

UNIVERSITÉ
PERPIGNAN
VIA
DOMITIA



UNIVERSITY OF
PERPIGNAN
FRANCE



ABOUT UPVD

Founded in 1350 by King Peter IV of Arago, the University of Perpignan Via Domitia is a medium sized, multidisciplinary and dynamic campus.

Every year, some 9500 students follow courses in a broad range of areas including literature, languages, humanities and social sciences, law, economics, management, sciences, sport and tourism.

UPVD is known as a university with high international visibility. By its participation in numerous European & multilateral projects, it had acquired a real know-how in implementation and management of international cooperations, capacity building projects and exchange of best practices.

UPVD has been recognized for its excellence in the fields of renewable energy and humanities by the Erasmus Mundus Label and the French Ministry awards.

The offer of study programmes is supported by a dynamic and internationally involved research based on the association of our 16 laboratories.

Mailly campus

FACTS & FIGURES

STUDENTS

9500 students
21 % of overseas students
120 nationalities
130 courses

16 research units

4 major areas of research and learning

3 faculties and **3** institutes

2 doctoral schools

1 engineering school

ALUMNI

3500 graduates/year
130 diplomas
85% professional recruitment rate over a 18-months period

6 training and research sites: Perpignan, Narbonne, Font Romeu, Mende, Carcassonne, Tautavel, Port-Barcarès

STAFF

900 employees
450 teachers and professors
450 administrative and technical employees

Canigou mountain



TRAINING & RESEARCH

FIELDS OF STUDIES

Science, technology, health

- Natural sciences (biology, life and earth sciences, environmental & marine sciences)
- Chemistry & physics
- Mathematics
- Computer sciences
- Engineering (electronics, energy, automation)
- Sports science and technology (STAPS)

Law, economy, management

- Business and administration
- Tourism management, international trade
- Finance, banking & insurance
- Law (business, comparative, environment, property, public)
- Logistics & international transport
- Maritime & port activities management

Humanities and social sciences

- Education sciences
- Geography, regional & urban planning
- History, history of art and archaeology
- Sociology & social work
- Musicology
- Catalan & European studies
- Cultural tourism (e-learning Master MIRO)

Arts, Letters and Languages

- Applied foreign languages
- Languages, literature & civilisations (English, Spanish, Catalan)
- Letters (French literature)
- French as a foreign & second language
- Mundus Masters 'Crossways in cultural narratives'

AREAS OF RESEARCH

- Renewable energies, associated processes and materials
- Living organisms and ecology
- Dynamics of environment and of anthroposystems
- Theory, complex systems, modelling
- Mediterranean: culture, regions, heritage and markets
- Development aid

TRAINING STRUCTURES

3 Faculties

Faculty of Literature and Human Sciences
Faculty of Exact and Experimental Sciences
Faculty of Law and Economics

3 Institutes

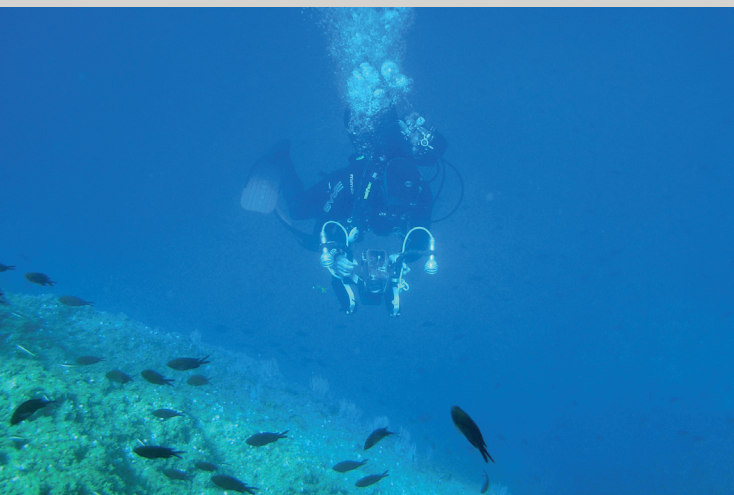
University Institute of Technology
Franco-Catalan Cross-border Institute
IBA: Institute of Business Administration

2 Doctoral schools

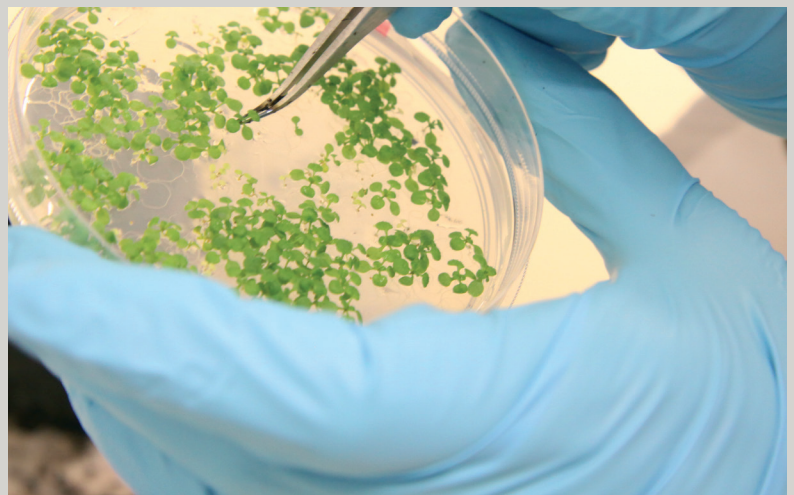
Energy and Environment (science)
Inter-Med (humanities & social sciences)

1 Engineer school in renewable energies (Sup'EnR)

Cerbère- Banyuls marine reserve



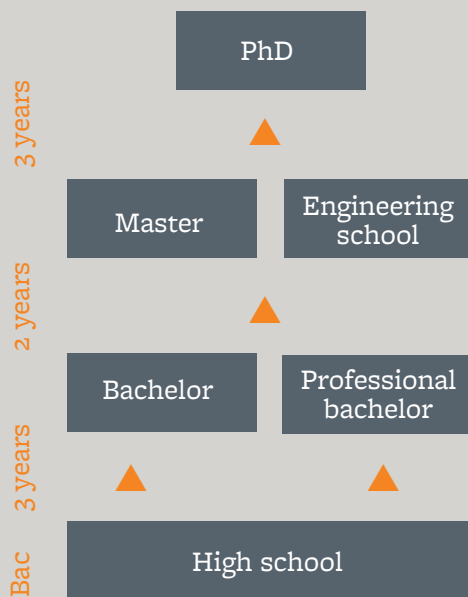
Plant genome and development laboratory



EDUCATION SYSTEM

THE LICENCE-MASTER-DOCTORATE STRUCTURE

French universities organize their courses over 3, 5 and 8 years, awarding Bachelor (licence, L), Master (M) and Ph.D (doctorat, D).



BACHELOR (LICENCE)

In France, students study for the national bachelor diploma over six semesters (awarded after 3 years of post-baccalaureate study).

MASTER

After the bachelor, students can continue for a master's diploma which marks the successful completion of basic or continuing course pathways. Students study for it over four semesters.

DOCTORATE

All students who have obtained Master's degrees can apply for a doctoral thesis – whether they have a Master's diploma, an engineering qualification or a diploma from an advanced business school that is equivalent to a Master's degree. As a general rule, it takes three years to study for a doctorate.

