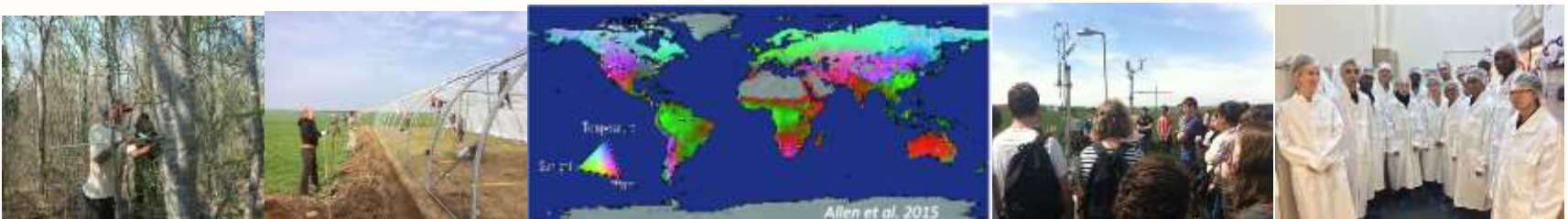


# La formation dans CLAND

## *Education component of CLAND*

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## In the call of *Instituts de Convergence ...*

- *Rassembler, dans un partenariat organisé en un lieu donné, des compétences de recherche diversifiées visant à produire des savoirs nouveaux par la mobilisation conjointe de différentes compétences disciplinaires ;*
- *Développer, en lien avec ces recherches interdisciplinaires, des **formations d'excellence innovantes aux niveaux master et doctorat, en formation initiale comme en formation continue ;***
- *Déployer dans la durée une dynamique de structuration autour de l'enjeu principal du centre, appuyée sur une ambition scientifique de haut niveau international, sur une véritable stratégie d'emploi scientifique...*



# Cland

## In the project accepted by ANR

- CLAND will bring together the activities of 200 researchers in 12 teams, and **develop a new graduate programme across 6 Master and 6 Doctoral schools** of the UPSay with the goal **to train students by research** and to create professional training sessions.
- The CLAND graduate programme will be embedded in the research programme and will train MSc and doctoral students built on this research. **Approximately 50 students** will be mobilised in the frontier science fields of the project based on group projects mentored by scientists, and covering the MSc to doctorate education.
- CLAND will **develop training courses and seminars for professionals** that include topical applied aspects on climate-change impacts and concrete land management processes and solutions.
- The governance of the graduate programme at UPSaclay will involve faculty members from the project's Executive Committee and representatives of MSc and doctoral programmes.



# Cland Basic principles for implementation

- Research-based education with academic & industrial partners and international dimension
- To build on, to support and to possibly extent, the existing master & PhD programmes
- To use of new technologies & learning approaches
- To promote student “maturation” : mentoring, phd tracks, mobility, interdisciplinary projects, innovation, ...

The components of this program include 5 tasks:

- **Task 1 : Identification or development of research-based graduate tracks, incl. international dimension :**
  - Identification of modules within the existing master pathways or creation of modules, as numerical resources in French and English
  - CLAND label : standard pathway + a number of additional modules
  - Promotion of double diplomas whenever it is possible and relevant
  - Coordination of European Marie Curie ITN programmes
- **Task 2 : Linking Research to education:**
  - Organisation of international workshops / summer schools with PKU, CAAS and IIASA;
  - Organisation of individual/group MSc and doctoral projects with the research projects supported by CLAND.
  - Mentoring of students by scientific staff and by other students.
- **Task 3 : Linking Industry to education:**
  - Involvement of staff from the private sector in teaching (seminars) and student mentoring;
  - Development of personal research and entrepreneurship projects to students for their MSc thesis, defined with private sector partners and with the Climate KIC education pillar
  - Mentoring of students by industrial partners
- **Task 4 : Supporting graduate education:**
  - Msc. mobility grants both to attract students in CLAND masters and allow students to make internship in international partners of CLAND
  - Offer PhDs grants to the best MSc. students, with 3 full grants per year (and up to 6 ½ grants)
  - Support the development of joint courses and pathways between Grandes Ecoles and Universities within UPSaclay in order to bridge the gap between the two types of institution.
- **Task 5: Promoting renewed learning methods:**
  - Developing and supporting e-learning developments
  - Promoting active learning methods for students and their professors, such as inverted classroom, problem-based approaches, group project work, and interdisciplinary workshops and thematic schools.

