vie et de la Santé in cell and molecular biology, neuroscience, pathologies and clinical research.

ÉCOLE DOCTORALE PARIS EST VTT combines the Ville, Transports et Territoires engineering sciences and the human and social sciences: urbanism, architecture, urban engineering, geography and economics, etc.

> UPE is jointly accredited for the ABIES (Agriculture, biology, environment, health) and Santé Publique (public health) doctoral schools hosted by Université Paris-Saclay.

Université Paris-Est also awards the post-doctoral French national diploma giving accreditation to supervise research (known as HDR) on behalf of its institutions.

### A shared identity: boosting the visibility of Université Paris-Est and showcasing its key strengths

As research becomes an increasingly international activity and various academic league tables incorporate bibliometric indicators in their classification criteria, a shared brand under the "Université Paris-Est" label was introduced in 2007 for all researchers attached to UPE member institutions to make it easier to identify publications and boost the sense of community.

### A Federal University recognised for its original scientific contributions and essential to public policies and societal debates concerning the city, the environment and health

To boost its exposure as well as its regional, national and international development strategy, Université Paris-Est showcases its potential through two multidisciplinary thematic research clusters. Health and Society (Santé Société), located mainly at the Créteil/Maisons-Alfort site, and City, Environment and related Engineering sciences (Ville, Environnement et leurs Ingénieries), concentrated principally at the Cité Descartes, Marne-la-Vallée site. Both clusters have overlapping focuses embracing the engineering and natural sciences and the human and social sciences. This approach, combining lifelong learning, research and expertise, helped to structure the projects submitted for the 2008 Opération Campus and Investissements d'Avenir (Future Investments [2010-2012]) initiatives and to boost UPE's profile and successes.

## SANTÉSSOCIÉTÉ

#### Skills that can be readily mobilised:

the single site health/ learning/research alliance (UPEC, AP-HP, Inserm. EFS, CHIC) certified within three University Hospital Departments in the Greater Paris region; ENVA university hospital (the first European facility to provide complete animal healthcare): and renowned research platforms in biology (EFS - French Blood Agency) and in animal health and food safety (ANSES - National Agency for Food, Environmental and Occupational Health and Safety).

Close links between human and veterinary medicine: Université Paris-Est and its members have chosen to meet societal and scientific needs head-on by forging links between human and animal care and getting the health agencies on board. They have deployed major inclusive projects and possess the requisite in-house and shared research facilities.



Eight domains identified in phase with national priorities: emerging infectious risks and diseases - foodborne and environmental risks - thorax, blood vessels personalised medicine in neurology and psychiatry - viruses, immunity, cancer - healthcare systems - animal and plant protection and health - healthcare technologies.

The Health and Society cluster has strong links with Europe and the US through its research contracts, publications and scientific partners and it is forging important ties with the Middle-East and Africa in the fields of zoonoses and infectious diseases.

## VILLE, ENVIRONNEMENT & LEURS INGÉNIERIES

Skills that can be readily mobilised: with two universities, four engineering schools, three national higher institutes of architecture and seven research bodies representing nearly 25% of French research activity in the urban domain, it tackles sustainable urban development issues by deploying a systematic, multi-disciplinary approach harnessed to public policy, economics and employment.

From a scientific standpoint, the cluster covers the fields of urbanism, architecture, local and regional planning and transport, the engineering and materials sciences, the economics of climate change, urban engineering, habitat quality and hydrology.

The cluster and its activities **liaise closely** with the world of business and have links to a number of national champions (Veolia, Eiffage, EDF, Lafarge, SNCF, etc.).



A campus of excellence and innovation in sustainable cities: Université Paris-Est is located in a partnership territory that is itself the subject of a multi-form research programme. It lies both at the frontier of a global metropolis and at the very heart of the Grand Paris development project and benefits from strong demographics and social, economic and environmental fundamentals which are the real catalysts for

sustainable development.

## Université Paris-Est: pooled resources and inter-institutional facilities

Université Paris-Est coordinates inter-institutional policies and the pooling of resources in order to unlock synergies.

- The information system and shared identity facilitates exchanges between all UPE stakeholders.
- The documentary portal at the disposal of researchers and PhD students comprises a vast index of bibliographical references along with catalogue numbers, abstracts, theses and web-based resources.

• PÉPITE 3EF (Student clusters focusing on Innovation, Transfer and Entrepreneurship) is intended for students of all levels as well as young Paris-Est graduates with ideas for new business start-ups.