Odeillo solar furnace PROMES-CNRS



AN INNOVATIVE UNIVERSITY

- 16** state-approved research units
- 1** development aid research federation
- 2** graduate school sites
- 450** researchers and teacher-researchers
- 90** engineers, technicians and laboratory staff
- 350** PhD students
- 7** laboratories of excellence (LABEX)
- 1** equipment of excellence (EQUIPEX)
- 5** research & technology transfer platform
- 360** scientific publications per year
- 1** business incubator for innovative start-ups

UPVD business incubator



INTERNATIONAL

+100 international inter-university agreements

179 Erasmus + bilateral agreements with 16 European countries

1 University Centre for French Studies (CUEF)



3 DOUBLE DEGREES

Master in Humanities with University of Balearic Islands (Spain)

Bachelor in Languages with Autonomous University of Barcelona (Spain)

Bachelor in Tourism with University of Van Lang (Vietnam)

+50 PhD joint degrees/year

Representing 16% of PhDs

2 Multinational degrees in renewable energy:

EU/China Master ICARE, European Master EUREC

1 Erasmus Mundus Masters Programme

“Crossways in Cultural Narratives”

PROGRAMS:

Erasmus+ European Mobility

Erasmus+ International Credit Mobility

Erasmus+ Capacity Building

Erasmus Mundus

Horizon 2020

Interreg IV

BCI (Quebec, Canada)

NETWORKS



LOCALISATION



UNIVERSITÉ
PERPIGNAN
VIA
DOMITIA

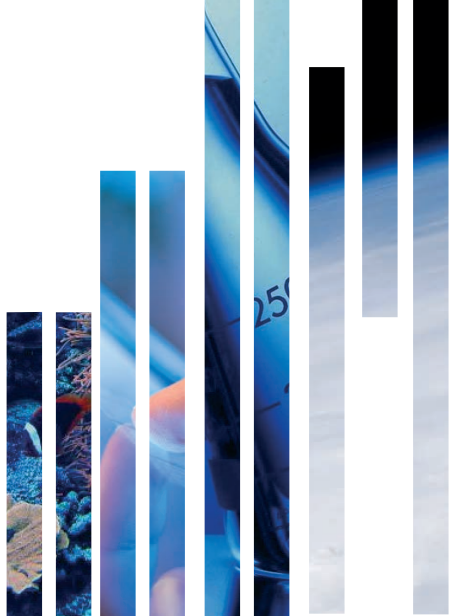


UNIVERSITY OF PERPIGNAN VIA DOMITIA

INTERNATIONAL RELATIONS OFFICE

52 avenue Paul Alduy - 66 100 Perpignan (France)

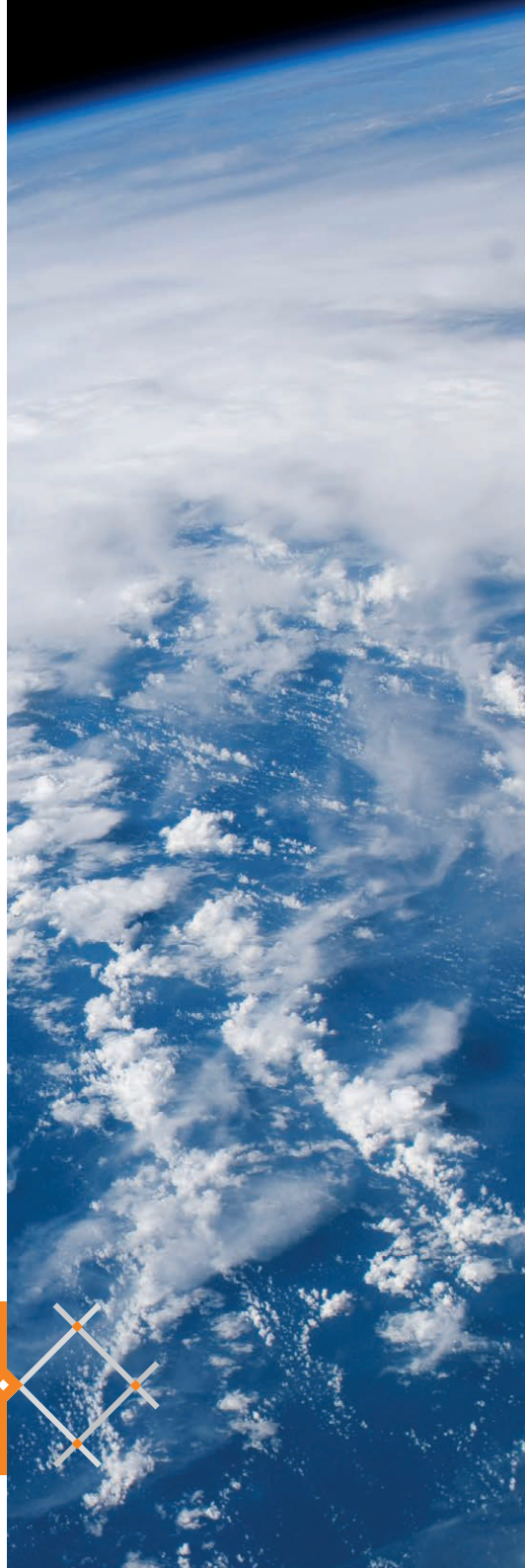
www.univ-perp.fr / sec-suri@univ-perp.fr



RESEARCH

at the University of Perpignan

UNIVERSITÉ
PERPIGNAN
VIA
DOMITIA



Research at the University of Perpignan Via Domitia

The University of Perpignan Via Domitia is committed to carrying out research of the highest level.

In 2010, the French government issued calls for proposals within the framework of the «Future Investment Programme». The aim of the programme was to *«give research units with international profiles considerable resources so that they could compete on a level playing field with comparable overseas units, attract world-renowned researchers and professors and develop a high-level integrated policy for research, training and development»*. Following these calls for highly selective proposals, the UPVD's 16 research units are currently involved in five LABEX (laboratory of excellence) projects, an EQUIPEX (equipment of excellence) project, an IDEFI (innovation training excellence initiative) and two UPVD-CNRS research chair in excellence programmes.

This recognition is a means for us to consolidate the specific aspects of our research according to five cross-category multidisciplinary areas.

The «Perpignan-Odeillo» site has obtained both a Labex and an Equipex project, establishing it as a major international centre in

solar energy research. Similarly, the University's involvement in France's largest agronomics Labex project has bolstered Perpignan's reputation in plant genomics.

Since 2012, the University of Perpignan Via Domitia has sought to significantly strengthen its links with a number of major national research organisations, such as the CNRS (French centre for scientific research), Paris National Natural History Museum, the IRD (Institute of Research for Development) and the EPHE (one of France's most prestigious research and higher education institutions). One of the results of this proactive policy has been the creation of seven laboratories that have links with the CNRS: five joint research units, one service and research unit and one research unit in its own right. Furthermore, the UPVD has collaborated with the IRD on setting up a development aid federation and has been hosting an IRD research team onsite since January 2015.

The UPVD has also structured its research activities at regional, national and European level. This has resulted in nine co-supervision schemes or agreements with laboratories attached to the universities of Montpellier, Paris VI (Pierre and Marie Curie) and Girona.

The UPVD's équipes d'accueil research teams are also structured in this way, one of which is investigating exercise physiology at altitude.

The various bodies involved in research at the UPVD also get support from the University of Perpignan Via Domitia Foundation to help them interact more effectively with the local socio-economic world. This ensures that the areas of expertise

in which its laboratories work can therefore be better tailored to meet the requirements of companies. The Foundation also plays a key role in helping the start-up companies that emerge from our research activities to network, so that they can enjoy the support of member industrial partners. Create a start-up at UPVD is now a reality thanks to the new incubation hotel of innovating companies.



UPVD PhD ceremony, 2014 june (© C. Morel-Fontaine)



Odeillo solar furnace (© CNRS- G. Olalde)

An ideal region for a research focused on sustainable development

This one particular area in France has been the scene for experimentation in geography, environment, society and energy for more than 560,000 years, with projects endlessly jostling and intersecting with one another.

Layers of stratified soil discovered in nearby Tautavel show how both the environment and humankind have changed and evolved over the years. The impact that modern human kind has had on the environment can be measured by analysing molecules in water bodies and lagoons. Beneath the extremely generous sunshine of Odeillo and Thémis, the energies of the future are being developed. In the Cerbère-Banyuls Marine nature reserve, schemes for regenerating the fish stocks in the natural environment and along the coast are being developed – future regulations are likely to encourage greater sustainability.

