

Year of CfP: 2009

Project No 0902-016

Project title: A thematic network to reinforce regional collaborative projects in virtual landscape and ecosystem visualization (VLS-LRC)

Unit managing the project: AMAP, Botany and computational plant architecture [CIRAD, INRA, IRD, UMII, CNRS]

Project leaders: Marc Jaeger (AMAP) [marcjaeg(a)gmail.com] and Pierre Bourdin [bourdin(a)imerir.com]

Countries involved in the project: Spain

Research units from the Foundation's scientific network involved: LISAH, GREEN

Subthematic axes: IPB-1 (Integrative Plant Biology 1: *Genetics and genomics, plant breeding, ecophysiology*), IPB-2 (Integrative Plant Biology 2: *Plant pests and diseases, integrated crop protection, population ecology*), STDI-1 (Socio-Technical Dynamics of Innovation 1: *Agri-environmental innovations, agri-ecosystems, resources management*), STDI-3 (Socio-Technical Dynamics of Innovation 3: *Innovation processes, social management of innovations*)

Objectives:

Computer graphics and especially virtual reality seems to be a well mastered technique, especially thanks to entertainment, video games in particular. This reality sounds different however when it deals with professional uses related to sustainable environment, land-use and so on. Deciders are not yet familiar with visualisation or perception of dynamics and evolutions at various space and time scales, and the technology itself is still far from needs. The fact is that consistent dynamics is still an open problem, while complex system visualisation also is.

Several research teams work on various aspects and approaches of landscape dynamics and visualisation in Languedoc Roussillon and Catalonia. And, in several cases, thanks to existing approaches and tools (some industrial), virtual reality can already be used to contribute to a better understanding of this growing demographic area and its changes.

The idea of this proposal thus relies on local and complementary strengths, aiming at the development of virtual reality tools and their application to environment sustainability on local, concrete projects.

This project aims at midterm to:

- Build a regional thematic network on 3D real time landscape visualisation and its applications,
- Reinforce initiatives and projects related to landscape simulations, including virtual reality techniques,
- Strongly involve regional research teams in regional and local projects,
- Enhance dialog between research, industry, authority and public communities on land use strategy and plans.

Building a network of competences on the subject, sharing teaching supports, working together on current and new project will help to organize the community, identify the needs and the means, aiming to point out the key technologies for tomorrow sustainability communication, leading to new industrial developments and employments.

Total Agropolis Fondation funding: €12,924 (travel expenses, salary for an engineer for 3 months, organisation of a seminar)

Funding category(ies): Agropolis Fondation small grants (support to prepare applications for national or international calls for proposals (e.g. ANR and EU FPs))

Project duration: 15 August 2009 - 30 June 2011

Keywords: landscape – visualisation – virtual reality - network - sustainability