



UMR 5204 - CNRS / USMB / MINISTÈRE DE LA CULTURE ET DE LA COMMUNICATION

Faculty: UFR Sciences and Mountain

PhD school: Science and Engineering of Systems, of Environment and of Organisation (SISEO)

## FIELDS OF TRANSVERSAL SKILLS

*Fundamental Science, Earth sciences and Environment • Behaviour sciences, Images, Cultures, Societies • Mountain studies, Tourism, Sport, Health*

## KEY WORDS

*Mountain areas and territories • Karst • Lakes • Protected areas • Painted grottos • Heritage • Vulnerability • Climate change • (Paleo) environment • Resources • Public policies • Conflicts*

## SECTORS

*Geosciences • Human and physical geography • Geomorphology • Hydrogeology • Economy • Sociology • environmental (retro-) observation • Paleoclimate • Territorial dynamics • Political arena*

## PRESENTATION

With a truly interdisciplinary approach, EDYTEM looks at the environment in the widest sense (its climate, biology and ecology as well as the social, economic and political aspects), studying archives, resources, changes and vulnerabilities and the players' terms of commitment. Its areas of skills centre mainly on the mountains, karst, lakes and protected areas. EDYTEM aspires to reconciling basic research that will create new understanding with a strong investment with the players in the mountain environment.

## RESEARCH THEMES

EDYTEM's research work is centred on 3 themes:

- **Environmental and social changes (CHANGES)**
  - Stability of mountain slopes (evolution of the permafrost, impact on practices and structures)
  - Changes in practices and institutional innovations in the context of change
  - Reconstitution of the history of the environment in connection with changes in practices • natural and historical archives
  - Pleistocene and Holocene paleoclimates.
- **Resources and heritage**
  - Water, mining and cultural heritage and resources
  - Characterisation of resources and their environment
  - Analysis of societal challenges • players' interactions • integrated management
  - Analysis of the labelling processes
  - Integrated approach of the parietal and prehistoric art sites with high heritage value
- **Political trajectories in the mountains**
  - Spatial and player configurations in the political arena of the mountains
  - Visibility and action regimes in the public arena
  - Interspaces associated with the mountains
  - Knowledge management and political geography
  - Strategies and confrontations of the spatial players
  - Mobility and sense of movement

## KEY DATA\*

- **35** researchers and professors
- **13** administrative and technical staff
- **22** PhD students

\* Academic year 2014-2015

## SPECIFIC EQUIPMENT AND EXPERTISE

Within the Plateforme Technique d'Appui à la Recherche (PTAR – Technical Platform for Research Support):

- On-site sampling and measuring in extreme environments (high mountain, underground) • Resource centre for core sampling in lakes (National core sampling and drilling centre – Equipex CLIMCOR)
- Environmental chemical, geochemical and radiochemical measuring
- Operator of an XRF core scanner shared nationwide
- 3D and 4D imaging section • R&D with Cabinet Perazio • Member of the scientific team to restore the cave at Pont d'Arc (Chauvet grotto)
- Documentary resource centre on karst (Choppo funds)

## PHD STUDENT SKILLS

Geology • Hydrogeology • Hydro-thermo-mineral resources • Dynamic geomorphology at high altitude • Karstic geomorphology, grottos with high heritage value • Paleo environment • Sedimentology • Geochemistry (elementary, organic and isotopic) • Natural archives (lake sediments, stalagmites, tree rings, etc) • 3D et 4D imagery, SIG, spatial analysis, spatial modeling • Territorial surveys, analyses and diagnoses • Heritage resources, integrated management • Analysis of player interaction, vulnerabilities, spatial mobility and practices • Evolution of societies' social and political organisation

## NETWORKS / PARTNERSHIPS

### Academic cooperations

Labex Innovation et Territoires de Montagne (ITEM) • Equipex CLIMCOR • CNRS Alps Workshop (INEE) • Ecology and environment partnership (INEE-UJF-USMB) • SOERE Alpine Lakes Observatory (Allenvi) • FREE-Alpes research federation

### Institutional cooperations

"Rhône-Méditerranée-Corse" water agency • All the Alpine protected areas: national and regional parks, nature reserves • GIS "Lacs sentinelles" • National Prehistory Centre • Pont-d'Arc Grotto Association

### Industrial cooperations

Danone – Evian • EDF – Fondation EDF • TENEVIA (Start-Up) • Cabinet Perazio • SAFEGE Environnement • CNR • etc.

## INTERNATIONAL RELATIONS

- Regular hosting of top-level researchers from abroad: Monash, Melbourne, Dundee, Nottingham...
- Regular bilateral collaboration and exchanges: Switzerland, Italy, Morocco, Slovenia, Germany, Lebanon, Australia, Russia