Major sites

- the Odeillo solar furnace (CNRS)
- the Thémis solar power tower in Targasonne (CD 66 property)
- the Font-Romeu Olympic sports facilities
- the Gulf of Lion Marine Nature Park and the Cerbère-Banyuls Marine Nature Reserve
- the coast and its lagoon complex
- the Caune of Arago prehistoric cave in Tautavel

16 research units accredited by the ministry:

5 joint research units, 1 service and research unit, 1 proper research unit, 4 university research teams, 2 co-supervision research teams, 3 teams with partner laboratories

1 development aid research federation

350 researchers, professors, associate and assistant professors on site

84 engineers, technicians and laboratory staff

400 PhD students in 2 doctoral schools

6 laboratories of excellence (LABEX)

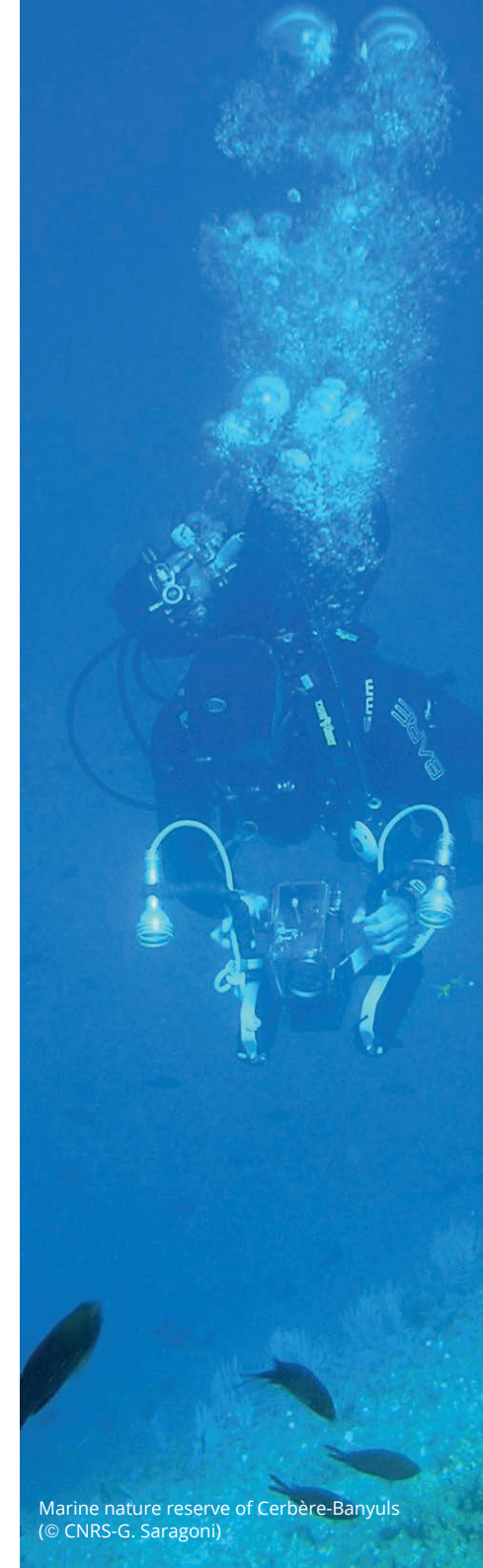
1 equipment of excellence (EQUIPEX)

1 innovative Excellence in Training Initiative (IDEFI)

2 UPVD-CNRS research chairs in excellence

From 2010: €3,8 million of research contracts each year
26 european projects et 42 National Research Agency projects

360 international publications per year



Marine nature reserve of Cerbère-Banyuls (© CNRS-G. Saragoni)



High-performance research

1 IDEFI

MIRO

Multilingual cross-border professional master's degree in cultural tourism, delivered entirely remotely on an e-learning platform.

1 EQUIPEX

SOCRATE

National experimental platform with an international angle carrying out research in the area of concentrated solar energy.
PROMES coordinator laboratory

4 TECHNOLOGY PLATFORMS

BIO-ENVIRONNEMENT (TECNOVIV): Biotechnology and molecular biology

Bio2Mar: Biodiversity and marine biotechnologies.

EnRMAT (C2M-CESP): Renewable energies - Materials - Applications and transfer processes.

CREM-IEEM: Intervention and Valuation in Marine Environment

From 2010, the UPVD's various research teams have overseen and participated in 42 national research agency (ANR) projects and 26 European projects.

6 LABEX

AGRO

Focused on plants of agronomic value. Research ranges from the study of genes to the end uses of plants.

LGDP partner laboratory

ARCHIMÈDE

Centre of excellence for research and education about the ancient Mediterranean region and Egypt.

CRESEM partner laboratory

CEMEB

Dynamics and functioning of biodiversity and ecosystems in global environmental changes due, in particular, to the human activities.

IHPE partner laboratory

CORAIL

Knowledge platform about coral reef ecosystems, designed to bring about more effective management of them.

CRIOBE coordinator laboratory

ENTREPRENDRE

For creating and sharing knowledge about undertaking work at the intersection of law, economics and management sciences.

MRM coordinator laboratory

SOLSTICE

Creating the country's leading research unit and one of the two leading European research groups in the field of concentrated solar power technology, including all conversion modes.

PROMES coordinator laboratory



Research is central to development

€3.8 million of research contracts secured every year by the UPVD's professors, associate and assistant professors.



The research carried out within the UPVD's various departments results in numerous applications in collaboration with major industrial groups and SMEs – both in France and abroad, as well as with many institutions, local authorities and foundations.

Companies

- Medical, chemistry and food processing industries: Bayer, Cémoi, Sanofi...
- Energy, environment: Areva, Air Liquide, EDF, GDF Suez, Saint Gobain, Shell, Suez, Total, Veolia,...
- Information and communication technologies: EADS, IBM, Rockwell Collins, Thales,...

SMIs, SMEs

- Abies Lagrimus, Actility, Actimar, Akinao, PBI, Coldway, EcoTech-Ceram, Egiseau, Energie R, Exoes, Exosun, FertilPlus, Inpixal, Numalis, Pyres.com, Resolution, Sunways, Prover, Solareuromed, Tecnalía ...

Institutions

- CNRS, IRD, EPHE, MNHP, CIRAD, IFREMER, ONERA, CEA, INRA, CNES, INRIA, INSE, European Union, ANR, ONU, Ligue contre le cancer, OMS ...

Companies and start-ups spawned by laboratories

AKINAO

Develops and validates methods for analysing natural substances derived from plants and microorganisms of marine origin.

From CRIOBE

COLDWAY

Develops isothermal thermochemical, refrigerated and autonomous containers for transporting temperature-sensitive products.

From PROMES

ECO-TECH-CERAM

Develops refractory ceramics by recycling inorganic industrial waste for energy storage.

From PROMES

ENERGIE R

Specialists in building thermal design, fluids and renewable energies.

From PROMES

NUMALIS

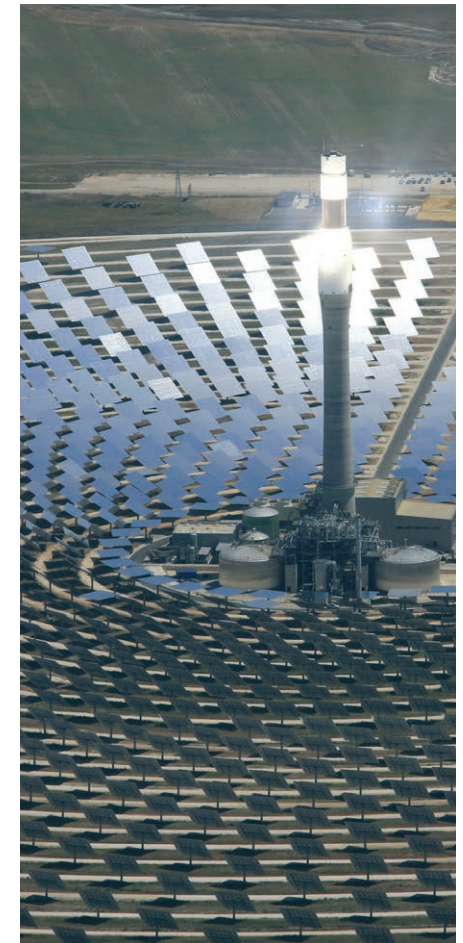
Develops automatic tools for detecting and correcting numerical errors in software.

From DALI-LIRMM

RESOLUTION

Micro pollutant processing using a solar photocatalysis reactor.

From PROMES



30% of all research contracts involve collaborations with private partners.

The clusters

DERBI

The DERBI Competitvity cluster is made up of representatives from the Languedoc-Roussillon and Midi-Pyrénées regions, together with companies, laboratories, universities, training centres, professional federations, financial bodies and local authorities involved in developing the renewable energies sector.

DERBI is hosted on the UPVD campus.