## 6 master programmes, with more than 500 students in master 2 :

- Agro-sciences, Environment, Territory, Landscape, Forest (AEPTF) 4 pathways (70 students)
- Biodiversity, Ecology, Evolution (BEE), 11 pathways (120 students)
- Environmental, Energy, and Transport Economics (EEET) 3 pathways (100 students)
- Land Management and Community Development (GTDL) 3 pathways (60 students)
- Earth and Planetary Sciences, Environment (STePE) 7 pathways (120 students)
- Social Sciences (Soc. Sc.) with a contribution on environment (50 students)

## 6 Doctoral schools:

- Sciences de l'environnement d'Ile de France (SEIF)
- Agriculture, alimentation, biologie, environnement, santé (ABIES),
- Sciences du végétal (SDV),
- Sciences mécaniques et énergétiques, matériaux et géosciences (SMEMaG),
- Sciences de l'Homme et de la Société (SHS),
- Structure et dynamique des systèmes vivants (SDSV)

## Do not forget as well :

- Maison des Sciences de l'Homme (séminaires, Culture of Nature)
- Alternance training in particular with CFA from IFP Schools
- Professional PhD ?

## Task 1 : Identification or development of research-based graduate tracks, incl. international dimension:

- Definition & launch of CLAND label : Identification of 1 master track per CLAND challenge with additional work for students to get the label
- Planning of the development of missing modules, onsite and e-learning, French and English
- Start of Group projects in master (building on existing Environment joint modules of master 1)

## Task 2 : Linking Research to education

- Start of student mentoring
- Identification of individual student projects within research projects
- First thematic schools or workshops in 2018 (*PKU, CAAS et IIASA ?*)
- Organizing master internship offers (central website)

## Task 3 : Linking Industry to education:

- Definition of 1 pro. training session per challenge
- Start of student mentoring

## Task 4 : Supporting graduate education:

- 5 Grants/yr at MsC level
- 3 grants (or up to 6 half grants) to complete a PhD in one of the CLAND associated doctoral schools :
  - subjects labelled by the education committee among thoses submitted to doctoral schools,
  - candidates evaluated and ranked by doctoral schools
  - Final choices of couples candidate/subject by the education committee
- Develop synergies between masters & *grandes écoles*

## Task 5: Promoting renewed learning methods:

- Organisation of active learning training sessions for professors and assistant professors
- Start the development of e-learning contents within CLAND

## An ambitious graduate programme : mid & longer term actions

- Propose integrated master+PhD pathways for early-identified excellent students ?
- Build a full international pathway and make it attractive (still built on existing programmes) ?
- Coordinate ITN projects. Need to identify the possible Pis
- Promote a full e-learning programme based on pieces developed in the early stage
- More ...



- Driven by the education committee
- Education committee validated by the steering committee
- Proposed composition :
  - 1 representative per master programme
  - 1 representative per doctoral school
  - 1 representative per research unit
  - Education coordinator(s)
  - Education assistant (to be hired by the project)
  - Head of CLAND or its representant
- At least 50% professors or assistant professors
- Renewed by half every 2/3 years
- Reporting to the Steering committee
- Meetings : 3-4 per year, possibly *skype-like* for some of them

## Links with other projects : The EUR E3TParis

- A Ecole Univesitaire de Recherche project, application in June 2017
- For the “economics” component of CLAND only: create a specific masters and executive program on the economics of energy and environmental transition
- Not limited to UP Saclay: collaboration with three other COMUEs (Nanterre, Paris Sciences et Lettre, ParisEst). Has the potential to federate all the research and graduate teaching forces in the Paris area
- Will know the response to the tender in november 2017