• Inter-institutional events are organised to promote Université Paris-Est: *"Tous créatifs*!" enterprise workshops, recruitment fairs, thesis awards ceremony, theme-based study days, forums that bring together students and businesses, etc.

A scientific cooperation framework that provides academic and scientific project coordination and initiatives to showcase research initiatives

#### PROGRAMME INVESTISSEMENTS D'AVENIR 2010-2012

As the sponsor of several award-winning research and learning projects, Université Paris-Est has been certified as a participant in the *Investissements d'Avenir* National Programme (Future Investments). These successes are a testimony to UPE's ability to coordinate scientific

projects of excellence as well as the esteem in which its teams are held by their partners.

#### → 4 LabEx – centres of excellence – hosted by UPE

**OBJECTIVE:** provide support for all research teams in a specific scientific area and act as a driving force for masters and doctoral courses.

- Bézout, discrete and continuous models and algorithms
- Urban Futures
- MMCD (Multi-scale modelling and experimentation with materials for sustainable construction) and its extension Advanced Materials designed to build and promote a "materials" scientific community within UPE.
- SITES (Sciences, innovation and techniques in society) LabEx
- A LabEx hosted by UPEC: VRI Vaccine Research Institute
- 11 LabExes that include UPE stakeholders: BIOPSY, CELYA, ESEP, IBEID, IEC, L-IPSL, OSE, OSUG@2020, PRIMES, REVIVE, SERENADE

#### → Health and biotechnology infrastructures

- 3 health research cohorts: PSY-COH, COBLAnce, RADICO
- 2 bioinformatics infrastructures: ABS4NGS, NiConnect
- 2 bioresource infrastructures: CRB Anim, NeurATRIS

### → Equipex – Infrastructure of excellence, Sense-City, hosted by Ifsttar

**OBJECTIVE:** Design, prototype and validate urban nano-captors: a mini-city in a climatic chamber intended to recreate an environment that closely resembles an urban habitat and validate the concept.

5 projects that include UPE stakeholders: NANOIMAGESX, NANOID, IVTV, GEOSUD, RESIF-CORE.

#### → Innovative learning innovations of excellence (IDEFI)

**OBJECTIVE:** Overhaul our learning and teaching practices

- An IDEFI (IDEA) hosted by UPE designed to developlearning approaches that may be adapted to various different publics (lifelong training, students from abroad, etc.).
- An IDEFI (Paris-Est d.school) using a design thinking approach hosted by École des Ponts ParisTech in liaison with a number of different UPE members.
- An IDEFI involving a number of member stakeholders: UTOP (multi-partner open technology university).

#### → TTA - Technology Transfer Accelerator company - Ile-de-France Innov

Université Paris-Est is a shareholder in the TTA along with Sorbonne Paris Cité, Université de Cergy-Pontoise, Inserm, CNRS and Caisse des Dépôts. Ile-de-France INNOV is focused on the health, urban, environment, energy, heritage, culture industry and pedagogical engineering sectors.

## Efficacity - Institute for sustainable cities and planning

Efficacity is a common public/private research planning platform run in partnership with UPE. It comprises 35 partners working to promote energy efficiency in cities.

efficacity

**OBJECTIVE:** Designing a model sustainable city conceived of as a global system and incorporating technical, organisational and service innovations in urban-related domains in phase with local and regional development strategies.



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ot ecole des ponta
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idfinnov

## EASTERN PARIS A DYNAMIC REGION

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## Eastern Paris, a dynamic region

Université Paris-Est is located mainly in two departments that straddle Paris – Seine-et-Marne and Val-de-Marne – and its institutions have rallied around a new Community project that brings together the campuses of Cité Descartes and Créteil/ Maisons-Alfort and the Grand Paris clusters of excellence.

Eastern Paris is the capital's demographic and economic development corridor. It is a young region with a European and international focus thanks to its motorways and rail network and its airports, the rejuvenation of its industry, the development of its healthcare services and the creation of the Val d'Europe economic and tourism cluster.



Université Paris-Est has strong roots in the region and is, thanks to its extensive network, a key stakeholder in local and regional planning in close liaison with local inhabitants and in phase with its socio-economic profile.

All of its sites have excellent public transport links and these will be further enhanced by the future Line 15 of the Greater Paris Express automatic metro which will link the campuses of Créteil/Maisons-Alfort and Cité Descartes, in less than a quarter of an hour.



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