QUALIMEDITERRANEE

The *Qualiméditerranée* cluster focuses on the development of an agriculture that is competitive and sustainable. This involves developing agro-biotechnologies and information and communications technologies designed to help farmers create new varieties and manage crops, as well as treating crops post-harvest.

MER MÉDITERRANNÉE

The *Mediterranean Sea* cluster aims to develop the maritime and coastal economy in Provence-Alpes-Côte d'Azur, Languedoc Roussillon and Corse sustainably.

EAU

The aim of the *Water* cluster is to pool skills, questions and answers to provide adapted and innovative solutions to the numerous problems due to the water management.

The UPVD Foundation and the incubation hotel of innovating companies

The UPVD Foundation supports research and higher education. It was founded in 2008 in order to serve as a link between the University and the socio-economic world. The role it plays in fostering innovative new projects is essential.

With the help of its sponsors, the UPVD Foundation supports high value-added public interest initiatives, such as financing the UPVD's research projects and creating an incubation hotel of innovative companies.

The UPVD's incubation hotel :

- A single desk set up to bring the University closer to the socio-economic world.
- A structure that is dedicated to projects linked to the University's research and student projects.
- 10 projects hosted in closed offices and a shared working area for emerging projects.
- Support that includes personalised tracking, training programmes, mentoring, help setting up a website and opportunities to network with other bodies in the entrepreneurial ecosystem.
- A new vehicle for the region which will increase its appeal, perhaps by encouraging other companies to establish a presence there.

Contact : laura.krenn@univ-perp.fr
33(4) 68 66 23 27



Fundamental and applied research areas

Living organisms and ecology

The global changes which our planet is currently experiencing are triggering major disruptions that are affecting the ways in which living organisms function, eroding biodiversity and destabilising our ecosystems.

One of the challenges that biology has to take up nowadays is to tackle different scales of investigation in an integrated fashion, ranging from the smallest molecular mechanisms to the largest levels of organisation (such as populations and ecosystems).

This will provide us with the resources we need to take action, monitor or even predict how the living organisms of the future will function.

Research units: [LGDP](#), [IHPE](#), [CEFREM](#), [CRIOBE](#), [LEPSA](#)

Dynamics of the environment and of anthroposystems

Humankind has become the main factor driving changes in nature. This area of research focuses on the environments within the Mediterranean land/sea continuum and looks at both the natural and anthropic processes that control the marine and sedimentary environments. The work involves adopting multidisciplinary approaches in chemistry, ecology and geology in order to describe, represent and model the way in which different ecosystems work and are changing under both natural and anthropogenic pressures. The aim is to play a part in creating an integrated management approach and develop a means of sustainably using natural resources by transferring and sharing the University community's expertise.

Research units: [CEFREM](#), [CRIOBE](#), [IMAGES-SPACE DEV](#), [BAE](#)

Theory, complex systems and modelling

Based on the model system concept, research undertaken in this area is used to analyse actual phenomena and to predict results by applying one or several theories at a given level of approximation.

The research is also used to build different information systems.

Research is undertaken in applied mathematics, information technology, physics and theoretical chemistry.

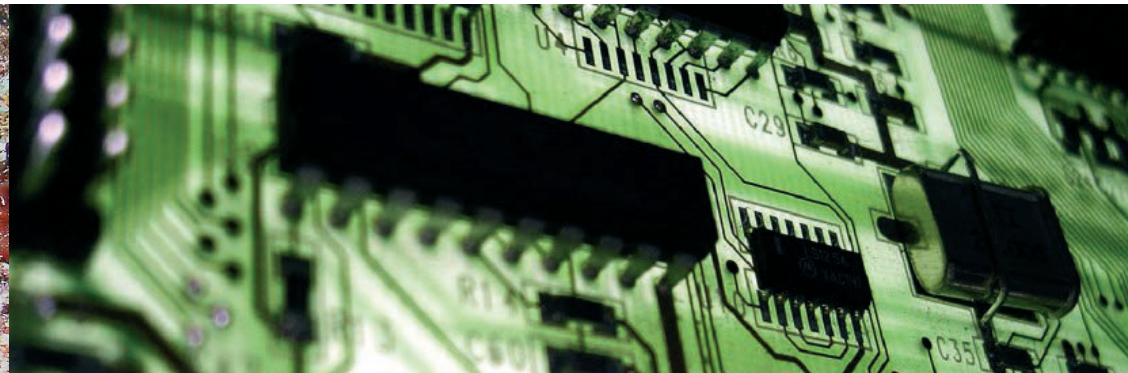
Research units: [LAMPS](#), [DALI-LIRMM](#)

Renewable energies, associated processes and materials

This is an area of research which is naturally seeing many developments, since it is generally focused on all energy sources. But it is currently focused on initiatives involving solar power in particular (high and low temperature thermal solar power, photovoltaic cells, etc.), since there are a number of world-renowned solar installations close by.

The research being conducted looks at so much more than just energy production: it tackles integration, energy system dynamics and management, energy storage and developing materials with controlled properties for energy conversion, as well as the behaviour of these materials when subjected to extreme stresses and solar chemistry.

Research units: [PROMES](#), [LAMPS](#)



Human, social and legal research areas

Mediterranean and beyond: culture, regions, heritage, markets

This area of research looks into the complex interactions between societies and cultures and the surrounding regions.

Across a geographic field the centre of which is the area covered by the Pyrénées-Méditerranée region, research is carried out across embedded scales, from local to international level. It is underpinned by human and social science disciplines, within which issues to do with the relationship between humankind and the environment, the role played by various stakeholders, languages, the development of legal, linguistic and economic practices and standards - and markets in particular - are all central to concerns. The approach involves creating knowledge

through fundamental and academic research so that it can be used by the region for its most practical applications, and so that it can be shared among the general public as widely as possible.

Research units: [ART-DEV](#), [CDED](#), [CORHIS](#), [CRESEM](#), [HNHP](#), [MRM](#)

Transverse axis: development aid

Development Aid Research Federation

The UPVD is a multidisciplinary university whose research naturally covers a wide range of areas. This research is applied at international level within the framework of numerous partnerships which often involve development aid.

The work carried out is in a number of extremely varied scientific areas, including regional development, energy and water, food safety, health, teaching and training.

Development aid is also a specialist field in itself. The UPVD is supported by the ART-DEV laboratory and the COREUS team belonging to the institute of research for development (IRD). This team is hosted on site and

supports this approach, together with the initiatives to be implemented.

The UPVD and the institute of research for development have created a Development Aid Federation – the Fédération d'Aide pour le Développement (FAiD-FED 4264UPVD IRD). This cross-functional body has been deliberately set up as a borderless and seamless entity and is run dynamically by a number of multidisciplinary project teams. It is supported by the Academy of Sciences through Michel Delseny – a member of the Academy and emeritus director of CNRS research at the Plant Genome and Development Laboratory (LGDP).

Involved research units: [ART-DEV](#), [IRD-ENTROPIE](#), [PROMES](#), [LGDP](#), [IHPE](#), [CRIOBE](#), [LAMPS](#), [IMAGES-ESPACE DEV](#), [CDED](#), [CRESEM](#)



La Caune de l'Arago, excavation site
Tautavel (© D. Dainat)



Research units

Exact and experimental sciences

BAE: Biosensors, Analysis, Environment, project team

CEFREM: Centre of Education and Research on the Mediterranean Environments, UMR 5110 CNRS-UPVD

CRIOBE: Centre of Island Research and Environmental Observatory, USR 3278 CNRS-EPHE-UPVD

DALI-LIRMM: Digits, Architectures, and Computer Softwares, project team of the LIRMM, UMR 5506 CNRS-UM

IHPE: Hosts, Pathogens, Environments Interactions, UMR 5244 CNRS (INEE)-UPVD-IFREMER-UM

IMAGES-SPACE DEV: Modelling, and Analysis in Geo-Environment, project team of the UMR 228 IRD-UM-UAG-UR

LAMPS: Laboratory of Mathematics and Physics, EA 4217 UPVD

LEPSA: Performance Health and Altitude European Laboratory, EA 4640 UPVD

LGDP: Plant Genome and Development Laboratory, UMR 5096 CNRS-UPVD

PROMES: Processes Materials and Solar Energy, UPR 8521 CNRS (INSIS) - UPVD convention



Human and social sciences

ART DEV: Actors, Ressources and Territories in Development, UMR 5281 CNRS-UPVD-UPVM-CIRAD-UM

CORHIS: Communication, Human Ressources and Social Intervention, EA UPVD-UPVM

CRESEM: Centre for research into societies and environments in the Mediterranean and beyond, EA UPVD

HNHP: Natural History of the Prehistoric Human Being, UMR 7194 CNRS-UPVD-MNHP

2 sciences academicians:
IHPE, LGDP

1 CNRS silver medal 2014:
PROMES

360 publications per year

Legal and economic sciences

CDED: Centre for Economic Law and Development, EA 4216 UPVD

MRM: Montpellier Research in Management, EA 4557, UM-UPVD-UPVM-MBS





BAE

Biosensors, Analysis, Environment
Project team

7 UPVD asst, assoc, prof
13 PhD students and postdoctoral researchers
3 technical and office staff

Site

- Perpignan

Areas of research

Bioanalysis, biosensors, biomimetic sensors for the environment, the agri-food sector and health.