## Links with other projects : The EUR E3TParis

- Graduate school in economics of energy transition (masters and PhDABIES, Ponts, Nanterre, PSL\*)
- New innovative methods, with a « research » cursus over 5 years (phD Track) and a cursus « start up Track» . Possible transition year between masters and PhD funded
- Objective of European Msc program
- Research/teaching for executive « summer schools », links with private sector (Chaires, Initiative Energie CCI Essonne). For students, part time (« alternance ») education
- Connection SHS and Ingeneering (Initiative Energie, Tech Meeting)

## Links with other projects : The EUR IPSL-CGS

The  
Climate Graduate School  
based on the labex L-IPSL

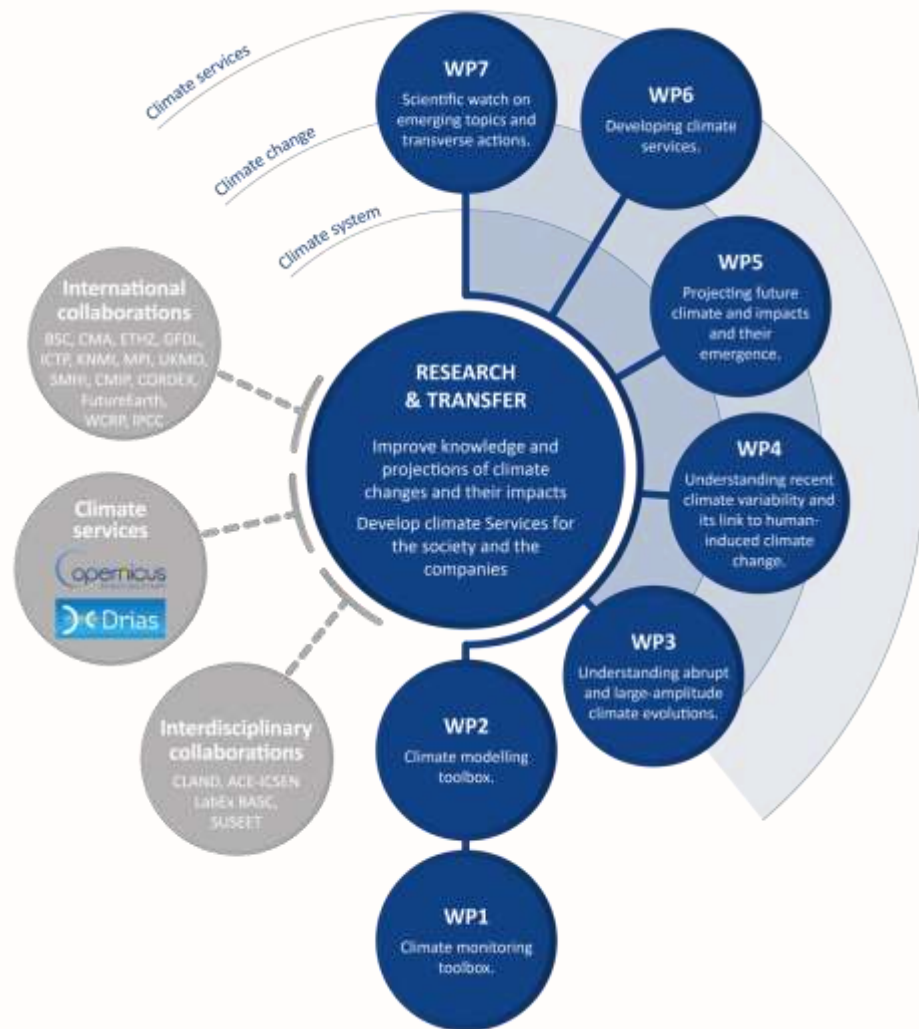
Application in June 2017

Regional EUR

Focused on climate changes  
and their impacts



## Links with other projects : The EUR IPSL-CGS





END