Funded research projects

- European projects:
BIOFOS, ELENA

- ANR:
TRICETOX

Equipment

- Electrochemical stations (2) including 1 with impedance module, potentiostats (7) 3 of which are portable.
- Microplate readers (absorbance, fluorescence, luminescence).
- Spectrophotometers (3), spectrofluorometer.

- HPLC-DAD and HPLC-Fluorescence.
- Silkscreen printing machine (electrode manufacture).
- Workstations in sterile conditions, standard microbiology and molecular biology equipment.

Partnerships

Sociétés PBI, CEMOI (F), LIONIX (NL), SURFIX (NL), CSEM (CH), COVAP (ES), SAXION (NL), CIDETEC (ES), DROPSENS (ES)...

Many partnerships with other universities and international institutions (6 European programmes or Interreg initiatives and 9 bilateral exchange programmes since 2008).

UPVD Master Programmes

Marine sciences:
- Biodiversity and sustainable development
- Marine geoscience and aquatic environments



cefrem.univ-perp.fr

20 asst, assoc, prof, researchers
(17 UPVD asst, assoc, prof)
20 PhD students and postdoctoral researchers
11 technical and office staff

Sites

- Perpignan
- Le Barcarès (CREM)

Areas of research

- Geosystems and ecosystems
- Aquatic and terrestrial systems, interactions and transfers to the sea
- Matter dynamics, impact on systems and sedimentary recording
- Deep transfer and sedimentary recording
- Resources and natural hazards
- Development of resources at the land/sea interface
- Resource preservation, management and restoration
- Geological hazards along margins

Funded research projects

- European projects:
Sublimo Life+, PERSEUS

- ANR : MATUGLI

CEFREM

Centre of Education and Research on
Mediterranean Environments, **UMR
5110 UPVD-CNRS**

Equipment

- CREM-IEEM Platform (Intervention and Valuation in Marine Environment): vehicles, boats, diving equipment, seismic sonar, courantomètre, DGPS, softwares and stations for digital processing ...
- Station POEM-L2R/ tracking of transfers earth-sea : station for fluvial samples, coastal monitoring buoy, particules traps, ADCP profiling, glider ramp, ...
- ICP-MS for analysis ETM, 13C and 15N mass spectrometer, C and N elementary analyser, spinner, autoclave, optical microscopes, laser granulometer, sieve shaker, ...

Partnerships

Veolia, Lyonnaise des Eaux, Total, IFREMER, CG66, DREAL LR, Parc Marin... Research bodies (Banyuls-sur-Mer, Toulouse, Montpellier, La Seyne-sur-Mer, Aix-en-Provence, Marseille, Nice, Bordeaux, Paris, Brest, Caen, Barcelone, Athènes, Ancône, ...)

UPVD Master Programmes

- Marine sciences: Marine geoscience and aquatic environments
- Biodiversity , ecology and evolution: Biodiversity and sustainable development



www.criobe.pf

CRIOBE

Centre of Island Research and Environmental Observatory
USR 3278 UPVD-EPHE-CNRS
Coordinator of **LABEX CORAIL**

25 asst, assoc, prof, researchers
(9 UPVD asst, assoc, prof)
40 PhD students and postdoctoral researchers
19 technical and office staff

Sites

- Perpignan
- Moorea (French Polynesia)

Areas of research

- From genes to molecules: an integrative approach to studying coral reefs.
- Biology of populations, chemical ecology and interactions within ecosystems.
- Operation and governance of socio-ecosystems.

Funded research projects

- LABEX CORAIL, coordinator
- European projects: COCONET, CORAIL, BUFFER
- ANR: TRICETOX, LIVE AND LET DIE, ACROSS, STAY OR GO, POLYPERL

Equipment

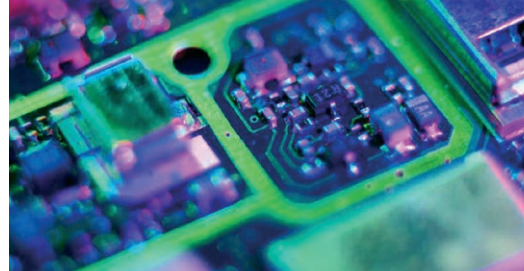
- Bio2Mar technology platform (RMN, LC-MS, GC-MS, HPLC-PDA-ELSD)
- Analytical and semi-preparative HPLC GPC/FID
- CEM Liberty 1 automated microwave peptide synthesizer
- Population genetics laboratory (extraction robots, PCR, etc.)
- Sclerochronology laboratory

Partnerships

- Institutional partners: Agence des aires marines protégées, Direction régionale pour l'environnement
- Industrial partners: Akinao, Cemoi, Polynesian environmental society, Pacific Biotec, Manutea, EDT, Intercontinental, Amélie thermal spring...

UPVD Master Programmes

- Marine sciences:
- Biodiversity and sustainable development
 - Marine geoscience and aquatic environments



<http://webdali.univ-perp.fr>

DALI - LIRMM

Digits, Architectures et Computer softwares
Project team of the LIRMM, UMR 5506 UM-CNRS

6 UPVD asst, assoc, prof
8 PhD students and postdoctoral researchers
3 technical and office staff

Site

- Perpignan

Areas of research

- Computational performance
- Digital quality

Funded research projects

- European projets: FP7 Montblanc 2
- ANR : METALIBM,PAVOIS

Partnerships

Industrial partners:
EDF

UPVD Master Programmes

- High-performance computing, simulation

Director: DR Serge Planes

+33(0)4 68 66 20 55 or
+689 40 56 13 45
criobe@mail.pf

Director LIRMM: DR François Pierrot
DALI Team manager:
Pr Philippe Langlois

+33(0)4 68 66 22 02
first.last@univ-perp.fr



ihpe.univ-perp.fr

24 asst, assoc, prof, researchers
(9 UPVD asst, assoc, prof)
7 PhD students and postdoctoral researchers
8 technical and office staff

Sites

- Perpignan
- Montpellier

Research teams

- MIMM Mechanisms of Adaptation and Interaction in the Marine Environment
- BMC Molecular Basis of Co-evolution
- 2EIHP Ecology and Evolution of Host-Parasite Interactions
- Two challenges: « Relative weight of genetics and epigenetics in adaptative evolution » and « Dynamics of the holobiont and fitness ».

Funded research projects

- ANR: INVIMORY, MATER-IMMUNITY, EPIGEVOL, VIBRIOGEN, DECIPHER, ADACNI, GIMEPEC

IHPE

Hosts, Pathogens, Environment, Interactions
UMR 5244 UPVD-UM-CNRS (INEE)-IFREMER - Partner of LABEX CeMEB

Equipment

- Technology platform BIO- ENVIRONNEMENT (TECNOVIV)
- Aquaculture experimental platform at Palavas-les-Flots
- Animals

Partnerships

OMS, ANSES, Sanofi

UPVD Master Programmes

- Biodiversity , ecology and evolution: Biodiversity and sustainable development



IMAGES - ESPACE DEV

Modelling, and Analysis in Geo-Environment
Team project of the ESPACE DEV, UMR IRD 228 UM-UR-UAG

9 UPVD asst, assoc, prof
6 PhD students and postdoctoral researchers
1,5 technical and office staff

Site

- Perpignan

Areas of research

- Climate change
- Ocean acidification
- Satellite image analysis
- Theory of distributed systems
- Free radicals and oxidative stress

Funded research projects

- European programmes: MEDSEA
- ANR: BIOHOPSY

Equipment

- Carbon measurement (equipment for analysing dissolved carbon and nitrogen, total inorganic carbon and total alkalinity, partial carbonic gas pressure)
- Devices which use fluorescence

(spectrofluorometer, full-field video-microfluorometer, time-resolved microfluorometer, FLM)

UPVD Master Programmes

- Biodiversity, ecology and evolution : Biodiversity and sustainable development
- Energy : Materials and solar processes
- Electronics, electrical energy, automatic control engineering: Automatics and on-board systems for energy management

Director: Prof Guillaume Mitta

+33(0)4 68 66 21 85
mitta@univ-perp.fr

Espace-Dev Director: DR Frédérique Seyler
IMAGES team manager: Prof Catherine Goyet

+33(0)4 68 66 21 12
goyet@univ-perp.fr

$$\frac{\partial}{\partial a} \ln f_{a,\sigma^2}(\xi_1) = \frac{(\xi_1 - a)}{\sigma^2} f_{a,\sigma^2}(\xi_1) = \frac{1}{\sqrt{2\pi\sigma}} \exp\left(-\frac{\xi_1 - a}{\sigma}\right)$$

$$\int \mathcal{T}(x) \cdot \frac{\partial}{\partial \theta} f(x, \theta) dx = M\left(\mathcal{T}(\xi) \cdot \frac{\partial}{\partial \theta} \ln L(\xi, \theta)\right)$$

$$\int \mathcal{T}(x) \cdot \left(\frac{\partial}{\partial \theta} \ln L(x, \theta)\right) \cdot f(x, \theta) dx = \int \mathcal{T}(x) \left(\frac{\partial}{\partial \theta} f(x, \theta)\right) dx$$

lamps.univ-perp.fr

24 UPVD asst, assoc, prof
8 PhD students and postdoctoral researchers
3 technical and office staff

Site

- Perpignan

Areas of research

- Fluid, thermal and energy mechanics
- Molecular and spin relaxation processes
- Contact mechanics
- Optimal control and game theory
- Partial differential equations

Funded research projects

-European projects:
CONTACT, DMH, PHC POLONIUM
2014-2015

-ANR:
DEFIS, CAFEIN

Equipment

Computing servers

LAMPS

Laboratory of Mathematics and
Physics
EA 4217 UPVD

Partnerships

Jagiellonian University (Pologne),
The University of Iowa (USA),
Oakland University (USA), Guangxi
University (PR China), Zhejiang
University (PR China), Trinity College
Dublin (Irlande), Radiotechnical and
electronical institute of the Russia
Sciences Academy, Moscow.

Industrial partnerships

Airbus, Rockwell-Collins, Thales, Numalis

UPVD Master Programmes

- Electronics, electrical energy, automatic control engineering: Automatics and onboard systems for energy management
- High-performance computing, simulation



lelsa.univ-perp.fr

7 UPVD asst, assoc, prof
2 PhD students and postdoctoral researchers
1 technical and office staff

Sites

- Font-Romeu
- Gérone

Areas of research

- Cardiorespiratory adaptation to exercise at moderate altitude
- Cellular approach to adaptation to exercise at moderate altitude
- Environmental hypoxaemia (altitude), physiological hypoxaemia (caused by exercise) and / or pathological hypoxaemia: physiopathology, mechanisms of action and consequences on people in motion
- Extreme environments and consequences on people in motion

Equipment

Two appliances for measuring gaseous exchange

LEPSA

Performance Health and Altitude
European Laboratory
EA 4604 UPVD

Partnerships

Paris 13, Evry, University of Girona (Medicine), National school of ski and alpinisme (Chamonix) Catalana mountain federation (FEEC), Chair in Alpine medicine and the natural environment and clinical simulations (University of Girona)

UPVD Master Programmes

- Physical activity and sports science and technology: Altitude and performance (STAPS)

Director: Prof Mircea Sofonea

+33(0)4 68 66 20 52
sec-meps@univ-perp.fr

Director: Prof Fabienne Durand

+33(0)4 68 30 29 58
fdurand@univ-perp.fr



lgdp.univ-perp.fr

22 asst, assoc, prof, researchers
(10 UPVD asst, assoc, prof)
6 PhD students and postdoctoral researchers
16 technical and office staff

Site

- Perpignan

Areas of research

The LGDP is involved in research and study on plant genome organization and gene regulation, particularly their role in plant development and adaptation to biotic and abiotic stresses. The models are the rice and Arabidopsis.

- Stress-induced post-transcriptional reprogramming of plant gene expression
- Transcriptional gene silencing and RNA silencing in plants
- Genome analysis and evolution
- Functions of redoxins in plant development and stress response
- The nucleus and the ARNr genes

Funded research projects

- LABEX AGRO, partner

LGDP

Plant Genome and Development Laboratory
UMR 5096 UPVD-CNRS
Partner of LABEX AGRO

- ANR:
HEAT ADAPT, PAGES, Epi-RNase, CYNTHIOL, NERDPATH, SUBCELIF

Equipment

- Technology platform BIO-ENVIRONNEMENT (TECNOVIV)
- Growth chambers
- qPCR
- Transgenesis
- Bioinformatics
- Microcopying service
- Sequencing

Partnerships

Agropolis community, natural reserves of the Pyrénées-Orientales. Numerous collaborations with laboratories in Europe (United Kingdom, Spain, Poland), Asia (Japan, Taiwan), United-States, South America (Brazil).

UPVD Master Programmes

- Biodiversity, ecology and evolution: Biodiversity and sustainable development



www.promes.cnrs.fr

53 asst, assoc, prof, researchers, engineers
(35 UPVD asst, assoc, prof)
63 PhD students and postdoctoral researchers
49 technical and office staff

Sites

- Perpignan
- Font-Romeu Odeillo
- Targasonne

Areas of research

- Materials and extreme conditions
- Conversion, storage and transport of energy

Funded research projects

- LABEX SOLSTICE, coordinator
- EQUIPEX: SOCRATE, coordinator
- European projects : CSP2, EU-SOLARIS, SFERA 2, STAGE-STE, RAPID, EUROSUNMED
- ANR: ASTORIX, DROID, DENOPI, HD-Plasma-SINOCH, DBDBD, OPTISOL, DRYRSP, IN-STORES

Equipment

- 1 megawatt solar furnace (MWSF)
- 11 mean sizes solar furnaces (MSSFs)
- A 5 MW pilot central receiver tower-Thémis (CG 66)

PROMES

Processes, Materials and Solar Energy
UPR 8521 CNRS (INSIS)
UPVD convention
Coordinator of LABEX SOLSTICE

- Solar reactors and receivers
- Thermal radiation metrology
- Equipments for materials elaboration and characterisation (bulk and plasma surface coatings)
- Coordination of the EnRMAT (C2M-CESP) technology platform

Partnerships

ADEME, CEA, CNES, ESA, IRSN, NASA, OSEO, Acciona Energie, Air Liquide, Arcelor-Mittal, AREVA, Coldway, Dow Corning, EDF, Energie R, Europlasma, Exosun, General Electric, Ecotech-Ceram, GDF Suez, Heraklès, Photowatt, Pyrescom, Résolution, Rhodia, RTE, Safran Eng., Saint-Gobain, Saunier-Duval (Vaillant), SEMCO Eng., SNECMA, SolarEuromed, TOTAL, Veolia Eau, Vilmor, HEF, Helioprocess

Research alliances: international (SolarPACES), european (SOLLAB), national (Fédésol).

UPVD Master Programmes

- Energy: materials and solar processes
- Electronics, electrical energy, automatic control engineering: Automatics and on-board systems for energy management
- EUREC Master (spec. Solar Thermal)

Director: Prof Jean-Marc Deragon

+33(0)4 68 66 21 19
dir.lgdp@univ-perp.fr

Director: DR Gilles Flamant
Deputy director: Prof Laurent Thomas

+33(0)4 68 68 22 11
gilles.flamant@promes.cnrs.fr
thomas@univ-perp.fr



ART-DEV

Actors, Ressources and Territories in Development
UMR 5281 UPVD-UPVM-UM-CNRS-CIRAD

<http://art-dev.cnrs.fr>

59 asst, assoc, prof, researchers
(9 UPVD asst, assoc, prof)
63 PhD students and postdoctoral researchers
9 technical and office staff

Sites

- Perpignan
- Montpellier

Areas of research

Area 1 - Rural reconstructions and public policies:

- Activity systems, multi-localisation and multi-functionality
- Production, distribution and territorialisation of public policies
- Rural society put to the test by development practices and reference frameworks

Area 2 - Natural resources and environmental regulation :

- Rules and regulations for determining how resources should be used
- Water appropriation and management
- Technology, energy and issues to do with transition

Area 3 - Interfaces, anchorings and traffic in a globalised world:

- Mobility, exchanges and networks
- Residents' practices, cities and urban projects

- Productive forms and social development

- Cross-category programme:

Asymmetries, public action and games of scale

Funded research projects

- European projects :
LIFE+ LAG'NATURE, France-Hongria bilateral accord
- ANR:
TERRE-EAU, USART

Partnerships

Universities of Pretoria, Rio de Janeiro, Brasilia, Costa Rica, Ouagadougou, Global Bank, UEMOA (Economic and monetary union of Western Africa), Local community of Mayotte, Rising Powers and Global Standards

UPVD Master Programmes (UPVM co-certification)

- Town planning and urban development:
- Town planning, housing and urban development
 - Town planning and land development



CORHIS

Communication, Human Ressources and Sociale Intervention
EA UPVD-UPVM

31 asst, assoc, prof
(2 UPVD asst, assoc, prof)
31 PhD students and postdoctoral researchers
3 technical and office staff

Sites

- Perpignan
- Montpellier

Areas of research

- Communication and social transformation
- Human resource management: company change and changes in labour and employment relations
- Science of intervention and social transformation

Funded research projects

European project:
ETFERSASO2

Partnerships

Cross-border cooperative researcher (France-Catalonia): Campus Arnau fundation of Escala, University of Girona, PREFIS, International Institut of the

Social Audit, International Applied Research Studies of Innovations in Communication (IARSIC), ...

UPVD Master Programmes

Sociology :

- Lifestyles, social and cultural transformations in the Mediterranean region
- Reflective practice of social intervention

Director: Prof David Giband

+33(0)4 68 66 23 45
giband@univ-perp.fr

Director: Prof Alain Briole
Perpignan team manager: Prof Yves Gilbert

gilbert@univ-perp.fr



CRESEM

Centre for research into societies & environments in the Mediterranean & Beyond
EA UPVD
Partner of LABEX ARCHIMEDE

83 asst, assoc, prof
137 PhD students and postdoctoral researchers
1 administrator

Site

- Perpignan

Areas of research

- Norms
- Territories
- Identities
- Texts
- Heritages

Funded research projects

- LABEX ARCHIMEDE, partner
- European projects:
FADNTOOL, PAT TEIN, MEFRO, COST SAREP
- ANR:
ORFEO

Partnerships

General Council of the Pyrénées-Orientales, Generalitat de Catalunya,

Languedoc-Roussillon region, Universities of Barcelona, University of Senghor of the Francophonie, Alexandria (Egypt), Aquitaine region, Universities of Lausanne, Lille 3, Lisbonne, Louvain-la-Neuve, Paris IV, Toulouse 2, Trieste, Wroclaw, Greater Manchester, local communities, Hydroelectric society of the Nyer channel.

UPVD Master Programmes

- Master Mundus « Crossways in Cultural Narratives »
- Applied foreign languages
- Language sciences
- Art, literature and civilisation
- European and International studies
- History, civilisations, heritages
- Sociology
- Tourism
- Comparative law



hnhp.cnrs.fr

HNHP

Natural History of the Prehistoric Human Being
UMR 7194 MNHP-UPVD-CNRS

38 asst, assoc, prof, researchers
(6 UPVD asst, assoc, prof)
11 PhD students and postdoctoral researchers
32 technical and office staff

Sites

- Perpignan
- Tautavel
- Paris
- Les Eyzies de Tayac

Areas of research

- Dynamics of early human settlements
- Behaviour of Neanderthals and anatomically modern humans in their paleoecological context
- Prehistoric landscapes, people, sedimentary archives and materials

Funded research projects

- European projects:
prehSEA
- ANR:
PremAcheuSept

Equipment

- A sedimentology-micromorphology platform: for characterising sediment, modes of transport and the conditions under which it forms.
- A geochronology platform: dating of fossilised dental remains using combined U-Th/ESR methods; dating of alluvial, wind borne and marine sediments using the ESR method; paleomagnetism.
- A palynology platform: palynological analysis of Pleistocene and Holocene sedimentary sequences; paleoenvironmental interpretations.
- A platform for characterising archaeological materials: characterisation of archaeological and sedimentary materials; taphonomic alterations.

Partnerships

CEREGE LN2C: National Laboratory of the Cosmogenic Nucleides.
BRGM, natural reserves

UPVD Master Programmes (MNHN co-certification)

Archeology, sciences for the archeology

Director: Prof Martin Galinier

+33(0)4 68 68 22 14
galinier@univ-perp.fr

Director: DR Christophe Falguère
UPVD - Tautavel Manager:
Sophie Grégoire

+33 (0)1 43 31 62 91
+33 (0)4 68 66 17 80



CDED

Centre for Economic Law and Development
EA 4216 UPVD

37 UPVD asst, assoc, prof
55 PhD students and postdoctoral researchers
1 office staff

Site

- Perpignan

Areas of research

- Competition law
- Consumer law
- Contract law
- Collective proceedings and excessive debt
- Security law
- Litigation and ethics
- Corporate law and financing law
- Publication and sustainable development
- Prospective and genealogy of fundamental public law
- Health

Funded research projects

- ANR:
MACROES

Partnerships

- Laboratory of business law and new technologies (DANTE - USQV)
- Institute of European private and comparative law (University of Girona)

UPVD Master Programmes

- Environnement and urban planning law
- Property legislation
- Business law
- Justice, trial and legal proceedings
- Public administration



www.mrm.univ-montp2.fr

132 asst, assoc, prof, researchers
(6 UPVD asst, assoc, prof)
69 PhD students and postdoctoral researchers

Sites

- Perpignan
- Montpellier

Areas of research

- Food-processing industry
- Innovation
- Health
- Responsible management

Functional groups:

- Accounting and society
- Entrepreneurship
- Finance
- Human resources management
- Marketing
- Strategy
- Information systems
- Altermanagement

Funded research projects

- LABEX ENTREPRENDRE, coordinator
- ANR: GEODD

MRM

Montpellier Research in Management
EA 4557 UM-UPVM-UPVD, MBS
Coordinator of LABEX ENTREPRENDRE

Partnerships

- Scientific:
UMR MOISA, AGRO PARISTECH, IRSTEA
- Institutional:
Regional order of the certified public accountants, CEA

UPVD Master Programmes

- Management
- Sector management

Director: Prof Marcel Sousse

+33(0)4 68 66 17 16
marcel.sousse@univ-perp.fr

Director: Prof Gerald Naro
Perpignan team manager:
Assoc Fabienne Villesèque-Dubus

+33(0)4 30 95 04 92
fabienne.villeseque@univ-perp.fr

Research organization

■ Research management

Vice-President of research: Prof Xavier Py

- Research committee of the academic board
- Scientific bureau
- Research grants
- Cross-functional research
- Institutional research-related relations

Contact: vp-cs@univ-perp.fr

■ Technology transfer

Vice-President of application: Assoc Matthieu Martel

- Technology business incubation
- Industrial property
- Industrial and commercial activities department
- Transfer of technology

Contact: vp-valo@univ-perp.fr

■ Doctoral training

- Energy and Environment Doctoral School (E2 ED 305). Including 11 research units and is specific to the UPVD.

Director: Prof Didier Aussel

- Development and Spatial, Cross-border and Intercultural Dynamics Doctoral School (Inter-Med ED 544). Including 6 research units and is specific to the UPVD.

Director: Prof Yves Picod

■ Research and technology transfer department (DRV)

Administrative director: Audrey Pagès

Research, doctoral school and applied research administrative management.

Contact: audrey.pages@univ-perp.fr



UPVD Doctoral schools

ED 305: Energy - Environment

Areas of research

Life and earth sciences, processes, renewable energies, information technology, physics and applied mathematics, sea environments, physical activity and sports sciences.

140 PhD students

Research units members

LAMPS, LGDP, PROMES, IHPE, CEFREM, LEPSA, DALI-LIRMM, CIRAD (BioWooEB), CRIOBE, BAE, IMAGES-ESPACE DEV

Contact: jpla@univ-perp.fr

ED 544: Inter-Med

Areas of research

Human sciences, humanities, social sciences.

260 PhD students

Research units members

CRESEM, CDED, ART DEV, MRM, CORHIS, HNHP

Contact: suzanne.gilardot@univ-perp.fr

1 COMUE doctoral college
Languedoc Roussillon Universities

2 UPVD doctoral schools

400 UPVD PhD students

100 PhD thesis defended each year

The research units classified per scientific discipline



Biology of organisms:
IHPE, CRIOBE

Population biology and ecology:
CEFREM, CRIOBE, IHPE, ENTROPIE

Chemistry:
CRIOBE, BAE, PROMES, LAMPS

Private law:
CDED

Public law:
CDED

Energetics:
PROMES, LAMPS

Physical, human, economic and regional geography:
HNHP, ART-DEV

Genomics:
LGDP, IHPE, CRIOBE

Process engineering: PROMES

History, civilisations, archaeology and art of ancient, mediaeval, modern and contemporary worlds:
CRESEM

History of law and institutions:
CRESEM

Information technology:
DALI-LIRMM, LAMPS

Ancient language and literature:
CRESEM

French, Spanish, English, Catalan language and literature:
CRESEM

Comparative literature:
CRESEM

Materials:
PROMES

Mathematics:
LAMPS

Mecanics :
LAMPS

Dense media and materials:
PROMES

Physical oceanography of the environment:
CEFREM, IMAGES-ESPACE DEV

Physiology:
LEPSA

Photonics and systems:
PROMES

Prehistory:
HNHP

Political science:
CDED

Management sciences:
MRM

Economics:
CRESEM

Physical activity and sports science and technology:
LEPSA

Language sciences:
CRESEM

Sociology:
CRESEM, CORHIS

Solid earth, geodynamics of upper envelopes:
CEFREM, HNHP

Signal processing:
PROMES, LAMPS

Spatial planning, urban development:
ART-DEV

Automatic control engineering:
PROMES

Biochemistry and molecular biology:
CEFREM, CRIOBE, BAE

Cell biology:
LGDP

Acronyms

ANR: National Research Agency

Asst: Assistant Professor
(French rank : Maître de Conférences)

Assoc: Associate Professor
(French rank : Maître de Conférences HDR)

CIRAD: Agricultural research for development

CNRS: National Centre of Scientific Research

CNRS (INEE): Ecology and Environment Institute

CNRS (INSIS): Engineering and systems sciences institute

DR: Director of research (CNRS, IRD)

EA: University research team

ED: Doctoral school

EPHE: High Studies Practical School

EQUIPEX: Equipment of Excellence (in response to the Innovative Excellence of Future call)

IDEFI: Innovative Excellence in Training Initiative (in response to the Innovative Excellence of Future call)

IRD: Research Institute for Development

LABEX: Laboratories of excellence (in response to the Innovative Excellence of Future call)

MNHP: National Natural History Museum of Paris

MBS: Montpellier Business School

Prof: Professor

UAG: University of Antilles Guyane

UM: University of Montpellier

UMR : Joint research unit of CNRS-university

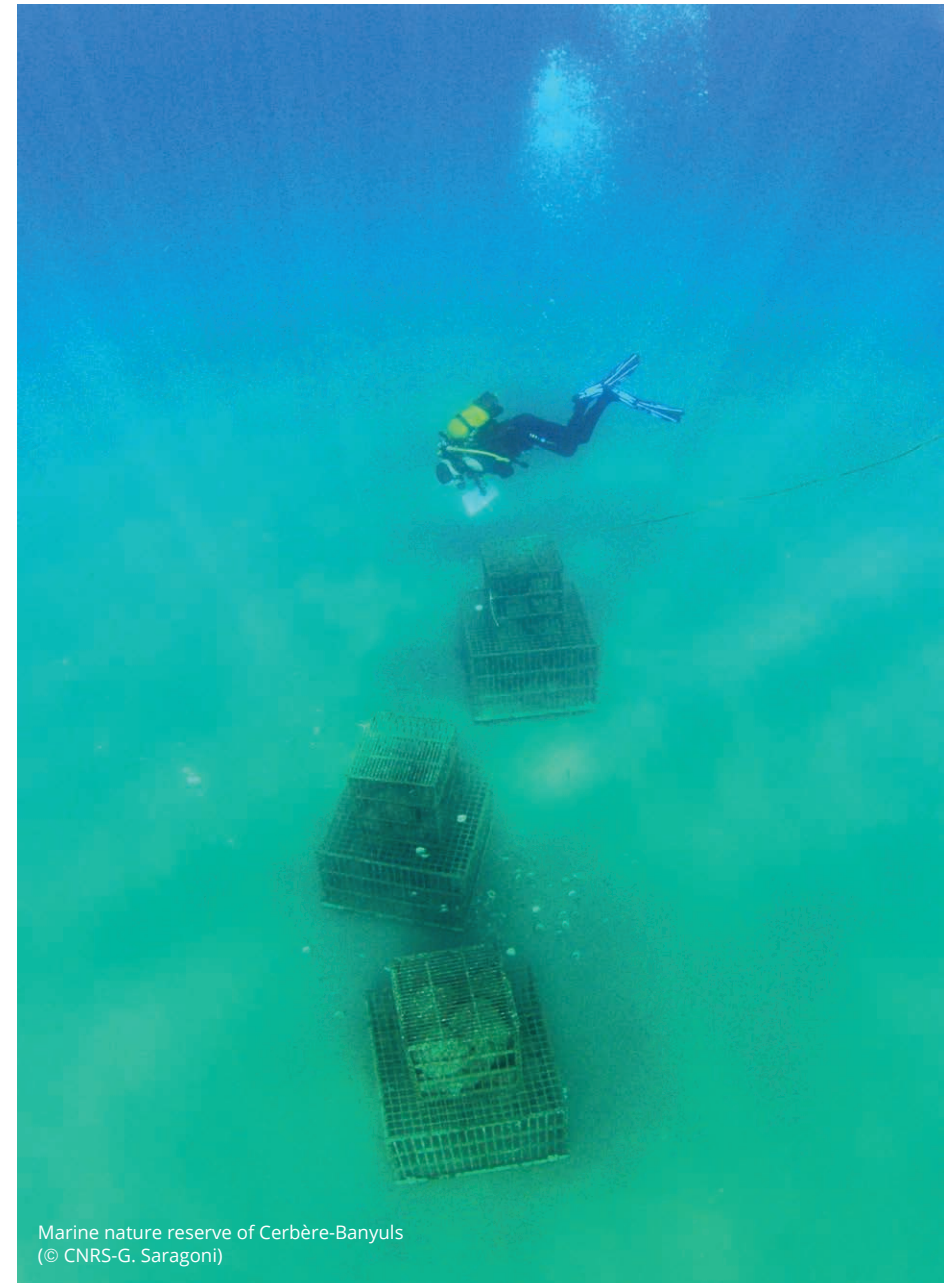
UPR : Proper unit research of CNRS

UPMC: University of Pierre and Marie Curie, Paris VI

UPVM : University of Paul Valéry Montpellier

UR : University of La Réunion

USR : Service and research unit



Marine nature reserve of Cerbère-Banyuls
(© CNRS-G. Saragoni)

***Must-see film:
the UPVD research film
go.upvd.fr/film***

**Université de Perpignan Via Domitia
52 avenue Paul Alduy
66 860 Perpignan Cedex 9
33 (0)4 68 66 20 00
www.univ-perp.fr**

Research and applied research department
audrey.pages@univ-perp.fr
33 (0)4 68 66 17 36 or 33 (0)4 68 66 22 05

UPVD Communication and culture department
sec-comm@univ-perp.fr
33 (0)4 68 66 21 23



/UPVD66



@UPVD1

**UNIVERSITÉ
PERPIGNAN
VIA
DOMITIA**

